Appendix D: Transportation

Turning Movement Counts (TMCs)

Crash Analysis Worksheets

Trip Generation Spreadsheet

Synchro Analysis Results

- 2017 Existing Condition AM and PM Peak Hours
- 2024 No-Build Condition AM and PM Peak Hours
- 2024 Build Condition AM and PM Peak Hours

Loading and Delivery Calculations

Turning Movement Counts (TMCs)

PDI File #: **175472 A**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	9	38	125	0	0	172	12	3	20	20	0	55	0	107	9	46	0	162	0	0	0	0	0	0	0	0	0	0	0	0	389
7:15 AM	5	49	111	0	0	165	8	5	16	12	0	41	0	146	6	62	0	214	0	0	0	0	0	0	0	0	0	0	0	0	420
7:30 AM	6	45	120	0	0	171	8	2	26	19	0	55	0	128	6	65	0	199	0	0	0	0	0	0	0	0	0	0	0	0	425
7:45 AM	11	47	121	0	0	179	10	8	24	14	0	56	0	141	10	58	0	209	0	0	0	0	0	0	0	0	0	0	0	0	444
Total	31	179	477	0	0	687	38	18	86	65	0	207	0	522	31	231	0	784	0	0	0	0	0	0	0	0	0	0	0	0	1678
8:00 AM	10	61	116	0	0	187	14	13	19	19	0	65	0	138	5	55	0	198	0	0	0	0	0	0	0	0	0	0	0	0	450
8:15 AM	12	45	127	0	0	184	8	10	23	14	0	55	0	125	8	59	0	192	0	0	0	0	0	0	0	0	0	0	0	0	431
8:30 AM	13	33	120	0	0	166	13	12	19	14	0	58	0	149	4	39	0	192	0	0	0	0	0	0	0	0	0	0	0	0	416
8:45 AM	10	21	121	0	0	152	12	12	12	19	0	55	0	147	5	34	1	187	0	0	0	0	0	0	0	0	0	0	0	0	394
Total	45	160	484	0	0	689	47	47	73	66	0	233	0	559	22	187	1	769	0	0	0	0	0	0	0	0	0	0	0	0	1691
Grand Total	76	339	961	0	0	1376	85	65	159	131	0	440	0	1081	53	418	1	1553	0	0	0	0	0	0	0	0	0	0	0	0	3369
Approach %	5.52	24.64	69.84	0.00	0.00		19.32	14.77	36.14	29.77	0.00		0.00	69.61	3.41	26.92	0.06		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Total %	2.26	10.06	28.52	0.00	0.00	40.84	2.52	1.93	4.72	3.89	0.00	13.06	0.00	32.09	1.57	12.41	0.03	46.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						1166						0						1093						916						194	3369
Cars	72	323	863	0	0	1258	80	59	147	117	0	403	0	954	49	397	1	1401	0	0	0	0	0	0	0	0	0	0	0	0	3062
% Cars	94.74	95.28	89.80	0.00	0.00	91.42	94.12	90.77	92.45	89.31	0.00	91.59	0.00	88.25	92.45	94.98	100.00	90.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.89
Exiting Leg Total						1034						0						981						867						180	3062
Heavy Vehicles	4	16	98	0	0	118	5	6	12	14	0	37	0	127	4	21	0	152	0	0	0	0	0	0	0	0	0	0	0	0	307
% Heavy Vehicles	5.26	4.72	10.20	0.00	0.00	8.58	5.88	9.23	7.55	10.69	0.00	8.41	0.00	11.75	7.55	5.02	0.00	9.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.11
Exiting Leg Total						132						0						112						49						14	307

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	6	45	120	0	0	171	8	2	26	19	0	55	0	128	6	65	0	199	0	0	0	0	0	0	0	0	0	0	0	0	425
7:45 AM	11	47	121	0	0	179	10	8	24	14	0	56	0	141	10	58	0	209	0	0	0	0	0	0	0	0	0	0	0	0	444
8:00 AM	10	61	116	0	0	187	14	13	19	19	0	65	0	138	5	55	0	198	0	0	0	0	0	0	0	0	0	0	0	0	450
8:15 AM	12	45	127	0	0	184	8	10	23	14	0	55	0	125	8	59	0	192	0	0	0	0	0	0	0	0	0	0	0	0	431
Total Volume	39	198	484	0	0	721	40	33	92	66	0	231	0	532	29	237	0	798	0	0	0	0	0	0	0	0	0	0	0	0	1750
% Approach Total	5.41	27.46	67.13	0.00	0.00		17.32	14.29	39.83	28.57	0.00		0.00	66.67	3.63	29.70	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
PHF	0.813	0.811	0.953	0.000	0.000	0.964	0.714	0.635	0.885	0.868	0.000	0.888	0.000	0.943	0.725	0.912	0.000	0.955	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.972
Cars	35	189	430	0	0	654	36	30	84	59	0	209	0	467	28	226	0	721	0	0	0	0	0	0	0	0	0	0	0	0	1584
Cars %	89.74	95.45	88.84	0.00	0.00	90.71	90.00	90.91	91.30	89.39	0.00	90.48	0.00	87.78	96.55	95.36	0.00	90.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.51
Heavy Vehicles	4	9	54	0	0	67	4	3	8	7	0	22	0	65	1	11	0	77	0	0	0	0	0	0	0	0	0	0	0	0	166
Heavy Vehicles %	10.26	4.55	11.16	0.00	0.00	9.29	10.00	9.09	8.70	10.61	0.00	9.52	0.00	12.22	3.45	4.64	0.00	9.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.49
Cars Enter Leg	35	189	430	0	0	654	36	30	84	59	0	209	0	467	28	226	0	721	0	0	0	0	0	0	0	0	0	0	0	0	1584
Heavy Enter Leg	4	9	54	0	0	67	4	3	8	7	0	22	0	65	1	11	0	77	0	0	0	0	0	0	0	0	0	0	0	0	166
Total Entering Leg	39	198	484	0	0	721	40	33	92	66	0	231	0	532	29	237	0	798	0	0	0	0	0	0	0	0	0	0	0	0	1750
Cars Exiting Leg						503						0						489						499						93	1584
Heavy Exit Leg						69						0						61						28						8	166
Total Exiting Leg						572						0						550						527						101	1750

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Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
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Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Interval Total
7:00 AM	9	37	116	0	0	162	12	3	20	16	0	51	0	95	8	40	0	143	0	0	0	0	0	0	0	0	0	0	0	0	356
7:15 AM	5	45	99	0	0	149	7	5	16	12	0	40	0	127	5	60	0	192	0	0	0	0	0	0	0	0	0	0	0	0	381
7:30 AM	4	44	106	0	0	154	8	2	23	16	0	49	0	110	6	59	0	175	0	0	0	0	0	0	0	0	0	0	0	0	378
7:45 AM	10	46	106	0	0	162	9	8	22	13	0	52	0	125	9	55	0	189	0	0	0	0	0	0	0	0	0	0	0	0	403
Total	28	172	427	0	0	627	36	18	81	57	0	192	0	457	28	214	0	699	0	0	0	0	0	0	0	0	0	0	0	0	1518
8:00 AM	10	56	103	0	0	169	12	12	18	17	0	59	0	119	5	55	0	179	0	0	0	0	0	0	0	0	0	0	0	0	407
8:15 AM	11	43	115	0	0	169	7	8	21	13	0	49	0	113	8	57	0	178	0	0	0	0	0	0	0	0	0	0	0	0	396
8:30 AM	13	32	106	0	0	151	13	11	18	12	0	54	0	135	3	37	0	175	0	0	0	0	0	0	0	0	0	0	0	0	380
8:45 AM	10	20	112	0	0	142	12	10	9	18	0	49	0	130	5	34	1	170	0	0	0	0	0	0	0	0	0	0	0	0	361
Total	44	151	436	0	0	631	44	41	66	60	0	211	0	497	21	183	1	702	0	0	0	0	0	0	0	0	0	0	0	0	1544
Grand Total	72	323	863	0	0	1258	80	59	147	117	0	403	0	954	49	397	1	1401	0	0	0	0	0	0	0	0	0	0	0	0	3062
Approach %	5.72	25.68	68.60	0.00	0.00		19.85	14.64	36.48	29.03	0.00		0.00	68.09	3.50	28.34	0.07		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Total %	2.35	10.55	28.18	0.00	0.00	41.08	2.61	1.93	4.80	3.82	0.00	13.16	0.00	31.16	1.60	12.97	0.03	45.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						1034						0						981						867						180	3062

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Interval Total
7:45 AM	10	46	106	0	0	162	9	8	22	13	0	52	0	125	9	55	0	189	0	0	0	0	0	0	0	0	0	0	0	0	403
8:00 AM	10	56	103	0	0	169	12	12	18	17	0	59	0	119	5	55	0	179	0	0	0	0	0	0	0	0	0	0	0	0	407
8:15 AM	11	43	115	0	0	169	7	8	21	13	0	49	0	113	8	57	0	178	0	0	0	0	0	0	0	0	0	0	0	0	396
8:30 AM	13	32	106	0	0	151	13	11	18	12	0	54	0	135	3	37	0	175	0	0	0	0	0	0	0	0	0	0	0	0	380
Total Volume	44	177	430	0	0	651	41	39	79	55	0	214	0	492	25	204	0	721	0	0	0	0	0	0	0	0	0	0	0	0	1586
% Approach Total	6.76	27.19	66.05	0.00	0.00		19.16	18.22	36.92	25.70	0.00		0.00	68.24	3.47	28.29	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
PHF	0.846	0.790	0.935	0.000	0.000	0.963	0.788	0.813	0.898	0.809	0.000	0.907	0.000	0.911	0.694	0.895	0.000	0.954	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.974
Entering Leg	44	177	430	0	0	651	41	39	79	55	0	214	0	492	25	204	0	721	0	0	0	0	0	0	0	0	0	0	0	0	1586
Exiting Leg						533						0						485						460						108	1586
Total						1184						214						1206						460						108	3172

PDI File #: **175472 A**
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Heavy Vehicles

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	1	9	0	0	10	0	0	0	4	0	4	0	12	1	6	0	19	0	0	0	0	0	0	0	0	0	0	0	0	33
7:15 AM	0	4	12	0	0	16	1	0	0	0	0	1	0	19	1	2	0	22	0	0	0	0	0	0	0	0	0	0	0	0	39
7:30 AM	2	1	14	0	0	17	0	0	3	3	0	6	0	18	0	6	0	24	0	0	0	0	0	0	0	0	0	0	0	0	47
7:45 AM	1	1	15	0	0	17	1	0	2	1	0	4	0	16	1	3	0	20	0	0	0	0	0	0	0	0	0	0	0	0	41
Total	3	7	50	0	0	60	2	0	5	8	0	15	0	65	3	17	0	85	0	0	0	0	0	0	0	0	0	0	0	0	160
8:00 AM	0	5	13	0	0	18	2	1	1	2	0	6	0	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	43
8:15 AM	1	2	12	0	0	15	1	2	2	1	0	6	0	12	0	2	0	14	0	0	0	0	0	0	0	0	0	0	0	0	35
8:30 AM	0	1	14	0	0	15	0	1	1	2	0	4	0	14	1	2	0	17	0	0	0	0	0	0	0	0	0	0	0	0	36
8:45 AM	0	1	9	0	0	10	0	2	3	1	0	6	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	33
Total	1	9	48	0	0	58	3	6	7	6	0	22	0	62	1	4	0	67	0	0	0	0	0	0	0	0	0	0	0	0	147
Grand Total	4	16	98	0	0	118	5	6	12	14	0	37	0	127	4	21	0	152	0	0	0	0	0	0	0	0	0	0	0	0	307
Approach %	3.39	13.56	83.05	0.00	0.00		13.51	16.22	32.43	37.84	0.00		0.00	83.55	2.63	13.82	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Total %	1.30	5.21	31.92	0.00	0.00	38.44	1.63	1.95	3.91	4.56	0.00	12.05	0.00	41.37	1.30	6.84	0.00	49.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						132						0						112						49						14	307

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	4	12	0	0	16	1	0	0	0	0	1	0	19	1	2	0	22	0	0	0	0	0	0	0	0	0	0	0	0	39
7:30 AM	2	1	14	0	0	17	0	0	3	3	0	6	0	18	0	6	0	24	0	0	0	0	0	0	0	0	0	0	0	0	47
7:45 AM	1	1	15	0	0	17	1	0	2	1	0	4	0	16	1	3	0	20	0	0	0	0	0	0	0	0	0	0	0	0	41
8:00 AM	0	5	13	0	0	18	2	1	1	2	0	6	0	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	43
Total Volume	3	11	54	0	0	68	4	1	6	6	0	17	0	72	2	11	0	85	0	0	0	0	0	0	0	0	0	0	0	0	170
% Approach Total	4.41	16.18	79.41	0.00	0.00		23.53	5.88	35.29	35.29	0.00		0.00	84.71	2.35	12.94	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
PHF	0.375	0.550	0.900	0.000	0.000	0.944	0.500	0.250	0.500	0.500	0.000	0.708	0.000	0.947	0.500	0.458	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904
Entering Leg	3	11	54	0	0	68	4	1	6	6	0	17	0	72	2	11	0	85	0	0	0	0	0	0	0	0	0	0	0	0	170
Exiting Leg						76						0						60						28						6	170
Total						144						17						145						28						6	340

PDI File #: **175472 A**
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Site Code: **TBA**
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Class:

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Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								Interval
	North								East								South								Southwest								West								
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	10
7:15 AM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	20
7:30 AM	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	19
7:45 AM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Total	0	0	33	0	0	0	0	33	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	2	5	7	71
8:00 AM	0	0	9	0	0	1	0	10	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
8:15 AM	0	0	16	0	0	0	0	16	1	1	0	0	0	0	0	2	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
8:30 AM	0	0	21	0	0	0	0	21	0	1	0	0	0	0	0	1	0	26	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	50
8:45 AM	0	0	39	0	0	0	0	39	1	0	0	0	0	0	0	1	0	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	59
Total	0	0	85	0	0	1	0	86	2	2	0	0	0	0	0	4	0	62	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	155
Grand Total	0	0	118	0	0	1	0	119	2	2	0	0	0	0	0	4	0	93	0	0	0	0	0	93	0	0	0	0	0	0	0	0	0	0	0	0	2	8	10	226
Approach %	0.0	0.0	99.2	0.0	0.0	0.8	0.0		50.0	50.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	20.0	80.0		
Total %	0.00	0.00	52.21	0.00	0.00	0.44	0.00	52.65	0.88	0.88	0.00	0.00	0.00	0.00	0.00	1.77	0.00	41.15	0.00	0.00	0.00	0.00	0.00	41.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	3.54	4.42	
Exiting Leg Total								96								0								118								0								12	226

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								Interval
	North								East								South								Southwest								West								
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	9	0	0	1	0	10	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
8:15 AM	0	0	16	0	0	0	0	16	1	1	0	0	0	0	0	2	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
8:30 AM	0	0	21	0	0	0	0	21	0	1	0	0	0	0	0	1	0	26	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	50
8:45 AM	0	0	39	0	0	0	0	39	1	0	0	0	0	0	0	1	0	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	59
Total Volume	0	0	85	0	0	1	0	86	2	2	0	0	0	0	0	4	0	62	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	155
% Approach Total	0.0	0.0	98.8	0.0	0.0	1.2	0.0		50.0	50.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.545	0.000	0.000	0.250	0.000	0.551	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.596	0.000	0.000	0.000	0.000	0.000	0.596	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.375	0.657
Entering Leg	0	0	85	0	0	1	0	86	2	2	0	0	0	0	0	4	0	62	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	155
Exiting Leg								65								0								85								0								5	155
Total								151								4								147								0								8	310

PDI File #: **175472 A**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	2	6	8	0	0	0	0	0	19	14	33	0	0	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	14	66
7:15 AM	0	0	0	0	0	4	7	11	0	0	0	0	0	23	25	48	0	0	0	0	0	7	7	14	0	0	0	0	0	0	0	0	0	0	0	0	0	6	8	14	87
7:30 AM	0	0	0	0	0	8	10	18	0	0	0	0	0	39	37	76	0	0	0	0	0	10	15	25	0	0	0	0	0	0	0	0	0	0	0	0	0	14	7	21	140
7:45 AM	0	0	0	0	0	24	8	32	0	0	0	0	0	61	43	104	0	0	0	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0	0	0	0	13	10	23	173
Total	0	0	0	0	0	38	31	69	0	0	0	0	0	142	119	261	0	0	0	0	0	28	36	64	0	0	0	0	0	0	0	0	0	0	0	0	0	39	33	72	466
8:00 AM	0	0	0	0	0	20	7	27	0	0	0	0	0	59	15	74	0	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	20	128
8:15 AM	0	0	0	0	0	11	8	19	0	0	0	0	0	61	34	95	0	0	0	0	0	5	13	18	0	0	0	0	0	0	0	0	0	0	0	0	0	17	11	28	160
8:30 AM	0	0	0	0	0	24	9	33	0	0	0	0	0	71	34	105	0	0	0	0	0	13	14	27	0	0	0	0	0	0	0	0	0	0	0	0	0	18	13	31	196
8:45 AM	0	0	0	0	0	15	11	26	0	0	0	0	0	81	21	102	0	0	0	0	0	5	17	22	0	0	0	0	0	0	0	0	0	0	0	0	0	8	25	33	183
Total	0	0	0	0	0	70	35	105	0	0	0	0	0	272	104	376	0	0	0	0	0	25	49	74	0	0	0	0	0	0	0	0	0	0	0	0	0	51	61	112	667
Grand Total	0	0	0	0	0	108	66	174	0	0	0	0	0	414	223	637	0	0	0	0	0	53	85	138	0	0	0	0	0	0	0	0	0	0	0	0	0	90	94	184	1133
Approach %	0.0	0.0	0.0	0.0	0.0	62.1	37.9		0.0	0.0	0.0	0.0	0.0	65.0	35.0		0.0	0.0	0.0	0.0	0.0	38.4	61.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	48.9	51.1		
Total %	0.00	0.00	0.00	0.00	0.00	9.53	5.83	15.36	0.00	0.00	0.00	0.00	0.00	36.54	19.68	56.22	0.00	0.00	0.00	0.00	0.00	4.68	7.50	12.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.94	8.30	16.24	
Exiting Leg Total								174								637								138								0								184	1133

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	20	7	27	0	0	0	0	0	59	15	74	0	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	20	128
8:15 AM	0	0	0	0	0	11	8	19	0	0	0	0	0	61	34	95	0	0	0	0	0	5	13	18	0	0	0	0	0	0	0	0	0	0	0	0	0	17	11	28	160
8:30 AM	0	0	0	0	0	24	9	33	0	0	0	0	0	71	34	105	0	0	0	0	0	13	14	27	0	0	0	0	0	0	0	0	0	0	0	0	0	18	13	31	196
8:45 AM	0	0	0	0	0	15	11	26	0	0	0	0	0	81	21	102	0	0	0	0	0	5	17	22	0	0	0	0	0	0	0	0	0	0	0	0	0	8	25	33	183
Total Volume	0	0	0	0	0	70	35	105	0	0	0	0	0	272	104	376	0	0	0	0	0	25	49	74	0	0	0	0	0	0	0	0	0	0	0	0	0	51	61	112	667
% Approach Total	0.0	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	72.3	27.7		0.0	0.0	0.0	0.0	0.0	33.8	66.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	45.5	54.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.729	0.795	0.795	0.000	0.000	0.000	0.000	0.000	0.840	0.765	0.895	0.000	0.000	0.000	0.000	0.000	0.481	0.721	0.685	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.708	0.610	0.848	0.851
Entering Leg	0	0	0	0	0	70	35	105	0	0	0	0	0	272	104	376	0	0	0	0	0	25	49	74	0	0	0	0	0	0	0	0	0	0	0	0	0	51	61	112	667
Exiting Leg								105								376								74								0								112	667
Total								210								752								148								0								224	1334

PDI File #: **175472 AA**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	10	41	140	0	0	191	20	6	24	27	0	77	0	105	7	52	0	164	0	0	0	0	0	0	0	0	0	0	0	0	432
4:15 PM	7	52	150	0	0	209	17	5	28	27	0	77	0	146	16	62	0	224	0	0	0	0	0	0	0	0	0	0	0	0	510
4:30 PM	13	50	153	0	0	216	14	6	22	33	0	75	0	149	15	58	0	222	0	0	0	0	0	0	0	0	0	0	0	0	513
4:45 PM	9	53	156	0	0	218	13	4	26	27	0	70	0	154	14	62	0	230	0	0	0	0	0	0	0	0	0	0	0	0	518
Total	39	196	599	0	0	834	64	21	100	114	0	299	0	554	52	234	0	840	0	0	0	0	0	0	0	0	0	0	0	0	1973
5:00 PM	9	50	153	0	0	212	27	8	28	22	0	85	0	134	7	65	2	208	0	0	0	0	0	0	0	0	0	0	0	0	505
5:15 PM	8	57	153	0	0	218	23	9	23	24	0	79	0	139	17	70	0	226	0	0	0	0	0	0	0	0	0	0	0	0	523
5:30 PM	9	38	152	0	0	199	14	8	24	30	0	76	0	148	10	40	0	198	0	0	0	0	0	0	0	0	0	0	0	0	473
5:45 PM	9	42	135	0	0	186	17	7	37	33	0	94	0	112	10	39	0	161	0	0	0	0	0	0	0	0	0	0	0	0	441
Total	35	187	593	0	0	815	81	32	112	109	0	334	0	533	44	214	2	793	0	0	0	0	0	0	0	0	0	0	0	0	1942
Grand Total	74	383	1192	0	0	1649	145	53	212	223	0	633	0	1087	96	448	2	1633	0	0	0	0	0	0	0	0	0	0	0	0	3915
Approach %	4.49	23.23	72.29	0.00	0.00		22.91	8.37	33.49	35.23	0.00		0.00	66.56	5.88	27.43	0.12		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Total %	1.89	9.78	30.45	0.00	0.00	42.12	3.70	1.35	5.42	5.70	0.00	16.17	0.00	27.77	2.45	11.44	0.05	41.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						1232						0						1417						1043						223	3915
Cars	73	371	1136	0	0	1580	141	53	211	219	0	624	0	1034	94	441	2	1571	0	0	0	0	0	0	0	0	0	0	0	0	3775
% Cars	98.65	96.87	95.30	0.00	0.00	95.82	97.24	100.00	99.53	98.21	0.00	98.58	0.00	95.12	97.92	98.44	100.00	96.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.42
Exiting Leg Total						1175						0						1357						1023						220	3775
Heavy Vehicles	1	12	56	0	0	69	4	0	1	4	0	9	0	53	2	7	0	62	0	0	0	0	0	0	0	0	0	0	0	0	140
% Heavy Vehicles	1.35	3.13	4.70	0.00	0.00	4.18	2.76	0.00	0.47	1.79	0.00	1.42	0.00	4.88	2.08	1.56	0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.58
Exiting Leg Total						57						0						60						20						3	140

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	13	50	153	0	0	216	14	6	22	33	0	75	0	149	15	58	0	222	0	0	0	0	0	0	0	0	0	0	0	0	513
4:45 PM	9	53	156	0	0	218	13	4	26	27	0	70	0	154	14	62	0	230	0	0	0	0	0	0	0	0	0	0	0	0	518
5:00 PM	9	50	153	0	0	212	27	8	28	22	0	85	0	134	7	65	2	208	0	0	0	0	0	0	0	0	0	0	0	0	505
5:15 PM	8	57	153	0	0	218	23	9	23	24	0	79	0	139	17	70	0	226	0	0	0	0	0	0	0	0	0	0	0	0	523
Total Volume	39	210	615	0	0	864	77	27	99	106	0	309	0	576	53	255	2	886	0	0	0	0	0	0	0	0	0	0	0	0	2059
% Approach Total	4.51	24.31	71.18	0.00	0.00		24.92	8.74	32.04	34.30	0.00		0.00	65.01	5.98	28.78	0.23		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
PHF	0.750	0.921	0.986	0.000	0.000	0.991	0.713	0.750	0.884	0.803	0.000	0.909	0.000	0.935	0.779	0.911	0.250	0.963	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.984
Cars	39	205	588	0	0	832	75	27	98	104	0	304	0	548	51	251	2	852	0	0	0	0	0	0	0	0	0	0	0	0	1988
Cars %	100.00	97.62	95.61	0.00	0.00	96.30	97.40	100.00	98.99	98.11	0.00	98.38	0.00	95.14	96.23	98.43	100.00	96.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.55
Heavy Vehicles	0	5	27	0	0	32	2	0	1	2	0	5	0	28	2	4	0	34	0	0	0	0	0	0	0	0	0	0	0	0	71
Heavy Vehicles %	0.00	2.38	4.39	0.00	0.00	3.70	2.60	0.00	1.01	1.89	0.00	1.62	0.00	4.86	3.77	1.57	0.00	3.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.45
Cars Enter Leg	39	205	588	0	0	832	75	27	98	104	0	304	0	548	51	251	2	852	0	0	0	0	0	0	0	0	0	0	0	0	1988
Heavy Enter Leg	0	5	27	0	0	32	2	0	1	2	0	5	0	28	2	4	0	34	0	0	0	0	0	0	0	0	0	0	0	0	71
Total Entering Leg	39	210	615	0	0	864	77	27	99	106	0	309	0	576	53	255	2	886	0	0	0	0	0	0	0	0	0	0	0	0	2059
Cars Exiting Leg						623						0						694						554						117	1988
Heavy Exit Leg						30						0						29						10						2	71
Total Exiting Leg						653						0						723						564						119	2059

PDI File #: **175472 AA**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	10	36	131	0	0	177	19	6	24	26	0	75	0	98	7	50	0	155	0	0	0	0	0	0	0	0	0	0	0	0	407
4:15 PM	6	51	142	0	0	199	17	5	28	27	0	77	0	135	16	62	0	213	0	0	0	0	0	0	0	0	0	0	0	0	489
4:30 PM	13	49	145	0	0	207	14	6	22	33	0	75	0	142	14	57	0	213	0	0	0	0	0	0	0	0	0	0	0	0	495
4:45 PM	9	51	149	0	0	209	12	4	26	26	0	68	0	147	14	61	0	222	0	0	0	0	0	0	0	0	0	0	0	0	499
Total	38	187	567	0	0	792	62	21	100	112	0	295	0	522	51	230	0	803	0	0	0	0	0	0	0	0	0	0	0	0	1890
5:00 PM	9	49	147	0	0	205	26	8	27	22	0	83	0	127	7	63	2	199	0	0	0	0	0	0	0	0	0	0	0	0	487
5:15 PM	8	56	147	0	0	211	23	9	23	23	0	78	0	132	16	70	0	218	0	0	0	0	0	0	0	0	0	0	0	0	507
5:30 PM	9	37	144	0	0	190	13	8	24	29	0	74	0	144	10	40	0	194	0	0	0	0	0	0	0	0	0	0	0	0	458
5:45 PM	9	42	131	0	0	182	17	7	37	33	0	94	0	109	10	38	0	157	0	0	0	0	0	0	0	0	0	0	0	0	433
Total	35	184	569	0	0	788	79	32	111	107	0	329	0	512	43	211	2	768	0	0	0	0	0	0	0	0	0	0	0	0	1885
Grand Total	73	371	1136	0	0	1580	141	53	211	219	0	624	0	1034	94	441	2	1571	0	0	0	0	0	0	0	0	0	0	0	0	3775
Approach %	4.62	23.48	71.90	0.00	0.00		22.60	8.49	33.81	35.10	0.00		0.00	65.82	5.98	28.07	0.13		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	
Total %	1.93	9.83	30.09	0.00	0.00	41.85	3.74	1.40	5.59	5.80	0.00	16.53	0.00	27.39	2.49	11.68	0.05	41.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						1175						0						1357						1023						220	3775

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	13	49	145	0	0	207	14	6	22	33	0	75	0	142	14	57	0	213	0	0	0	0	0	0	0	0	0	0	0	0	495
4:45 PM	9	51	149	0	0	209	12	4	26	26	0	68	0	147	14	61	0	222	0	0	0	0	0	0	0	0	0	0	0	0	499
5:00 PM	9	49	147	0	0	205	26	8	27	22	0	83	0	127	7	63	2	199	0	0	0	0	0	0	0	0	0	0	0	0	487
5:15 PM	8	56	147	0	0	211	23	9	23	23	0	78	0	132	16	70	0	218	0	0	0	0	0	0	0	0	0	0	0	0	507
Total Volume	39	205	588	0	0	832	75	27	98	104	0	304	0	548	51	251	2	852	0	0	0	0	0	0	0	0	0	0	0	0	1988
% Approach Total	4.69	24.64	70.67	0.00	0.00		24.67	8.88	32.24	34.21	0.00		0.00	64.32	5.99	29.46	0.23		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	
PHF	0.750	0.915	0.987	0.000	0.000	0.986	0.721	0.750	0.907	0.788	0.000	0.916	0.000	0.932	0.797	0.896	0.250	0.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.980
Entering Leg	39	205	588	0	0	832	75	27	98	104	0	304	0	548	51	251	2	852	0	0	0	0	0	0	0	0	0	0	0	0	1988
Exiting Leg						623						0						694						554						117	1988
Total						1455						304						1546						554						117	3976

PDI File #: **175472 AA**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	5	9	0	0	14	1	0	0	1	0	2	0	7	0	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	25
4:15 PM	1	1	8	0	0	10	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	21
4:30 PM	0	1	8	0	0	9	0	0	0	0	0	0	0	7	1	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	18
4:45 PM	0	2	7	0	0	9	1	0	0	1	0	2	0	7	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	19
Total	1	9	32	0	0	42	2	0	0	2	0	4	0	32	1	4	0	37	0	0	0	0	0	0	0	0	0	0	0	0	83
5:00 PM	0	1	6	0	0	7	1	0	1	0	0	2	0	7	0	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	18
5:15 PM	0	1	6	0	0	7	0	0	0	1	0	1	0	7	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	16
5:30 PM	0	1	8	0	0	9	1	0	0	1	0	2	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	15
5:45 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	0	3	24	0	0	27	2	0	1	2	0	5	0	21	1	3	0	25	0	0	0	0	0	0	0	0	0	0	0	0	57
Grand Total	1	12	56	0	0	69	4	0	1	4	0	9	0	53	2	7	0	62	0	0	0	0	0	0	0	0	0	0	0	0	140
Approach %	1.45	17.39	81.16	0.00	0.00		44.44	0.00	11.11	44.44	0.00		0.00	85.48	3.23	11.29	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
Total %	0.71	8.57	40.00	0.00	0.00	49.29	2.86	0.00	0.71	2.86	0.00	6.43	0.00	37.86	1.43	5.00	0.00	44.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total						57						0						60						20						3	140

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue						Newbury Street						Massachusetts Avenue						I-90 WB Onramp						Newbury Street						
	North						East						South						Southwest						West						Interval
	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Lef	Left	U-Turn	Total	Right	Thru	Left	Hard Lef	U-Turn	Total	Hard Righ	Bear Righ	Bear Lef	Hard Lef	U-Turn	Total	Hard Righ	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	5	9	0	0	14	1	0	0	1	0	2	0	7	0	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	25
4:15 PM	1	1	8	0	0	10	0	0	0	0	0	0	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	21
4:30 PM	0	1	8	0	0	9	0	0	0	0	0	0	0	7	1	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	18
4:45 PM	0	2	7	0	0	9	1	0	0	1	0	2	0	7	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	19
Total Volume	1	9	32	0	0	42	2	0	0	2	0	4	0	32	1	4	0	37	0	0	0	0	0	0	0	0	0	0	0	0	83
% Approach Total	2.38	21.43	76.19	0.00	0.00		50.00	0.00	0.00	50.00	0.00		0.00	86.49	2.70	10.81	0.00		0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00		
PHF	0.250	0.450	0.889	0.000	0.000	0.750	0.500	0.000	0.000	0.500	0.000	0.500	0.000	0.727	0.250	0.500	0.000	0.841	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.830
Entering Leg	1	9	32	0	0	42	2	0	0	2	0	4	0	32	1	4	0	37	0	0	0	0	0	0	0	0	0	0	0	0	83
Exiting Leg						34						0						34						13						2	83
Total						76						4						71						13						2	166

PDI File #: **175472 AA**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	3	0	0	0	0	3	1	0	0	0	0	0	0	1	0	16	1	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
4:15 PM	1	0	7	0	0	0	0	8	1	0	0	0	0	0	0	1	0	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		19
4:30 PM	0	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	1	2	3			26
4:45 PM	0	0	7	0	0	0	0	7	2	0	0	0	0	0	0	2	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	1			20
Total	1	0	26	0	0	0	0	27	4	0	0	0	0	0	0	4	0	49	1	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	1	4	5			86
5:00 PM	0	0	11	0	0	0	0	11	1	0	0	0	0	0	0	1	0	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0			30
5:15 PM	0	0	22	0	0	0	1	23	4	0	0	0	0	0	0	4	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0			41
5:30 PM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0			25
5:45 PM	0	0	19	0	0	0	0	19	1	0	0	0	0	0	0	1	0	19	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0			39
Total	0	0	62	0	0	0	1	63	6	0	0	0	0	0	0	6	0	66	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0			135
Grand Total	1	0	88	0	0	0	1	90	10	0	0	0	0	0	0	10	0	115	1	0	0	0	0	116	0	0	0	0	0	0	0	0	0	0	0	1	4	5			221
Approach %	1.1	0.0	97.8	0.0	0.0	0.0	1.1		100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	99.1	0.9	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	20.0	80.0		
Total %	0.45	0.00	39.82	0.00	0.00	0.00	0.45	40.72	4.52	0.00	0.00	0.00	0.00	0.00	0.00	4.52	0.00	52.04	0.45	0.00	0.00	0.00	0.00	52.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	1.81	2.26	
Exiting Leg Total								126								0								88								0								7	221

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	11	0	0	0	0	11	1	0	0	0	0	0	0	1	0	18	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0			30
5:15 PM	0	0	22	0	0	0	1	23	4	0	0	0	0	0	0	4	0	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0			41
5:30 PM	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0			25
5:45 PM	0	0	19	0	0	0	0	19	1	0	0	0	0	0	0	1	0	19	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0			39
Total Volume	0	0	62	0	0	0	1	63	6	0	0	0	0	0	0	6	0	66	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0			135
% Approach Total	0.0	0.0	98.4	0.0	0.0	0.0	1.6		100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.705	0.000	0.000	0.000	0.250	0.685	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.868	0.000	0.000	0.000	0.000	0.000	0.868	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.823
Entering Leg	0	0	62	0	0	0	1	63	6	0	0	0	0	0	0	6	0	66	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0			135
Exiting Leg								73								0								62								0								0	135
Total								136								6								128								0								0	270

PDI File #: **175472 AA**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Newbury Street W: Newbury Street SW: I-90 WB Onramp**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NW	CW-SE	Total	Hard Right	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	27	6	33	0	0	0	0	0	44	54	98	0	0	0	0	0	2	20	22	0	0	0	0	0	0	0	0	0	0	0	0	0	19	20	39	192
4:15 PM	0	0	0	0	0	14	9	23	0	0	0	0	0	51	34	85	0	0	0	0	0	3	13	16	0	0	0	0	0	0	0	0	0	0	0	0	0	14	41	55	179
4:30 PM	0	0	0	0	0	35	13	48	0	0	0	0	0	63	54	117	0	0	0	0	0	4	17	21	0	0	0	0	0	0	0	0	0	0	0	0	0	11	17	28	214
4:45 PM	0	0	0	0	0	10	9	19	0	0	0	0	0	46	44	90	0	0	0	0	0	9	30	39	0	0	0	0	0	0	0	0	0	0	0	0	0	15	25	40	188
Total	0	0	0	0	0	86	37	123	0	0	0	0	0	204	186	390	0	0	0	0	0	18	80	98	0	0	0	0	0	0	0	0	0	0	0	0	0	59	103	162	773
5:00 PM	0	0	0	0	0	21	7	28	0	0	0	0	0	66	50	116	0	0	0	0	0	10	24	34	0	0	0	0	0	0	0	0	0	0	0	0	0	20	33	53	231
5:15 PM	0	0	0	0	0	23	17	40	0	0	0	0	0	50	88	138	0	0	0	0	0	4	24	28	0	0	0	0	0	0	0	0	0	0	0	0	0	13	34	47	253
5:30 PM	0	0	0	0	0	32	15	47	0	0	0	0	0	84	83	167	0	0	0	0	0	12	38	50	0	0	0	0	0	0	0	0	0	0	0	0	0	27	42	69	333
5:45 PM	0	0	0	0	0	22	16	38	0	0	0	0	0	66	75	141	0	0	0	0	0	9	18	27	0	0	0	0	0	0	0	0	0	0	0	0	0	33	28	61	267
Total	0	0	0	0	0	98	55	153	0	0	0	0	0	266	296	562	0	0	0	0	0	35	104	139	0	0	0	0	0	0	0	0	0	0	0	0	0	93	137	230	1084
Grand Total	0	0	0	0	0	184	92	276	0	0	0	0	0	470	482	952	0	0	0	0	0	53	184	237	0	0	0	0	0	0	0	0	0	0	0	0	0	152	240	392	1857
Approach %	0.0	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	49.4	50.6		0.0	0.0	0.0	0.0	0.0	22.4	77.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	38.8	61.2		
Total %	0.00	0.00	0.00	0.00	0.00	9.91	4.95	14.86	0.00	0.00	0.00	0.00	0.00	25.31	25.96	51.27	0.00	0.00	0.00	0.00	0.00	2.85	9.91	12.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.19	12.92	21.11	
Exiting Leg Total								276								952								237								0								392	1857

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue								Newbury Street								Massachusetts Avenue								I-90 WB Onramp								Newbury Street								
	North								East								South								Southwest								West								Interval
	Right	Bear Rig	Thru	Left	J-Turn	CW-EB	CW-WB	Total	Right	Thru	Bear Le	Left	J-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	ard Le	J-Turn	CW-WB	CW-EB	Total	rd Rig	ear Rig	ear Le	ard Le	J-Turn	CW-NW	CW-SE	Total	rd Rig	Right	Thru	Left	J-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	21	7	28	0	0	0	0	0	66	50	116	0	0	0	0	0	10	24	34	0	0	0	0	0	0	0	0	0	0	0	0	0	20	33	53	231
5:15 PM	0	0	0	0	0	23	17	40	0	0	0	0	0	50	88	138	0	0	0	0	0	4	24	28	0	0	0	0	0	0	0	0	0	0	0	0	0	13	34	47	253
5:30 PM	0	0	0	0	0	32	15	47	0	0	0	0	0	84	83	167	0	0	0	0	0	12	38	50	0	0	0	0	0	0	0	0	0	0	0	0	0	27	42	69	333
5:45 PM	0	0	0	0	0	22	16	38	0	0	0	0	0	66	75	141	0	0	0	0	0	9	18	27	0	0	0	0	0	0	0	0	0	0	0	0	0	33	28	61	267
Total Volume	0	0	0	0	0	98	55	153	0	0	0	0	0	266	296	562	0	0	0	0	0	35	104	139	0	0	0	0	0	0	0	0	0	0	0	0	0	93	137	230	1084
% Approach Total	0.0	0.0	0.0	0.0	0.0	64.1	35.9		0.0	0.0	0.0	0.0	0.0	47.3	52.7		0.0	0.0	0.0	0.0	0.0	25.2	74.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	40.4	59.6		
PHF	0.000	0.000	0.000	0.000	0.000	0.766	0.809	0.814	0.000	0.000	0.000	0.000	0.000	0.792	0.841	0.841	0.000	0.000	0.000	0.000	0.000	0.729	0.684	0.695	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.705	0.815	0.833	0.814
Entering Leg	0	0	0	0	0	98	55	153	0	0	0	0	0	266	296	562	0	0	0	0	0	35	104	139	0	0	0	0	0	0	0	0	0	0	0	0	0	93	137	230	1084
Exiting Leg								153								562								139								0								230	1084
Total								306								1124								278								0								460	2168

PDI File #: **175472 B**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	6	38	0	0	44	0	18	11	0	29	0	0	0	0	0	73
7:15 AM	0	0	0	0	0	12	27	0	0	39	0	18	15	0	33	0	0	0	0	0	72
7:30 AM	1	0	0	0	1	14	42	0	0	56	0	33	15	0	48	0	0	0	0	0	105
7:45 AM	0	0	0	0	0	15	42	0	0	57	0	32	17	0	49	0	0	0	0	0	106
Total	1	0	0	0	1	47	149	0	0	196	0	101	58	0	159	0	0	0	0	0	356
8:00 AM	0	0	0	0	0	12	51	0	0	63	0	31	19	0	50	0	0	0	0	0	113
8:15 AM	0	0	0	0	0	17	38	0	0	55	0	22	18	0	40	0	0	0	0	0	95
8:30 AM	0	0	0	0	0	20	43	0	0	63	0	16	10	0	26	0	0	0	0	0	89
8:45 AM	0	0	0	0	0	13	47	0	0	60	0	27	10	0	37	0	0	0	0	0	97
Total	0	0	0	0	0	62	179	0	0	241	0	96	57	0	153	0	0	0	0	0	394
Grand Total	1	0	0	0	1	109	328	0	0	437	0	197	115	0	312	0	0	0	0	0	750
Approach %	100.00	0.00	0.00	0.00		24.94	75.06	0.00	0.00		0.00	63.14	36.86	0.00		0.00	0.00	0.00	0.00		
Total %	0.13	0.00	0.00	0.00	0.13	14.53	43.73	0.00	0.00	58.27	0.00	26.27	15.33	0.00	41.60	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					306					0					0					444	750
Cars	1	0	0	0	1	103	302	0	0	405	0	189	102	0	291	0	0	0	0	0	697
% Cars	100.00	0.00	0.00	0.00	100.00	94.50	92.07	0.00	0.00	92.68	0.00	95.94	88.70	0.00	93.27	0.00	0.00	0.00	0.00	0.00	92.93
Exiting Leg Total					292					0					0					405	697
Heavy Vehicles	0	0	0	0	0	6	26	0	0	32	0	8	13	0	21	0	0	0	0	0	53
% Heavy Vehicles	0.00	0.00	0.00	0.00	0.00	5.50	7.93	0.00	0.00	7.32	0.00	4.06	11.30	0.00	6.73	0.00	0.00	0.00	0.00	0.00	7.07
Exiting Leg Total					14					0					0					39	53

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	1	0	0	0	1	14	42	0	0	56	0	33	15	0	48	0	0	0	0	0	105
7:45 AM	0	0	0	0	0	15	42	0	0	57	0	32	17	0	49	0	0	0	0	0	106
8:00 AM	0	0	0	0	0	12	51	0	0	63	0	31	19	0	50	0	0	0	0	0	113
8:15 AM	0	0	0	0	0	17	38	0	0	55	0	22	18	0	40	0	0	0	0	0	95
Total Volume	1	0	0	0	1	58	173	0	0	231	0	118	69	0	187	0	0	0	0	0	419
% Approach Total	100.00	0.00	0.00	0.00		25.11	74.89	0.00	0.00		0.00	63.10	36.90	0.00		0.00	0.00	0.00	0.00		
PHF	0.250	0.000	0.000	0.000	0.250	0.853	0.848	0.000	0.000	0.917	0.000	0.894	0.908	0.000	0.935	0.000	0.000	0.000	0.000	0.000	0.927
Cars	1	0	0	0	1	56	158	0	0	214	0	114	60	0	174	0	0	0	0	0	389
Cars %	100.00	0.00	0.00	0.00	100.00	96.55	91.33	0.00	0.00	92.64	0.00	96.61	86.96	0.00	93.05	0.00	0.00	0.00	0.00	0.00	92.84
Heavy Vehicles	0	0	0	0	0	2	15	0	0	17	0	4	9	0	13	0	0	0	0	0	30
Heavy Vehicles %	0.00	0.00	0.00	0.00	0.00	3.45	8.67	0.00	0.00	7.36	0.00	3.39	13.04	0.00	6.95	0.00	0.00	0.00	0.00	0.00	7.16
Cars Enter Leg	1	0	0	0	1	56	158	0	0	214	0	114	60	0	174	0	0	0	0	0	389
Heavy Enter Leg	0	0	0	0	0	2	15	0	0	17	0	4	9	0	13	0	0	0	0	0	30
Total Entering Leg	1	0	0	0	1	58	173	0	0	231	0	118	69	0	187	0	0	0	0	0	419
Cars Exiting Leg					170					0					0					219	389
Heavy Exit Leg					6					0					0					24	30
Total Exiting Leg					176					0					0					243	419

PDI File #: **175472 B**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Cars**

	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	6	35	0	0	41	0	18	10	0	28	0	0	0	0	0	69
7:15 AM	0	0	0	0	0	10	27	0	0	37	0	17	15	0	32	0	0	0	0	0	69
7:30 AM	1	0	0	0	1	13	36	0	0	49	0	32	13	0	45	0	0	0	0	0	95
7:45 AM	0	0	0	0	0	15	41	0	0	56	0	31	13	0	44	0	0	0	0	0	100
Total	1	0	0	0	1	44	139	0	0	183	0	98	51	0	149	0	0	0	0	0	333
8:00 AM	0	0	0	0	0	11	47	0	0	58	0	29	18	0	47	0	0	0	0	0	105
8:15 AM	0	0	0	0	0	17	34	0	0	51	0	22	16	0	38	0	0	0	0	0	89
8:30 AM	0	0	0	0	0	18	41	0	0	59	0	14	8	0	22	0	0	0	0	0	81
8:45 AM	0	0	0	0	0	13	41	0	0	54	0	26	9	0	35	0	0	0	0	0	89
Total	0	0	0	0	0	59	163	0	0	222	0	91	51	0	142	0	0	0	0	0	364
Grand Total	1	0	0	0	1	103	302	0	0	405	0	189	102	0	291	0	0	0	0	0	697
Approach %	100.00	0.00	0.00	0.00		25.43	74.57	0.00	0.00		0.00	64.95	35.05	0.00		0.00	0.00	0.00	0.00		
Total %	0.14	0.00	0.00	0.00	0.14	14.78	43.33	0.00	0.00	58.11	0.00	27.12	14.63	0.00	41.75	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					292					0					0					405	697

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	1	0	0	0	1	13	36	0	0	49	0	32	13	0	45	0	0	0	0	0	95
7:45 AM	0	0	0	0	0	15	41	0	0	56	0	31	13	0	44	0	0	0	0	0	100
8:00 AM	0	0	0	0	0	11	47	0	0	58	0	29	18	0	47	0	0	0	0	0	105
8:15 AM	0	0	0	0	0	17	34	0	0	51	0	22	16	0	38	0	0	0	0	0	89
Total Volume	1	0	0	0	1	56	158	0	0	214	0	114	60	0	174	0	0	0	0	0	389
% Approach Total	100.00	0.00	0.00	0.00		26.17	73.83	0.00	0.00		0.00	65.52	34.48	0.00		0.00	0.00	0.00	0.00		
PHF	0.250	0.000	0.000	0.000	0.250	0.824	0.840	0.000	0.000	0.922	0.000	0.891	0.833	0.000	0.926	0.000	0.000	0.000	0.000	0.000	0.926
Entering Leg	1	0	0	0	1	56	158	0	0	214	0	114	60	0	174	0	0	0	0	0	389
Exiting Leg					170					0					0					219	389
Total					171					214					174					219	778

PDI File #: **175472 B**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	4
7:15 AM	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	1	6	0	0	7	0	1	2	0	3	0	0	0	0	0	10
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	4	0	5	0	0	0	0	0	6
Total	0	0	0	0	0	3	10	0	0	13	0	3	7	0	10	0	0	0	0	0	23
8:00 AM	0	0	0	0	0	1	4	0	0	5	0	2	1	0	3	0	0	0	0	0	8
8:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	2	0	2	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	2	2	0	0	4	0	2	2	0	4	0	0	0	0	0	8
8:45 AM	0	0	0	0	0	0	6	0	0	6	0	1	1	0	2	0	0	0	0	0	8
Total	0	0	0	0	0	3	16	0	0	19	0	5	6	0	11	0	0	0	0	0	30
Grand Total	0	0	0	0	0	6	26	0	0	32	0	8	13	0	21	0	0	0	0	0	53
Approach %	0.00	0.00	0.00	0.00		18.75	81.25	0.00	0.00		0.00	38.10	61.90	0.00		0.00	0.00	0.00	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	11.32	49.06	0.00	0.00	60.38	0.00	15.09	24.53	0.00	39.62	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					14					0					0					39	53

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	1	6	0	0	7	0	1	2	0	3	0	0	0	0	0	10
7:45 AM	0	0	0	0	0	0	1	0	0	1	0	1	4	0	5	0	0	0	0	0	6
8:00 AM	0	0	0	0	0	1	4	0	0	5	0	2	1	0	3	0	0	0	0	0	8
8:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	2	0	2	0	0	0	0	0	6
Total Volume	0	0	0	0	0	2	15	0	0	17	0	4	9	0	13	0	0	0	0	0	30
% Approach Total	0.00	0.00	0.00	0.00		11.76	88.24	0.00	0.00		0.00	30.77	69.23	0.00		0.00	0.00	0.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.625	0.000	0.000	0.607	0.000	0.500	0.563	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	2	15	0	0	17	0	4	9	0	13	0	0	0	0	0	30
Exiting Leg					6					0					0					24	30
Total					6					17					13					24	60

PDI File #: **175472 B**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
7:00 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	0	0	0	0
7:15 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	0	0	0	0
7:30 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	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	1	1	8
Grand Total	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	3	0	0	0	0	3	0	0	0	0	0	1	1	9
Approach %	0.0	0.0	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	0.00	0.00	0.00	0.00	11.11	0.00	11.11	0.00	44.44	0.00	0.00	0.00	0.00	44.44	0.00	33.33	0.00	0.00	0.00	0.00	33.33	0.00	0.00	0.00	0.00	0.00	11.11	11.11	
Exiting Leg Total							4							0							0							5	9

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Total Volume	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	1	1	8
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.667
Entering Leg	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	1	1	8
Exiting Leg							3							0							0							5	8
Total							4							4							2							6	16

PDI File #: **175472 B**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Street (North)							Newbury Street (East)							Hereford Street (South)							Newbury Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	6	3	9	0	0	0	0	6	0	6	0	0	0	0	14	12	26	0	0	0	0	1	3	4	45
7:15 AM	0	0	0	0	9	9	18	0	0	0	0	5	5	10	0	0	0	0	11	18	29	0	0	0	0	4	7	11	68
7:30 AM	0	0	0	0	12	8	20	0	0	0	0	6	5	11	0	0	0	0	9	28	37	0	0	0	0	8	14	22	90
7:45 AM	0	0	0	0	18	15	33	0	0	0	0	14	17	31	0	0	0	0	19	37	56	0	0	0	0	18	12	30	150
Total	0	0	0	0	45	35	80	0	0	0	0	31	27	58	0	0	0	0	53	95	148	0	0	0	0	31	36	67	353
8:00 AM	0	0	0	0	12	10	22	0	0	0	0	9	7	16	0	0	0	0	17	37	54	0	0	0	0	8	24	32	124
8:15 AM	0	0	0	0	16	15	31	0	0	0	0	9	4	13	0	0	0	0	18	31	49	0	0	0	0	2	15	17	110
8:30 AM	0	0	0	0	17	15	32	0	0	0	0	13	4	17	0	0	0	0	10	41	51	0	0	0	0	5	21	26	126
8:45 AM	0	0	0	0	20	12	32	0	0	0	0	14	10	24	0	0	0	0	19	39	58	0	0	0	0	8	14	22	136
Total	0	0	0	0	65	52	117	0	0	0	0	45	25	70	0	0	0	0	64	148	212	0	0	0	0	23	74	97	496
Grand Total	0	0	0	0	110	87	197	0	0	0	0	76	52	128	0	0	0	0	117	243	360	0	0	0	0	54	110	164	849
Approach %	0.0	0.0	0.0	0.0	55.8	44.2		0.0	0.0	0.0	0.0	59.4	40.6		0.0	0.0	0.0	0.0	32.5	67.5		0.0	0.0	0.0	0.0	32.9	67.1		
Total %	0.00	0.00	0.00	0.00	12.96	10.25	23.20	0.00	0.00	0.00	0.00	8.95	6.12	15.08	0.00	0.00	0.00	0.00	13.78	28.62	42.40	0.00	0.00	0.00	0.00	6.36	12.96	19.32	
Exiting Leg Total							197							128							360							164	849

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Hereford Street (North)							Newbury Street (East)							Hereford Street (South)							Newbury Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	0	0	0	18	15	33	0	0	0	0	14	17	31	0	0	0	0	19	37	56	0	0	0	0	18	12	30	150
8:00 AM	0	0	0	0	12	10	22	0	0	0	0	9	7	16	0	0	0	0	17	37	54	0	0	0	0	8	24	32	124
8:15 AM	0	0	0	0	16	15	31	0	0	0	0	9	4	13	0	0	0	0	18	31	49	0	0	0	0	2	15	17	110
8:30 AM	0	0	0	0	17	15	32	0	0	0	0	13	4	17	0	0	0	0	10	41	51	0	0	0	0	5	21	26	126
Total Volume	0	0	0	0	63	55	118	0	0	0	0	45	32	77	0	0	0	0	64	146	210	0	0	0	0	33	72	105	510
% Approach Total	0.0	0.0	0.0	0.0	53.4	46.6		0.0	0.0	0.0	0.0	58.4	41.6		0.0	0.0	0.0	0.0	30.5	69.5		0.0	0.0	0.0	0.0	31.4	68.6		
PHF	0.000	0.000	0.000	0.000	0.875	0.917	0.894	0.000	0.000	0.000	0.000	0.804	0.471	0.621	0.000	0.000	0.000	0.000	0.842	0.890	0.938	0.000	0.000	0.000	0.000	0.458	0.750	0.820	0.850
Entering Leg	0	0	0	0	63	55	118	0	0	0	0	45	32	77	0	0	0	0	64	146	210	0	0	0	0	33	72	105	510
Exiting Leg							118							77							210							105	510
Total							236							154							420							210	1020

PDI File #: **175472 BB**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	15	55	0	0	70	0	44	20	0	64	0	0	0	0	0	134
4:15 PM	0	0	0	0	0	29	62	0	0	91	0	46	23	0	69	0	0	0	0	0	160
4:30 PM	0	0	0	0	0	27	61	0	0	88	0	44	19	0	63	0	0	0	0	0	151
4:45 PM	0	0	0	0	0	22	51	0	0	73	0	35	20	0	55	0	0	0	0	0	128
Total	0	0	0	0	0	93	229	0	0	322	0	169	82	0	251	0	0	0	0	0	573
5:00 PM	0	0	0	0	0	21	56	0	0	77	0	45	27	0	72	0	0	0	0	0	149
5:15 PM	0	0	0	0	0	18	49	0	0	67	0	57	30	0	87	0	0	0	0	0	154
5:30 PM	0	0	0	0	0	21	58	0	0	79	0	54	30	0	84	0	0	0	0	0	163
5:45 PM	0	0	0	0	0	12	51	0	0	63	0	41	31	0	72	0	0	0	0	0	135
Total	0	0	0	0	0	72	214	0	0	286	0	197	118	0	315	0	0	0	0	0	601
Grand Total	0	0	0	0	0	165	443	0	0	608	0	366	200	0	566	0	0	0	0	0	1174
Approach %	0.00	0.00	0.00	0.00		27.14	72.86	0.00	0.00		0.00	64.66	35.34	0.00		0.00	0.00	0.00	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	14.05	37.73	0.00	0.00	51.79	0.00	31.18	17.04	0.00	48.21	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					531					0					0					643	1174
Cars	0	0	0	0	0	162	436	0	0	598	0	364	200	0	564	0	0	0	0	0	1162
% Cars	0.00	0.00	0.00	0.00	0.00	98.18	98.42	0.00	0.00	98.36	0.00	99.45	100.00	0.00	99.65	0.00	0.00	0.00	0.00	0.00	98.98
Exiting Leg Total					526					0					0					636	1162
Heavy Vehicles	0	0	0	0	0	3	7	0	0	10	0	2	0	0	2	0	0	0	0	0	12
% Heavy Vehicles	0.00	0.00	0.00	0.00	0.00	1.82	1.58	0.00	0.00	1.64	0.00	0.55	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	1.02
Exiting Leg Total					5					0					0					7	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	21	56	0	0	77	0	45	27	0	72	0	0	0	0	0	149
5:15 PM	0	0	0	0	0	18	49	0	0	67	0	57	30	0	87	0	0	0	0	0	154
5:30 PM	0	0	0	0	0	21	58	0	0	79	0	54	30	0	84	0	0	0	0	0	163
5:45 PM	0	0	0	0	0	12	51	0	0	63	0	41	31	0	72	0	0	0	0	0	135
Total Volume	0	0	0	0	0	72	214	0	0	286	0	197	118	0	315	0	0	0	0	0	601
% Approach Total	0.00	0.00	0.00	0.00		25.17	74.83	0.00	0.00		0.00	62.54	37.46	0.00		0.00	0.00	0.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.857	0.922	0.000	0.000	0.905	0.000	0.864	0.952	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.922
Cars	0	0	0	0	0	71	212	0	0	283	0	197	118	0	315	0	0	0	0	0	598
Cars %	0.00	0.00	0.00	0.00	0.00	98.61	99.07	0.00	0.00	98.95	0.00	100.00	100.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	99.50
Heavy Vehicles	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Heavy Vehicles %	0.00	0.00	0.00	0.00	0.00	1.39	0.93	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
Cars Enter Leg	0	0	0	0	0	71	212	0	0	283	0	197	118	0	315	0	0	0	0	0	598
Heavy Enter Leg	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total Entering Leg	0	0	0	0	0	72	214	0	0	286	0	197	118	0	315	0	0	0	0	0	601
Cars Exiting Leg					268					0					0					330	598
Heavy Exit Leg					1					0					0					2	3
Total Exiting Leg					269					0					0					332	601

PDI File #: **175472 BB**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	15	55	0	0	70	0	44	20	0	64	0	0	0	0	0	134
4:15 PM	0	0	0	0	0	27	62	0	0	89	0	44	23	0	67	0	0	0	0	0	156
4:30 PM	0	0	0	0	0	27	61	0	0	88	0	44	19	0	63	0	0	0	0	0	151
4:45 PM	0	0	0	0	0	22	46	0	0	68	0	35	20	0	55	0	0	0	0	0	123
Total	0	0	0	0	0	91	224	0	0	315	0	167	82	0	249	0	0	0	0	0	564
5:00 PM	0	0	0	0	0	20	55	0	0	75	0	45	27	0	72	0	0	0	0	0	147
5:15 PM	0	0	0	0	0	18	49	0	0	67	0	57	30	0	87	0	0	0	0	0	154
5:30 PM	0	0	0	0	0	21	57	0	0	78	0	54	30	0	84	0	0	0	0	0	162
5:45 PM	0	0	0	0	0	12	51	0	0	63	0	41	31	0	72	0	0	0	0	0	135
Total	0	0	0	0	0	71	212	0	0	283	0	197	118	0	315	0	0	0	0	0	598
Grand Total	0	0	0	0	0	162	436	0	0	598	0	364	200	0	564	0	0	0	0	0	1162
Approach %	0.00	0.00	0.00	0.00		27.09	72.91	0.00	0.00		0.00	64.54	35.46	0.00		0.00	0.00	0.00	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	13.94	37.52	0.00	0.00	51.46	0.00	31.33	17.21	0.00	48.54	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					526					0					0					636	1162

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Newbury Street					Hereford Street					Newbury Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	20	55	0	0	75	0	45	27	0	72	0	0	0	0	0	147
5:15 PM	0	0	0	0	0	18	49	0	0	67	0	57	30	0	87	0	0	0	0	0	154
5:30 PM	0	0	0	0	0	21	57	0	0	78	0	54	30	0	84	0	0	0	0	0	162
5:45 PM	0	0	0	0	0	12	51	0	0	63	0	41	31	0	72	0	0	0	0	0	135
Total Volume	0	0	0	0	0	71	212	0	0	283	0	197	118	0	315	0	0	0	0	0	598
% Approach Total	0.00	0.00	0.00	0.00		25.09	74.91	0.00	0.00		0.00	62.54	37.46	0.00		0.00	0.00	0.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.845	0.930	0.000	0.000	0.907	0.000	0.864	0.952	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.923
Entering Leg	0	0	0	0	0	71	212	0	0	283	0	197	118	0	315	0	0	0	0	0	598
Exiting Leg					268					0					0					330	598
Total					268					283					315					330	1196

PDI File #: **175472 BB**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Street (North)					Newbury Street (East)					Hereford Street (South)					Newbury Street (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	2	5	0	0	7	0	2	0	0	2	0	0	0	0	0	9
5:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 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	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	3	7	0	0	10	0	2	0	0	2	0	0	0	0	0	12
Approach %	0.00	0.00	0.00	0.00		30.00	70.00	0.00	0.00		0.00	100.00	0.00	0.00		0.00	0.00	0.00	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	25.00	58.33	0.00	0.00	83.33	0.00	16.67	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					5					0					0					7	12

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Hereford Street (North)					Newbury Street (East)					Hereford Street (South)					Newbury Street (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	3	6	0	0	9	0	2	0	0	2	0	0	0	0	0	11
% Approach Total	0.00	0.00	0.00	0.00		33.33	66.67	0.00	0.00		0.00	100.00	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.375	0.300	0.000	0.000	0.450	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.550
Entering Leg	0	0	0	0	0	3	6	0	0	9	0	2	0	0	2	0	0	0	0	0	11
Exiting Leg					5					0					0					6	11
Total					5					9					2					6	22

PDI File #: **175472 BB**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	2	1	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4
Total	0	0	0	0	1	0	1	0	5	1	0	0	0	6	0	1	0	0	0	0	1	0	0	0	0	0	0	0	8
5:00 PM	0	0	0	0	0	1	1	0	3	0	0	0	0	3	0	2	0	0	0	1	3	0	0	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	1	0	1	5
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	1	1	0	11	0	0	0	0	11	0	4	0	0	0	1	5	0	0	0	0	1	0	1	18
Grand Total	0	0	0	0	1	1	2	0	16	1	0	0	0	17	0	5	0	0	0	1	6	0	0	0	0	1	0	1	26
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		0.0	94.1	5.9	0.0	0.0	0.0		0.0	83.3	0.0	0.0	0.0	16.7		0.0	0.0	0.0	0.0	100.0	0.0		
Total %	0.00	0.00	0.00	0.00	3.85	3.85	7.69	0.00	61.54	3.85	0.00	0.00	0.00	65.38	0.00	19.23	0.00	0.00	0.00	3.85	23.08	0.00	0.00	0.00	0.00	3.85	0.00	3.85	
Exiting Leg Total							7							0							2							17	26

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							Interval
	Right	Thru	Left	J-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	J-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	J-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	J-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	1	1	0	3	0	0	0	0	3	0	2	0	0	0	1	3	0	0	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	0	0	1	0	0	0	0	1	0	1	5
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	5
Total Volume	0	0	0	0	0	1	1	0	11	0	0	0	0	11	0	4	0	0	0	1	5	0	0	0	0	1	0	1	18
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	80.0	0.0	0.0	0.0	20.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.688	0.000	0.000	0.000	0.000	0.688	0.000	0.500	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.643
Entering Leg	0	0	0	0	0	1	1	0	11	0	0	0	0	11	0	4	0	0	0	1	5	0	0	0	0	1	0	1	18
Exiting Leg							5							0							1							12	18
Total							6							11							6							13	36

PDI File #: **175472 BB**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Newbury Street W: Newbury Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	51	44	95	0	0	0	0	18	13	31	0	0	0	0	62	67	129	0	0	0	0	16	25	41	296
4:15 PM	0	0	0	0	49	34	83	0	0	0	0	20	8	28	0	0	0	0	65	43	108	0	0	0	0	23	31	54	273
4:30 PM	0	0	0	0	52	43	95	0	0	0	0	18	12	30	0	0	0	0	77	62	139	0	0	0	0	19	25	44	308
4:45 PM	0	0	0	0	45	49	94	0	0	0	0	14	17	31	0	0	0	0	57	52	109	0	0	0	0	12	26	38	272
Total	0	0	0	0	197	170	367	0	0	0	0	70	50	120	0	0	0	0	261	224	485	0	0	0	0	70	107	177	1149
5:00 PM	0	0	0	0	41	33	74	0	0	0	0	14	19	33	0	0	0	0	72	60	132	0	0	0	0	20	26	46	285
5:15 PM	0	0	0	0	48	47	95	0	0	0	0	13	15	28	0	0	0	0	66	58	124	0	0	0	0	26	30	56	303
5:30 PM	0	0	0	0	44	40	84	0	0	0	0	22	24	46	0	0	0	0	98	67	165	0	0	0	0	23	34	57	352
5:45 PM	0	0	0	0	49	64	113	0	0	0	0	35	27	62	0	0	0	0	96	67	163	0	0	0	0	29	32	61	399
Total	0	0	0	0	182	184	366	0	0	0	0	84	85	169	0	0	0	0	332	252	584	0	0	0	0	98	122	220	1339
Grand Total	0	0	0	0	379	354	733	0	0	0	0	154	135	289	0	0	0	0	593	476	1069	0	0	0	0	168	229	397	2488
Approach %	0.0	0.0	0.0	0.0	51.7	48.3		0.0	0.0	0.0	0.0	53.3	46.7		0.0	0.0	0.0	0.0	55.5	44.5		0.0	0.0	0.0	0.0	42.3	57.7		
Total %	0.00	0.00	0.00	0.00	15.23	14.23	29.46	0.00	0.00	0.00	0.00	6.19	5.43	11.62	0.00	0.00	0.00	0.00	23.83	19.13	42.97	0.00	0.00	0.00	0.00	6.75	9.20	15.96	
Exiting Leg Total							733							289							1069							397	2488

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street							Newbury Street							Hereford Street							Newbury Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	41	33	74	0	0	0	0	14	19	33	0	0	0	0	72	60	132	0	0	0	0	20	26	46	285
5:15 PM	0	0	0	0	48	47	95	0	0	0	0	13	15	28	0	0	0	0	66	58	124	0	0	0	0	26	30	56	303
5:30 PM	0	0	0	0	44	40	84	0	0	0	0	22	24	46	0	0	0	0	98	67	165	0	0	0	0	23	34	57	352
5:45 PM	0	0	0	0	49	64	113	0	0	0	0	35	27	62	0	0	0	0	96	67	163	0	0	0	0	29	32	61	399
Total Volume	0	0	0	0	182	184	366	0	0	0	0	84	85	169	0	0	0	0	332	252	584	0	0	0	0	98	122	220	1339
% Approach Total	0.0	0.0	0.0	0.0	49.7	50.3		0.0	0.0	0.0	0.0	49.7	50.3		0.0	0.0	0.0	0.0	56.8	43.2		0.0	0.0	0.0	0.0	44.5	55.5		
PHF	0.000	0.000	0.000	0.000	0.929	0.719	0.810	0.000	0.000	0.000	0.000	0.600	0.787	0.681	0.000	0.000	0.000	0.000	0.847	0.940	0.885	0.000	0.000	0.000	0.000	0.845	0.897	0.902	0.839
Entering Leg	0	0	0	0	182	184	366	0	0	0	0	84	85	169	0	0	0	0	332	252	584	0	0	0	0	98	122	220	1339
Exiting Leg							366							169							584							220	1339
Total							732							338							1168							440	2678

PDI File #: **175472 C**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	99	38	0	144	25	24	1	0	50	14	124	0	0	138	27	89	2	0	118	450
7:15 AM	5	92	31	0	128	34	15	3	0	52	17	181	0	0	198	16	89	4	0	109	487
7:30 AM	7	98	43	0	148	39	35	0	0	74	11	161	1	0	173	31	90	5	0	126	521
7:45 AM	4	99	34	0	137	38	24	0	0	62	12	176	1	0	189	34	99	2	0	135	523
Total	23	388	146	0	557	136	98	4	0	238	54	642	2	0	698	108	367	13	0	488	1981
8:00 AM	10	87	49	0	146	43	18	1	0	62	11	152	0	0	163	27	114	0	0	141	512
8:15 AM	6	87	48	0	141	38	29	4	0	71	19	153	0	0	172	19	119	2	0	140	524
8:30 AM	8	98	33	0	139	29	22	2	0	53	14	153	0	0	167	22	118	3	0	143	502
8:45 AM	8	94	47	0	149	35	21	0	0	56	11	140	0	0	151	29	124	3	0	156	512
Total	32	366	177	0	575	145	90	7	0	242	55	598	0	0	653	97	475	8	0	580	2050
Grand Total	55	754	323	0	1132	281	188	11	0	480	109	1240	2	0	1351	205	842	21	0	1068	4031
Approach %	4.86	66.61	28.53	0.00		58.54	39.17	2.29	0.00		8.07	91.78	0.15	0.00		19.19	78.84	1.97	0.00		
Total %	1.36	18.71	8.01	0.00	28.08	6.97	4.66	0.27	0.00	11.91	2.70	30.76	0.05	0.00	33.52	5.09	20.89	0.52	0.00	26.49	
Exiting Leg Total					1542					1274					970					245	4031
Cars	51	681	289	0	1021	263	165	9	0	437	89	1112	2	0	1203	193	798	16	0	1007	3668
% Cars	92.73	90.32	89.47	0.00	90.19	93.59	87.77	81.82	0.00	91.04	81.65	89.68	100.00	0.00	89.05	94.15	94.77	76.19	0.00	94.29	90.99
Exiting Leg Total					1391					1176					883					218	3668
Heavy Vehicles	4	73	34	0	111	18	23	2	0	43	20	128	0	0	148	12	44	5	0	61	363
% Heavy Vehicles	7.27	9.68	10.53	0.00	9.81	6.41	12.23	18.18	0.00	8.96	18.35	10.32	0.00	0.00	10.95	5.85	5.23	23.81	0.00	5.71	9.01
Exiting Leg Total					151					98					87					27	363

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	7	98	43	0	148	39	35	0	0	74	11	161	1	0	173	31	90	5	0	126	521
7:45 AM	4	99	34	0	137	38	24	0	0	62	12	176	1	0	189	34	99	2	0	135	523
8:00 AM	10	87	49	0	146	43	18	1	0	62	11	152	0	0	163	27	114	0	0	141	512
8:15 AM	6	87	48	0	141	38	29	4	0	71	19	153	0	0	172	19	119	2	0	140	524
Total Volume	27	371	174	0	572	158	106	5	0	269	53	642	2	0	697	111	422	9	0	542	2080
% Approach Total	4.72	64.86	30.42	0.00		58.74	39.41	1.86	0.00		7.60	92.11	0.29	0.00		20.48	77.86	1.66	0.00		
PHF	0.675	0.937	0.888	0.000	0.966	0.919	0.757	0.313	0.000	0.909	0.697	0.912	0.500	0.000	0.922	0.816	0.887	0.450	0.000	0.961	0.992
Cars	24	332	154	0	510	148	90	5	0	243	41	575	2	0	618	104	398	7	0	509	1880
Cars %	88.89	89.49	88.51	0.00	89.16	93.67	84.91	100.00	0.00	90.33	77.36	89.56	100.00	0.00	88.67	93.69	94.31	77.78	0.00	93.91	90.38
Heavy Vehicles	3	39	20	0	62	10	16	0	0	26	12	67	0	0	79	7	24	2	0	33	200
Heavy Vehicles %	11.11	10.51	11.49	0.00	10.84	6.33	15.09	0.00	0.00	9.67	22.64	10.44	0.00	0.00	11.33	6.31	5.69	22.22	0.00	6.09	9.62
Cars Enter Leg	24	332	154	0	510	148	90	5	0	243	41	575	2	0	618	104	398	7	0	509	1880
Heavy Enter Leg	3	39	20	0	62	10	16	0	0	26	12	67	0	0	79	7	24	2	0	33	200
Total Entering Leg	27	371	174	0	572	158	106	5	0	269	53	642	2	0	697	111	422	9	0	542	2080
Cars Exiting Leg					730					593					441					116	1880
Heavy Exit Leg					79					56					46					19	200
Total Exiting Leg					809					649					487					135	2080

PDI File #: **175472 C**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	93	34	0	133	24	21	0	0	45	12	108	0	0	120	24	85	1	0	110	408
7:15 AM	5	83	29	0	117	30	14	2	0	46	17	164	0	0	181	14	85	3	0	102	446
7:30 AM	5	87	40	0	132	34	29	0	0	63	11	143	1	0	155	28	84	4	0	116	466
7:45 AM	4	87	31	0	122	37	22	0	0	59	8	159	1	0	168	33	88	2	0	123	472
Total	20	350	134	0	504	125	86	2	0	213	48	574	2	0	624	99	342	10	0	451	1792
8:00 AM	9	80	41	0	130	42	14	1	0	57	8	132	0	0	140	24	109	0	0	133	460
8:15 AM	6	78	42	0	126	35	25	4	0	64	14	141	0	0	155	19	117	1	0	137	482
8:30 AM	8	84	30	0	122	28	21	2	0	51	10	139	0	0	149	22	114	2	0	138	460
8:45 AM	8	89	42	0	139	33	19	0	0	52	9	126	0	0	135	29	116	3	0	148	474
Total	31	331	155	0	517	138	79	7	0	224	41	538	0	0	579	94	456	6	0	556	1876
Grand Total	51	681	289	0	1021	263	165	9	0	437	89	1112	2	0	1203	193	798	16	0	1007	3668
Approach %	5.00	66.70	28.31	0.00		60.18	37.76	2.06	0.00		7.40	92.44	0.17	0.00		19.17	79.25	1.59	0.00		
Total %	1.39	18.57	7.88	0.00	27.84	7.17	4.50	0.25	0.00	11.91	2.43	30.32	0.05	0.00	32.80	5.26	21.76	0.44	0.00	27.45	
Exiting Leg Total					1391					1176					883					218	3668

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	5	87	40	0	132	34	29	0	0	63	11	143	1	0	155	28	84	4	0	116	466
7:45 AM	4	87	31	0	122	37	22	0	0	59	8	159	1	0	168	33	88	2	0	123	472
8:00 AM	9	80	41	0	130	42	14	1	0	57	8	132	0	0	140	24	109	0	0	133	460
8:15 AM	6	78	42	0	126	35	25	4	0	64	14	141	0	0	155	19	117	1	0	137	482
Total Volume	24	332	154	0	510	148	90	5	0	243	41	575	2	0	618	104	398	7	0	509	1880
% Approach Total	4.71	65.10	30.20	0.00		60.91	37.04	2.06	0.00		6.63	93.04	0.32	0.00		20.43	78.19	1.38	0.00		
PHF	0.667	0.954	0.917	0.000	0.966	0.881	0.776	0.313	0.000	0.949	0.732	0.904	0.500	0.000	0.920	0.788	0.850	0.438	0.000	0.929	0.975
Entering Leg	24	332	154	0	510	148	90	5	0	243	41	575	2	0	618	104	398	7	0	509	1880
Exiting Leg					730					593					441					116	1880
Total					1240					836					1059					625	3760

PDI File #: **175472 C**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	6	4	0	11	1	3	1	0	5	2	16	0	0	18	3	4	1	0	8	42
7:15 AM	0	9	2	0	11	4	1	1	0	6	0	17	0	0	17	2	4	1	0	7	41
7:30 AM	2	11	3	0	16	5	6	0	0	11	0	18	0	0	18	3	6	1	0	10	55
7:45 AM	0	12	3	0	15	1	2	0	0	3	4	17	0	0	21	1	11	0	0	12	51
Total	3	38	12	0	53	11	12	2	0	25	6	68	0	0	74	9	25	3	0	37	189
8:00 AM	1	7	8	0	16	1	4	0	0	5	3	20	0	0	23	3	5	0	0	8	52
8:15 AM	0	9	6	0	15	3	4	0	0	7	5	12	0	0	17	0	2	1	0	3	42
8:30 AM	0	14	3	0	17	1	1	0	0	2	4	14	0	0	18	0	4	1	0	5	42
8:45 AM	0	5	5	0	10	2	2	0	0	4	2	14	0	0	16	0	8	0	0	8	38
Total	1	35	22	0	58	7	11	0	0	18	14	60	0	0	74	3	19	2	0	24	174
Grand Total	4	73	34	0	111	18	23	2	0	43	20	128	0	0	148	12	44	5	0	61	363
Approach %	3.60	65.77	30.63	0.00		41.86	53.49	4.65	0.00		13.51	86.49	0.00	0.00		19.67	72.13	8.20	0.00		
Total %	1.10	20.11	9.37	0.00	30.58	4.96	6.34	0.55	0.00	11.85	5.51	35.26	0.00	0.00	40.77	3.31	12.12	1.38	0.00	16.80	
Exiting Leg Total					151					98					87					27	363

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	2	11	3	0	16	5	6	0	0	11	0	18	0	0	18	3	6	1	0	10	55
7:45 AM	0	12	3	0	15	1	2	0	0	3	4	17	0	0	21	1	11	0	0	12	51
8:00 AM	1	7	8	0	16	1	4	0	0	5	3	20	0	0	23	3	5	0	0	8	52
8:15 AM	0	9	6	0	15	3	4	0	0	7	5	12	0	0	17	0	2	1	0	3	42
Total Volume	3	39	20	0	62	10	16	0	0	26	12	67	0	0	79	7	24	2	0	33	200
% Approach Total	4.84	62.90	32.26	0.00		38.46	61.54	0.00	0.00		15.19	84.81	0.00	0.00		21.21	72.73	6.06	0.00		
PHF	0.375	0.813	0.625	0.000	0.969	0.500	0.667	0.000	0.000	0.591	0.600	0.838	0.000	0.000	0.859	0.583	0.545	0.500	0.000	0.688	0.909
Entering Leg	3	39	20	0	62	10	16	0	0	26	12	67	0	0	79	7	24	2	0	33	200
Exiting Leg					79					56					46					19	200
Total					141					82					125					52	400

PDI File #: **175472 C**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
7:00 AM	2	4	0	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	8
7:15 AM	1	6	1	0	0	0	8	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	1	0	0	0	1	15
7:30 AM	0	9	0	0	1	0	10	0	0	0	0	0	0	0	1	8	0	0	0	0	9	0	3	0	0	0	0	3	22
7:45 AM	0	8	1	0	1	0	10	0	0	0	0	1	0	1	0	7	0	0	0	0	7	0	2	2	0	0	0	4	22
Total	3	27	2	0	2	0	34	0	0	0	0	1	0	1	1	23	0	0	0	0	24	0	5	3	0	0	0	8	67
8:00 AM	1	5	3	0	0	0	9	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3	0	0	0	3	6	18
8:15 AM	2	11	1	0	2	0	16	1	0	0	0	0	0	1	1	6	0	0	0	0	7	0	3	1	0	1	0	5	29
8:30 AM	1	11	6	0	2	0	20	0	0	0	0	0	0	0	1	14	0	0	0	0	15	1	2	3	0	0	0	6	41
8:45 AM	2	18	10	0	0	0	30	0	0	0	0	0	0	0	1	11	0	0	0	0	12	1	10	5	0	0	1	17	59
Total	6	45	20	0	4	0	75	1	0	0	0	0	0	1	3	34	0	0	0	0	37	2	18	9	0	1	4	34	147
Grand Total	9	72	22	0	6	0	109	1	0	0	0	1	0	2	4	57	0	0	0	0	61	2	23	12	0	1	4	42	214
Approach %	8.3	66.1	20.2	0.0	5.5	0.0		50.0	0.0	0.0	0.0	50.0	0.0		6.6	93.4	0.0	0.0	0.0	0.0		4.8	54.8	28.6	0.0	2.4	9.5		
Total %	4.21	33.64	10.28	0.00	2.80	0.00	50.93	0.47	0.00	0.00	0.00	0.47	0.00	0.93	1.87	26.64	0.00	0.00	0.00	0.00	28.50	0.93	10.75	5.61	0.00	0.47	1.87	19.63	
Exiting Leg Total							76							50							74							14	214

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
8:00 AM	1	5	3	0	0	0	9	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	3	0	0	0	3	6	18
8:15 AM	2	11	1	0	2	0	16	1	0	0	0	0	0	1	1	6	0	0	0	0	7	0	3	1	0	1	0	5	29
8:30 AM	1	11	6	0	2	0	20	0	0	0	0	0	0	0	1	14	0	0	0	0	15	1	2	3	0	0	0	6	41
8:45 AM	2	18	10	0	0	0	30	0	0	0	0	0	0	0	1	11	0	0	0	0	12	1	10	5	0	0	1	17	59
Total Volume	6	45	20	0	4	0	75	1	0	0	0	0	0	1	3	34	0	0	0	0	37	2	18	9	0	1	4	34	147
% Approach Total	8.0	60.0	26.7	0.0	5.3	0.0		100.0	0.0	0.0	0.0	0.0	0.0		8.1	91.9	0.0	0.0	0.0	0.0		5.9	52.9	26.5	0.0	2.9	11.8		
PHF	0.750	0.625	0.500	0.000	0.500	0.000	0.625	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.607	0.000	0.000	0.000	0.000	0.617	0.500	0.450	0.450	0.000	0.250	0.333	0.500	0.623
Entering Leg	6	45	20	0	4	0	75	1	0	0	0	0	0	1	3	34	0	0	0	0	37	2	18	9	0	1	4	34	147
Exiting Leg							48							41							47							11	147
Total							123							42							84							45	294

PDI File #: **175472 C**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	20	9	29	0	0	0	0	16	22	38	0	0	0	0	11	14	25	0	0	0	0	9	18	27	119
7:15 AM	0	0	0	0	31	8	39	0	0	0	0	20	45	65	0	0	0	0	2	33	35	0	0	0	0	21	20	41	180
7:30 AM	0	0	0	0	29	33	62	0	0	0	0	41	43	84	0	0	0	0	23	33	56	0	0	0	0	38	27	65	267
7:45 AM	0	0	0	0	39	49	88	0	0	0	0	54	43	97	0	0	0	0	10	28	38	0	0	0	0	29	53	82	305
Total	0	0	0	0	119	99	218	0	0	0	0	131	153	284	0	0	0	0	46	108	154	0	0	0	0	97	118	215	871
8:00 AM	0	0	0	0	37	19	56	0	0	0	0	64	43	107	0	0	0	0	19	30	49	0	0	0	0	29	33	62	274
8:15 AM	0	0	0	0	50	37	87	0	0	0	0	75	63	138	0	0	0	0	20	51	71	0	0	0	0	37	43	80	376
8:30 AM	0	0	0	0	64	52	116	0	0	0	0	128	68	196	0	0	0	0	33	58	91	0	0	0	0	30	71	101	504
8:45 AM	0	0	0	0	66	84	150	0	0	0	0	163	97	260	0	0	0	0	66	96	162	0	0	0	0	32	80	112	684
Total	0	0	0	0	217	192	409	0	0	0	0	430	271	701	0	0	0	0	138	235	373	0	0	0	0	128	227	355	1838
Grand Total	0	0	0	0	336	291	627	0	0	0	0	561	424	985	0	0	0	0	184	343	527	0	0	0	0	225	345	570	2709
Approach %	0.0	0.0	0.0	0.0	53.6	46.4		0.0	0.0	0.0	0.0	57.0	43.0		0.0	0.0	0.0	0.0	34.9	65.1		0.0	0.0	0.0	0.0	39.5	60.5		
Total %	0.00	0.00	0.00	0.00	12.40	10.74	23.15	0.00	0.00	0.00	0.00	20.71	15.65	36.36	0.00	0.00	0.00	0.00	6.79	12.66	19.45	0.00	0.00	0.00	0.00	8.31	12.74	21.04	
Exiting Leg Total							627							985							527							570	2709

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	37	19	56	0	0	0	0	64	43	107	0	0	0	0	19	30	49	0	0	0	0	29	33	62	274
8:15 AM	0	0	0	0	50	37	87	0	0	0	0	75	63	138	0	0	0	0	20	51	71	0	0	0	0	37	43	80	376
8:30 AM	0	0	0	0	64	52	116	0	0	0	0	128	68	196	0	0	0	0	33	58	91	0	0	0	0	30	71	101	504
8:45 AM	0	0	0	0	66	84	150	0	0	0	0	163	97	260	0	0	0	0	66	96	162	0	0	0	0	32	80	112	684
Total Volume	0	0	0	0	217	192	409	0	0	0	0	430	271	701	0	0	0	0	138	235	373	0	0	0	0	128	227	355	1838
% Approach Total	0.0	0.0	0.0	0.0	53.1	46.9		0.0	0.0	0.0	0.0	61.3	38.7		0.0	0.0	0.0	0.0	37.0	63.0		0.0	0.0	0.0	0.0	36.1	63.9		
PHF	0.000	0.000	0.000	0.000	0.822	0.571	0.682	0.000	0.000	0.000	0.000	0.660	0.698	0.674	0.000	0.000	0.000	0.000	0.523	0.612	0.576	0.000	0.000	0.000	0.000	0.865	0.709	0.792	0.672
Entering Leg	0	0	0	0	217	192	409	0	0	0	0	430	271	701	0	0	0	0	138	235	373	0	0	0	0	128	227	355	1838
Exiting Leg							409							701							373							355	1838
Total							818							1402							746							710	3676

PDI File #: **175472 CC**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	110	56	0	174	44	22	0	0	66	13	125	0	0	138	38	95	1	0	134	512
4:15 PM	6	124	48	0	178	48	26	2	0	76	18	160	0	0	178	42	95	1	0	138	570
4:30 PM	10	118	55	0	183	60	12	2	0	74	19	166	0	0	185	37	86	0	0	123	565
4:45 PM	3	135	48	1	187	52	26	3	0	81	12	168	0	0	180	35	100	1	0	136	584
Total	27	487	207	1	722	204	86	7	0	297	62	619	0	0	681	152	376	3	0	531	2231
5:00 PM	7	120	43	0	170	52	29	2	0	83	14	158	0	0	172	44	113	1	0	158	583
5:15 PM	3	133	46	0	182	72	22	1	0	95	15	160	0	0	175	28	122	3	0	153	605
5:30 PM	10	119	59	0	188	63	25	3	0	91	21	138	0	0	159	31	102	2	0	135	573
5:45 PM	12	113	49	0	174	63	31	0	0	94	20	100	0	0	120	36	109	0	0	145	533
Total	32	485	197	0	714	250	107	6	0	363	70	556	0	0	626	139	446	6	0	591	2294
Grand Total	59	972	404	1	1436	454	193	13	0	660	132	1175	0	0	1307	291	822	9	0	1122	4525
Approach %	4.11	67.69	28.13	0.07		68.79	29.24	1.97	0.00		10.10	89.90	0.00	0.00		25.94	73.26	0.80	0.00		
Total %	1.30	21.48	8.93	0.02	31.73	10.03	4.27	0.29	0.00	14.59	2.92	25.97	0.00	0.00	28.88	6.43	18.17	0.20	0.00	24.80	
Exiting Leg Total					1639					1358					1276					252	4525
Cars	59	927	390	1	1377	444	179	13	0	636	129	1127	0	0	1256	281	803	8	0	1092	4361
% Cars	100.00	95.37	96.53	100.00	95.89	97.80	92.75	100.00	0.00	96.36	97.73	95.91	0.00	0.00	96.10	96.56	97.69	88.89	0.00	97.33	96.38
Exiting Leg Total					1580					1322					1221					238	4361
Heavy Vehicles	0	45	14	0	59	10	14	0	0	24	3	48	0	0	51	10	19	1	0	30	164
% Heavy Vehicles	0.00	4.63	3.47	0.00	4.11	2.20	7.25	0.00	0.00	3.64	2.27	4.09	0.00	0.00	3.90	3.44	2.31	11.11	0.00	2.67	3.62
Exiting Leg Total					59					36					55					14	164

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	3	135	48	1	187	52	26	3	0	81	12	168	0	0	180	35	100	1	0	136	584
5:00 PM	7	120	43	0	170	52	29	2	0	83	14	158	0	0	172	44	113	1	0	158	583
5:15 PM	3	133	46	0	182	72	22	1	0	95	15	160	0	0	175	28	122	3	0	153	605
5:30 PM	10	119	59	0	188	63	25	3	0	91	21	138	0	0	159	31	102	2	0	135	573
Total Volume	23	507	196	1	727	239	102	9	0	350	62	624	0	0	686	138	437	7	0	582	2345
% Approach Total	3.16	69.74	26.96	0.14		68.29	29.14	2.57	0.00		9.04	90.96	0.00	0.00		23.71	75.09	1.20	0.00		
PHF	0.575	0.939	0.831	0.250	0.967	0.830	0.879	0.750	0.000	0.921	0.738	0.929	0.000	0.000	0.953	0.784	0.895	0.583	0.000	0.921	0.969
Cars	23	482	188	1	694	234	97	9	0	340	61	600	0	0	661	133	428	6	0	567	2262
Cars %	100.00	95.07	95.92	100.00	95.46	97.91	95.10	100.00	0.00	97.14	98.39	96.15	0.00	0.00	96.36	96.38	97.94	85.71	0.00	97.42	96.46
Heavy Vehicles	0	25	8	0	33	5	5	0	0	10	1	24	0	0	25	5	9	1	0	15	83
Heavy Vehicles %	0.00	4.93	4.08	0.00	4.54	2.09	4.90	0.00	0.00	2.86	1.61	3.85	0.00	0.00	3.64	3.62	2.06	14.29	0.00	2.58	3.54
Cars Enter Leg	23	482	188	1	694	234	97	9	0	340	61	600	0	0	661	133	428	6	0	567	2262
Heavy Enter Leg	0	25	8	0	33	5	5	0	0	10	1	24	0	0	25	5	9	1	0	15	83
Total Entering Leg	23	507	196	1	727	239	102	9	0	350	62	624	0	0	686	138	437	7	0	582	2345
Cars Exiting Leg					841					677					624					120	2262
Heavy Exit Leg					30					18					30					5	83
Total Exiting Leg					871					695					654					125	2345

PDI File #: **175472 CC**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	105	53	0	166	43	18	0	0	61	13	119	0	0	132	37	90	1	0	128	487
4:15 PM	6	117	46	0	169	46	24	2	0	72	18	152	0	0	170	39	93	1	0	133	544
4:30 PM	10	115	54	0	179	58	10	2	0	70	19	159	0	0	178	37	85	0	0	122	549
4:45 PM	3	130	45	1	179	50	25	3	0	78	12	162	0	0	174	33	98	1	0	132	563
Total	27	467	198	1	693	197	77	7	0	281	62	592	0	0	654	146	366	3	0	515	2143
5:00 PM	7	115	41	0	163	51	27	2	0	80	14	150	0	0	164	43	110	0	0	153	560
5:15 PM	3	127	44	0	174	70	22	1	0	93	15	155	0	0	170	27	120	3	0	150	587
5:30 PM	10	110	58	0	178	63	23	3	0	89	20	133	0	0	153	30	100	2	0	132	552
5:45 PM	12	108	49	0	169	63	30	0	0	93	18	97	0	0	115	35	107	0	0	142	519
Total	32	460	192	0	684	247	102	6	0	355	67	535	0	0	602	135	437	5	0	577	2218
Grand Total	59	927	390	1	1377	444	179	13	0	636	129	1127	0	0	1256	281	803	8	0	1092	4361
Approach %	4.28	67.32	28.32	0.07		69.81	28.14	2.04	0.00		10.27	89.73	0.00	0.00		25.73	73.53	0.73	0.00		
Total %	1.35	21.26	8.94	0.02	31.58	10.18	4.10	0.30	0.00	14.58	2.96	25.84	0.00	0.00	28.80	6.44	18.41	0.18	0.00	25.04	
Exiting Leg Total					1580					1322					1221					238	4361

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	3	130	45	1	179	50	25	3	0	78	12	162	0	0	174	33	98	1	0	132	563
5:00 PM	7	115	41	0	163	51	27	2	0	80	14	150	0	0	164	43	110	0	0	153	560
5:15 PM	3	127	44	0	174	70	22	1	0	93	15	155	0	0	170	27	120	3	0	150	587
5:30 PM	10	110	58	0	178	63	23	3	0	89	20	133	0	0	153	30	100	2	0	132	552
Total Volume	23	482	188	1	694	234	97	9	0	340	61	600	0	0	661	133	428	6	0	567	2262
% Approach Total	3.31	69.45	27.09	0.14		68.82	28.53	2.65	0.00		9.23	90.77	0.00	0.00		23.46	75.49	1.06	0.00		
PHF	0.575	0.927	0.810	0.250	0.969	0.836	0.898	0.750	0.000	0.914	0.763	0.926	0.000	0.000	0.950	0.773	0.892	0.500	0.000	0.926	0.963
Entering Leg	23	482	188	1	694	234	97	9	0	340	61	600	0	0	661	133	428	6	0	567	2262
Exiting Leg					841					677					624					120	2262
Total					1535					1017					1285					687	4524

PDI File #: **175472 CC**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	5	3	0	8	1	4	0	0	5	0	6	0	0	6	1	5	0	0	6	25
4:15 PM	0	7	2	0	9	2	2	0	0	4	0	8	0	0	8	3	2	0	0	5	26
4:30 PM	0	3	1	0	4	2	2	0	0	4	0	7	0	0	7	0	1	0	0	1	16
4:45 PM	0	5	3	0	8	2	1	0	0	3	0	6	0	0	6	2	2	0	0	4	21
Total	0	20	9	0	29	7	9	0	0	16	0	27	0	0	27	6	10	0	0	16	88
5:00 PM	0	5	2	0	7	1	2	0	0	3	0	8	0	0	8	1	3	1	0	5	23
5:15 PM	0	6	2	0	8	2	0	0	0	2	0	5	0	0	5	1	2	0	0	3	18
5:30 PM	0	9	1	0	10	0	2	0	0	2	1	5	0	0	6	1	2	0	0	3	21
5:45 PM	0	5	0	0	5	0	1	0	0	1	2	3	0	0	5	1	2	0	0	3	14
Total	0	25	5	0	30	3	5	0	0	8	3	21	0	0	24	4	9	1	0	14	76
Grand Total	0	45	14	0	59	10	14	0	0	24	3	48	0	0	51	10	19	1	0	30	164
Approach %	0.00	76.27	23.73	0.00		41.67	58.33	0.00	0.00		5.88	94.12	0.00	0.00		33.33	63.33	3.33	0.00		
Total %	0.00	27.44	8.54	0.00	35.98	6.10	8.54	0.00	0.00	14.63	1.83	29.27	0.00	0.00	31.10	6.10	11.59	0.61	0.00	18.29	
Exiting Leg Total					59					36					55					14	164

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue					Boylston Street					Massachusetts Avenue					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	5	3	0	8	1	4	0	0	5	0	6	0	0	6	1	5	0	0	6	25
4:15 PM	0	7	2	0	9	2	2	0	0	4	0	8	0	0	8	3	2	0	0	5	26
4:30 PM	0	3	1	0	4	2	2	0	0	4	0	7	0	0	7	0	1	0	0	1	16
4:45 PM	0	5	3	0	8	2	1	0	0	3	0	6	0	0	6	2	2	0	0	4	21
Total Volume	0	20	9	0	29	7	9	0	0	16	0	27	0	0	27	6	10	0	0	16	88
% Approach Total	0.00	68.97	31.03	0.00		43.75	56.25	0.00	0.00		0.00	100.00	0.00	0.00		37.50	62.50	0.00	0.00		
PHF	0.000	0.714	0.750	0.000	0.806	0.875	0.563	0.000	0.000	0.800	0.000	0.844	0.000	0.000	0.844	0.500	0.500	0.000	0.000	0.667	0.846
Entering Leg	0	20	9	0	29	7	9	0	0	16	0	27	0	0	27	6	10	0	0	16	88
Exiting Leg					34					19					26					9	88
Total					63					35					53					25	176

PDI File #: **175472 CC**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (North)							Boylston Street (East)							Massachusetts Avenue (South)							Boylston Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	2	4	1	0	0	0	7	0	0	0	0	1	0	1	1	13	0	0	0	0	14	0	0	0	0	0	0	0	22
4:15 PM	2	4	2	0	2	1	11	0	0	0	0	2	0	2	1	8	0	0	0	0	9	0	0	0	0	1	0	1	23
4:30 PM	0	6	2	0	0	1	9	0	0	0	0	1	0	1	1	11	0	0	0	0	12	0	0	0	0	0	0	0	22
4:45 PM	1	7	0	0	0	0	8	0	0	0	0	0	0	0	3	6	0	0	0	0	9	0	0	0	0	2	1	3	20
Total	5	21	5	0	2	2	35	0	0	0	0	4	0	4	6	38	0	0	0	0	44	0	0	0	0	3	1	4	87
5:00 PM	6	9	3	0	1	0	19	0	0	0	0	0	0	0	0	12	0	0	1	0	13	0	0	0	0	1	3	4	36
5:15 PM	2	18	1	0	0	0	21	0	1	0	0	0	0	1	0	12	0	0	0	0	12	0	0	1	0	0	0	1	35
5:30 PM	1	8	2	0	0	1	12	2	0	0	0	0	0	2	1	10	0	0	0	0	11	0	0	1	0	2	0	3	28
5:45 PM	2	10	4	0	0	0	16	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	1	0	1	2	4	29
Total	11	45	10	0	1	1	68	2	1	0	0	0	0	3	1	43	0	0	1	0	45	0	0	3	0	4	5	12	128
Grand Total	16	66	15	0	3	3	103	2	1	0	0	4	0	7	7	81	0	0	1	0	89	0	0	3	0	7	6	16	215
Approach %	15.5	64.1	14.6	0.0	2.9	2.9		28.6	14.3	0.0	0.0	57.1	0.0		7.9	91.0	0.0	0.0	1.1	0.0		0.0	0.0	18.8	0.0	43.8	37.5		
Total %	7.44	30.70	6.98	0.00	1.40	1.40	47.91	0.93	0.47	0.00	0.00	1.86	0.00	3.26	3.26	37.67	0.00	0.00	0.47	0.00	41.40	0.00	0.00	1.40	0.00	3.26	2.79	7.44	
Exiting Leg Total							92							26							67							30	215

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (North)							Boylston Street (East)							Massachusetts Avenue (South)							Boylston Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	6	9	3	0	1	0	19	0	0	0	0	0	0	0	0	12	0	0	1	0	13	0	0	0	0	1	3	4	36
5:15 PM	2	18	1	0	0	0	21	0	1	0	0	0	0	1	0	12	0	0	0	0	12	0	0	1	0	0	0	1	35
5:30 PM	1	8	2	0	0	1	12	2	0	0	0	0	0	2	1	10	0	0	0	0	11	0	0	1	0	2	0	3	28
5:45 PM	2	10	4	0	0	0	16	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	0	1	0	1	2	4	29
Total Volume	11	45	10	0	1	1	68	2	1	0	0	0	0	3	1	43	0	0	1	0	45	0	0	3	0	4	5	12	128
% Approach Total	16.2	66.2	14.7	0.0	1.5	1.5		66.7	33.3	0.0	0.0	0.0	0.0		2.2	95.6	0.0	0.0	2.2	0.0		0.0	0.0	25.0	0.0	33.3	41.7		
PHF	0.458	0.625	0.625	0.000	0.250	0.250	0.810	0.250	0.250	0.000	0.000	0.000	0.000	0.375	0.250	0.896	0.000	0.000	0.250	0.000	0.865	0.000	0.000	0.750	0.000	0.500	0.417	0.750	0.889
Entering Leg	11	45	10	0	1	1	68	2	1	0	0	0	0	3	1	43	0	0	1	0	45	0	0	3	0	4	5	12	128
Exiting Leg							50							11							46							21	128
Total							118							14							91							33	256

PDI File #: **175472 CC**
Location: **N: Massachusetts Avenue S: Massachusetts Avenue**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	57	69	126	0	0	0	0	59	71	130	0	0	0	0	84	112	196	0	0	0	0	55	74	129	581
4:15 PM	0	0	0	0	48	53	101	0	0	0	0	37	73	110	0	0	0	0	48	83	131	0	0	0	0	48	73	121	463
4:30 PM	0	0	0	0	49	50	99	0	0	0	0	38	71	109	0	0	0	0	41	82	123	0	0	0	0	38	47	85	416
4:45 PM	0	0	0	0	52	46	98	0	0	0	0	47	79	126	0	0	0	0	74	105	179	0	0	0	0	62	46	108	511
Total	0	0	0	0	206	218	424	0	0	0	0	181	294	475	0	0	0	0	247	382	629	0	0	0	0	203	240	443	1971
5:00 PM	0	0	0	0	47	66	113	0	0	0	0	59	85	144	0	0	0	0	61	94	155	0	0	0	0	54	67	121	533
5:15 PM	0	0	0	0	36	72	108	0	0	0	0	62	91	153	0	0	0	0	64	93	157	0	0	0	0	51	77	128	546
5:30 PM	0	0	0	0	41	78	119	0	0	0	0	86	88	174	0	0	0	0	69	78	147	0	0	0	0	47	88	135	575
5:45 PM	0	0	0	0	46	59	105	0	0	0	0	109	125	234	0	0	0	0	130	158	288	0	0	0	0	65	75	140	767
Total	0	0	0	0	170	275	445	0	0	0	0	316	389	705	0	0	0	0	324	423	747	0	0	0	0	217	307	524	2421
Grand Total	0	0	0	0	376	493	869	0	0	0	0	497	683	1180	0	0	0	0	571	805	1376	0	0	0	0	420	547	967	4392
Approach %	0.0	0.0	0.0	0.0	43.3	56.7		0.0	0.0	0.0	0.0	42.1	57.9		0.0	0.0	0.0	0.0	41.5	58.5		0.0	0.0	0.0	0.0	43.4	56.6		
Total %	0.00	0.00	0.00	0.00	8.56	11.22	19.79	0.00	0.00	0.00	0.00	11.32	15.55	26.87	0.00	0.00	0.00	0.00	13.00	18.33	31.33	0.00	0.00	0.00	0.00	9.56	12.45	22.02	
Exiting Leg Total							869							1180							1376							967	4392

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue							Boylston Street							Massachusetts Avenue							Boylston Street							
	North							East							South							West							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	47	66	113	0	0	0	0	59	85	144	0	0	0	0	61	94	155	0	0	0	0	54	67	121	533
5:15 PM	0	0	0	0	36	72	108	0	0	0	0	62	91	153	0	0	0	0	64	93	157	0	0	0	0	51	77	128	546
5:30 PM	0	0	0	0	41	78	119	0	0	0	0	86	88	174	0	0	0	0	69	78	147	0	0	0	0	47	88	135	575
5:45 PM	0	0	0	0	46	59	105	0	0	0	0	109	125	234	0	0	0	0	130	158	288	0	0	0	0	65	75	140	767
Total Volume	0	0	0	0	170	275	445	0	0	0	0	316	389	705	0	0	0	0	324	423	747	0	0	0	0	217	307	524	2421
% Approach Total	0.0	0.0	0.0	0.0	38.2	61.8		0.0	0.0	0.0	0.0	44.8	55.2		0.0	0.0	0.0	0.0	43.4	56.6		0.0	0.0	0.0	0.0	41.4	58.6		
PHF	0.000	0.000	0.000	0.000	0.904	0.881	0.935	0.000	0.000	0.000	0.000	0.725	0.778	0.753	0.000	0.000	0.000	0.000	0.623	0.669	0.648	0.000	0.000	0.000	0.000	0.835	0.872	0.936	0.789
Entering Leg	0	0	0	0	170	275	445	0	0	0	0	316	389	705	0	0	0	0	324	423	747	0	0	0	0	217	307	524	2421
Exiting Leg							445							705							747							524	2421
Total							890							1410							1494							1048	4842

PDI File #: **175472 D**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	0	0	1	24	19	37	0	80	23	75	11	0	109	190
7:15 AM	1	0	0	0	1	0	0	0	0	0	41	23	36	0	100	24	53	11	0	88	189
7:30 AM	0	0	0	0	0	0	0	0	0	0	33	33	71	0	137	22	61	10	0	93	230
7:45 AM	0	0	0	0	0	0	0	0	0	0	39	24	55	0	118	25	60	19	0	104	222
Total	1	0	0	0	1	1	0	0	0	1	137	99	199	0	435	94	249	51	0	394	831
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	30	52	0	113	35	47	24	0	106	219
8:15 AM	0	0	0	0	0	0	0	0	0	0	44	22	63	1	130	39	71	18	0	128	258
8:30 AM	0	0	0	0	0	0	0	0	0	0	39	20	50	0	109	31	75	8	0	114	223
8:45 AM	0	0	0	0	0	0	0	0	0	0	42	25	51	0	118	42	75	14	0	131	249
Total	0	0	0	0	0	0	0	0	0	0	156	97	216	1	470	147	268	64	0	479	949
Grand Total	1	0	0	0	1	1	0	0	0	1	293	196	415	1	905	241	517	115	0	873	1780
Approach %	100.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		32.38	21.66	45.86	0.11		27.61	59.22	13.17	0.00		
Total %	0.06	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.00	0.06	16.46	11.01	23.31	0.06	50.84	13.54	29.04	6.46	0.00	49.04	
Exiting Leg Total					312					810					242					416	1780
Cars	0	0	0	0	0	1	0	0	0	1	227	187	371	1	786	230	433	108	0	771	1558
% Cars	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	77.47	95.41	89.40	100.00	86.85	95.44	83.75	93.91	0.00	88.32	87.53
Exiting Leg Total					296					660					231					371	1558
Heavy Vehicles	1	0	0	0	1	0	0	0	0	0	66	9	44	0	119	11	84	7	0	102	222
% Heavy Vehicles	100.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	22.53	4.59	10.60	0.00	13.15	4.56	16.25	6.09	0.00	11.68	12.47
Exiting Leg Total					16					150					11					45	222

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	30	52	0	113	35	47	24	0	106	219
8:15 AM	0	0	0	0	0	0	0	0	0	0	44	22	63	1	130	39	71	18	0	128	258
8:30 AM	0	0	0	0	0	0	0	0	0	0	44	22	63	1	130	39	71	18	0	128	258
8:45 AM	0	0	0	0	0	0	0	0	0	0	42	25	51	0	118	42	75	14	0	131	249
Total Volume	0	0	0	0	0	0	0	0	0	0	161	99	229	2	491	155	264	74	0	493	984
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		32.79	20.16	46.64	0.41		31.44	53.55	15.01	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.915	0.825	0.909	0.500	0.944	0.923	0.880	0.771	0.000	0.941	0.953
Cars	0	0	0	0	0	0	0	0	0	0	115	95	206	2	418	141	216	71	0	428	846
Cars %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	71.43	95.96	89.96	100.00	85.13	90.97	81.82	95.95	0.00	86.82	85.98
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	46	4	23	0	73	14	48	3	0	65	138
Heavy Vehicles %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.57	4.04	10.04	0.00	14.87	9.03	18.18	4.05	0.00	13.18	14.02
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	115	95	206	2	418	141	216	71	0	428	846
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	46	4	23	0	73	14	48	3	0	65	138
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	161	99	229	2	491	155	264	74	0	493	984
Cars Exiting Leg					166					331					143					206	846
Heavy Exit Leg					7					94					14					23	138
Total Exiting Leg					173					425					157					229	984

PDI File #: **175472 D**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	1	0	0	0	1	21	19	32	0	72	22	66	11	0	99	172
7:15 AM	0	0	0	0	0	0	0	0	0	0	30	22	31	0	83	24	48	11	0	83	166
7:30 AM	0	0	0	0	0	0	0	0	0	0	26	31	61	0	118	22	52	9	0	83	201
7:45 AM	0	0	0	0	0	0	0	0	0	0	32	24	50	0	106	24	47	16	0	87	193
Total	0	0	0	0	0	1	0	0	0	1	109	96	174	0	379	92	213	47	0	352	732
8:00 AM	0	0	0	0	0	0	0	0	0	0	22	30	48	0	100	33	37	22	0	92	192
8:15 AM	0	0	0	0	0	0	0	0	0	0	30	21	56	1	108	34	59	18	0	111	219
8:30 AM	0	0	0	0	0	0	0	0	0	0	33	17	47	0	97	31	63	8	0	102	199
8:45 AM	0	0	0	0	0	0	0	0	0	0	33	23	46	0	102	40	61	13	0	114	216
Total	0	0	0	0	0	0	0	0	0	0	118	91	197	1	407	138	220	61	0	419	826
Grand Total	0	0	0	0	0	1	0	0	0	1	227	187	371	1	786	230	433	108	0	771	1558
Approach %	0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		28.88	23.79	47.20	0.13		29.83	56.16	14.01	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	14.57	12.00	23.81	0.06	50.45	14.76	27.79	6.93	0.00	49.49	
Exiting Leg Total					296					660					231					371	1558

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	22	30	48	0	100	33	37	22	0	92	192
8:15 AM	0	0	0	0	0	0	0	0	0	0	30	21	56	1	108	34	59	18	0	111	219
8:30 AM	0	0	0	0	0	0	0	0	0	0	33	17	47	0	97	31	63	8	0	102	199
8:45 AM	0	0	0	0	0	0	0	0	0	0	33	23	46	0	102	40	61	13	0	114	216
Total Volume	0	0	0	0	0	0	0	0	0	0	118	91	197	1	407	138	220	61	0	419	826
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		28.99	22.36	48.40	0.25		32.94	52.51	14.56	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.894	0.758	0.879	0.250	0.942	0.863	0.873	0.693	0.000	0.919	0.943
Entering Leg	0	0	0	0	0	0	0	0	0	0	118	91	197	1	407	138	220	61	0	419	826
Exiting Leg					152					338					139					197	826
Total					152					338					546					616	1652

PDI File #: **175472 D**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	5	0	8	1	9	0	0	10	18
7:15 AM	1	0	0	0	1	0	0	0	0	0	11	1	5	0	17	0	5	0	0	5	23
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	2	10	0	19	0	9	1	0	10	29
7:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	5	0	12	1	13	3	0	17	29
Total	1	0	0	0	1	0	0	0	0	0	28	3	25	0	56	2	36	4	0	42	99
8:00 AM	0	0	0	0	0	0	0	0	0	0	9	0	4	0	13	2	10	2	0	14	27
8:15 AM	0	0	0	0	0	0	0	0	0	0	14	1	7	0	22	5	12	0	0	17	39
8:30 AM	0	0	0	0	0	0	0	0	0	0	6	3	3	0	12	0	12	0	0	12	24
8:45 AM	0	0	0	0	0	0	0	0	0	0	9	2	5	0	16	2	14	1	0	17	33
Total	0	0	0	0	0	0	0	0	0	0	38	6	19	0	63	9	48	3	0	60	123
Grand Total	1	0	0	0	1	0	0	0	0	0	66	9	44	0	119	11	84	7	0	102	222
Approach %	100.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		55.46	7.56	36.97	0.00		10.78	82.35	6.86	0.00		
Total %	0.45	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	29.73	4.05	19.82	0.00	53.60	4.95	37.84	3.15	0.00	45.95	
Exiting Leg Total					16					150					11					45	222

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	2	10	0	19	0	9	1	0	10	29
7:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	5	0	12	1	13	3	0	17	29
8:00 AM	0	0	0	0	0	0	0	0	0	0	9	0	4	0	13	2	10	2	0	14	27
8:15 AM	0	0	0	0	0	0	0	0	0	0	14	1	7	0	22	5	12	0	0	17	39
Total Volume	0	0	0	0	0	0	0	0	0	0	37	3	26	0	66	8	44	6	0	58	124
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		56.06	4.55	39.39	0.00		13.79	75.86	10.34	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.661	0.375	0.650	0.000	0.750	0.400	0.846	0.500	0.000	0.853	0.795
Entering Leg	0	0	0	0	0	0	0	0	0	0	37	3	26	0	66	8	44	6	0	58	124
Exiting Leg					9					81					8					26	124
Total					9					81					74					84	248

PDI File #: **175472 D**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
7:00 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	0	0	0	0	0	0	0
7:15 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	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	3
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	0	0	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	0	1	2	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	1	5	5	0	0	0	0	1	6	0	0	0	11
Grand Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3	0	0	1	5	7	3	0	0	0	1	11	0	0	0	17
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	20.0	60.0	0.0	0.0	20.0		63.6	27.3	0.0	0.0	0.0	9.1		0.0	0.0		
Total %	0.00	5.88	0.00	0.00	0.00	0.00	5.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.88	17.65	0.00	0.00	5.88	29.41	41.18	17.65	0.00	0.00	0.00	5.88	64.71	0.00	0.00	0.00	
Exiting Leg Total							1							3							9							4			0	17

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	0	0	0	0	0	1	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	0	1	2	0	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	4	7	1	0	0	0	1	9	0	0	0	13
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	25.0	75.0	0.0	0.0	0.0		77.8	11.1	0.0	0.0	0.0	11.1		0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.375	0.000	0.000	0.000	0.500	0.583	0.250	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.000	0.813
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	4	7	1	0	0	0	1	9	0	0	0	13
Exiting Leg							1							1							7							4			0	13
Total							1							1							11							13			0	26

PDI File #: **175472 D**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
7:00 AM	0	0	0	0	9	2	11	0	0	0	0	5	0	5	0	0	0	0	2	9	11	0	0	0	0	4	0	4	2	5	7	38
7:15 AM	0	0	0	0	14	1	15	0	0	0	0	3	3	6	0	0	0	0	3	13	16	0	0	0	0	5	0	5	5	3	8	50
7:30 AM	0	0	0	0	19	7	26	0	0	0	0	4	5	9	0	0	0	0	5	10	15	0	0	0	0	3	2	5	2	7	9	64
7:45 AM	0	0	0	0	30	10	40	0	0	0	0	17	6	23	0	0	0	0	7	32	39	0	0	0	0	6	4	10	6	15	21	133
Total	0	0	0	0	72	20	92	0	0	0	0	29	14	43	0	0	0	0	17	64	81	0	0	0	0	18	6	24	15	30	45	285
8:00 AM	0	0	0	0	27	10	37	0	0	0	0	24	3	27	0	0	0	0	5	21	26	0	0	0	0	2	5	7	10	16	26	123
8:15 AM	0	0	0	0	28	12	40	0	0	0	0	17	2	19	0	0	0	0	5	33	38	0	0	0	0	1	7	8	3	22	25	130
8:30 AM	0	0	0	0	36	11	47	0	0	0	0	24	2	26	0	0	0	0	10	42	52	0	0	0	0	2	5	7	10	19	29	161
8:45 AM	0	0	0	0	68	17	85	0	0	0	0	18	8	26	0	0	0	0	10	47	57	0	0	0	0	1	11	12	5	16	21	201
Total	0	0	0	0	159	50	209	0	0	0	0	83	15	98	0	0	0	0	30	143	173	0	0	0	0	6	28	34	28	73	101	615
Grand Total	0	0	0	0	231	70	301	0	0	0	0	112	29	141	0	0	0	0	47	207	254	0	0	0	0	24	34	58	43	103	146	900
Approach %	0.0	0.0	0.0	0.0	76.7	23.3		0.0	0.0	0.0	0.0	79.4	20.6		0.0	0.0	0.0	0.0	18.5	81.5		0.0	0.0	0.0	0.0	41.4	58.6		29.5	70.5		
Total %	0.00	0.00	0.00	0.00	25.67	7.78	33.44	0.00	0.00	0.00	0.00	12.44	3.22	15.67	0.00	0.00	0.00	0.00	5.22	23.00	28.22	0.00	0.00	0.00	0.00	2.67	3.78	6.44	4.78	11.44	16.22	
Exiting Leg Total							301							141							254							58			146	900

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
8:00 AM	0	0	0	0	27	10	37	0	0	0	0	24	3	27	0	0	0	0	5	21	26	0	0	0	0	2	5	7	10	16	26	123
8:15 AM	0	0	0	0	28	12	40	0	0	0	0	17	2	19	0	0	0	0	5	33	38	0	0	0	0	1	7	8	3	22	25	130
8:30 AM	0	0	0	0	36	11	47	0	0	0	0	24	2	26	0	0	0	0	10	42	52	0	0	0	0	2	5	7	10	19	29	161
8:45 AM	0	0	0	0	68	17	85	0	0	0	0	18	8	26	0	0	0	0	10	47	57	0	0	0	0	1	11	12	5	16	21	201
Total Volume	0	0	0	0	159	50	209	0	0	0	0	83	15	98	0	0	0	0	30	143	173	0	0	0	0	6	28	34	28	73	101	615
% Approach Total	0.0	0.0	0.0	0.0	76.1	23.9		0.0	0.0	0.0	0.0	84.7	15.3		0.0	0.0	0.0	0.0	17.3	82.7		0.0	0.0	0.0	0.0	17.6	82.4		27.7	72.3		
PHF	0.000	0.000	0.000	0.000	0.585	0.735	0.615	0.000	0.000	0.000	0.000	0.865	0.469	0.907	0.000	0.000	0.000	0.000	0.750	0.761	0.759	0.000	0.000	0.000	0.000	0.750	0.636	0.708	0.700	0.830	0.871	0.765
Entering Leg	0	0	0	0	159	50	209	0	0	0	0	83	15	98	0	0	0	0	30	143	173	0	0	0	0	6	28	34	28	73	101	615
Exiting Leg							209							98							173							34			101	615
Total							418							196							346							68			202	1230

PDI File #: **175472 DD**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	32	33	58	1	124	15	88	26	0	129	253
4:15 PM	0	0	0	0	0	0	0	0	0	0	43	36	55	0	134	19	85	26	0	130	264
4:30 PM	0	0	0	0	0	0	0	0	0	0	58	34	57	0	149	13	94	24	0	131	280
4:45 PM	0	0	0	0	0	1	0	0	0	1	61	30	61	0	152	14	96	24	0	134	287
Total	0	0	0	0	0	1	0	0	0	1	194	133	231	1	559	61	363	100	0	524	1084
5:00 PM	0	0	0	0	0	0	0	0	0	0	62	41	73	0	176	15	82	29	0	126	302
5:15 PM	0	0	0	0	0	0	0	0	0	0	50	52	69	0	171	22	86	25	0	133	304
5:30 PM	0	0	0	0	0	0	0	0	0	0	49	39	77	0	165	15	83	29	0	127	292
5:45 PM	0	0	0	0	0	0	0	0	0	0	54	35	82	0	171	19	82	28	0	129	300
Total	0	0	0	0	0	0	0	0	0	0	215	167	301	0	683	71	333	111	0	515	1198
Grand Total	0	0	0	0	0	1	0	0	0	1	409	300	532	1	1242	132	696	211	0	1039	2282
Approach %	0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		32.93	24.15	42.83	0.08		12.70	66.99	20.31	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.04	17.92	13.15	23.31	0.04	54.43	5.78	30.50	9.25	0.00	45.53	
Exiting Leg Total					512					1105					133					532	2282
Cars	0	0	0	0	0	1	0	0	0	1	371	300	509	1	1181	123	677	210	0	1010	2192
% Cars	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	90.71	100.00	95.68	100.00	95.09	93.18	97.27	99.53	0.00	97.21	96.06
Exiting Leg Total					511					1048					124					509	2192
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	38	0	23	0	61	9	19	1	0	29	90
% Heavy Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.29	0.00	4.32	0.00	4.91	6.82	2.73	0.47	0.00	2.79	3.94
Exiting Leg Total					1					57					9					23	90

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	62	41	73	0	176	15	82	29	0	126	302
5:15 PM	0	0	0	0	0	0	0	0	0	0	50	52	69	0	171	22	86	25	0	133	304
5:30 PM	0	0	0	0	0	0	0	0	0	0	49	39	77	0	165	15	83	29	0	127	292
5:45 PM	0	0	0	0	0	0	0	0	0	0	54	35	82	0	171	19	82	28	0	129	300
Total Volume	0	0	0	0	0	0	0	0	0	0	215	167	301	0	683	71	333	111	0	515	1198
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		31.48	24.45	44.07	0.00		13.79	64.66	21.55	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.867	0.803	0.918	0.000	0.970	0.807	0.968	0.957	0.000	0.968	0.985
Cars	0	0	0	0	0	0	0	0	0	0	196	167	293	0	656	68	322	110	0	500	1156
Cars %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	91.16	100.00	97.34	0.00	96.05	95.77	96.70	99.10	0.00	97.09	96.49
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	19	0	8	0	27	3	11	1	0	15	42
Heavy Vehicles %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.84	0.00	2.66	0.00	3.95	4.23	3.30	0.90	0.00	2.91	3.51
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	196	167	293	0	656	68	322	110	0	500	1156
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	19	0	8	0	27	3	11	1	0	15	42
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	215	167	301	0	683	71	333	111	0	515	1198
Cars Exiting Leg					277					518					68					293	1156
Heavy Exit Leg					1					30					3					8	42
Total Exiting Leg					278					548					71					301	1198

PDI File #: **175472 DD**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	28	33	54	1	116	11	87	26	0	124	240
4:15 PM	0	0	0	0	0	0	0	0	0	0	39	36	51	0	126	18	84	26	0	128	254
4:30 PM	0	0	0	0	0	0	0	0	0	0	52	34	53	0	139	13	92	24	0	129	268
4:45 PM	0	0	0	0	0	1	0	0	0	1	56	30	58	0	144	13	92	24	0	129	274
Total	0	0	0	0	0	1	0	0	0	1	175	133	216	1	525	55	355	100	0	510	1036
5:00 PM	0	0	0	0	0	0	0	0	0	0	57	41	70	0	168	14	78	29	0	121	289
5:15 PM	0	0	0	0	0	0	0	0	0	0	45	52	67	0	164	22	83	25	0	130	294
5:30 PM	0	0	0	0	0	0	0	0	0	0	44	39	75	0	158	15	80	28	0	123	281
5:45 PM	0	0	0	0	0	0	0	0	0	0	50	35	81	0	166	17	81	28	0	126	292
Total	0	0	0	0	0	0	0	0	0	0	196	167	293	0	656	68	322	110	0	500	1156
Grand Total	0	0	0	0	0	1	0	0	0	1	371	300	509	1	1181	123	677	210	0	1010	2192
Approach %	0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		31.41	25.40	43.10	0.08		12.18	67.03	20.79	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.05	16.93	13.69	23.22	0.05	53.88	5.61	30.89	9.58	0.00	46.08	
Exiting Leg Total					511					1048					124					509	2192

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	57	41	70	0	168	14	78	29	0	121	289
5:15 PM	0	0	0	0	0	0	0	0	0	0	45	52	67	0	164	22	83	25	0	130	294
5:30 PM	0	0	0	0	0	0	0	0	0	0	44	39	75	0	158	15	80	28	0	123	281
5:45 PM	0	0	0	0	0	0	0	0	0	0	50	35	81	0	166	17	81	28	0	126	292
Total Volume	0	0	0	0	0	0	0	0	0	0	196	167	293	0	656	68	322	110	0	500	1156
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		29.88	25.46	44.66	0.00		13.60	64.40	22.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.860	0.803	0.904	0.000	0.976	0.773	0.970	0.948	0.000	0.962	0.983
Entering Leg	0	0	0	0	0	0	0	0	0	0	196	167	293	0	656	68	322	110	0	500	1156
Exiting Leg					277					518					68					293	1156
Total					277					518					724					793	2312

PDI File #: **175472 DD**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	8	4	1	0	0	5	13
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	8	1	1	0	0	2	10
4:30 PM	0	0	0	0	0	0	0	0	0	0	6	0	4	0	10	0	2	0	0	2	12
4:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	3	0	8	1	4	0	0	5	13
Total	0	0	0	0	0	0	0	0	0	0	19	0	15	0	34	6	8	0	0	14	48
5:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	3	0	8	1	4	0	0	5	13
5:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	2	0	7	0	3	0	0	3	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	2	0	7	0	3	1	0	4	11
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	1	0	5	2	1	0	0	3	8
Total	0	0	0	0	0	0	0	0	0	0	19	0	8	0	27	3	11	1	0	15	42
Grand Total	0	0	0	0	0	0	0	0	0	0	38	0	23	0	61	9	19	1	0	29	90
Approach %	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		62.30	0.00	37.70	0.00		31.03	65.52	3.45	0.00		
Total %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.22	0.00	25.56	0.00	67.78	10.00	21.11	1.11	0.00	32.22	
Exiting Leg Total					1					57					9					23	90

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Hereford Street					Boylston Street					Dalton Street					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	8	4	1	0	0	5	13
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	4	0	8	1	1	0	0	2	10
4:30 PM	0	0	0	0	0	0	0	0	0	0	6	0	4	0	10	0	2	0	0	2	12
4:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	3	0	8	1	4	0	0	5	13
Total Volume	0	0	0	0	0	0	0	0	0	0	19	0	15	0	34	6	8	0	0	14	48
% Approach Total	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		55.88	0.00	44.12	0.00		42.86	57.14	0.00	0.00		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.792	0.000	0.938	0.000	0.850	0.375	0.500	0.000	0.000	0.700	0.923
Entering Leg	0	0	0	0	0	0	0	0	0	0	19	0	15	0	34	6	8	0	0	14	48
Exiting Leg					0					27					6					15	48
Total					0					27					40					29	96

PDI File #: **175472 DD**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Interval Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3	0	0	0	3
4:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	0	0	0	9
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	9	3	0	0	0	13	0	0	0	15
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	0	0	1	0	0	0	3
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	4	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	2	0	0	0	4	0	0	0	6
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	6	2	0	1	0	9	0	0	0	15
Grand Total	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	5	0	0	1	6	1	15	5	0	1	0	22	0	0	0	30
Approach %	0.0	0.0	50.0	0.0	0.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	83.3	0.0	0.0	16.7		4.5	68.2	22.7	0.0	4.5	0.0		0.0	0.0		
Total %	0.00	0.00	3.33	0.00	0.00	3.33	6.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	0.00	3.33	20.00	3.33	50.00	16.67	0.00	3.33	0.00	73.33	0.00	0.00	0.00	
Exiting Leg Total							6							16							2							6			0	30

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Interval Total
4:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	8	0	0	0	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	0	0	1	0	0	0	3
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	1	0	4	0	0	0	5
Total Volume	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	10	2	0	1	0	13	0	0	0	18
% Approach Total	0.0	0.0	50.0	0.0	0.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	76.9	15.4	0.0	7.7	0.0		0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.417	0.250	0.000	0.250	0.000	0.406	0.000	0.000	0.000	0.500
Entering Leg	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	10	2	0	1	0	13	0	0	0	18
Exiting Leg							3							11							0							4			0	18
Total							5							11							3							17			0	36

PDI File #: **175472 DD**
Location: **N: Hereford Street S: Dalton Street NW: MidBlock CW**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
4:00 PM	0	0	0	0	66	108	174	0	0	0	0	18	15	33	0	0	0	0	22	42	64	0	0	0	0	8	14	22	19	7	26	319
4:15 PM	0	0	0	0	63	82	145	0	0	0	0	21	10	31	0	0	0	0	26	28	54	0	0	0	0	10	11	21	15	14	29	280
4:30 PM	0	0	0	0	48	64	112	0	0	0	0	21	13	34	0	0	0	0	27	35	62	0	0	0	0	8	13	21	7	6	13	242
4:45 PM	0	0	0	0	83	75	158	0	0	0	0	25	11	36	0	0	0	0	32	34	66	0	0	0	0	11	18	29	9	2	11	300
Total	0	0	0	0	260	329	589	0	0	0	0	85	49	134	0	0	0	0	107	139	246	0	0	0	0	37	56	93	50	29	79	1141
5:00 PM	0	0	0	0	56	100	156	0	0	0	0	20	19	39	0	0	0	0	47	45	92	0	0	0	0	11	10	21	20	12	32	340
5:15 PM	0	0	0	0	71	70	141	0	0	0	0	14	5	19	0	0	0	0	82	55	137	0	0	0	0	63	6	69	30	21	51	417
5:30 PM	0	0	0	0	70	117	187	0	0	0	0	17	18	35	0	0	0	0	33	36	69	0	0	0	0	22	21	43	33	20	53	387
5:45 PM	0	0	0	0	115	156	271	0	0	0	0	25	18	43	0	0	0	0	42	42	84	0	0	0	0	23	25	48	31	30	61	507
Total	0	0	0	0	312	443	755	0	0	0	0	76	60	136	0	0	0	0	204	178	382	0	0	0	0	119	62	181	114	83	197	1651
Grand Total	0	0	0	0	572	772	1344	0	0	0	0	161	109	270	0	0	0	0	311	317	628	0	0	0	0	156	118	274	164	112	276	2792
Approach %	0.0	0.0	0.0	0.0	42.6	57.4		0.0	0.0	0.0	0.0	59.6	40.4		0.0	0.0	0.0	0.0	49.5	50.5		0.0	0.0	0.0	0.0	56.9	43.1		59.4	40.6		
Total %	0.00	0.00	0.00	0.00	20.49	27.65	48.14	0.00	0.00	0.00	0.00	5.77	3.90	9.67	0.00	0.00	0.00	0.00	11.14	11.35	22.49	0.00	0.00	0.00	0.00	5.59	4.23	9.81	5.87	4.01	9.89	
Exiting Leg Total							1344							270							628							274			276	2792

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street							Boylston Street							Dalton Street							Boylston Street							MidBlock CW			
	North							East							South							West							Northwest			Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	CW-NE	CW-SW	Total	Total
5:00 PM	0	0	0	0	56	100	156	0	0	0	0	20	19	39	0	0	0	0	47	45	92	0	0	0	0	11	10	21	20	12	32	340
5:15 PM	0	0	0	0	71	70	141	0	0	0	0	14	5	19	0	0	0	0	82	55	137	0	0	0	0	63	6	69	30	21	51	417
5:30 PM	0	0	0	0	70	117	187	0	0	0	0	17	18	35	0	0	0	0	33	36	69	0	0	0	0	22	21	43	33	20	53	387
5:45 PM	0	0	0	0	115	156	271	0	0	0	0	25	18	43	0	0	0	0	42	42	84	0	0	0	0	23	25	48	31	30	61	507
Total Volume	0	0	0	0	312	443	755	0	0	0	0	76	60	136	0	0	0	0	204	178	382	0	0	0	0	119	62	181	114	83	197	1651
% Approach Total	0.0	0.0	0.0	0.0	41.3	58.7		0.0	0.0	0.0	0.0	55.9	44.1		0.0	0.0	0.0	0.0	53.4	46.6		0.0	0.0	0.0	0.0	65.7	34.3		57.9	42.1		
PHF	0.000	0.000	0.000	0.000	0.678	0.710	0.696	0.000	0.000	0.000	0.000	0.760	0.789	0.791	0.000	0.000	0.000	0.000	0.622	0.809	0.697	0.000	0.000	0.000	0.000	0.472	0.620	0.656	0.864	0.692	0.807	0.814
Entering Leg	0	0	0	0	312	443	755	0	0	0	0	76	60	136	0	0	0	0	204	178	382	0	0	0	0	119	62	181	114	83	197	1651
Exiting Leg							755							136							382							181			197	1651
Total							1510							272							764							362			394	3302

PDI File #: **175472 E**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	45	0	45	0	0	0	0	0	3	0	0	0	3	0	88	0	0	88	136
7:15 AM	0	0	38	0	38	0	0	0	0	0	1	0	0	0	1	0	99	0	0	99	138
7:30 AM	0	0	47	0	47	0	0	0	0	0	1	0	0	0	1	0	91	0	0	91	139
7:45 AM	0	0	47	0	47	0	0	0	0	0	2	0	0	0	2	0	100	0	0	100	149
Total	0	0	177	0	177	0	0	0	0	0	7	0	0	0	7	0	378	0	0	378	562
8:00 AM	0	0	52	0	52	0	0	0	0	0	1	0	0	0	1	0	84	0	0	84	137
8:15 AM	0	0	55	0	55	0	0	0	0	0	3	0	0	0	3	0	117	0	0	117	175
8:30 AM	0	0	64	0	64	0	0	0	0	0	5	0	0	0	5	0	115	0	0	115	184
8:45 AM	0	0	64	0	64	0	0	0	0	0	3	0	0	0	3	0	114	0	0	114	181
Total	0	0	235	0	235	0	0	0	0	0	12	0	0	0	12	0	430	0	0	430	677
Grand Total	0	0	412	0	412	0	0	0	0	0	19	0	0	0	19	0	808	0	0	808	1239
Approach %	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.00	0.00	33.25	0.00	33.25	0.00	0.00	0.00	0.00	0.00	1.53	0.00	0.00	0.00	1.53	0.00	65.21	0.00	0.00	65.21	
Exiting Leg Total					0					1239					0					0	1239
Cars	0	0	388	0	388	0	0	0	0	0	14	0	0	0	14	0	667	0	0	667	1069
% Cars	0.00	0.00	94.17	0.00	94.17	0.00	0.00	0.00	0.00	0.00	73.68	0.00	0.00	0.00	73.68	0.00	82.55	0.00	0.00	82.55	86.28
Exiting Leg Total					0					1069					0					0	1069
Heavy Vehicles	0	0	24	0	24	0	0	0	0	0	5	0	0	0	5	0	141	0	0	141	170
% Heavy Vehicles	0.00	0.00	5.83	0.00	5.83	0.00	0.00	0.00	0.00	0.00	26.32	0.00	0.00	0.00	26.32	0.00	17.45	0.00	0.00	17.45	13.72
Exiting Leg Total					0					170					0					0	170

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	52	0	52	0	0	0	0	0	1	0	0	0	1	0	84	0	0	84	137
8:15 AM	0	0	55	0	55	0	0	0	0	0	3	0	0	0	3	0	117	0	0	117	175
8:30 AM	0	0	55	0	55	0	0	0	0	0	3	0	0	0	3	0	117	0	0	117	175
8:45 AM	0	0	64	0	64	0	0	0	0	0	3	0	0	0	3	0	114	0	0	114	181
Total Volume	0	0	226	0	226	0	0	0	0	0	10	0	0	0	10	0	432	0	0	432	668
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.883	0.000	0.883	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.000	0.000	0.833	0.000	0.923	0.000	0.000	0.923	0.923
Cars	0	0	211	0	211	0	0	0	0	0	7	0	0	0	7	0	351	0	0	351	569
Cars %	0.00	0.00	93.36	0.00	93.36	0.00	0.00	0.00	0.00	0.00	70.00	0.00	0.00	0.00	70.00	0.00	81.25	0.00	0.00	81.25	85.18
Heavy Vehicles	0	0	15	0	15	0	0	0	0	0	3	0	0	0	3	0	81	0	0	81	99
Heavy Vehicles %	0.00	0.00	6.64	0.00	6.64	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	30.00	0.00	18.75	0.00	0.00	18.75	14.82
Cars Enter Leg	0	0	211	0	211	0	0	0	0	0	7	0	0	0	7	0	351	0	0	351	569
Heavy Enter Leg	0	0	15	0	15	0	0	0	0	0	3	0	0	0	3	0	81	0	0	81	99
Total Entering Leg	0	0	226	0	226	0	0	0	0	0	10	0	0	0	10	0	432	0	0	432	668
Cars Exiting Leg					0					569					0					0	569
Heavy Exit Leg					0					99					0					0	99
Total Exiting Leg					0					668					0					0	668

PDI File #: **175472 E**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
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Class:

PRECISION D A T A INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	42	0	42	0	0	0	0	0	3	0	0	0	3	0	75	0	0	75	120
7:15 AM	0	0	36	0	36	0	0	0	0	0	0	0	0	0	0	0	85	0	0	85	121
7:30 AM	0	0	43	0	43	0	0	0	0	0	0	0	0	0	0	0	73	0	0	73	116
7:45 AM	0	0	46	0	46	0	0	0	0	0	2	0	0	0	2	0	83	0	0	83	131
Total	0	0	167	0	167	0	0	0	0	0	5	0	0	0	5	0	316	0	0	316	488
8:00 AM	0	0	48	0	48	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	115
8:15 AM	0	0	53	0	53	0	0	0	0	0	2	0	0	0	2	0	95	0	0	95	150
8:30 AM	0	0	63	0	63	0	0	0	0	0	4	0	0	0	4	0	95	0	0	95	162
8:45 AM	0	0	57	0	57	0	0	0	0	0	3	0	0	0	3	0	94	0	0	94	154
Total	0	0	221	0	221	0	0	0	0	0	9	0	0	0	9	0	351	0	0	351	581
Grand Total	0	0	388	0	388	0	0	0	0	0	14	0	0	0	14	0	667	0	0	667	1069
Approach %	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.00	0.00	36.30	0.00	36.30	0.00	0.00	0.00	0.00	0.00	1.31	0.00	0.00	0.00	1.31	0.00	62.39	0.00	0.00	62.39	
Exiting Leg Total					0					1069					0					0	1069

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	48	0	48	0	0	0	0	0	0	0	0	0	0	0	67	0	0	67	115
8:15 AM	0	0	53	0	53	0	0	0	0	0	2	0	0	0	2	0	95	0	0	95	150
8:30 AM	0	0	63	0	63	0	0	0	0	0	4	0	0	0	4	0	95	0	0	95	162
8:45 AM	0	0	57	0	57	0	0	0	0	0	3	0	0	0	3	0	94	0	0	94	154
Total Volume	0	0	221	0	221	0	0	0	0	0	9	0	0	0	9	0	351	0	0	351	581
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.877	0.000	0.877	0.000	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.563	0.000	0.924	0.000	0.000	0.924	0.897
Entering Leg	0	0	221	0	221	0	0	0	0	0	9	0	0	0	9	0	351	0	0	351	581
Exiting Leg					0					581					0					0	581
Total					221					581					9					351	1162

PDI File #: **175472 E**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION D A T A INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	16
7:15 AM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	14	0	0	14	17
7:30 AM	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	18	0	0	18	23
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17	18
Total	0	0	10	0	10	0	0	0	0	0	2	0	0	0	2	0	62	0	0	62	74
8:00 AM	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	17	0	0	17	22
8:15 AM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	22	0	0	22	25
8:30 AM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	20	0	0	20	22
8:45 AM	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	27
Total	0	0	14	0	14	0	0	0	0	0	3	0	0	0	3	0	79	0	0	79	96
Grand Total	0	0	24	0	24	0	0	0	0	0	5	0	0	0	5	0	141	0	0	141	170
Approach %	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.00	0.00	14.12	0.00	14.12	0.00	0.00	0.00	0.00	0.00	2.94	0.00	0.00	0.00	2.94	0.00	82.94	0.00	0.00	82.94	
Exiting Leg Total					0					170					0					0	170

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	17	0	0	17	22
8:15 AM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	22	0	0	22	25
8:30 AM	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	20	0	0	20	22
8:45 AM	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	27
Total Volume	0	0	14	0	14	0	0	0	0	0	3	0	0	0	3	0	79	0	0	79	96
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.000	0.898	0.000	0.000	0.898	0.889
Entering Leg	0	0	14	0	14	0	0	0	0	0	3	0	0	0	3	0	79	0	0	79	96
Exiting Leg					0					96					0					0	96
Total					14					96					3					79	192

PDI File #: **175472 E**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Bicycles (on Roadway and Crosswalks)

	Gloucester Street							Boylston Street							Hynes Memorial Driveway							Boylston Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	3	0	0	0	0	3	5
Total	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	1	0	0	0	1	0	9	0	0	0	0	9	12
8:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4
8:15 AM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4
8:30 AM	0	0	2	0	0	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	6	0	0	0	1	7	10
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	12
Total	0	0	5	0	0	1	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	22	0	0	0	1	23	30
Grand Total	0	0	6	0	0	1	7	1	0	0	0	1	0	2	0	0	1	0	0	0	1	0	31	0	0	0	1	32	42
Approach %	0.0	0.0	85.7	0.0	0.0	14.3		50.0	0.0	0.0	0.0	50.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	96.9	0.0	0.0	0.0	3.1		
Total %	0.00	0.00	14.29	0.00	0.00	2.38	16.67	2.38	0.00	0.00	0.00	2.38	0.00	4.76	0.00	0.00	2.38	0.00	0.00	0.00	2.38	0.00	73.81	0.00	0.00	0.00	2.38	76.19	
Exiting Leg Total							2							38							0							2	42

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street							Boylston Street							Hynes Memorial Driveway							Boylston Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
8:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4
8:15 AM	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4
8:30 AM	0	0	2	0	0	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	6	0	0	0	1	7	10
8:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	12
Total Volume	0	0	5	0	0	1	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	22	0	0	0	1	23	30
% Approach Total	0.0	0.0	83.3	0.0	0.0	16.7		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	95.7	0.0	0.0	0.0	4.3		
PHF	0.000	0.000	0.625	0.000	0.000	0.250	0.750	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.523	0.625
Entering Leg	0	0	5	0	0	1	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	22	0	0	0	1	23	30
Exiting Leg							1							28							0							1	30
Total							7							29							0							24	60

PDI File #: **175472 E**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	7	3	10	0	0	0	0	8	1	9	0	0	0	0	2	4	6	0	0	0	0	0	6	6	31
7:15 AM	0	0	0	0	13	5	18	0	0	0	0	10	6	16	0	0	0	0	1	4	5	0	0	0	0	1	7	8	47
7:30 AM	0	0	0	0	17	11	28	0	0	0	0	8	10	18	0	0	0	0	2	5	7	0	0	0	0	3	10	13	66
7:45 AM	0	0	0	0	19	24	43	0	0	0	0	13	4	17	0	0	0	0	4	4	8	0	0	0	0	3	17	20	88
Total	0	0	0	0	56	43	99	0	0	0	0	39	21	60	0	0	0	0	9	17	26	0	0	0	0	7	40	47	232
8:00 AM	0	0	0	0	22	12	34	0	0	0	0	9	4	13	0	0	0	0	5	11	16	0	0	0	0	6	10	16	79
8:15 AM	0	0	0	0	31	13	44	0	0	0	0	8	2	10	0	0	0	0	6	6	12	0	0	0	0	8	15	23	89
8:30 AM	0	0	0	0	33	18	51	0	0	0	0	10	5	15	0	0	0	0	10	9	19	0	0	0	0	13	17	30	115
8:45 AM	0	0	0	0	37	21	58	0	0	0	0	7	1	8	0	0	0	0	8	13	21	0	0	0	0	4	29	33	120
Total	0	0	0	0	123	64	187	0	0	0	0	34	12	46	0	0	0	0	29	39	68	0	0	0	0	31	71	102	403
Grand Total	0	0	0	0	179	107	286	0	0	0	0	73	33	106	0	0	0	0	38	56	94	0	0	0	0	38	111	149	635
Approach %	0.0	0.0	0.0	0.0	62.6	37.4		0.0	0.0	0.0	0.0	68.9	31.1		0.0	0.0	0.0	0.0	40.4	59.6		0.0	0.0	0.0	0.0	25.5	74.5		
Total %	0.00	0.00	0.00	0.00	28.19	16.85	45.04	0.00	0.00	0.00	0.00	11.50	5.20	16.69	0.00	0.00	0.00	0.00	5.98	8.82	14.80	0.00	0.00	0.00	0.00	5.98	17.48	23.46	
Exiting Leg Total							286							106							94							149	635

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	22	12	34	0	0	0	0	9	4	13	0	0	0	0	5	11	16	0	0	0	0	6	10	16	79
8:15 AM	0	0	0	0	31	13	44	0	0	0	0	8	2	10	0	0	0	0	6	6	12	0	0	0	0	8	15	23	89
8:30 AM	0	0	0	0	33	18	51	0	0	0	0	10	5	15	0	0	0	0	10	9	19	0	0	0	0	13	17	30	115
8:45 AM	0	0	0	0	37	21	58	0	0	0	0	7	1	8	0	0	0	0	8	13	21	0	0	0	0	4	29	33	120
Total Volume	0	0	0	0	123	64	187	0	0	0	0	34	12	46	0	0	0	0	29	39	68	0	0	0	0	31	71	102	403
% Approach Total	0.0	0.0	0.0	0.0	65.8	34.2		0.0	0.0	0.0	0.0	73.9	26.1		0.0	0.0	0.0	0.0	42.6	57.4		0.0	0.0	0.0	0.0	30.4	69.6		
PHF	0.000	0.000	0.000	0.000	0.831	0.762	0.806	0.000	0.000	0.000	0.000	0.850	0.600	0.767	0.000	0.000	0.000	0.000	0.725	0.750	0.810	0.000	0.000	0.000	0.000	0.596	0.612	0.773	0.840
Entering Leg	0	0	0	0	123	64	187	0	0	0	0	34	12	46	0	0	0	0	29	39	68	0	0	0	0	31	71	102	403
Exiting Leg							187							46							68							102	403
Total							374							92							136							204	806

PDI File #: **175472 EE**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	69	0	69	0	0	0	0	0	2	0	0	0	2	0	122	0	0	122	193
4:15 PM	1	0	79	0	80	0	0	0	0	0	1	0	0	0	1	0	125	0	0	125	206
4:30 PM	0	0	65	0	65	0	0	0	0	0	1	0	0	0	1	0	136	0	0	136	202
4:45 PM	0	0	95	0	95	0	0	0	0	0	0	0	0	0	0	0	146	0	0	146	241
Total	1	0	308	0	309	0	0	0	0	0	4	0	0	0	4	0	529	0	0	529	842
5:00 PM	0	0	83	0	83	0	0	0	0	0	2	0	0	0	2	0	142	0	0	142	227
5:15 PM	0	0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	128	0	0	128	209
5:30 PM	0	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	108	0	0	108	212
5:45 PM	0	0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	120	0	0	120	201
Total	0	0	349	0	349	0	0	0	0	0	2	0	0	0	2	0	498	0	0	498	849
Grand Total	1	0	657	0	658	0	0	0	0	0	6	0	0	0	6	0	1027	0	0	1027	1691
Approach %	0.15	0.00	99.85	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.06	0.00	38.85	0.00	38.91	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.35	0.00	60.73	0.00	0.00	60.73	
Exiting Leg Total					0					1690					0					1	1691
Cars	1	0	642	0	643	0	0	0	0	0	2	0	0	0	2	0	976	0	0	976	1621
% Cars	100.00	0.00	97.72	0.00	97.72	0.00	0.00	0.00	0.00	0.00	33.33	0.00	0.00	0.00	33.33	0.00	95.03	0.00	0.00	95.03	95.86
Exiting Leg Total					0					1620					0					1	1621
Heavy Vehicles	0	0	15	0	15	0	0	0	0	0	4	0	0	0	4	0	51	0	0	51	70
% Heavy Vehicles	0.00	0.00	2.28	0.00	2.28	0.00	0.00	0.00	0.00	0.00	66.67	0.00	0.00	0.00	66.67	0.00	4.97	0.00	0.00	4.97	4.14
Exiting Leg Total					0					70					0					0	70

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	95	0	95	0	0	0	0	0	0	0	0	0	0	0	146	0	0	146	241
5:00 PM	0	0	83	0	83	0	0	0	0	0	2	0	0	0	2	0	142	0	0	142	227
5:15 PM	0	0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	128	0	0	128	209
5:30 PM	0	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	108	0	0	108	212
Total Volume	0	0	363	0	363	0	0	0	0	0	2	0	0	0	2	0	524	0	0	524	889
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.873	0.000	0.873	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.897	0.000	0.000	0.897	0.922
Cars	0	0	355	0	355	0	0	0	0	0	1	0	0	0	1	0	495	0	0	495	851
Cars %	0.00	0.00	97.80	0.00	97.80	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	50.00	0.00	94.47	0.00	0.00	94.47	95.73
Heavy Vehicles	0	0	8	0	8	0	0	0	0	0	1	0	0	0	1	0	29	0	0	29	38
Heavy Vehicles %	0.00	0.00	2.20	0.00	2.20	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	50.00	0.00	5.53	0.00	0.00	5.53	4.27
Cars Enter Leg	0	0	355	0	355	0	0	0	0	0	1	0	0	0	1	0	495	0	0	495	851
Heavy Enter Leg	0	0	8	0	8	0	0	0	0	0	1	0	0	0	1	0	29	0	0	29	38
Total Entering Leg	0	0	363	0	363	0	0	0	0	0	2	0	0	0	2	0	524	0	0	524	889
Cars Exiting Leg					0					851					0					0	851
Heavy Exit Leg					0					38					0					0	38
Total Exiting Leg					0					889					0					0	889

PDI File #: **175472 EE**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	69	0	69	0	0	0	0	0	1	0	0	0	1	0	119	0	0	119	189
4:15 PM	1	0	77	0	78	0	0	0	0	0	0	0	0	0	0	0	118	0	0	118	196
4:30 PM	0	0	61	0	61	0	0	0	0	0	0	0	0	0	0	0	128	0	0	128	189
4:45 PM	0	0	90	0	90	0	0	0	0	0	0	0	0	0	0	0	138	0	0	138	228
Total	1	0	297	0	298	0	0	0	0	0	1	0	0	0	1	0	503	0	0	503	802
5:00 PM	0	0	81	0	81	0	0	0	0	0	1	0	0	0	1	0	135	0	0	135	217
5:15 PM	0	0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	120	0	0	120	201
5:30 PM	0	0	103	0	103	0	0	0	0	0	0	0	0	0	0	0	102	0	0	102	205
5:45 PM	0	0	80	0	80	0	0	0	0	0	0	0	0	0	0	0	116	0	0	116	196
Total	0	0	345	0	345	0	0	0	0	0	1	0	0	0	1	0	473	0	0	473	819
Grand Total	1	0	642	0	643	0	0	0	0	0	2	0	0	0	2	0	976	0	0	976	1621
Approach %	0.16	0.00	99.84	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.06	0.00	39.61	0.00	39.67	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.12	0.00	60.21	0.00	0.00	60.21	
Exiting Leg Total					0					1620					0					1	1621

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Gloucester Street					Boylston Street					Hynes Memorial Driveway					Boylston Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	90	0	90	0	0	0	0	0	0	0	0	0	0	0	138	0	0	138	228
5:00 PM	0	0	81	0	81	0	0	0	0	0	1	0	0	0	1	0	135	0	0	135	217
5:15 PM	0	0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	120	0	0	120	201
5:30 PM	0	0	103	0	103	0	0	0	0	0	0	0	0	0	0	0	102	0	0	102	205
Total Volume	0	0	355	0	355	0	0	0	0	0	1	0	0	0	1	0	495	0	0	495	851
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.862	0.000	0.862	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.897	0.000	0.000	0.897	0.933
Entering Leg	0	0	355	0	355	0	0	0	0	0	1	0	0	0	1	0	495	0	0	495	851
Exiting Leg					0					851					0					0	851
Total					355					851					1					495	1702

PDI File #: **175472 EE**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Gloucester Street (North)					Boylston Street (East)					Hynes Memorial Driveway (South)					Boylston Street (West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Interval Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	4
4:15 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	7	0	0	7	10
4:30 PM	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	8	0	0	8	13
4:45 PM	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	13
Total	0	0	11	0	11	0	0	0	0	0	3	0	0	0	3	0	26	0	0	26	40
5:00 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	7	0	0	7	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	8
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	7
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5
Total	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	25	0	0	25	30
Grand Total	0	0	15	0	15	0	0	0	0	0	4	0	0	0	4	0	51	0	0	51	70
Approach %	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	0.00	0.00	21.43	0.00	21.43	0.00	0.00	0.00	0.00	0.00	5.71	0.00	0.00	0.00	5.71	0.00	72.86	0.00	0.00	72.86	
Exiting Leg Total					0					70					0					0	70

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Gloucester Street (North)					Boylston Street (East)					Hynes Memorial Driveway (South)					Boylston Street (West)					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Interval Total
4:15 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	7	0	0	7	10
4:30 PM	0	0	4	0	4	0	0	0	0	0	1	0	0	0	1	0	8	0	0	8	13
4:45 PM	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	13
5:00 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	7	0	0	7	10
Total Volume	0	0	13	0	13	0	0	0	0	0	3	0	0	0	3	0	30	0	0	30	46
% Approach Total	0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		100.00	0.00	0.00	0.00		0.00	100.00	0.00	0.00		
PHF	0.000	0.000	0.650	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.000	0.938	0.000	0.000	0.938	0.885
Entering Leg	0	0	13	0	13	0	0	0	0	0	3	0	0	0	3	0	30	0	0	30	46
Exiting Leg					0					46					0					0	46
Total					13					46					3					30	92

PDI File #: **175472 EE**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Bicycles (on Roadway and Crosswalks)

	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	11
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3
5:15 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
Total	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1	0	10	16
Grand Total	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	1	0	20	27
Approach %	0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	95.0	0.0	0.0	5.0	0.0		
Total %	0.00	0.00	25.93	0.00	0.00	0.00	25.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	70.37	0.00	0.00	3.70	0.00	74.07	
Exiting Leg Total							0							26							0							1	27

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3
5:15 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	5
Total Volume	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1	0	10	16
% Approach Total	0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	90.0	0.0	0.0	10.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.450	0.000	0.000	0.250	0.000	0.500	0.800
Entering Leg	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1	0	10	16
Exiting Leg							0							15							0							1	16
Total							6							15							0							11	32

PDI File #: **175472 EE**
Location: **N: Gloucester Street S: Hynes Memorial Driveway**
Location: **E: Boylston Street W: Boylston Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	71	53	124	0	0	0	0	7	16	23	0	0	0	0	24	16	40	0	0	0	0	43	24	67	254
4:15 PM	0	0	0	0	68	58	126	0	0	0	0	11	9	20	0	0	0	0	54	27	81	0	0	0	0	61	27	88	315
4:30 PM	0	0	0	0	58	62	120	0	0	0	0	9	28	37	0	0	0	0	34	17	51	0	0	0	0	47	24	71	279
4:45 PM	0	0	0	0	64	64	128	0	0	0	0	2	12	14	0	0	0	0	39	22	61	0	0	0	0	62	33	95	298
Total	0	0	0	0	261	237	498	0	0	0	0	29	65	94	0	0	0	0	151	82	233	0	0	0	0	213	108	321	1146
5:00 PM	0	0	0	0	57	104	161	0	0	0	0	7	9	16	0	0	0	0	47	13	60	0	0	0	0	48	37	85	322
5:15 PM	0	0	0	0	87	88	175	0	0	0	0	8	21	29	0	0	0	0	58	17	75	0	0	0	0	76	22	98	377
5:30 PM	0	0	0	0	87	96	183	0	0	0	0	9	28	37	0	0	0	0	69	19	88	0	0	0	0	122	51	173	481
5:45 PM	0	0	0	0	62	81	143	0	0	0	0	10	14	24	0	0	0	0	78	23	101	0	0	0	0	84	61	145	413
Total	0	0	0	0	293	369	662	0	0	0	0	34	72	106	0	0	0	0	252	72	324	0	0	0	0	330	171	501	1593
Grand Total	0	0	0	0	554	606	1160	0	0	0	0	63	137	200	0	0	0	0	403	154	557	0	0	0	0	543	279	822	2739
Approach %	0.0	0.0	0.0	0.0	47.8	52.2		0.0	0.0	0.0	0.0	31.5	68.5		0.0	0.0	0.0	0.0	72.4	27.6		0.0	0.0	0.0	0.0	66.1	33.9		
Total %	0.00	0.00	0.00	0.00	20.23	22.12	42.35	0.00	0.00	0.00	0.00	2.30	5.00	7.30	0.00	0.00	0.00	0.00	14.71	5.62	20.34	0.00	0.00	0.00	0.00	19.82	10.19	30.01	
Exiting Leg Total							1160							200							557							822	2739

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street (North)							Boylston Street (East)							Hynes Memorial Driveway (South)							Boylston Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	57	104	161	0	0	0	0	7	9	16	0	0	0	0	47	13	60	0	0	0	0	48	37	85	322
5:15 PM	0	0	0	0	87	88	175	0	0	0	0	8	21	29	0	0	0	0	58	17	75	0	0	0	0	76	22	98	377
5:30 PM	0	0	0	0	87	96	183	0	0	0	0	9	28	37	0	0	0	0	69	19	88	0	0	0	0	122	51	173	481
5:45 PM	0	0	0	0	62	81	143	0	0	0	0	10	14	24	0	0	0	0	78	23	101	0	0	0	0	84	61	145	413
Total Volume	0	0	0	0	293	369	662	0	0	0	0	34	72	106	0	0	0	0	252	72	324	0	0	0	0	330	171	501	1593
% Approach Total	0.0	0.0	0.0	0.0	44.3	55.7		0.0	0.0	0.0	0.0	32.1	67.9		0.0	0.0	0.0	0.0	77.8	22.2		0.0	0.0	0.0	0.0	65.9	34.1		
PHF	0.000	0.000	0.000	0.000	0.842	0.887	0.904	0.000	0.000	0.000	0.000	0.850	0.643	0.716	0.000	0.000	0.000	0.000	0.808	0.783	0.802	0.000	0.000	0.000	0.000	0.676	0.701	0.724	0.828
Entering Leg	0	0	0	0	293	369	662	0	0	0	0	34	72	106	0	0	0	0	252	72	324	0	0	0	0	330	171	501	1593
Exiting Leg							662							106							324							501	1593
Total							1324							212							648							1002	3186

PDI File #: **175472 F**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	17	2	0	19	13	0	6	0	19	4	71	0	3	78	23	2	1	0	26	142
7:15 AM	0	16	4	0	20	14	0	5	0	19	5	98	0	1	104	31	5	0	0	36	179
7:30 AM	0	11	5	0	16	25	0	9	0	34	6	124	0	0	130	33	8	4	0	45	225
7:45 AM	0	16	1	0	17	18	0	8	0	26	6	102	0	0	108	29	5	1	0	35	186
Total	0	60	12	0	72	70	0	28	0	98	21	395	0	4	420	116	20	6	0	142	732
8:00 AM	0	18	5	1	24	18	0	8	0	26	7	100	0	0	107	44	10	2	0	56	213
8:15 AM	0	21	1	1	23	21	0	11	0	32	9	117	0	1	127	36	7	5	0	48	230
8:30 AM	0	13	6	0	19	22	0	15	0	37	9	97	0	0	106	38	5	1	0	44	206
8:45 AM	0	22	11	0	33	18	0	10	0	28	5	114	0	3	122	32	9	1	0	42	225
Total	0	74	23	2	99	79	0	44	0	123	30	428	0	4	462	150	31	9	0	190	874
Grand Total	0	134	35	2	171	149	0	72	0	221	51	823	0	8	882	266	51	15	0	332	1606
Approach %	0.00	78.36	20.47	1.17		67.42	0.00	32.58	0.00		5.78	93.31	0.00	0.91		80.12	15.36	4.52	0.00		
Total %	0.00	8.34	2.18	0.12	10.65	9.28	0.00	4.48	0.00	13.76	3.18	51.25	0.00	0.50	54.92	16.56	3.18	0.93	0.00	20.67	
Exiting Leg Total					989					137					480					0	1606
Cars	0	124	35	1	160	149	0	71	0	220	51	698	0	8	757	264	51	15	0	330	1467
% Cars	0.00	92.54	100.00	50.00	93.57	100.00	0.00	98.61	0.00	99.55	100.00	84.81	0.00	100.00	85.83	99.25	100.00	100.00	0.00	99.40	91.34
Exiting Leg Total					863					137					467					0	1467
Heavy Vehicles	0	10	0	1	11	0	0	1	0	1	0	125	0	0	125	2	0	0	0	2	139
% Heavy Vehicles	0.00	7.46	0.00	50.00	6.43	0.00	0.00	1.39	0.00	0.45	0.00	15.19	0.00	0.00	14.17	0.75	0.00	0.00	0.00	0.60	8.66
Exiting Leg Total					126					0					13					0	139

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	18	5	1	24	18	0	8	0	26	7	100	0	0	107	44	10	2	0	56	213
8:15 AM	0	21	1	1	23	21	0	11	0	32	9	117	0	1	127	36	7	5	0	48	230
8:30 AM	0	21	1	1	23	21	0	11	0	32	9	117	0	1	127	36	7	5	0	48	230
8:45 AM	0	22	11	0	33	18	0	10	0	28	5	114	0	3	122	32	9	1	0	42	225
Total Volume	0	82	18	3	103	78	0	40	0	118	30	448	0	5	483	148	33	13	0	194	898
% Approach Total	0.00	79.61	17.48	2.91		66.10	0.00	33.90	0.00		6.21	92.75	0.00	1.04		76.29	17.01	6.70	0.00		
PHF	0.000	0.932	0.409	0.750	0.780	0.929	0.000	0.909	0.000	0.922	0.833	0.957	0.000	0.417	0.951	0.841	0.825	0.650	0.000	0.866	0.976
Cars	0	73	18	1	92	78	0	39	0	117	30	372	0	5	407	147	33	13	0	193	809
Cars %	0.00	89.02	100.00	33.33	89.32	100.00	0.00	97.50	0.00	99.15	100.00	83.04	0.00	100.00	84.27	99.32	100.00	100.00	0.00	99.48	90.09
Heavy Vehicles	0	9	0	2	11	0	0	1	0	1	0	76	0	0	76	1	0	0	0	1	89
Heavy Vehicles %	0.00	10.98	0.00	66.67	10.68	0.00	0.00	2.50	0.00	0.85	0.00	16.96	0.00	0.00	15.73	0.68	0.00	0.00	0.00	0.52	9.91
Cars Enter Leg	0	73	18	1	92	78	0	39	0	117	30	372	0	5	407	147	33	13	0	193	809
Heavy Enter Leg	0	9	0	2	11	0	0	1	0	1	0	76	0	0	76	1	0	0	0	1	89
Total Entering Leg	0	82	18	3	103	78	0	40	0	118	30	448	0	5	483	148	33	13	0	194	898
Cars Exiting Leg					464					81					264					0	809
Heavy Exit Leg					78					0					11					0	89
Total Exiting Leg					542					81					275					0	898

PDI File #: **175472 F**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	17	2	0	19	13	0	6	0	19	4	63	0	3	70	23	2	1	0	26	134
7:15 AM	0	15	4	0	19	14	0	5	0	19	5	82	0	1	88	31	5	0	0	36	162
7:30 AM	0	11	5	0	16	25	0	9	0	34	6	103	0	0	109	33	8	4	0	45	204
7:45 AM	0	15	1	0	16	18	0	8	0	26	6	90	0	0	96	29	5	1	0	35	173
Total	0	58	12	0	70	70	0	28	0	98	21	338	0	4	363	116	20	6	0	142	673
8:00 AM	0	17	5	1	23	18	0	7	0	25	7	87	0	0	94	43	10	2	0	55	197
8:15 AM	0	18	1	0	19	21	0	11	0	32	9	95	0	1	105	36	7	5	0	48	204
8:30 AM	0	11	6	0	17	22	0	15	0	37	9	83	0	0	92	37	5	1	0	43	189
8:45 AM	0	20	11	0	31	18	0	10	0	28	5	95	0	3	103	32	9	1	0	42	204
Total	0	66	23	1	90	79	0	43	0	122	30	360	0	4	394	148	31	9	0	188	794
Grand Total	0	124	35	1	160	149	0	71	0	220	51	698	0	8	757	264	51	15	0	330	1467
Approach %	0.00	77.50	21.88	0.63		67.73	0.00	32.27	0.00		6.74	92.21	0.00	1.06		80.00	15.45	4.55	0.00		
Total %	0.00	8.45	2.39	0.07	10.91	10.16	0.00	4.84	0.00	15.00	3.48	47.58	0.00	0.55	51.60	18.00	3.48	1.02	0.00	22.49	
Exiting Leg Total					863					137					467					0	1467

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	17	5	1	23	18	0	7	0	25	7	87	0	0	94	43	10	2	0	55	197
8:15 AM	0	18	1	0	19	21	0	11	0	32	9	95	0	1	105	36	7	5	0	48	204
8:30 AM	0	11	6	0	17	22	0	15	0	37	9	83	0	0	92	37	5	1	0	43	189
8:45 AM	0	20	11	0	31	18	0	10	0	28	5	95	0	3	103	32	9	1	0	42	204
Total Volume	0	66	23	1	90	79	0	43	0	122	30	360	0	4	394	148	31	9	0	188	794
% Approach Total	0.00	73.33	25.56	1.11		64.75	0.00	35.25	0.00		7.61	91.37	0.00	1.02		78.72	16.49	4.79	0.00		
PHF	0.000	0.825	0.523	0.250	0.726	0.898	0.000	0.717	0.000	0.824	0.833	0.947	0.000	0.333	0.938	0.860	0.775	0.450	0.000	0.855	0.973
Entering Leg	0	66	23	1	90	79	0	43	0	122	30	360	0	4	394	148	31	9	0	188	794
Exiting Leg					449					84					261					0	794
Total					539					206					655					188	1588

PDI File #: **175472 F**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	8
7:15 AM	0	1	0	0	1	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	17
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	21
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	13
Total	0	2	0	0	2	0	0	0	0	0	0	57	0	0	57	0	0	0	0	0	59
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	13	0	0	13	1	0	0	0	1	16
8:15 AM	0	3	0	1	4	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	26
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	17
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	21
Total	0	8	0	1	9	0	0	1	0	1	0	68	0	0	68	2	0	0	0	2	80
Grand Total	0	10	0	1	11	0	0	1	0	1	0	125	0	0	125	2	0	0	0	2	139
Approach %	0.00	90.91	0.00	9.09		0.00	0.00	100.00	0.00		0.00	100.00	0.00	0.00		100.00	0.00	0.00	0.00		
Total %	0.00	7.19	0.00	0.72	7.91	0.00	0.00	0.72	0.00	0.72	0.00	89.93	0.00	0.00	89.93	1.44	0.00	0.00	0.00	1.44	
Exiting Leg Total					126					0					13					0	139

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	1	0	0	1	0	0	1	0	1	0	13	0	0	13	1	0	0	0	1	16
8:15 AM	0	3	0	1	4	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	26
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	17
8:45 AM	0	2	0	0	2	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	21
Total Volume	0	8	0	1	9	0	0	1	0	1	0	68	0	0	68	2	0	0	0	2	80
% Approach Total	0.00	88.89	0.00	11.11		0.00	0.00	100.00	0.00		0.00	100.00	0.00	0.00		100.00	0.00	0.00	0.00		
PHF	0.000	0.667	0.000	0.250	0.563	0.000	0.000	0.250	0.000	0.250	0.000	0.773	0.000	0.000	0.773	0.500	0.000	0.000	0.000	0.500	0.769
Entering Leg	0	8	0	1	9	0	0	1	0	1	0	68	0	0	68	2	0	0	0	2	80
Exiting Leg					69					0					11					0	80
Total					78					1					79					2	160

PDI File #: **175472 F**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 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	0	0	0	0
7:15 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	0	0	0	0
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	1	5
Total	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	1	6
8:00 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	0	0	0	0
8:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
8:30 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	0	1	6
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
Total	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	3	5	0	0	0	0	0	5	12
Grand Total	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	5	0	0	0	0	5	6	0	0	0	0	0	6	18
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.00	38.89	0.00	0.00	0.00	0.00	38.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.78	0.00	0.00	0.00	0.00	27.78	33.33	0.00	0.00	0.00	0.00	0.00	33.33	
Exiting Leg Total							5							0							13							0	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	1	5
8:00 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	0	0	0	0
8:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3
8:30 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	0	1	6
Total Volume	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	5	0	0	0	0	5	3	0	0	0	0	0	3	14
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.417	0.750	0.000	0.000	0.000	0.000	0.000	0.750	0.583
Entering Leg	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	5	0	0	0	0	5	3	0	0	0	0	0	3	14
Exiting Leg							5							0							9							0	14
Total							11							0							14							3	28

PDI File #: **175472 F**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	17	4	21	0	0	0	0	2	12	14	0	0	0	0	5	4	9	45
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	11	8	19	0	0	0	0	3	6	9	0	0	0	0	4	7	11	39
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	23	11	34	0	0	0	0	5	15	20	0	0	0	0	7	11	18	73
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	34	9	43	0	0	0	0	4	21	25	0	0	0	0	7	12	19	88
Total	0	0	0	0	3	0	3	0	0	0	0	85	32	117	0	0	0	0	14	54	68	0	0	0	0	23	34	57	245
8:00 AM	0	0	0	0	3	1	4	0	0	0	0	35	12	47	0	0	0	0	0	30	30	0	0	0	0	4	19	23	104
8:15 AM	0	0	0	0	0	2	2	0	0	0	0	38	8	46	0	0	0	0	4	32	36	0	0	0	0	2	21	23	107
8:30 AM	0	0	0	0	3	0	3	0	0	0	0	43	16	59	0	0	0	0	2	34	36	0	0	0	0	3	16	19	117
8:45 AM	0	0	0	0	3	0	3	0	0	0	0	47	13	60	0	0	0	0	7	42	49	0	0	0	0	13	22	35	147
Total	0	0	0	0	9	3	12	0	0	0	0	163	49	212	0	0	0	0	13	138	151	0	0	0	0	22	78	100	475
Grand Total	0	0	0	0	12	3	15	0	0	0	0	248	81	329	0	0	0	0	27	192	219	0	0	0	0	45	112	157	720
Approach %	0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	0.0	0.0	75.4	24.6		0.0	0.0	0.0	0.0	12.3	87.7		0.0	0.0	0.0	0.0	28.7	71.3		
Total %	0.00	0.00	0.00	0.00	1.67	0.42	2.08	0.00	0.00	0.00	0.00	34.44	11.25	45.69	0.00	0.00	0.00	0.00	3.75	26.67	30.42	0.00	0.00	0.00	0.00	6.25	15.56	21.81	
Exiting Leg Total							15							329							219							157	720

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	3	1	4	0	0	0	0	35	12	47	0	0	0	0	0	30	30	0	0	0	0	4	19	23	104
8:15 AM	0	0	0	0	0	2	2	0	0	0	0	38	8	46	0	0	0	0	4	32	36	0	0	0	0	2	21	23	107
8:30 AM	0	0	0	0	3	0	3	0	0	0	0	43	16	59	0	0	0	0	2	34	36	0	0	0	0	3	16	19	117
8:45 AM	0	0	0	0	3	0	3	0	0	0	0	47	13	60	0	0	0	0	7	42	49	0	0	0	0	13	22	35	147
Total Volume	0	0	0	0	9	3	12	0	0	0	0	163	49	212	0	0	0	0	13	138	151	0	0	0	0	22	78	100	475
% Approach Total	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	76.9	23.1		0.0	0.0	0.0	0.0	8.6	91.4		0.0	0.0	0.0	0.0	22.0	78.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.375	0.750	0.000	0.000	0.000	0.000	0.867	0.766	0.883	0.000	0.000	0.000	0.000	0.464	0.821	0.770	0.000	0.000	0.000	0.000	0.423	0.886	0.714	0.808
Entering Leg	0	0	0	0	9	3	12	0	0	0	0	163	49	212	0	0	0	0	13	138	151	0	0	0	0	22	78	100	475
Exiting Leg							12							212							151							100	475
Total							24							424							302							200	950

PDI File #: **175472 FF**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	14	1	0	15	21	0	17	0	38	2	107	0	0	109	47	4	4	0	55	217
4:15 PM	0	19	0	0	19	25	0	12	0	37	1	112	0	2	115	34	1	6	0	41	212
4:30 PM	0	15	0	0	15	47	0	13	0	60	2	109	0	0	111	46	1	0	0	47	233
4:45 PM	0	18	0	0	18	23	0	9	0	32	2	107	0	0	109	37	2	5	0	44	203
Total	0	66	1	0	67	116	0	51	0	167	7	435	0	2	444	164	8	15	0	187	865
5:00 PM	0	17	0	0	17	39	0	11	0	50	0	122	0	0	122	43	2	2	0	47	236
5:15 PM	0	28	3	0	31	38	0	11	0	49	3	117	0	1	121	31	1	4	0	36	237
5:30 PM	0	12	1	0	13	47	0	19	0	66	2	117	0	0	119	40	2	2	0	44	242
5:45 PM	0	20	0	0	20	47	0	16	0	63	1	128	0	1	130	47	0	2	0	49	262
Total	0	77	4	0	81	171	0	57	0	228	6	484	0	2	492	161	5	10	0	176	977
Grand Total	0	143	5	0	148	287	0	108	0	395	13	919	0	4	936	325	13	25	0	363	1842
Approach %	0.00	96.62	3.38	0.00		72.66	0.00	27.34	0.00		1.39	98.18	0.00	0.43		89.53	3.58	6.89	0.00		
Total %	0.00	7.76	0.27	0.00	8.03	15.58	0.00	5.86	0.00	21.44	0.71	49.89	0.00	0.22	50.81	17.64	0.71	1.36	0.00	19.71	
Exiting Leg Total					1231					31					580					0	1842
Cars	0	133	5	0	138	287	0	106	0	393	13	859	0	4	876	320	13	25	0	358	1765
% Cars	0.00	93.01	100.00	0.00	93.24	100.00	0.00	98.15	0.00	99.49	100.00	93.47	0.00	100.00	93.59	98.46	100.00	100.00	0.00	98.62	95.82
Exiting Leg Total					1171					31					563					0	1765
Heavy Vehicles	0	10	0	0	10	0	0	2	0	2	0	60	0	0	60	5	0	0	0	5	77
% Heavy Vehicles	0.00	6.99	0.00	0.00	6.76	0.00	0.00	1.85	0.00	0.51	0.00	6.53	0.00	0.00	6.41	1.54	0.00	0.00	0.00	1.38	4.18
Exiting Leg Total					60					0					17					0	77

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street					Parking Garage Access					Dalton Street					Scotia Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	17	0	0	17	39	0	11	0	50	0	122	0	0	122	43	2	2	0	47	236
5:15 PM	0	28	3	0	31	38	0	11	0	49	3	117	0	1	121	31	1	4	0	36	237
5:30 PM	0	12	1	0	13	47	0	19	0	66	2	117	0	0	119	40	2	2	0	44	242
5:45 PM	0	20	0	0	20	47	0	16	0	63	1	128	0	1	130	47	0	2	0	49	262
Total Volume	0	77	4	0	81	171	0	57	0	228	6	484	0	2	492	161	5	10	0	176	977
% Approach Total	0.00	95.06	4.94	0.00		75.00	0.00	25.00	0.00		1.22	98.37	0.00	0.41		91.48	2.84	5.68	0.00		
PHF	0.000	0.688	0.333	0.000	0.653	0.910	0.000	0.750	0.000	0.864	0.500	0.945	0.000	0.500	0.946	0.856	0.625	0.625	0.000	0.898	0.932
Cars	0	74	4	0	78	171	0	57	0	228	6	457	0	2	465	157	5	10	0	172	943
Cars %	0.00	96.10	100.00	0.00	96.30	100.00	0.00	100.00	0.00	100.00	100.00	94.42	0.00	100.00	94.51	97.52	100.00	100.00	0.00	97.73	96.52
Heavy Vehicles	0	3	0	0	3	0	0	0	0	0	0	27	0	0	27	4	0	0	0	4	34
Heavy Vehicles %	0.00	3.90	0.00	0.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00	5.58	0.00	0.00	5.49	2.48	0.00	0.00	0.00	2.27	3.48
Cars Enter Leg	0	74	4	0	78	171	0	57	0	228	6	457	0	2	465	157	5	10	0	172	943
Heavy Enter Leg	0	3	0	0	3	0	0	0	0	0	0	27	0	0	27	4	0	0	0	4	34
Total Entering Leg	0	77	4	0	81	171	0	57	0	228	6	484	0	2	492	161	5	10	0	176	977
Cars Exiting Leg					638					15					290					0	943
Heavy Exit Leg					27					0					7					0	34
Total Exiting Leg					665					15					297					0	977

PDI File #: **175472 FF**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dalton Street (North)					Parking Garage Access (East)					Dalton Street (South)					Scotia Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	11	1	0	12	21	0	17	0	38	2	100	0	0	102	47	4	4	0	55	207
4:15 PM	0	17	0	0	17	25	0	11	0	36	1	100	0	2	103	34	1	6	0	41	197
4:30 PM	0	15	0	0	15	47	0	12	0	59	2	102	0	0	104	46	1	0	0	47	225
4:45 PM	0	16	0	0	16	23	0	9	0	32	2	100	0	0	102	36	2	5	0	43	193
Total	0	59	1	0	60	116	0	49	0	165	7	402	0	2	411	163	8	15	0	186	822
5:00 PM	0	16	0	0	16	39	0	11	0	50	0	113	0	0	113	42	2	2	0	46	225
5:15 PM	0	28	3	0	31	38	0	11	0	49	3	111	0	1	115	30	1	4	0	35	230
5:30 PM	0	12	1	0	13	47	0	19	0	66	2	109	0	0	111	39	2	2	0	43	233
5:45 PM	0	18	0	0	18	47	0	16	0	63	1	124	0	1	126	46	0	2	0	48	255
Total	0	74	4	0	78	171	0	57	0	228	6	457	0	2	465	157	5	10	0	172	943
Grand Total	0	133	5	0	138	287	0	106	0	393	13	859	0	4	876	320	13	25	0	358	1765
Approach %	0.00	96.38	3.62	0.00		73.03	0.00	26.97	0.00		1.48	98.06	0.00	0.46		89.39	3.63	6.98	0.00		
Total %	0.00	7.54	0.28	0.00	7.82	16.26	0.00	6.01	0.00	22.27	0.74	48.67	0.00	0.23	49.63	18.13	0.74	1.42	0.00	20.28	
Exiting Leg Total					1171					31					563					0	1765

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street (North)					Parking Garage Access (East)					Dalton Street (South)					Scotia Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	16	0	0	16	39	0	11	0	50	0	113	0	0	113	42	2	2	0	46	225
5:15 PM	0	28	3	0	31	38	0	11	0	49	3	111	0	1	115	30	1	4	0	35	230
5:30 PM	0	12	1	0	13	47	0	19	0	66	2	109	0	0	111	39	2	2	0	43	233
5:45 PM	0	18	0	0	18	47	0	16	0	63	1	124	0	1	126	46	0	2	0	48	255
Total Volume	0	74	4	0	78	171	0	57	0	228	6	457	0	2	465	157	5	10	0	172	943
% Approach Total	0.00	94.87	5.13	0.00		75.00	0.00	25.00	0.00		1.29	98.28	0.00	0.43		91.28	2.91	5.81	0.00		
PHF	0.000	0.661	0.333	0.000	0.629	0.910	0.000	0.750	0.000	0.864	0.500	0.921	0.000	0.500	0.923	0.853	0.625	0.625	0.000	0.896	0.925
Entering Leg	0	74	4	0	78	171	0	57	0	228	6	457	0	2	465	157	5	10	0	172	943
Exiting Leg					638					15					290					0	943
Total					716					243					755					172	1886

PDI File #: **175472 FF**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Dalton Street (North)					Parking Garage Access (East)					Dalton Street (South)					Scotia Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	10
4:15 PM	0	2	0	0	2	0	0	1	0	1	0	12	0	0	12	0	0	0	0	0	15
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	8
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	10
Total	0	7	0	0	7	0	0	2	0	2	0	33	0	0	33	1	0	0	0	1	43
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	11
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	1	0	0	0	1	9
5:45 PM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	7
Total	0	3	0	0	3	0	0	0	0	0	0	27	0	0	27	4	0	0	0	4	34
Grand Total	0	10	0	0	10	0	0	2	0	2	0	60	0	0	60	5	0	0	0	5	77
Approach %	0.00	100.00	0.00	0.00		0.00	0.00	100.00	0.00		0.00	100.00	0.00	0.00		100.00	0.00	0.00	0.00		
Total %	0.00	12.99	0.00	0.00	12.99	0.00	0.00	2.60	0.00	2.60	0.00	77.92	0.00	0.00	77.92	6.49	0.00	0.00	0.00	6.49	
Exiting Leg Total					60					0					17					0	77

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Dalton Street (North)					Parking Garage Access (East)					Dalton Street (South)					Scotia Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	0	2	0	0	2	0	0	1	0	1	0	12	0	0	12	0	0	0	0	0	15
4:30 PM	0	0	0	0	0	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	8
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	10
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	11
Total Volume	0	5	0	0	5	0	0	2	0	2	0	35	0	0	35	2	0	0	0	2	44
% Approach Total	0.00	100.00	0.00	0.00		0.00	0.00	100.00	0.00		0.00	100.00	0.00	0.00		100.00	0.00	0.00	0.00		
PHF	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.500	0.000	0.500	0.000	0.729	0.000	0.000	0.729	0.500	0.000	0.000	0.000	0.500	0.733
Entering Leg	0	5	0	0	5	0	0	2	0	2	0	35	0	0	35	2	0	0	0	2	44
Exiting Leg					35					0					9					0	44
Total					40					2					44					2	88

PDI File #: **175472 FF**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	2	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	4
4:15 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	0	0	0	0
4:30 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	3	0	0	0	0	5	0	1	0	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	2	4
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	0	1	5
Total	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	8	0	0	0	0	8	4	0	0	0	0	0	4	14
Grand Total	2	5	0	0	0	0	7	0	1	0	0	1	0	2	0	8	0	0	0	0	8	5	0	0	0	0	0	5	22
Approach %	28.6	71.4	0.0	0.0	0.0	0.0		0.0	50.0	0.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
Total %	9.09	22.73	0.00	0.00	0.00	0.00	31.82	0.00	4.55	0.00	0.00	4.55	0.00	9.09	0.00	36.36	0.00	0.00	0.00	0.00	36.36	22.73	0.00	0.00	0.00	0.00	0.00	22.73	
Exiting Leg Total							8							1							10							3	22

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	2	4
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	0	1	5
Total Volume	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	8	0	0	0	0	8	4	0	0	0	0	0	4	14
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.667	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.700
Entering Leg	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	8	0	0	0	0	8	4	0	0	0	0	0	4	14
Exiting Leg							8							0							6							0	14
Total							10							0							14							4	28

PDI File #: **175472 FF**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Parking Garage Access W: Scotia Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
4:00 PM	0	0	0	0	0	1	1	0	0	0	0	17	22	39	0	0	0	0	11	2	13	0	0	0	0	29	6	35	88
4:15 PM	0	0	0	0	2	0	2	0	0	0	0	9	20	29	0	0	0	0	10	5	15	0	0	0	0	13	2	15	61
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	17	11	28	0	0	0	0	4	2	6	0	0	0	0	20	5	25	59
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	19	15	34	0	0	0	0	15	7	22	0	0	0	0	20	9	29	86
Total	0	0	0	0	2	2	4	0	0	0	0	62	68	130	0	0	0	0	40	16	56	0	0	0	0	82	22	104	294
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	20	55	75	0	0	0	0	31	7	38	0	0	0	0	35	12	47	161
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	19	117	136	0	0	0	0	30	6	36	0	0	0	0	36	9	45	218
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	35	88	123	0	0	0	0	53	4	57	0	0	0	0	55	5	60	241
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	14	79	93	0	0	0	0	30	4	34	0	0	0	0	35	6	41	168
Total	0	0	0	0	1	2	3	0	0	0	0	88	339	427	0	0	0	0	144	21	165	0	0	0	0	161	32	193	788
Grand Total	0	0	0	0	3	4	7	0	0	0	0	150	407	557	0	0	0	0	184	37	221	0	0	0	0	243	54	297	1082
Approach %	0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	26.9	73.1		0.0	0.0	0.0	0.0	83.3	16.7		0.0	0.0	0.0	0.0	81.8	18.2		
Total %	0.00	0.00	0.00	0.00	0.28	0.37	0.65	0.00	0.00	0.00	0.00	13.86	37.62	51.48	0.00	0.00	0.00	0.00	17.01	3.42	20.43	0.00	0.00	0.00	0.00	22.46	4.99	27.45	
Exiting Leg Total							7							557							221							297	1082

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street (North)							Parking Garage Access (East)							Dalton Street (South)							Scotia Street (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Interval Total
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	20	55	75	0	0	0	0	31	7	38	0	0	0	0	35	12	47	161
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	19	117	136	0	0	0	0	30	6	36	0	0	0	0	36	9	45	218
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	35	88	123	0	0	0	0	53	4	57	0	0	0	0	55	5	60	241
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	14	79	93	0	0	0	0	30	4	34	0	0	0	0	35	6	41	168
Total Volume	0	0	0	0	1	2	3	0	0	0	0	88	339	427	0	0	0	0	144	21	165	0	0	0	0	161	32	193	788
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	20.6	79.4		0.0	0.0	0.0	0.0	87.3	12.7		0.0	0.0	0.0	0.0	83.4	16.6		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.750	0.000	0.000	0.000	0.000	0.629	0.724	0.785	0.000	0.000	0.000	0.000	0.679	0.750	0.724	0.000	0.000	0.000	0.000	0.732	0.667	0.804	0.817
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	88	339	427	0	0	0	0	144	21	165	0	0	0	0	161	32	193	788
Exiting Leg							3							427							165							193	788
Total							6							854							330							386	1576

PDI File #: **175472 G**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	1	43	0	50	81	16	3	0	100	0	0	1	0	1	0	0	0	0	0	151
7:15 AM	9	0	43	0	52	105	18	2	2	127	0	1	0	0	1	0	0	0	0	0	180
7:30 AM	4	0	49	0	53	130	28	0	0	158	0	0	0	0	0	0	0	0	0	0	211
7:45 AM	6	1	47	0	54	106	18	0	0	124	0	0	0	0	0	0	1	0	0	1	179
Total	25	2	182	0	209	422	80	5	2	509	0	1	1	0	2	0	1	0	0	1	721
8:00 AM	5	0	62	0	67	108	22	5	0	135	0	0	0	0	0	0	0	0	0	0	202
8:15 AM	1	1	65	0	67	127	22	1	0	150	0	0	0	0	0	0	0	0	0	0	217
8:30 AM	8	0	58	0	66	110	26	0	0	136	0	0	0	0	0	0	0	0	0	0	202
8:45 AM	7	0	58	1	66	124	30	5	2	161	0	0	0	0	0	0	0	0	0	0	227
Total	21	1	243	1	266	469	100	11	2	582	0	0	0	0	0	0	0	0	0	0	848
Grand Total	46	3	425	1	475	891	180	16	4	1091	0	1	1	0	2	0	1	0	0	1	1569
Approach %	9.68	0.63	89.47	0.21		81.67	16.50	1.47	0.37		0.00	50.00	50.00	0.00		0.00	100.00	0.00	0.00		
Total %	2.93	0.19	27.09	0.06	30.27	56.79	11.47	1.02	0.25	69.53	0.00	0.06	0.06	0.00	0.13	0.00	0.06	0.00	0.00	0.06	
Exiting Leg Total					893					430					19					227	1569
Cars	45	2	414	1	462	765	167	14	4	950	0	1	0	0	1	0	1	0	0	1	1414
% Cars	97.83	66.67	97.41	100.00	97.26	85.86	92.78	87.50	100.00	87.08	0.00	100.00	0.00	0.00	50.00	0.00	100.00	0.00	0.00	100.00	90.12
Exiting Leg Total					767					419					16					212	1414
Heavy Vehicles	1	1	11	0	13	126	13	2	0	141	0	0	1	0	1	0	0	0	0	0	155
% Heavy Vehicles	2.17	33.33	2.59	0.00	2.74	14.14	7.22	12.50	0.00	12.92	0.00	0.00	100.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	9.88
Exiting Leg Total					126					11					3					15	155

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	5	0	62	0	67	108	22	5	0	135	0	0	0	0	0	0	0	0	0	0	202
8:15 AM	1	1	65	0	67	127	22	1	0	150	0	0	0	0	0	0	0	0	0	0	217
8:30 AM	1	1	65	0	67	127	22	1	0	150	0	0	0	0	0	0	0	0	0	0	217
8:45 AM	7	0	58	1	66	124	30	5	2	161	0	0	0	0	0	0	0	0	0	0	227
Total Volume	14	2	250	1	267	486	96	12	2	596	0	0	0	0	0	0	0	0	0	0	863
% Approach Total	5.24	0.75	93.63	0.37		81.54	16.11	2.01	0.34		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.500	0.500	0.962	0.250	0.996	0.957	0.800	0.600	0.250	0.925	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.950
Cars	13	0	242	1	256	408	90	11	2	511	0	0	0	0	0	0	0	0	0	0	767
Cars %	92.86	0.00	96.80	100.00	95.88	83.95	93.75	91.67	100.00	85.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.88
Heavy Vehicles	1	2	8	0	11	78	6	1	0	85	0	0	0	0	0	0	0	0	0	0	96
Heavy Vehicles %	7.14	100.00	3.20	0.00	4.12	16.05	6.25	8.33	0.00	14.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.12
Cars Enter Leg	13	0	242	1	256	408	90	11	2	511	0	0	0	0	0	0	0	0	0	0	767
Heavy Enter Leg	1	2	8	0	11	78	6	1	0	85	0	0	0	0	0	0	0	0	0	0	96
Total Entering Leg	14	2	250	1	267	486	96	12	2	596	0	0	0	0	0	0	0	0	0	0	863
Cars Exiting Leg					409					244					11					103	767
Heavy Exit Leg					78					8					3					7	96
Total Exiting Leg					487					252					14					110	863

PDI File #: **175472 G**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	1	43	0	50	71	14	2	0	87	0	0	0	0	0	0	0	0	0	0	137
7:15 AM	9	0	42	0	51	89	17	2	2	110	0	1	0	0	1	0	0	0	0	0	162
7:30 AM	4	0	49	0	53	110	28	0	0	138	0	0	0	0	0	0	0	0	0	0	191
7:45 AM	6	1	46	0	53	95	15	0	0	110	0	0	0	0	0	0	1	0	0	1	164
Total	25	2	180	0	207	365	74	4	2	445	0	1	0	0	1	0	1	0	0	1	654
8:00 AM	5	0	59	0	64	96	20	4	0	120	0	0	0	0	0	0	0	0	0	0	184
8:15 AM	1	0	63	0	64	104	21	1	0	126	0	0	0	0	0	0	0	0	0	0	190
8:30 AM	8	0	55	0	63	96	24	0	0	120	0	0	0	0	0	0	0	0	0	0	183
8:45 AM	6	0	57	1	64	104	28	5	2	139	0	0	0	0	0	0	0	0	0	0	203
Total	20	0	234	1	255	400	93	10	2	505	0	0	0	0	0	0	0	0	0	0	760
Grand Total	45	2	414	1	462	765	167	14	4	950	0	1	0	0	1	0	1	0	0	1	1414
Approach %	9.74	0.43	89.61	0.22		80.53	17.58	1.47	0.42		0.00	100.00	0.00	0.00		0.00	100.00	0.00	0.00		
Total %	3.18	0.14	29.28	0.07	32.67	54.10	11.81	0.99	0.28	67.19	0.00	0.07	0.00	0.00	0.07	0.00	0.07	0.00	0.00	0.07	
Exiting Leg Total					767					419					16					212	1414

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	5	0	59	0	64	96	20	4	0	120	0	0	0	0	0	0	0	0	0	0	184
8:15 AM	1	0	63	0	64	104	21	1	0	126	0	0	0	0	0	0	0	0	0	0	190
8:30 AM	8	0	55	0	63	96	24	0	0	120	0	0	0	0	0	0	0	0	0	0	183
8:45 AM	6	0	57	1	64	104	28	5	2	139	0	0	0	0	0	0	0	0	0	0	203
Total Volume	20	0	234	1	255	400	93	10	2	505	0	0	0	0	0	0	0	0	0	0	760
% Approach Total	7.84	0.00	91.76	0.39		79.21	18.42	1.98	0.40		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.625	0.000	0.929	0.250	0.996	0.962	0.830	0.500	0.250	0.908	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.936
Entering Leg	20	0	234	1	255	400	93	10	2	505	0	0	0	0	0	0	0	0	0	0	760
Exiting Leg					401					236					10					113	760
Total					656					741					10					113	1520

PDI File #: **175472 G**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	10	2	1	0	13	0	0	1	0	1	0	0	0	0	0	14
7:15 AM	0	0	1	0	1	16	1	0	0	17	0	0	0	0	0	0	0	0	0	0	18
7:30 AM	0	0	0	0	0	20	0	0	0	20	0	0	0	0	0	0	0	0	0	0	20
7:45 AM	0	0	1	0	1	11	3	0	0	14	0	0	0	0	0	0	0	0	0	0	15
Total	0	0	2	0	2	57	6	1	0	64	0	0	1	0	1	0	0	0	0	0	67
8:00 AM	0	0	3	0	3	12	2	1	0	15	0	0	0	0	0	0	0	0	0	0	18
8:15 AM	0	1	2	0	3	23	1	0	0	24	0	0	0	0	0	0	0	0	0	0	27
8:30 AM	0	0	3	0	3	14	2	0	0	16	0	0	0	0	0	0	0	0	0	0	19
8:45 AM	1	0	1	0	2	20	2	0	0	22	0	0	0	0	0	0	0	0	0	0	24
Total	1	1	9	0	11	69	7	1	0	77	0	0	0	0	0	0	0	0	0	0	88
Grand Total	1	1	11	0	13	126	13	2	0	141	0	0	1	0	1	0	0	0	0	0	155
Approach %	7.69	7.69	84.62	0.00		89.36	9.22	1.42	0.00		0.00	0.00	100.00	0.00		0.00	0.00	0.00	0.00		
Total %	0.65	0.65	7.10	0.00	8.39	81.29	8.39	1.29	0.00	90.97	0.00	0.00	0.65	0.00	0.65	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					126					11					3					15	155

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	3	0	3	12	2	1	0	15	0	0	0	0	0	0	0	0	0	0	18
8:15 AM	0	1	2	0	3	23	1	0	0	24	0	0	0	0	0	0	0	0	0	0	27
8:30 AM	0	0	3	0	3	14	2	0	0	16	0	0	0	0	0	0	0	0	0	0	19
8:45 AM	1	0	1	0	2	20	2	0	0	22	0	0	0	0	0	0	0	0	0	0	24
Total Volume	1	1	9	0	11	69	7	1	0	77	0	0	0	0	0	0	0	0	0	0	88
% Approach Total	9.09	9.09	81.82	0.00		89.61	9.09	1.30	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.250	0.250	0.750	0.000	0.917	0.750	0.875	0.250	0.000	0.802	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.815
Entering Leg	1	1	9	0	11	69	7	1	0	77	0	0	0	0	0	0	0	0	0	0	88
Exiting Leg					69					9					2					8	88
Total					80					86					2					8	176

PDI File #: **175472 G**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	2	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	1	4	0	0	0	5	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	4	0	0	0	4	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	3	0	0	0	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	7
8:45 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
Total	0	0	12	0	0	0	12	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	0	2	19
Grand Total	0	1	16	0	0	0	17	5	2	0	0	0	0	7	0	0	0	0	0	0	0	0	2	0	0	0	0	2	26
Approach %	0.0	5.9	94.1	0.0	0.0	0.0		71.4	28.6	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.00	3.85	61.54	0.00	0.00	0.00	65.38	19.23	7.69	0.00	0.00	0.00	0.00	26.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	0.00	0.00	0.00	0.00	7.69	
Exiting Leg Total							5							18							1							2	26

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	4	0	0	0	4	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	3	0	0	0	3	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	7
8:45 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	4
Total Volume	0	0	12	0	0	0	12	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	0	2	19
% Approach Total	0.0	0.0	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.417	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.679
Entering Leg	0	0	12	0	0	0	12	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	0	2	19
Exiting Leg							5							14							0							0	19
Total							17							19							0							2	38

PDI File #: **175472 G**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	6	5	11	0	0	0	0	5	9	14	0	0	0	0	5	7	12	0	0	0	0	2	1	3	40
7:15 AM	0	0	0	0	7	12	19	0	0	0	0	11	6	17	0	0	0	0	0	2	2	0	0	0	0	0	2	2	40
7:30 AM	0	0	0	0	4	3	7	0	0	0	0	5	9	14	0	0	0	0	0	2	2	0	0	0	0	0	0	0	23
7:45 AM	0	0	0	0	11	11	22	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	1	6	29
Total	0	0	0	0	28	31	59	0	0	0	0	21	25	46	0	0	0	0	5	11	16	0	0	0	0	7	4	11	132
8:00 AM	0	0	0	0	11	7	18	0	0	0	0	4	9	13	0	0	0	0	2	5	7	0	0	0	0	4	4	8	46
8:15 AM	0	0	0	0	9	15	24	0	0	0	0	8	13	21	0	0	0	0	0	6	6	0	0	0	0	0	0	0	51
8:30 AM	0	0	0	0	19	13	32	0	0	0	0	2	17	19	0	0	0	0	0	8	8	0	0	0	0	1	0	1	60
8:45 AM	0	0	0	0	12	25	37	0	0	0	0	8	15	23	0	0	0	0	2	5	7	0	0	0	0	1	0	1	68
Total	0	0	0	0	51	60	111	0	0	0	0	22	54	76	0	0	0	0	4	24	28	0	0	0	0	6	4	10	225
Grand Total	0	0	0	0	79	91	170	0	0	0	0	43	79	122	0	0	0	0	9	35	44	0	0	0	0	13	8	21	357
Approach %	0.0	0.0	0.0	0.0	46.5	53.5		0.0	0.0	0.0	0.0	35.2	64.8		0.0	0.0	0.0	0.0	20.5	79.5		0.0	0.0	0.0	0.0	61.9	38.1		
Total %	0.00	0.00	0.00	0.00	22.13	25.49	47.62	0.00	0.00	0.00	0.00	12.04	22.13	34.17	0.00	0.00	0.00	0.00	2.52	9.80	12.32	0.00	0.00	0.00	0.00	3.64	2.24	5.88	
Exiting Leg Total							170							122							44							21	357

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	11	7	18	0	0	0	0	4	9	13	0	0	0	0	2	5	7	0	0	0	0	4	4	8	46
8:15 AM	0	0	0	0	9	15	24	0	0	0	0	8	13	21	0	0	0	0	0	6	6	0	0	0	0	0	0	0	51
8:30 AM	0	0	0	0	19	13	32	0	0	0	0	2	17	19	0	0	0	0	0	8	8	0	0	0	0	1	0	1	60
8:45 AM	0	0	0	0	12	25	37	0	0	0	0	8	15	23	0	0	0	0	2	5	7	0	0	0	0	1	0	1	68
Total Volume	0	0	0	0	51	60	111	0	0	0	0	22	54	76	0	0	0	0	4	24	28	0	0	0	0	6	4	10	225
% Approach Total	0.0	0.0	0.0	0.0	45.9	54.1		0.0	0.0	0.0	0.0	28.9	71.1		0.0	0.0	0.0	0.0	14.3	85.7		0.0	0.0	0.0	0.0	60.0	40.0		
PHF	0.000	0.000	0.000	0.000	0.671	0.600	0.750	0.000	0.000	0.000	0.000	0.688	0.794	0.826	0.000	0.000	0.000	0.000	0.500	0.750	0.875	0.000	0.000	0.000	0.000	0.375	0.250	0.313	0.827
Entering Leg	0	0	0	0	51	60	111	0	0	0	0	22	54	76	0	0	0	0	4	24	28	0	0	0	0	6	4	10	225
Exiting Leg							111							76							28							10	225
Total							222							152							56							20	450

PDI File #: **175472 GG**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	12	0	65	0	77	112	31	0	0	143	0	1	0	0	1	0	0	0	0	0	221
4:15 PM	6	2	57	0	65	113	20	2	0	135	1	0	0	0	1	0	0	0	0	0	201
4:30 PM	12	1	61	0	74	119	27	1	0	147	1	0	1	0	2	0	0	0	0	0	223
4:45 PM	8	0	51	0	59	108	22	1	0	131	0	0	0	0	0	0	0	0	0	0	190
Total	38	3	234	0	275	452	100	4	0	556	2	1	1	0	4	0	0	0	0	0	835
5:00 PM	7	0	68	0	75	121	25	1	0	147	0	0	0	0	0	0	0	0	0	0	222
5:15 PM	11	1	57	0	69	122	21	4	0	147	0	0	0	0	0	0	0	0	0	0	216
5:30 PM	4	0	70	0	74	114	23	1	0	138	1	1	0	0	2	0	0	0	0	0	214
5:45 PM	17	1	65	0	83	133	25	2	0	160	3	1	0	0	4	0	0	0	0	0	247
Total	39	2	260	0	301	490	94	8	0	592	4	2	0	0	6	0	0	0	0	0	899
Grand Total	77	5	494	0	576	942	194	12	0	1148	6	3	1	0	10	0	0	0	0	0	1734
Approach %	13.37	0.87	85.76	0.00		82.06	16.90	1.05	0.00		60.00	30.00	10.00	0.00		0.00	0.00	0.00	0.00		
Total %	4.44	0.29	28.49	0.00	33.22	54.33	11.19	0.69	0.00	66.21	0.35	0.17	0.06	0.00	0.58	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					945					500					17					272	1734
Cars	77	2	481	0	560	883	191	12	0	1086	6	3	1	0	10	0	0	0	0	0	1656
% Cars	100.00	40.00	97.37	0.00	97.22	93.74	98.45	100.00	0.00	94.60	100.00	100.00	100.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	95.50
Exiting Leg Total					886					487					14					269	1656
Heavy Vehicles	0	3	13	0	16	59	3	0	0	62	0	0	0	0	0	0	0	0	0	0	78
% Heavy Vehicles	0.00	60.00	2.63	0.00	2.78	6.26	1.55	0.00	0.00	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.50
Exiting Leg Total					59					13					3					3	78

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	7	0	68	0	75	121	25	1	0	147	0	0	0	0	0	0	0	0	0	0	222
5:15 PM	11	1	57	0	69	122	21	4	0	147	0	0	0	0	0	0	0	0	0	0	216
5:30 PM	4	0	70	0	74	114	23	1	0	138	1	1	0	0	2	0	0	0	0	0	214
5:45 PM	17	1	65	0	83	133	25	2	0	160	3	1	0	0	4	0	0	0	0	0	247
Total Volume	39	2	260	0	301	490	94	8	0	592	4	2	0	0	6	0	0	0	0	0	899
% Approach Total	12.96	0.66	86.38	0.00		82.77	15.88	1.35	0.00		66.67	33.33	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.574	0.500	0.929	0.000	0.907	0.921	0.940	0.500	0.000	0.925	0.333	0.500	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.910
Cars	39	0	255	0	294	462	93	8	0	563	4	2	0	0	6	0	0	0	0	0	863
Cars %	100.00	0.00	98.08	0.00	97.67	94.29	98.94	100.00	0.00	95.10	100.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	96.00
Heavy Vehicles	0	2	5	0	7	28	1	0	0	29	0	0	0	0	0	0	0	0	0	0	36
Heavy Vehicles %	0.00	100.00	1.92	0.00	2.33	5.71	1.06	0.00	0.00	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00
Cars Enter Leg	39	0	255	0	294	462	93	8	0	563	4	2	0	0	6	0	0	0	0	0	863
Heavy Enter Leg	0	2	5	0	7	28	1	0	0	29	0	0	0	0	0	0	0	0	0	0	36
Total Entering Leg	39	2	260	0	301	490	94	8	0	592	4	2	0	0	6	0	0	0	0	0	899
Cars Exiting Leg					464					259					8					132	863
Heavy Exit Leg					28					5					2					1	36
Total Exiting Leg					492					264					10					133	899

PDI File #: **175472 GG**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	12	0	62	0	74	103	31	0	0	134	0	1	0	0	1	0	0	0	0	0	209
4:15 PM	6	1	55	0	62	104	20	2	0	126	1	0	0	0	1	0	0	0	0	0	189
4:30 PM	12	1	60	0	73	112	26	1	0	139	1	0	1	0	2	0	0	0	0	0	214
4:45 PM	8	0	49	0	57	102	21	1	0	124	0	0	0	0	0	0	0	0	0	0	181
Total	38	2	226	0	266	421	98	4	0	523	2	1	1	0	4	0	0	0	0	0	793
5:00 PM	7	0	66	0	73	110	25	1	0	136	0	0	0	0	0	0	0	0	0	0	209
5:15 PM	11	0	57	0	68	115	21	4	0	140	0	0	0	0	0	0	0	0	0	0	208
5:30 PM	4	0	69	0	73	108	23	1	0	132	1	1	0	0	2	0	0	0	0	0	207
5:45 PM	17	0	63	0	80	129	24	2	0	155	3	1	0	0	4	0	0	0	0	0	239
Total	39	0	255	0	294	462	93	8	0	563	4	2	0	0	6	0	0	0	0	0	863
Grand Total	77	2	481	0	560	883	191	12	0	1086	6	3	1	0	10	0	0	0	0	0	1656
Approach %	13.75	0.36	85.89	0.00		81.31	17.59	1.10	0.00		60.00	30.00	10.00	0.00		0.00	0.00	0.00	0.00		
Total %	4.65	0.12	29.05	0.00	33.82	53.32	11.53	0.72	0.00	65.58	0.36	0.18	0.06	0.00	0.60	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					886					487					14					269	1656

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street					Belvidere Street					Dalton Street					Belvidere Street					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	7	0	66	0	73	110	25	1	0	136	0	0	0	0	0	0	0	0	0	0	209
5:15 PM	11	0	57	0	68	115	21	4	0	140	0	0	0	0	0	0	0	0	0	0	208
5:30 PM	4	0	69	0	73	108	23	1	0	132	1	1	0	0	2	0	0	0	0	0	207
5:45 PM	17	0	63	0	80	129	24	2	0	155	3	1	0	0	4	0	0	0	0	0	239
Total Volume	39	0	255	0	294	462	93	8	0	563	4	2	0	0	6	0	0	0	0	0	863
% Approach Total	13.27	0.00	86.73	0.00		82.06	16.52	1.42	0.00		66.67	33.33	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.574	0.000	0.924	0.000	0.919	0.895	0.930	0.500	0.000	0.908	0.333	0.500	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.903
Entering Leg	39	0	255	0	294	462	93	8	0	563	4	2	0	0	6	0	0	0	0	0	863
Exiting Leg					464					259					8					132	863
Total					758					822					14					132	1726

PDI File #: **175472 GG**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Dalton Street (North)					Belvidere Street (East)					Dalton Street (South)					Belvidere Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	3	0	3	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12
4:15 PM	0	1	2	0	3	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12
4:30 PM	0	0	1	0	1	7	1	0	0	8	0	0	0	0	0	0	0	0	0	0	9
4:45 PM	0	0	2	0	2	6	1	0	0	7	0	0	0	0	0	0	0	0	0	0	9
Total	0	1	8	0	9	31	2	0	0	33	0	0	0	0	0	0	0	0	0	0	42
5:00 PM	0	0	2	0	2	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	13
5:15 PM	0	1	0	0	1	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
5:30 PM	0	0	1	0	1	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	1	2	0	3	4	1	0	0	5	0	0	0	0	0	0	0	0	0	0	8
Total	0	2	5	0	7	28	1	0	0	29	0	0	0	0	0	0	0	0	0	0	36
Grand Total	0	3	13	0	16	59	3	0	0	62	0	0	0	0	0	0	0	0	0	0	78
Approach %	0.00	18.75	81.25	0.00		95.16	4.84	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		
Total %	0.00	3.85	16.67	0.00	20.51	75.64	3.85	0.00	0.00	79.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Exiting Leg Total					59					13					3					3	78

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Dalton Street (North)					Belvidere Street (East)					Dalton Street (South)					Belvidere Street (West)					Interval Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:15 PM	0	1	2	0	3	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	12
4:30 PM	0	0	1	0	1	7	1	0	0	8	0	0	0	0	0	0	0	0	0	0	9
4:45 PM	0	0	2	0	2	6	1	0	0	7	0	0	0	0	0	0	0	0	0	0	9
5:00 PM	0	0	2	0	2	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	13
Total Volume	0	1	7	0	8	33	2	0	0	35	0	0	0	0	0	0	0	0	0	0	43
% Approach Total	0.00	12.50	87.50	0.00		94.29	5.71	0.00	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		
PHF	0.000	0.250	0.875	0.000	0.667	0.750	0.500	0.000	0.000	0.795	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.827
Entering Leg	0	1	7	0	8	33	2	0	0	35	0	0	0	0	0	0	0	0	0	0	43
Exiting Leg					33					7					1					2	43
Total					41					42					1					2	86

PDI File #: **175472 GG**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
4:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	5	0	0	0	5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	7
5:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	2	0	1	0	3	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6
5:30 PM	0	0	1	0	0	0	1	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	0	2	0	0	0	2	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	0	5	0	1	0	6	9	3	0	0	0	0	12	0	0	0	0	0	0	0	0	1	0	0	0	0	1	19
Grand Total	0	0	10	0	1	0	11	9	4	0	0	0	0	13	0	0	0	0	0	0	0	0	2	0	0	0	0	2	26
Approach %	0.0	0.0	90.9	0.0	9.1	0.0		69.2	30.8	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.00	0.00	38.46	0.00	3.85	0.00	42.31	34.62	15.38	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	0.00	0.00	0.00	0.00	7.69	
Exiting Leg Total							10							12							0							4	26

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	2	0	1	0	3	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6
5:30 PM	0	0	1	0	0	0	1	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	0	2	0	0	0	2	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	0	5	0	1	0	6	9	3	0	0	0	0	12	0	0	0	0	0	0	0	0	1	0	0	0	0	1	19
% Approach Total	0.0	0.0	83.3	0.0	16.7	0.0		75.0	25.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.625	0.000	0.250	0.000	0.500	0.563	0.750	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.792
Entering Leg	0	0	5	0	1	0	6	9	3	0	0	0	0	12	0	0	0	0	0	0	0	0	1	0	0	0	0	1	19
Exiting Leg							10							6							0							3	19
Total							16							18							0							4	38

PDI File #: **175472 GG**
Location: **N: Dalton Street S: Dalton Street**
Location: **E: Belvidere Street W: Belvidere Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	14	21	35	0	0	0	0	16	11	27	0	0	0	0	1	2	3	0	0	0	0	2	4	6	71
4:15 PM	0	0	0	0	9	16	25	0	0	0	0	8	6	14	0	0	0	0	0	0	0	0	0	0	0	0	2	2	41
4:30 PM	0	0	0	0	8	23	31	0	0	0	0	8	10	18	0	0	0	0	1	2	3	0	0	0	0	4	0	4	56
4:45 PM	0	0	0	0	21	28	49	0	0	0	0	6	8	14	0	0	0	0	0	3	3	0	0	0	0	1	2	3	69
Total	0	0	0	0	52	88	140	0	0	0	0	38	35	73	0	0	0	0	2	7	9	0	0	0	0	7	8	15	237
5:00 PM	0	0	0	0	20	20	40	0	0	0	0	13	17	30	0	0	0	0	2	2	4	0	0	0	0	3	3	6	80
5:15 PM	0	0	0	0	34	19	53	0	0	0	0	13	10	23	0	0	0	0	2	1	3	0	0	0	0	2	1	3	82
5:30 PM	0	0	0	0	16	26	42	0	0	0	0	17	13	30	0	0	0	0	0	0	0	0	0	0	0	5	8	13	85
5:45 PM	0	0	0	0	19	26	45	0	0	0	0	20	13	33	0	0	0	0	0	0	0	0	0	0	0	1	6	7	85
Total	0	0	0	0	89	91	180	0	0	0	0	63	53	116	0	0	0	0	4	3	7	0	0	0	0	11	18	29	332
Grand Total	0	0	0	0	141	179	320	0	0	0	0	101	88	189	0	0	0	0	6	10	16	0	0	0	0	18	26	44	569
Approach %	0.0	0.0	0.0	0.0	44.1	55.9		0.0	0.0	0.0	0.0	53.4	46.6		0.0	0.0	0.0	0.0	37.5	62.5		0.0	0.0	0.0	0.0	40.9	59.1		
Total %	0.00	0.00	0.00	0.00	24.78	31.46	56.24	0.00	0.00	0.00	0.00	17.75	15.47	33.22	0.00	0.00	0.00	0.00	1.05	1.76	2.81	0.00	0.00	0.00	0.00	3.16	4.57	7.73	
Exiting Leg Total							320							189							16							44	569

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Dalton Street (North)							Belvidere Street (East)							Dalton Street (South)							Belvidere Street (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	20	20	40	0	0	0	0	13	17	30	0	0	0	0	2	2	4	0	0	0	0	3	3	6	80
5:15 PM	0	0	0	0	34	19	53	0	0	0	0	13	10	23	0	0	0	0	2	1	3	0	0	0	0	2	1	3	82
5:30 PM	0	0	0	0	16	26	42	0	0	0	0	17	13	30	0	0	0	0	0	0	0	0	0	0	0	5	8	13	85
5:45 PM	0	0	0	0	19	26	45	0	0	0	0	20	13	33	0	0	0	0	0	0	0	0	0	0	0	1	6	7	85
Total Volume	0	0	0	0	89	91	180	0	0	0	0	63	53	116	0	0	0	0	4	3	7	0	0	0	0	11	18	29	332
% Approach Total	0.0	0.0	0.0	0.0	49.4	50.6		0.0	0.0	0.0	0.0	54.3	45.7		0.0	0.0	0.0	0.0	57.1	42.9		0.0	0.0	0.0	0.0	37.9	62.1		
PHF	0.000	0.000	0.000	0.000	0.654	0.875	0.849	0.000	0.000	0.000	0.000	0.788	0.779	0.879	0.000	0.000	0.000	0.000	0.500	0.375	0.438	0.000	0.000	0.000	0.000	0.550	0.563	0.558	0.976
Entering Leg	0	0	0	0	89	91	180	0	0	0	0	63	53	116	0	0	0	0	4	3	7	0	0	0	0	11	18	29	332
Exiting Leg							180							116							7							29	332
Total							360							232							14							58	664

PDI File #: **175472 H**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	11	18	12	1	42	64	106	29	11	210	11	41	22	1	75	6	67	18	2	93	420
7:15 AM	10	12	13	2	37	76	121	31	6	234	9	51	17	0	77	10	83	22	2	117	465
7:30 AM	13	16	9	3	41	80	111	25	11	227	10	60	19	0	89	7	82	32	1	122	479
7:45 AM	10	22	12	0	44	71	128	32	13	244	12	60	15	0	87	12	82	30	3	127	502
Total	44	68	46	6	164	291	466	117	41	915	42	212	73	1	328	35	314	102	8	459	1866
8:00 AM	9	27	23	1	60	74	115	31	17	237	15	53	15	0	83	4	88	29	2	123	503
8:15 AM	16	20	12	3	51	82	102	39	24	247	18	57	12	0	87	4	85	38	3	130	515
8:30 AM	10	15	23	1	49	72	125	34	15	246	15	63	19	0	97	5	116	29	4	154	546
8:45 AM	11	18	30	2	61	86	169	44	19	318	15	54	13	0	82	11	97	34	2	144	605
Total	46	80	88	7	221	314	511	148	75	1048	63	227	59	0	349	24	386	130	11	551	2169
Grand Total	90	148	134	13	385	605	977	265	116	1963	105	439	132	1	677	59	700	232	19	1010	4035
Approach %	23.38	38.44	34.81	3.38		30.82	49.77	13.50	5.91		15.51	64.84	19.50	0.15		5.84	69.31	22.97	1.88		
Total %	2.23	3.67	3.32	0.32	9.54	14.99	24.21	6.57	2.87	48.65	2.60	10.88	3.27	0.02	16.78	1.46	17.35	5.75	0.47	25.03	
Exiting Leg Total					1289					1055					473					1218	4035
Cars	89	144	126	13	372	519	902	250	111	1782	102	425	127	1	655	58	672	191	19	940	3749
% Cars	98.89	97.30	94.03	100.00	96.62	85.79	92.32	94.34	95.69	90.78	97.14	96.81	96.21	100.00	96.75	98.31	96.00	82.33	100.00	93.07	92.91
Exiting Leg Total					1148					1011					453					1137	3749
Heavy Vehicles	1	4	8	0	13	86	75	15	5	181	3	14	5	0	22	1	28	41	0	70	286
% Heavy Vehicles	1.11	2.70	5.97	0.00	3.38	14.21	7.68	5.66	4.31	9.22	2.86	3.19	3.79	0.00	3.25	1.69	4.00	17.67	0.00	6.93	7.09
Exiting Leg Total					141					44					20					81	286

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	9	27	23	1	60	74	115	31	17	237	15	53	15	0	83	4	88	29	2	123	503
8:15 AM	16	20	12	3	51	82	102	39	24	247	18	57	12	0	87	4	85	38	3	130	515
8:30 AM	16	20	12	3	51	82	102	39	24	247	18	57	12	0	87	4	85	38	3	130	515
8:45 AM	11	18	30	2	61	86	169	44	19	318	15	54	13	0	82	11	97	34	2	144	605
Total Volume	52	85	77	9	223	324	488	153	84	1049	66	221	52	0	339	23	355	139	10	527	2138
% Approach Total	23.32	38.12	34.53	4.04		30.89	46.52	14.59	8.01		19.47	65.19	15.34	0.00		4.36	67.36	26.38	1.90		
PHF	0.813	0.787	0.642	0.750	0.914	0.942	0.722	0.869	0.875	0.825	0.917	0.969	0.867	0.000	0.974	0.523	0.915	0.914	0.833	0.915	0.883
Cars	52	81	70	9	212	277	453	148	76	954	63	213	51	0	327	22	347	113	10	492	1985
Cars %	100.00	95.29	90.91	100.00	95.07	85.49	92.83	96.73	90.48	90.94	95.45	96.38	98.08	0.00	96.46	95.65	97.75	81.29	100.00	93.36	92.84
Heavy Vehicles	0	4	7	0	11	47	35	5	8	95	3	8	1	0	12	1	8	26	0	35	153
Heavy Vehicles %	0.00	4.71	9.09	0.00	4.93	14.51	7.17	3.27	9.52	9.06	4.55	3.62	1.92	0.00	3.54	4.35	2.25	18.71	0.00	6.64	7.16
Cars Enter Leg	52	81	70	9	212	277	453	148	76	954	63	213	51	0	327	22	347	113	10	492	1985
Heavy Enter Leg	0	4	7	0	11	47	35	5	8	95	3	8	1	0	12	1	8	26	0	35	153
Total Entering Leg	52	85	77	9	223	324	488	153	84	1049	66	221	52	0	339	23	355	139	10	527	2138
Cars Exiting Leg					612					556					251					566	1985
Heavy Exit Leg					81					26					10					36	153
Total Exiting Leg					693					582					261					602	2138

PDI File #: **175472 H**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	10	18	12	1	41	53	92	27	11	183	11	40	22	1	74	6	64	13	2	85	383
7:15 AM	10	12	12	2	36	66	107	30	6	209	9	46	16	0	71	10	76	20	2	108	424
7:30 AM	13	16	9	3	41	66	102	23	11	202	10	59	18	0	87	7	81	26	1	115	445
7:45 AM	10	22	11	0	43	60	122	30	13	225	12	60	14	0	86	12	77	26	3	118	472
Total	43	68	44	6	161	245	423	110	41	819	42	205	70	1	318	35	298	85	8	426	1724
8:00 AM	9	26	21	1	57	64	106	30	15	215	15	51	15	0	81	4	85	25	2	116	469
8:15 AM	16	19	10	3	48	68	94	38	21	221	17	55	12	0	84	4	84	30	3	121	474
8:30 AM	10	14	22	1	47	65	120	30	15	230	14	62	18	0	94	5	111	23	4	143	514
8:45 AM	11	17	29	2	59	77	159	42	19	297	14	52	12	0	78	10	94	28	2	134	568
Total	46	76	82	7	211	274	479	140	70	963	60	220	57	0	337	23	374	106	11	514	2025
Grand Total	89	144	126	13	372	519	902	250	111	1782	102	425	127	1	655	58	672	191	19	940	3749
Approach %	23.92	38.71	33.87	3.49		29.12	50.62	14.03	6.23		15.57	64.89	19.39	0.15		6.17	71.49	20.32	2.02		
Total %	2.37	3.84	3.36	0.35	9.92	13.84	24.06	6.67	2.96	47.53	2.72	11.34	3.39	0.03	17.47	1.55	17.92	5.09	0.51	25.07	
Exiting Leg Total					1148					1011					453					1137	3749

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	9	26	21	1	57	64	106	30	15	215	15	51	15	0	81	4	85	25	2	116	469
8:15 AM	16	19	10	3	48	68	94	38	21	221	17	55	12	0	84	4	84	30	3	121	474
8:30 AM	10	14	22	1	47	65	120	30	15	230	14	62	18	0	94	5	111	23	4	143	514
8:45 AM	11	17	29	2	59	77	159	42	19	297	14	52	12	0	78	10	94	28	2	134	568
Total Volume	46	76	82	7	211	274	479	140	70	963	60	220	57	0	337	23	374	106	11	514	2025
% Approach Total	21.80	36.02	38.86	3.32		28.45	49.74	14.54	7.27		17.80	65.28	16.91	0.00		4.47	72.76	20.62	2.14		
PHF	0.719	0.731	0.707	0.583	0.894	0.890	0.753	0.833	0.833	0.811	0.882	0.887	0.792	0.000	0.896	0.575	0.842	0.883	0.688	0.899	0.891
Entering Leg	46	76	82	7	211	274	479	140	70	963	60	220	57	0	337	23	374	106	11	514	2025
Exiting Leg					607					586					239					593	2025
Total					818					1549					576					1107	4050

PDI File #: **175472 H**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	1	0	0	0	1	11	14	2	0	27	0	1	0	0	1	0	3	5	0	8	37
7:15 AM	0	0	1	0	1	10	14	1	0	25	0	5	1	0	6	0	7	2	0	9	41
7:30 AM	0	0	0	0	0	14	9	2	0	25	0	1	1	0	2	0	1	6	0	7	34
7:45 AM	0	0	1	0	1	11	6	2	0	19	0	0	1	0	1	0	5	4	0	9	30
Total	1	0	2	0	3	46	43	7	0	96	0	7	3	0	10	0	16	17	0	33	142
8:00 AM	0	1	2	0	3	10	9	1	2	22	0	2	0	0	2	0	3	4	0	7	34
8:15 AM	0	1	2	0	3	14	8	1	3	26	1	2	0	0	3	0	1	8	0	9	41
8:30 AM	0	1	1	0	2	7	5	4	0	16	1	1	1	0	3	0	5	6	0	11	32
8:45 AM	0	1	1	0	2	9	10	2	0	21	1	2	1	0	4	1	3	6	0	10	37
Total	0	4	6	0	10	40	32	8	5	85	3	7	2	0	12	1	12	24	0	37	144
Grand Total	1	4	8	0	13	86	75	15	5	181	3	14	5	0	22	1	28	41	0	70	286
Approach %	7.69	30.77	61.54	0.00		47.51	41.44	8.29	2.76		13.64	63.64	22.73	0.00		1.43	40.00	58.57	0.00		
Total %	0.35	1.40	2.80	0.00	4.55	30.07	26.22	5.24	1.75	63.29	1.05	4.90	1.75	0.00	7.69	0.35	9.79	14.34	0.00	24.48	
Exiting Leg Total					141					44					20					81	286

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	1	2	0	3	10	9	1	2	22	0	2	0	0	2	0	3	4	0	7	34
8:15 AM	0	1	2	0	3	14	8	1	3	26	1	2	0	0	3	0	1	8	0	9	41
8:30 AM	0	1	1	0	2	7	5	4	0	16	1	1	1	0	3	0	5	6	0	11	32
8:45 AM	0	1	1	0	2	9	10	2	0	21	1	2	1	0	4	1	3	6	0	10	37
Total Volume	0	4	6	0	10	40	32	8	5	85	3	7	2	0	12	1	12	24	0	37	144
% Approach Total	0.00	40.00	60.00	0.00		47.06	37.65	9.41	5.88		25.00	58.33	16.67	0.00		2.70	32.43	64.86	0.00		
PHF	0.000	1.000	0.750	0.000	0.833	0.714	0.800	0.500	0.417	0.817	0.750	0.875	0.500	0.000	0.750	0.250	0.600	0.750	0.000	0.841	0.878
Entering Leg	0	4	6	0	10	40	32	8	5	85	3	7	2	0	12	1	12	24	0	37	144
Exiting Leg					71					26					13					34	144
Total					81					111					25					71	288

PDI File #: **175472 H**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
7:45 AM	0	1	0	0	1	0	2	0	0	0	0	1	0	1	0	3	0	0	0	0	3	0	3	0	0	0	0	3	9
Total	0	2	0	0	1	1	4	0	1	0	0	1	0	2	0	4	0	0	0	0	4	0	5	0	0	0	0	5	15
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:15 AM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	4	0	0	0	0	4	0	5	0	0	0	0	5	12
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	0	1	2	1	0	0	0	0	0	1	0	2	1	0	0	0	3	0	3	0	0	0	0	3	9
Total	0	3	0	0	0	2	5	1	2	0	0	0	0	3	0	9	1	0	0	0	10	0	9	0	0	0	0	9	27
Grand Total	0	5	0	0	1	3	9	1	3	0	0	1	0	5	0	13	1	0	0	0	14	0	14	0	0	0	0	14	42
Approach %	0.0	55.6	0.0	0.0	11.1	33.3		20.0	60.0	0.0	0.0	20.0	0.0		0.0	92.9	7.1	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.00	11.90	0.00	0.00	2.38	7.14	21.43	2.38	7.14	0.00	0.00	2.38	0.00	11.90	0.00	30.95	2.38	0.00	0.00	0.00	33.33	0.00	33.33	0.00	0.00	0.00	0.00	33.33	
Exiting Leg Total							18							15							5							4	42

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	1	0	0	1	0	2	0	0	0	0	1	0	1	0	3	0	0	0	0	3	0	3	0	0	0	0	3	9
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:15 AM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	4	0	0	0	0	4	0	5	0	0	0	0	5	12
8:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0	0	0	4
Total Volume	0	3	0	0	1	1	5	0	2	0	0	1	0	3	0	10	0	0	0	0	10	0	9	0	0	0	0	9	27
% Approach Total	0.0	60.0	0.0	0.0	20.0	20.0		0.0	66.7	0.0	0.0	33.3	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.000	0.250	0.250	0.625	0.000	0.500	0.000	0.000	0.250	0.000	0.750	0.000	0.625	0.000	0.000	0.000	0.000	0.625	0.000	0.450	0.000	0.000	0.000	0.000	0.450	0.563
Entering Leg	0	3	0	0	1	1	5	0	2	0	0	1	0	3	0	10	0	0	0	0	10	0	9	0	0	0	0	9	27
Exiting Leg							12							10							3							2	27
Total							17							13							13							11	54

PDI File #: **175472 H**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	15	11	26	0	0	0	0	11	22	33	0	0	0	0	5	7	12	0	0	0	0	1	3	4	75
7:15 AM	0	0	0	0	18	28	46	0	0	0	0	12	31	43	0	0	0	0	6	9	15	0	0	0	0	7	2	9	113
7:30 AM	0	0	0	0	10	17	27	0	0	0	0	11	46	57	0	0	0	0	6	14	20	0	0	0	0	13	5	18	122
7:45 AM	0	0	0	0	17	12	29	0	0	0	0	18	38	56	0	0	0	0	11	24	35	0	0	0	0	7	6	13	133
Total	0	0	0	0	60	68	128	0	0	0	0	52	137	189	0	0	0	0	28	54	82	0	0	0	0	28	16	44	443
8:00 AM	0	0	0	0	20	23	43	0	0	0	0	8	47	55	0	0	0	0	12	13	25	0	0	0	0	21	4	25	148
8:15 AM	0	0	0	0	39	36	75	0	0	0	0	22	71	93	0	0	0	0	13	39	52	0	0	0	0	9	7	16	236
8:30 AM	0	0	0	0	43	31	74	0	0	0	0	27	66	93	0	0	0	0	11	31	42	0	0	0	0	21	7	28	237
8:45 AM	0	0	0	0	61	23	84	0	0	0	0	20	64	84	0	0	0	0	9	39	48	0	0	0	0	22	7	29	245
Total	0	0	0	0	163	113	276	0	0	0	0	77	248	325	0	0	0	0	45	122	167	0	0	0	0	73	25	98	866
Grand Total	0	0	0	0	223	181	404	0	0	0	0	129	385	514	0	0	0	0	73	176	249	0	0	0	0	101	41	142	1309
Approach %	0.0	0.0	0.0	0.0	55.2	44.8		0.0	0.0	0.0	0.0	25.1	74.9		0.0	0.0	0.0	0.0	29.3	70.7		0.0	0.0	0.0	0.0	71.1	28.9		
Total %	0.00	0.00	0.00	0.00	17.04	13.83	30.86	0.00	0.00	0.00	0.00	9.85	29.41	39.27	0.00	0.00	0.00	0.00	5.58	13.45	19.02	0.00	0.00	0.00	0.00	7.72	3.13	10.85	
Exiting Leg Total							404							514							249							142	1309

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	20	23	43	0	0	0	0	8	47	55	0	0	0	0	12	13	25	0	0	0	0	21	4	25	148
8:15 AM	0	0	0	0	39	36	75	0	0	0	0	22	71	93	0	0	0	0	13	39	52	0	0	0	0	9	7	16	236
8:30 AM	0	0	0	0	43	31	74	0	0	0	0	27	66	93	0	0	0	0	11	31	42	0	0	0	0	21	7	28	237
8:45 AM	0	0	0	0	61	23	84	0	0	0	0	20	64	84	0	0	0	0	9	39	48	0	0	0	0	22	7	29	245
Total Volume	0	0	0	0	163	113	276	0	0	0	0	77	248	325	0	0	0	0	45	122	167	0	0	0	0	73	25	98	866
% Approach Total	0.0	0.0	0.0	0.0	59.1	40.9		0.0	0.0	0.0	0.0	23.7	76.3		0.0	0.0	0.0	0.0	26.9	73.1		0.0	0.0	0.0	0.0	74.5	25.5		
PHF	0.000	0.000	0.000	0.000	0.668	0.785	0.821	0.000	0.000	0.000	0.000	0.713	0.873	0.874	0.000	0.000	0.000	0.000	0.865	0.782	0.803	0.000	0.000	0.000	0.000	0.830	0.893	0.845	0.884
Entering Leg	0	0	0	0	163	113	276	0	0	0	0	77	248	325	0	0	0	0	45	122	167	0	0	0	0	73	25	98	866
Exiting Leg							276							325							167							98	866
Total							552							650							334							196	1732

PDI File #: **175472 HH**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	25	27	0	57	86	133	34	16	269	3	37	12	0	52	9	90	28	3	130	508
4:15 PM	8	34	24	1	67	72	126	38	19	255	13	50	18	0	81	5	111	30	4	150	553
4:30 PM	14	40	18	0	72	84	137	46	23	290	19	42	13	0	74	10	84	35	6	135	571
4:45 PM	13	32	13	3	61	70	133	35	12	250	18	33	15	0	66	12	108	37	6	163	540
Total	40	131	82	4	257	312	529	153	70	1064	53	162	58	0	273	36	393	130	19	578	2172
5:00 PM	4	38	11	1	54	77	158	40	21	296	16	44	9	0	69	8	82	40	7	137	556
5:15 PM	16	28	25	2	71	83	173	47	17	320	25	47	19	0	91	6	113	34	6	159	641
5:30 PM	15	49	20	0	84	71	176	50	18	315	21	38	13	0	72	13	107	40	0	160	631
5:45 PM	18	45	16	0	79	89	147	52	14	302	20	52	15	0	87	5	83	36	0	124	592
Total	53	160	72	3	288	320	654	189	70	1233	82	181	56	0	319	32	385	150	13	580	2420
Grand Total	93	291	154	7	545	632	1183	342	140	2297	135	343	114	0	592	68	778	280	32	1158	4592
Approach %	17.06	53.39	28.26	1.28		27.51	51.50	14.89	6.09		22.80	57.94	19.26	0.00		5.87	67.18	24.18	2.76		
Total %	2.03	6.34	3.35	0.15	11.87	13.76	25.76	7.45	3.05	50.02	2.94	7.47	2.48	0.00	12.89	1.48	16.94	6.10	0.70	25.22	
Exiting Leg Total					1262					1207					701					1422	4592
Cars	90	283	148	7	528	600	1152	334	140	2226	132	336	112	0	580	68	761	252	32	1113	4447
% Cars	96.77	97.25	96.10	100.00	96.88	94.94	97.38	97.66	100.00	96.91	97.78	97.96	98.25	0.00	97.97	100.00	97.81	90.00	100.00	96.11	96.84
Exiting Leg Total					1195					1181					685					1386	4447
Heavy Vehicles	3	8	6	0	17	32	31	8	0	71	3	7	2	0	12	0	17	28	0	45	145
% Heavy Vehicles	3.23	2.75	3.90	0.00	3.12	5.06	2.62	2.34	0.00	3.09	2.22	2.04	1.75	0.00	2.03	0.00	2.19	10.00	0.00	3.89	3.16
Exiting Leg Total					67					26					16					36	145

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Belvidere Street					Huntington Avenue					West Newton Street					Huntington Avenue					
	North					East					South					West					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	4	38	11	1	54	77	158	40	21	296	16	44	9	0	69	8	82	40	7	137	556
5:15 PM	16	28	25	2	71	83	173	47	17	320	25	47	19	0	91	6	113	34	6	159	641
5:30 PM	15	49	20	0	84	71	176	50	18	315	21	38	13	0	72	13	107	40	0	160	631
5:45 PM	18	45	16	0	79	89	147	52	14	302	20	52	15	0	87	5	83	36	0	124	592
Total Volume	53	160	72	3	288	320	654	189	70	1233	82	181	56	0	319	32	385	150	13	580	2420
% Approach Total	18.40	55.56	25.00	1.04		25.95	53.04	15.33	5.68		25.71	56.74	17.55	0.00		5.52	66.38	25.86	2.24		
PHF	0.736	0.816	0.720	0.375	0.857	0.899	0.929	0.909	0.833	0.963	0.820	0.870	0.737	0.000	0.876	0.615	0.852	0.938	0.464	0.906	0.944
Cars	51	157	70	3	281	306	638	186	70	1200	80	176	56	0	312	32	379	137	13	561	2354
Cars %	96.23	98.13	97.22	100.00	97.57	95.63	97.55	98.41	100.00	97.32	97.56	97.24	100.00	0.00	97.81	100.00	98.44	91.33	100.00	96.72	97.27
Heavy Vehicles	2	3	2	0	7	14	16	3	0	33	2	5	0	0	7	0	6	13	0	19	66
Heavy Vehicles %	3.77	1.88	2.78	0.00	2.43	4.38	2.45	1.59	0.00	2.68	2.44	2.76	0.00	0.00	2.19	0.00	1.56	8.67	0.00	3.28	2.73
Cars Enter Leg	51	157	70	3	281	306	638	186	70	1200	80	176	56	0	312	32	379	137	13	561	2354
Heavy Enter Leg	2	3	2	0	7	14	16	3	0	33	2	5	0	0	7	0	6	13	0	19	66
Total Entering Leg	53	160	72	3	288	320	654	189	70	1233	82	181	56	0	319	32	385	150	13	580	2420
Cars Exiting Leg					622					599					375					758	2354
Heavy Exit Leg					32					10					6					18	66
Total Exiting Leg					654					609					381					776	2420

PDI File #: **175472 HH**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Belvidere Street (North)					Huntington Avenue (East)					West Newton Street (South)					Huntington Avenue (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	5	24	25	0	54	79	130	33	16	258	3	37	11	0	51	9	84	25	3	121	484
4:15 PM	8	32	22	1	63	67	121	36	19	243	12	50	18	0	80	5	111	26	4	146	532
4:30 PM	13	40	18	0	71	81	133	46	23	283	19	41	13	0	73	10	82	30	6	128	555
4:45 PM	13	30	13	3	59	67	130	33	12	242	18	32	14	0	64	12	105	34	6	157	522
Total	39	126	78	4	247	294	514	148	70	1026	52	160	56	0	268	36	382	115	19	552	2093
5:00 PM	4	37	11	1	53	71	157	39	21	288	15	43	9	0	67	8	80	34	7	129	537
5:15 PM	15	27	23	2	67	80	170	47	17	314	24	46	19	0	89	6	111	31	6	154	624
5:30 PM	15	49	20	0	84	67	170	49	18	304	21	38	13	0	72	13	105	37	0	155	615
5:45 PM	17	44	16	0	77	88	141	51	14	294	20	49	15	0	84	5	83	35	0	123	578
Total	51	157	70	3	281	306	638	186	70	1200	80	176	56	0	312	32	379	137	13	561	2354
Grand Total	90	283	148	7	528	600	1152	334	140	2226	132	336	112	0	580	68	761	252	32	1113	4447
Approach %	17.05	53.60	28.03	1.33		26.95	51.75	15.00	6.29		22.76	57.93	19.31	0.00		6.11	68.37	22.64	2.88		
Total %	2.02	6.36	3.33	0.16	11.87	13.49	25.91	7.51	3.15	50.06	2.97	7.56	2.52	0.00	13.04	1.53	17.11	5.67	0.72	25.03	
Exiting Leg Total					1195					1181					685					1386	4447

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Belvidere Street (North)					Huntington Avenue (East)					West Newton Street (South)					Huntington Avenue (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	4	37	11	1	53	71	157	39	21	288	15	43	9	0	67	8	80	34	7	129	537
5:15 PM	15	27	23	2	67	80	170	47	17	314	24	46	19	0	89	6	111	31	6	154	624
5:30 PM	15	49	20	0	84	67	170	49	18	304	21	38	13	0	72	13	105	37	0	155	615
5:45 PM	17	44	16	0	77	88	141	51	14	294	20	49	15	0	84	5	83	35	0	123	578
Total Volume	51	157	70	3	281	306	638	186	70	1200	80	176	56	0	312	32	379	137	13	561	2354
% Approach Total	18.15	55.87	24.91	1.07		25.50	53.17	15.50	5.83		25.64	56.41	17.95	0.00		5.70	67.56	24.42	2.32		
PHF	0.750	0.801	0.761	0.375	0.836	0.869	0.938	0.912	0.833	0.955	0.833	0.898	0.737	0.000	0.876	0.615	0.854	0.926	0.464	0.905	0.943
Entering Leg	51	157	70	3	281	306	638	186	70	1200	80	176	56	0	312	32	379	137	13	561	2354
Exiting Leg					622					599					375					758	2354
Total					903					1799					687					1319	4708

PDI File #: **175472 HH**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Belvidere Street (North)					Huntington Avenue (East)					West Newton Street (South)					Huntington Avenue (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	2	0	3	7	3	1	0	11	0	0	1	0	1	0	6	3	0	9	24
4:15 PM	0	2	2	0	4	5	5	2	0	12	1	0	0	0	1	0	0	4	0	4	21
4:30 PM	1	0	0	0	1	3	4	0	0	7	0	1	0	0	1	0	2	5	0	7	16
4:45 PM	0	2	0	0	2	3	3	2	0	8	0	1	1	0	2	0	3	3	0	6	18
Total	1	5	4	0	10	18	15	5	0	38	1	2	2	0	5	0	11	15	0	26	79
5:00 PM	0	1	0	0	1	6	1	1	0	8	1	1	0	0	2	0	2	6	0	8	19
5:15 PM	1	1	2	0	4	3	3	0	0	6	1	1	0	0	2	0	2	3	0	5	17
5:30 PM	0	0	0	0	0	4	6	1	0	11	0	0	0	0	0	0	2	3	0	5	16
5:45 PM	1	1	0	0	2	1	6	1	0	8	0	3	0	0	3	0	0	1	0	1	14
Total	2	3	2	0	7	14	16	3	0	33	2	5	0	0	7	0	6	13	0	19	66
Grand Total	3	8	6	0	17	32	31	8	0	71	3	7	2	0	12	0	17	28	0	45	145
Approach %	17.65	47.06	35.29	0.00		45.07	43.66	11.27	0.00		25.00	58.33	16.67	0.00		0.00	37.78	62.22	0.00		
Total %	2.07	5.52	4.14	0.00	11.72	22.07	21.38	5.52	0.00	48.97	2.07	4.83	1.38	0.00	8.28	0.00	11.72	19.31	0.00	31.03	
Exiting Leg Total					67					26					16					36	145

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Belvidere Street (North)					Huntington Avenue (East)					West Newton Street (South)					Huntington Avenue (West)					Interval
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	1	2	0	3	7	3	1	0	11	0	0	1	0	1	0	6	3	0	9	24
4:15 PM	0	2	2	0	4	5	5	2	0	12	1	0	0	0	1	0	0	4	0	4	21
4:30 PM	1	0	0	0	1	3	4	0	0	7	0	1	0	0	1	0	2	5	0	7	16
4:45 PM	0	2	0	0	2	3	3	2	0	8	0	1	1	0	2	0	3	3	0	6	18
Total Volume	1	5	4	0	10	18	15	5	0	38	1	2	2	0	5	0	11	15	0	26	79
% Approach Total	10.00	50.00	40.00	0.00		47.37	39.47	13.16	0.00		20.00	40.00	40.00	0.00		0.00	42.31	57.69	0.00		
PHF	0.250	0.625	0.500	0.000	0.625	0.643	0.750	0.625	0.000	0.792	0.250	0.500	0.500	0.000	0.625	0.000	0.458	0.750	0.000	0.722	0.823
Entering Leg	1	5	4	0	10	18	15	5	0	38	1	2	2	0	5	0	11	15	0	26	79
Exiting Leg					35					16					10					18	79
Total					45					54					15					44	158

PDI File #: **175472 HH**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	1	1	0	0	0	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	2	6
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	4	0	0	0	0	4	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	4	0	0	0	0	4	11
Total	1	8	0	0	0	0	9	1	4	0	0	0	0	5	0	2	0	0	0	0	2	0	6	0	0	0	0	6	22
5:00 PM	0	1	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	1	0	2	0	0	0	0	2	7
5:15 PM	0	4	0	0	0	0	4	1	0	0	0	0	0	1	0	2	0	0	0	0	2	1	0	0	0	0	0	1	8
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2	0	0	0	0	2	5
5:45 PM	0	3	0	0	0	0	3	0	3	0	0	0	0	3	0	1	0	0	0	0	1	0	1	0	0	0	0	1	8
Total	0	9	0	0	1	0	10	1	4	0	0	1	0	6	0	6	0	0	0	0	6	1	5	0	0	0	0	6	28
Grand Total	1	17	0	0	1	0	19	2	8	0	0	1	0	11	0	8	0	0	0	0	8	1	11	0	0	0	0	12	50
Approach %	5.3	89.5	0.0	0.0	5.3	0.0		18.2	72.7	0.0	0.0	9.1	0.0		0.0	100.0	0.0	0.0	0.0	0.0		8.3	91.7	0.0	0.0	0.0	0.0		
Total %	2.00	34.00	0.00	0.00	2.00	0.00	38.00	4.00	16.00	0.00	0.00	2.00	0.00	22.00	0.00	16.00	0.00	0.00	0.00	0.00	16.00	2.00	22.00	0.00	0.00	0.00	0.00	24.00	
Exiting Leg Total							11							12							18							9	50

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:45 PM	0	4	0	0	0	0	4	1	1	0	0	0	0	2	0	1	0	0	0	0	1	0	4	0	0	0	0	4	11
5:00 PM	0	1	0	0	1	0	2	0	1	0	0	1	0	2	0	1	0	0	0	0	1	0	2	0	0	0	0	2	7
5:15 PM	0	4	0	0	0	0	4	1	0	0	0	0	0	1	0	2	0	0	0	0	2	1	0	0	0	0	0	1	8
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	2	0	0	0	0	2	5
Total Volume	0	10	0	0	1	0	11	2	2	0	0	1	0	5	0	6	0	0	0	0	6	1	8	0	0	0	0	9	31
% Approach Total	0.0	90.9	0.0	0.0	9.1	0.0		40.0	40.0	0.0	0.0	20.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		11.1	88.9	0.0	0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.000	0.250	0.000	0.688	0.500	0.500	0.000	0.000	0.250	0.000	0.625	0.000	0.750	0.000	0.000	0.000	0.000	0.750	0.250	0.500	0.000	0.000	0.000	0.000	0.563	0.705
Entering Leg	0	10	0	0	1	0	11	2	2	0	0	1	0	5	0	6	0	0	0	0	6	1	8	0	0	0	0	9	31
Exiting Leg							9							9							11							2	31
Total							20							14							17							11	62

PDI File #: **175472 HH**
Location: **N: Belvidere Street S: West Newton Street**
Location: **E: Huntington Avenue W: Huntington Avenue**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **TBA**
Count Date: **Thursday, February 2, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	43	42	85	0	0	0	0	42	31	73	0	0	0	0	10	8	18	0	0	0	0	14	18	32	208
4:15 PM	0	0	0	0	40	58	98	0	0	0	0	33	39	72	0	0	0	0	21	25	46	0	0	0	0	4	12	16	232
4:30 PM	0	0	0	0	52	58	110	0	0	0	0	27	42	69	0	0	0	0	12	17	29	0	0	0	0	11	11	22	230
4:45 PM	0	0	0	0	45	55	100	0	0	0	0	50	36	86	0	0	0	0	21	29	50	0	0	0	0	6	14	20	256
Total	0	0	0	0	180	213	393	0	0	0	0	152	148	300	0	0	0	0	64	79	143	0	0	0	0	35	55	90	926
5:00 PM	0	0	0	0	72	96	168	0	0	0	0	72	35	107	0	0	0	0	38	16	54	0	0	0	0	14	15	29	358
5:15 PM	0	0	0	0	54	82	136	0	0	0	0	97	46	143	0	0	0	0	27	27	54	0	0	0	0	11	14	25	358
5:30 PM	0	0	0	0	50	101	151	0	0	0	0	75	37	112	0	0	0	0	32	24	56	0	0	0	0	9	13	22	341
5:45 PM	0	0	0	0	52	75	127	0	0	0	0	66	74	140	0	0	0	0	23	26	49	0	0	0	0	17	12	29	345
Total	0	0	0	0	228	354	582	0	0	0	0	310	192	502	0	0	0	0	120	93	213	0	0	0	0	51	54	105	1402
Grand Total	0	0	0	0	408	567	975	0	0	0	0	462	340	802	0	0	0	0	184	172	356	0	0	0	0	86	109	195	2328
Approach %	0.0	0.0	0.0	0.0	41.8	58.2		0.0	0.0	0.0	0.0	57.6	42.4		0.0	0.0	0.0	0.0	51.7	48.3		0.0	0.0	0.0	0.0	44.1	55.9		
Total %	0.00	0.00	0.00	0.00	17.53	24.36	41.88	0.00	0.00	0.00	0.00	19.85	14.60	34.45	0.00	0.00	0.00	0.00	7.90	7.39	15.29	0.00	0.00	0.00	0.00	3.69	4.68	8.38	
Exiting Leg Total							975							802							356							195	2328

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Belvidere Street (North)							Huntington Avenue (East)							West Newton Street (South)							Huntington Avenue (West)							Interval
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	72	96	168	0	0	0	0	72	35	107	0	0	0	0	38	16	54	0	0	0	0	14	15	29	358
5:15 PM	0	0	0	0	54	82	136	0	0	0	0	97	46	143	0	0	0	0	27	27	54	0	0	0	0	11	14	25	358
5:30 PM	0	0	0	0	50	101	151	0	0	0	0	75	37	112	0	0	0	0	32	24	56	0	0	0	0	9	13	22	341
5:45 PM	0	0	0	0	52	75	127	0	0	0	0	66	74	140	0	0	0	0	23	26	49	0	0	0	0	17	12	29	345
Total Volume	0	0	0	0	228	354	582	0	0	0	0	310	192	502	0	0	0	0	120	93	213	0	0	0	0	51	54	105	1402
% Approach Total	0.0	0.0	0.0	0.0	39.2	60.8		0.0	0.0	0.0	0.0	61.8	38.2		0.0	0.0	0.0	0.0	56.3	43.7		0.0	0.0	0.0	0.0	48.6	51.4		
PHF	0.000	0.000	0.000	0.000	0.792	0.876	0.866	0.000	0.000	0.000	0.000	0.799	0.649	0.878	0.000	0.000	0.000	0.000	0.789	0.861	0.951	0.000	0.000	0.000	0.000	0.750	0.900	0.905	0.979
Entering Leg	0	0	0	0	228	354	582	0	0	0	0	310	192	502	0	0	0	0	120	93	213	0	0	0	0	51	54	105	1402
Exiting Leg							582							502							213							105	1402
Total							1164							1004							426							210	2804

PDI File #: **175517 A**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	52	96	0	0	148	17	55	20	0	92	0	141	26	1	168	0	0	0	0	0	408
7:15 AM	45	95	0	0	140	22	43	16	0	81	0	146	24	0	170	0	0	0	0	0	391
7:30 AM	48	122	0	0	170	40	65	12	0	117	0	173	27	0	200	0	0	0	0	0	487
7:45 AM	44	127	0	0	171	28	53	17	0	98	0	189	18	0	207	0	0	0	0	0	476
Total	189	440	0	0	629	107	216	65	0	388	0	649	95	1	745	0	0	0	0	0	1762
8:00 AM	49	144	0	0	193	32	61	18	0	111	0	224	36	0	260	0	0	0	0	0	564
8:15 AM	66	165	0	0	231	60	43	24	0	127	0	205	25	1	231	0	0	0	0	0	589
8:30 AM	50	173	0	0	223	42	60	14	0	116	0	230	23	1	254	0	0	0	0	0	593
8:45 AM	83	160	0	0	243	50	56	19	0	125	0	213	24	0	237	0	0	0	0	0	605
Total	248	642	0	0	890	184	220	75	0	479	0	872	108	2	982	0	0	0	0	0	2351
Grand Total	437	1082	0	0	1519	291	436	140	0	867	0	1521	203	3	1727	0	0	0	0	0	4113
Approach %	28.8	71.2	0.0	0.0		33.6	50.3	16.1	0.0		0.0	88.1	11.8	0.2		0.0	0.0	0.0	0.0		
Total %	10.6	26.3	0.0	0.0	36.9	7.1	10.6	3.4	0.0	21.1	0.0	37.0	4.9	0.1	42.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1812					0					1225					1076	4113
Cars	396	1007	0	0	1403	278	394	133	0	805	0	1410	172	2	1584	0	0	0	0	0	3792
% Cars	90.6	93.1	0.0	0.0	92.4	95.5	90.4	95.0	0.0	92.8	0.0	92.7	84.7	66.7	91.7	0.0	0.0	0.0	0.0	0.0	92.2
Exiting Leg Total					1688					0					1142					962	3792
Heavy Vehicles	41	75	0	0	116	13	42	7	0	62	0	111	31	1	143	0	0	0	0	0	321
% Heavy Vehicles	9.4	6.9	0.0	0.0	7.6	4.5	9.6	5.0	0.0	7.2	0.0	7.3	15.3	33.3	8.3	0.0	0.0	0.0	0.0	0.0	7.8
Exiting Leg Total					124					0					83					114	321

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	49	144	0	0	193	32	61	18	0	111	0	224	36	0	260	0	0	0	0	0	564
8:15 AM	66	165	0	0	231	60	43	24	0	127	0	205	25	1	231	0	0	0	0	0	589
8:30 AM	50	173	0	0	223	42	60	14	0	116	0	230	23	1	254	0	0	0	0	0	593
8:45 AM	83	160	0	0	243	50	56	19	0	125	0	213	24	0	237	0	0	0	0	0	605
Total Volume	248	642	0	0	890	184	220	75	0	479	0	872	108	2	982	0	0	0	0	0	2351
% Approach Total	27.9	72.1	0.0	0.0		38.4	45.9	15.7	0.0		0.0	88.8	11.0	0.2		0.0	0.0	0.0	0.0		
PHF	0.747	0.928	0.000	0.000	0.916	0.767	0.902	0.781	0.000	0.943	0.000	0.948	0.750	0.500	0.944	0.000	0.000	0.000	0.000	0.000	0.971
Cars	229	602	0	0	831	177	200	73	0	450	0	815	91	1	907	0	0	0	0	0	2188
Cars %	92.3	93.8	0.0	0.0	93.4	96.2	90.9	97.3	0.0	93.9	0.0	93.5	84.3	50.0	92.4	0.0	0.0	0.0	0.0	0.0	93.1
Heavy Vehicles	19	40	0	0	59	7	20	2	0	29	0	57	17	1	75	0	0	0	0	0	163
Heavy Vehicles %	7.7	6.2	0.0	0.0	6.6	3.8	9.1	2.7	0.0	6.1	0.0	6.5	15.7	50.0	7.6	0.0	0.0	0.0	0.0	0.0	6.9
Cars Enter Leg	229	602	0	0	831	177	200	73	0	450	0	815	91	1	907	0	0	0	0	0	2188
Heavy Enter Leg	19	40	0	0	59	7	20	2	0	29	0	57	17	1	75	0	0	0	0	0	163
Total Entering Leg	248	642	0	0	890	184	220	75	0	479	0	872	108	2	982	0	0	0	0	0	2351
Cars Exiting Leg					992					0					676					520	2188
Heavy Exit Leg					64					0					43					56	163
Total Exiting Leg					1056					0					719					576	2351

PDI File #: **175517 A**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	49	87	0	0	136	15	50	20	0	85	0	128	23	1	152	0	0	0	0	0	373
7:15 AM	41	86	0	0	127	22	38	12	0	72	0	131	19	0	150	0	0	0	0	0	349
7:30 AM	35	111	0	0	146	37	57	12	0	106	0	162	23	0	185	0	0	0	0	0	437
7:45 AM	42	121	0	0	163	27	49	16	0	92	0	174	16	0	190	0	0	0	0	0	445
Total	167	405	0	0	572	101	194	60	0	355	0	595	81	1	677	0	0	0	0	0	1604
8:00 AM	45	139	0	0	184	31	56	18	0	105	0	210	31	0	241	0	0	0	0	0	530
8:15 AM	60	156	0	0	216	58	39	24	0	121	0	189	21	1	211	0	0	0	0	0	548
8:30 AM	46	163	0	0	209	41	53	13	0	107	0	219	21	0	240	0	0	0	0	0	556
8:45 AM	78	144	0	0	222	47	52	18	0	117	0	197	18	0	215	0	0	0	0	0	554
Total	229	602	0	0	831	177	200	73	0	450	0	815	91	1	907	0	0	0	0	0	2188
Grand Total	396	1007	0	0	1403	278	394	133	0	805	0	1410	172	2	1584	0	0	0	0	0	3792
Approach %	28.2	71.8	0.0	0.0		34.5	48.9	16.5	0.0		0.0	89.0	10.9	0.1		0.0	0.0	0.0	0.0		
Total %	10.4	26.6	0.0	0.0	37.0	7.3	10.4	3.5	0.0	21.2	0.0	37.2	4.5	0.1	41.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1688					0					1142					962	3792

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	45	139	0	0	184	31	56	18	0	105	0	210	31	0	241	0	0	0	0	0	530
8:15 AM	60	156	0	0	216	58	39	24	0	121	0	189	21	1	211	0	0	0	0	0	548
8:30 AM	46	163	0	0	209	41	53	13	0	107	0	219	21	0	240	0	0	0	0	0	556
8:45 AM	78	144	0	0	222	47	52	18	0	117	0	197	18	0	215	0	0	0	0	0	554
Total Volume	229	602	0	0	831	177	200	73	0	450	0	815	91	1	907	0	0	0	0	0	2188
% Approach Total	27.6	72.4	0.0	0.0		39.3	44.4	16.2	0.0		0.0	89.9	10.0	0.1		0.0	0.0	0.0	0.0		
PHF	0.734	0.923	0.000	0.000	0.936	0.763	0.893	0.760	0.000	0.930	0.000	0.930	0.734	0.250	0.941	0.000	0.000	0.000	0.000	0.000	0.984
Entering Leg	229	602	0	0	831	177	200	73	0	450	0	815	91	1	907	0	0	0	0	0	2188
Exiting Leg					992					0					676					520	2188
Total					1823					450					1583					520	4376

PDI File #: **175517 A**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	3	9	0	0	12	2	5	0	0	7	0	13	3	0	16	0	0	0	0	0	35
7:15 AM	4	9	0	0	13	0	5	4	0	9	0	15	5	0	20	0	0	0	0	0	42
7:30 AM	13	11	0	0	24	3	8	0	0	11	0	11	4	0	15	0	0	0	0	0	50
7:45 AM	2	6	0	0	8	1	4	1	0	6	0	15	2	0	17	0	0	0	0	0	31
Total	22	35	0	0	57	6	22	5	0	33	0	54	14	0	68	0	0	0	0	0	158
8:00 AM	4	5	0	0	9	1	5	0	0	6	0	14	5	0	19	0	0	0	0	0	34
8:15 AM	6	9	0	0	15	2	4	0	0	6	0	16	4	0	20	0	0	0	0	0	41
8:30 AM	4	10	0	0	14	1	7	1	0	9	0	11	2	1	14	0	0	0	0	0	37
8:45 AM	5	16	0	0	21	3	4	1	0	8	0	16	6	0	22	0	0	0	0	0	51
Total	19	40	0	0	59	7	20	2	0	29	0	57	17	1	75	0	0	0	0	0	163
Grand Total	41	75	0	0	116	13	42	7	0	62	0	111	31	1	143	0	0	0	0	0	321
Approach %	35.3	64.7	0.0	0.0		21.0	67.7	11.3	0.0		0.0	77.6	21.7	0.7		0.0	0.0	0.0	0.0		
Total %	12.8	23.4	0.0	0.0	36.1	4.0	13.1	2.2	0.0	19.3	0.0	34.6	9.7	0.3	44.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					124					0					83					114	321

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	4	5	0	0	9	1	5	0	0	6	0	14	5	0	19	0	0	0	0	0	34
8:15 AM	6	9	0	0	15	2	4	0	0	6	0	16	4	0	20	0	0	0	0	0	41
8:30 AM	4	10	0	0	14	1	7	1	0	9	0	11	2	1	14	0	0	0	0	0	37
8:45 AM	5	16	0	0	21	3	4	1	0	8	0	16	6	0	22	0	0	0	0	0	51
Total Volume	19	40	0	0	59	7	20	2	0	29	0	57	17	1	75	0	0	0	0	0	163
% Approach Total	32.2	67.8	0.0	0.0		24.1	69.0	6.9	0.0		0.0	76.0	22.7	1.3		0.0	0.0	0.0	0.0		
PHF	0.792	0.625	0.000	0.000	0.702	0.583	0.714	0.500	0.000	0.806	0.000	0.891	0.708	0.250	0.852	0.000	0.000	0.000	0.000	0.000	0.799
Entering Leg	19	40	0	0	59	7	20	2	0	29	0	57	17	1	75	0	0	0	0	0	163
Exiting Leg					64					0					43					56	163
Total					123					29					118					56	326

PDI File #: **175517 A**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	4	0	0	1	0	5	0	1	0	0	5	15	21	0	6	0	0	0	0	6	0	0	0	0	0	0	0	32
7:15 AM	1	8	0	0	0	0	9	1	0	0	0	4	10	15	0	4	0	0	1	0	5	0	0	0	0	0	0	0	29
7:30 AM	1	8	0	0	0	0	9	1	1	0	0	8	11	21	0	5	0	0	0	0	5	0	0	0	0	0	0	0	35
7:45 AM	0	8	0	0	0	0	8	2	0	0	0	8	10	20	0	9	0	0	1	1	11	0	0	0	0	0	1	1	40
Total	2	28	0	0	1	0	31	4	2	0	0	25	46	77	0	24	0	0	2	1	27	0	0	0	0	0	1	1	136
8:00 AM	0	9	0	1	0	0	10	0	0	0	0	0	3	3	0	12	0	0	0	0	12	0	0	0	0	0	0	0	25
8:15 AM	8	15	0	0	0	0	23	0	1	0	0	2	13	16	0	16	0	0	0	0	16	0	0	1	0	0	0	1	56
8:30 AM	0	16	0	0	1	0	17	0	2	0	0	1	17	20	0	20	0	0	0	0	20	0	0	0	0	0	0	0	57
8:45 AM	2	24	0	1	2	0	29	0	1	0	0	1	12	14	0	18	0	0	0	0	18	0	0	0	0	1	0	1	62
Total	10	64	0	2	3	0	79	0	4	0	0	4	45	53	0	66	0	0	0	0	66	0	0	1	0	1	0	2	200
Grand Total	12	92	0	2	4	0	110	4	6	0	0	29	91	130	0	90	0	0	2	1	93	0	0	1	0	1	1	3	336
Approach %	10.9	83.6	0.0	1.8	3.6	0.0		3.1	4.6	0.0	0.0	22.3	70.0		0.0	96.8	0.0	0.0	2.2	1.1		0.0	0.0	33.3	0.0	33.3	33.3		
Total %	3.6	27.4	0.0	0.6	1.2	0.0	32.7	1.2	1.8	0.0	0.0	8.6	27.1	38.7	0.0	26.8	0.0	0.0	0.6	0.3	27.7	0.0	0.0	0.3	0.0	0.3	0.3	0.9	
Exiting Leg Total							101							120							95							20	336

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	9	0	1	0	0	10	0	0	0	0	0	3	3	0	12	0	0	0	0	12	0	0	0	0	0	0	0	25
8:15 AM	8	15	0	0	0	0	23	0	1	0	0	2	13	16	0	16	0	0	0	0	16	0	0	1	0	0	0	1	56
8:30 AM	0	16	0	0	1	0	17	0	2	0	0	1	17	20	0	20	0	0	0	0	20	0	0	0	0	0	0	0	57
8:45 AM	2	24	0	1	2	0	29	0	1	0	0	1	12	14	0	18	0	0	0	0	18	0	0	0	0	1	0	1	62
Total Volume	10	64	0	2	3	0	79	0	4	0	0	4	45	53	0	66	0	0	0	0	66	0	0	1	0	1	0	2	200
% Approach Total	12.7	81.0	0.0	2.5	3.8	0.0		0.0	7.5	0.0	0.0	7.5	84.9		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	50.0	0.0	50.0	0.0		
PHF	0.313	0.667	0.000	0.500	0.375	0.000	0.681	0.000	0.500	0.000	0.000	0.500	0.662	0.663	0.000	0.825	0.000	0.000	0.000	0.000	0.825	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.806
Entering Leg	10	64	0	2	3	0	79	0	4	0	0	4	45	53	0	66	0	0	0	0	66	0	0	1	0	1	0	2	200
Exiting Leg							72							49							64							15	200
Total							151							102							130							17	400

PDI File #: **175517 A**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	3	4	0	0	0	0	7	15	22	0	0	0	0	7	6	13	0	0	0	0	6	3	9	48
7:15 AM	0	0	0	0	14	2	16	0	0	0	0	6	8	14	0	0	0	0	7	8	15	0	0	0	0	13	3	16	61
7:30 AM	0	0	0	0	6	3	9	0	0	0	0	6	15	21	0	0	0	0	6	11	17	0	0	0	0	6	6	12	59
7:45 AM	0	0	0	0	8	8	16	0	0	0	0	6	20	26	0	0	0	0	5	9	14	0	0	0	0	7	7	14	70
Total	0	0	0	0	29	16	45	0	0	0	0	25	58	83	0	0	0	0	25	34	59	0	0	0	0	32	19	51	238
8:00 AM	0	0	0	0	8	6	14	0	0	0	0	17	9	26	0	0	0	0	11	9	20	0	0	0	0	7	16	23	83
8:15 AM	0	0	0	0	7	11	18	0	0	0	0	10	27	37	0	0	0	0	2	12	14	0	0	0	0	7	14	21	90
8:30 AM	0	0	0	0	15	3	18	0	0	0	0	12	25	37	0	0	0	0	5	13	18	0	0	0	0	10	4	14	87
8:45 AM	0	0	0	0	11	0	11	0	0	0	0	19	21	40	0	0	0	0	6	13	19	0	0	0	0	9	5	14	84
Total	0	0	0	0	41	20	61	0	0	0	0	58	82	140	0	0	0	0	24	47	71	0	0	0	0	33	39	72	344
Grand Total	0	0	0	0	70	36	106	0	0	0	0	83	140	223	0	0	0	0	49	81	130	0	0	0	0	65	58	123	582
Approach %	0.0	0.0	0.0	0.0	66.0	34.0		0.0	0.0	0.0	0.0	37.2	62.8		0.0	0.0	0.0	0.0	37.7	62.3		0.0	0.0	0.0	0.0	52.8	47.2		
Total %	0.0	0.0	0.0	0.0	12.0	6.2	18.2	0.0	0.0	0.0	0.0	14.3	24.1	38.3	0.0	0.0	0.0	0.0	8.4	13.9	22.3	0.0	0.0	0.0	0.0	11.2	10.0	21.1	
Exiting Leg Total							106							223							130							123	582

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	8	6	14	0	0	0	0	17	9	26	0	0	0	0	11	9	20	0	0	0	0	7	16	23	83
8:15 AM	0	0	0	0	7	11	18	0	0	0	0	10	27	37	0	0	0	0	2	12	14	0	0	0	0	7	14	21	90
8:30 AM	0	0	0	0	15	3	18	0	0	0	0	12	25	37	0	0	0	0	5	13	18	0	0	0	0	10	4	14	87
8:45 AM	0	0	0	0	11	0	11	0	0	0	0	19	21	40	0	0	0	0	6	13	19	0	0	0	0	9	5	14	84
Total Volume	0	0	0	0	41	20	61	0	0	0	0	58	82	140	0	0	0	0	24	47	71	0	0	0	0	33	39	72	344
% Approach Total	0.0	0.0	0.0	0.0	67.2	32.8		0.0	0.0	0.0	0.0	41.4	58.6		0.0	0.0	0.0	0.0	33.8	66.2		0.0	0.0	0.0	0.0	45.8	54.2		
PHF	0.000	0.000	0.000	0.000	0.683	0.455	0.847	0.000	0.000	0.000	0.000	0.763	0.759	0.875	0.000	0.000	0.000	0.000	0.545	0.904	0.888	0.000	0.000	0.000	0.000	0.825	0.609	0.783	0.956
Entering Leg	0	0	0	0	41	20	61	0	0	0	0	58	82	140	0	0	0	0	24	47	71	0	0	0	0	33	39	72	344
Exiting Leg							61							140							71							72	344
Total							122							280							142							144	688

PDI File #: **175517 AA**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	56	144	0	0	200	27	65	6	0	98	0	171	23	1	195	0	0	0	0	0	493
4:15 PM	58	147	0	0	205	34	71	19	0	124	0	143	30	0	173	0	0	0	0	0	502
4:30 PM	67	179	0	0	246	26	80	9	0	115	0	185	31	0	216	0	0	0	0	0	577
4:45 PM	70	146	0	0	216	29	81	5	0	115	0	177	37	0	214	0	0	0	0	0	545
Total	251	616	0	0	867	116	297	39	0	452	0	676	121	1	798	0	0	0	0	0	2117
5:00 PM	81	162	0	0	243	40	84	18	0	142	0	209	37	0	246	0	0	0	0	0	631
5:15 PM	65	192	0	0	257	36	63	9	0	108	0	209	40	0	249	0	0	0	0	0	614
5:30 PM	74	180	0	0	254	48	69	12	0	129	0	184	35	2	221	0	1	0	0	1	605
5:45 PM	87	175	0	0	262	30	62	13	0	105	0	188	40	0	228	0	0	0	0	0	595
Total	307	709	0	0	1016	154	278	52	0	484	0	790	152	2	944	0	1	0	0	1	2445
Grand Total	558	1325	0	0	1883	270	575	91	0	936	0	1466	273	3	1742	0	1	0	0	1	4562
Approach %	29.6	70.4	0.0	0.0		28.8	61.4	9.7	0.0		0.0	84.2	15.7	0.2		0.0	100.0	0.0	0.0		
Total %	12.2	29.0	0.0	0.0	41.3	5.9	12.6	2.0	0.0	20.5	0.0	32.1	6.0	0.1	38.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1736					1					1419					1406	4562
Cars	541	1283	0	0	1824	264	563	87	0	914	0	1400	256	3	1659	0	1	0	0	1	4398
% Cars	97.0	96.8	0.0	0.0	96.9	97.8	97.9	95.6	0.0	97.6	0.0	95.5	93.8	100.0	95.2	0.0	100.0	0.0	0.0	100.0	96.4
Exiting Leg Total					1664					1					1373					1360	4398
Heavy Vehicles	17	42	0	0	59	6	12	4	0	22	0	66	17	0	83	0	0	0	0	0	164
% Heavy Vehicles	3.0	3.2	0.0	0.0	3.1	2.2	2.1	4.4	0.0	2.4	0.0	4.5	6.2	0.0	4.8	0.0	0.0	0.0	0.0	0.0	3.6
Exiting Leg Total					72					0					46					46	164

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	81	162	0	0	243	40	84	18	0	142	0	209	37	0	246	0	0	0	0	0	631
5:15 PM	65	192	0	0	257	36	63	9	0	108	0	209	40	0	249	0	0	0	0	0	614
5:30 PM	74	180	0	0	254	48	69	12	0	129	0	184	35	2	221	0	1	0	0	1	605
5:45 PM	87	175	0	0	262	30	62	13	0	105	0	188	40	0	228	0	0	0	0	0	595
Total Volume	307	709	0	0	1016	154	278	52	0	484	0	790	152	2	944	0	1	0	0	1	2445
% Approach Total	30.2	69.8	0.0	0.0		31.8	57.4	10.7	0.0		0.0	83.7	16.1	0.2		0.0	100.0	0.0	0.0		
PHF	0.882	0.923	0.000	0.000	0.969	0.802	0.827	0.722	0.000	0.852	0.000	0.945	0.950	0.250	0.948	0.000	0.250	0.000	0.000	0.250	0.969
Cars	298	693	0	0	991	151	274	51	0	476	0	760	146	2	908	0	1	0	0	1	2376
Cars %	97.1	97.7	0.0	0.0	97.5	98.1	98.6	98.1	0.0	98.3	0.0	96.2	96.1	100.0	96.2	0.0	100.0	0.0	0.0	100.0	97.2
Heavy Vehicles	9	16	0	0	25	3	4	1	0	8	0	30	6	0	36	0	0	0	0	0	69
Heavy Vehicles %	2.9	2.3	0.0	0.0	2.5	1.9	1.4	1.9	0.0	1.7	0.0	3.8	3.9	0.0	3.8	0.0	0.0	0.0	0.0	0.0	2.8
Cars Enter Leg	298	693	0	0	991	151	274	51	0	476	0	760	146	2	908	0	1	0	0	1	2376
Heavy Enter Leg	9	16	0	0	25	3	4	1	0	8	0	30	6	0	36	0	0	0	0	0	69
Total Entering Leg	307	709	0	0	1016	154	278	52	0	484	0	790	152	2	944	0	1	0	0	1	2445
Cars Exiting Leg					911					1					746					718	2376
Heavy Exit Leg					33					0					17					19	69
Total Exiting Leg					944					1					763					737	2445

PDI File #: **175517 AA**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	54	136	0	0	190	26	62	5	0	93	0	162	23	1	186	0	0	0	0	0	469
4:15 PM	56	140	0	0	196	33	68	18	0	119	0	137	27	0	164	0	0	0	0	0	479
4:30 PM	66	174	0	0	240	26	78	9	0	113	0	172	25	0	197	0	0	0	0	0	550
4:45 PM	67	140	0	0	207	28	81	4	0	113	0	169	35	0	204	0	0	0	0	0	524
Total	243	590	0	0	833	113	289	36	0	438	0	640	110	1	751	0	0	0	0	0	2022
5:00 PM	79	158	0	0	237	40	83	18	0	141	0	197	34	0	231	0	0	0	0	0	609
5:15 PM	64	190	0	0	254	34	62	8	0	104	0	202	38	0	240	0	0	0	0	0	598
5:30 PM	70	174	0	0	244	48	68	12	0	128	0	180	34	2	216	0	1	0	0	1	589
5:45 PM	85	171	0	0	256	29	61	13	0	103	0	181	40	0	221	0	0	0	0	0	580
Total	298	693	0	0	991	151	274	51	0	476	0	760	146	2	908	0	1	0	0	1	2376
Grand Total	541	1283	0	0	1824	264	563	87	0	914	0	1400	256	3	1659	0	1	0	0	1	4398
Approach %	29.7	70.3	0.0	0.0		28.9	61.6	9.5	0.0		0.0	84.4	15.4	0.2		0.0	100.0	0.0	0.0		
Total %	12.3	29.2	0.0	0.0	41.5	6.0	12.8	2.0	0.0	20.8	0.0	31.8	5.8	0.1	37.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1664					1					1373					1360	4398

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	79	158	0	0	237	40	83	18	0	141	0	197	34	0	231	0	0	0	0	0	609
5:15 PM	64	190	0	0	254	34	62	8	0	104	0	202	38	0	240	0	0	0	0	0	598
5:30 PM	70	174	0	0	244	48	68	12	0	128	0	180	34	2	216	0	1	0	0	1	589
5:45 PM	85	171	0	0	256	29	61	13	0	103	0	181	40	0	221	0	0	0	0	0	580
Total Volume	298	693	0	0	991	151	274	51	0	476	0	760	146	2	908	0	1	0	0	1	2376
% Approach Total	30.1	69.9	0.0	0.0		31.7	57.6	10.7	0.0		0.0	83.7	16.1	0.2		0.0	100.0	0.0	0.0		
PHF	0.876	0.912	0.000	0.000	0.968	0.786	0.825	0.708	0.000	0.844	0.000	0.941	0.913	0.250	0.946	0.000	0.250	0.000	0.000	0.250	0.975
Entering Leg	298	693	0	0	991	151	274	51	0	476	0	760	146	2	908	0	1	0	0	1	2376
Exiting Leg					911					1					746					718	2376
Total					1902					477					1654					719	4752

PDI File #: **175517 AA**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	8	0	0	10	1	3	1	0	5	0	9	0	0	9	0	0	0	0	0	24
4:15 PM	2	7	0	0	9	1	3	1	0	5	0	6	3	0	9	0	0	0	0	0	23
4:30 PM	1	5	0	0	6	0	2	0	0	2	0	13	6	0	19	0	0	0	0	0	27
4:45 PM	3	6	0	0	9	1	0	1	0	2	0	8	2	0	10	0	0	0	0	0	21
Total	8	26	0	0	34	3	8	3	0	14	0	36	11	0	47	0	0	0	0	0	95
5:00 PM	2	4	0	0	6	0	1	0	0	1	0	12	3	0	15	0	0	0	0	0	22
5:15 PM	1	2	0	0	3	2	1	1	0	4	0	7	2	0	9	0	0	0	0	0	16
5:30 PM	4	6	0	0	10	0	1	0	0	1	0	4	1	0	5	0	0	0	0	0	16
5:45 PM	2	4	0	0	6	1	1	0	0	2	0	7	0	0	7	0	0	0	0	0	15
Total	9	16	0	0	25	3	4	1	0	8	0	30	6	0	36	0	0	0	0	0	69
Grand Total	17	42	0	0	59	6	12	4	0	22	0	66	17	0	83	0	0	0	0	0	164
Approach %	28.8	71.2	0.0	0.0		27.3	54.5	18.2	0.0		0.0	79.5	20.5	0.0		0.0	0.0	0.0	0.0		
Total %	10.4	25.6	0.0	0.0	36.0	3.7	7.3	2.4	0.0	13.4	0.0	40.2	10.4	0.0	50.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					72					0					46					46	164

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue (Route 2A)					Beacon Street					Massachusetts Avenue (Route 2A)					Beacon Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	2	8	0	0	10	1	3	1	0	5	0	9	0	0	9	0	0	0	0	0	24
4:15 PM	2	7	0	0	9	1	3	1	0	5	0	6	3	0	9	0	0	0	0	0	23
4:30 PM	1	5	0	0	6	0	2	0	0	2	0	13	6	0	19	0	0	0	0	0	27
4:45 PM	3	6	0	0	9	1	0	1	0	2	0	8	2	0	10	0	0	0	0	0	21
Total Volume	8	26	0	0	34	3	8	3	0	14	0	36	11	0	47	0	0	0	0	0	95
% Approach Total	23.5	76.5	0.0	0.0		21.4	57.1	21.4	0.0		0.0	76.6	23.4	0.0		0.0	0.0	0.0	0.0		
PHF	0.667	0.813	0.000	0.000	0.850	0.750	0.667	0.750	0.000	0.700	0.000	0.692	0.458	0.000	0.618	0.000	0.000	0.000	0.000	0.000	0.880
Entering Leg	8	26	0	0	34	3	8	3	0	14	0	36	11	0	47	0	0	0	0	0	95
Exiting Leg					39					0					29					27	95
Total					73					14					76					27	190

PDI File #: **175517 AA**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	1	10	0	0	0	0	11	0	1	0	0	1	8	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
4:15 PM	2	13	0	0	0	0	15	1	0	0	0	1	3	5	0	6	0	0	0	0	6	0	0	0	0	0	0	0	26
4:30 PM	3	16	0	0	0	1	20	5	2	0	0	4	11	22	0	1	0	0	0	0	1	0	0	0	0	0	0	0	43
4:45 PM	3	21	0	0	0	1	25	1	3	0	0	0	13	17	0	10	0	0	0	0	10	0	0	0	0	0	0	0	52
Total	9	60	0	0	0	2	71	7	6	0	0	6	35	54	0	17	0	0	0	0	17	0	0	0	0	0	0	0	142
5:00 PM	6	16	0	0	0	0	22	0	3	2	0	8	16	29	0	14	0	0	0	0	14	1	0	0	0	0	0	1	66
5:15 PM	2	21	0	0	1	1	25	1	9	1	0	13	19	43	0	18	0	0	0	0	18	0	0	0	0	0	2	2	88
5:30 PM	3	21	0	0	1	4	29	0	10	0	0	13	7	30	0	24	0	0	0	0	24	0	0	0	0	0	2	2	85
5:45 PM	7	14	0	0	1	2	24	1	2	1	0	11	12	27	0	13	2	0	0	0	15	0	0	0	0	0	0	0	66
Total	18	72	0	0	3	7	100	2	24	4	0	45	54	129	0	69	2	0	0	0	71	1	0	0	0	0	4	5	305
Grand Total	27	132	0	0	3	9	171	9	30	4	0	51	89	183	0	86	2	0	0	0	88	1	0	0	0	0	4	5	447
Approach %	15.8	77.2	0.0	0.0	1.8	5.3		4.9	16.4	2.2	0.0	27.9	48.6		0.0	97.7	2.3	0.0	0.0	0.0		20.0	0.0	0.0	0.0	0.0	80.0		
Total %	6.0	29.5	0.0	0.0	0.7	2.0	38.3	2.0	6.7	0.9	0.0	11.4	19.9	40.9	0.0	19.2	0.4	0.0	0.0	0.0	19.7	0.2	0.0	0.0	0.0	0.0	0.9	1.1	
Exiting Leg Total							107							140							137							63	447

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	6	16	0	0	0	0	22	0	3	2	0	8	16	29	0	14	0	0	0	0	14	1	0	0	0	0	0	1	66
5:15 PM	2	21	0	0	1	1	25	1	9	1	0	13	19	43	0	18	0	0	0	0	18	0	0	0	0	0	2	2	88
5:30 PM	3	21	0	0	1	4	29	0	10	0	0	13	7	30	0	24	0	0	0	0	24	0	0	0	0	0	2	2	85
5:45 PM	7	14	0	0	1	2	24	1	2	1	0	11	12	27	0	13	2	0	0	0	15	0	0	0	0	0	0	0	66
Total Volume	18	72	0	0	3	7	100	2	24	4	0	45	54	129	0	69	2	0	0	0	71	1	0	0	0	0	4	5	305
% Approach Total	18.0	72.0	0.0	0.0	3.0	7.0		1.6	18.6	3.1	0.0	34.9	41.9		0.0	97.2	2.8	0.0	0.0	0.0		20.0	0.0	0.0	0.0	0.0	80.0		
PHF	0.643	0.857	0.000	0.000	0.750	0.438	0.862	0.500	0.600	0.500	0.000	0.865	0.711	0.750	0.000	0.719	0.250	0.000	0.000	0.000	0.740	0.250	0.000	0.000	0.000	0.000	0.500	0.625	0.866
Entering Leg	18	72	0	0	3	7	100	2	24	4	0	45	54	129	0	69	2	0	0	0	71	1	0	0	0	0	4	5	305
Exiting Leg							81							99							77							48	305
Total							181							228							148							53	610

PDI File #: **175517 AA**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Beacon Street W: Beacon Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	8	12	20	0	0	0	0	23	27	50	0	0	0	0	3	4	7	0	0	0	0	12	26	38	115
4:15 PM	0	0	0	0	17	6	23	0	0	0	0	43	38	81	0	0	0	0	9	10	19	0	0	0	0	10	13	23	146
4:30 PM	0	0	0	0	15	12	27	0	0	0	0	52	39	91	0	0	0	0	4	9	13	0	0	0	0	10	25	35	166
4:45 PM	0	0	0	0	12	8	20	0	0	0	0	47	38	85	0	0	0	0	4	9	13	0	0	0	0	12	27	39	157
Total	0	0	0	0	52	38	90	0	0	0	0	165	142	307	0	0	0	0	20	32	52	0	0	0	0	44	91	135	584
5:00 PM	0	0	0	0	16	12	28	0	0	0	0	65	40	105	0	0	0	0	7	17	24	0	0	0	0	7	34	41	198
5:15 PM	0	0	0	0	20	15	35	0	0	0	0	63	30	93	0	0	0	0	26	14	40	0	0	0	0	17	53	70	238
5:30 PM	0	0	0	0	23	15	38	0	0	0	0	60	28	88	0	0	0	0	17	6	23	0	0	0	0	21	60	81	230
5:45 PM	0	0	0	0	21	20	41	0	0	0	0	60	25	85	0	0	0	0	24	11	35	0	0	0	0	17	20	37	198
Total	0	0	0	0	80	62	142	0	0	0	0	248	123	371	0	0	0	0	74	48	122	0	0	0	0	62	167	229	864
Grand Total	0	0	0	0	132	100	232	0	0	0	0	413	265	678	0	0	0	0	94	80	174	0	0	0	0	106	258	364	1448
Approach %	0.0	0.0	0.0	0.0	56.9	43.1		0.0	0.0	0.0	0.0	60.9	39.1		0.0	0.0	0.0	0.0	54.0	46.0		0.0	0.0	0.0	0.0	29.1	70.9		
Total %	0.0	0.0	0.0	0.0	9.1	6.9	16.0	0.0	0.0	0.0	0.0	28.5	18.3	46.8	0.0	0.0	0.0	0.0	6.5	5.5	12.0	0.0	0.0	0.0	0.0	7.3	17.8	25.1	
Exiting Leg Total							232							678							174							364	1448

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Beacon Street							Massachusetts Avenue (Route 2A)							Beacon Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	16	12	28	0	0	0	0	65	40	105	0	0	0	0	7	17	24	0	0	0	0	7	34	41	198
5:15 PM	0	0	0	0	20	15	35	0	0	0	0	63	30	93	0	0	0	0	26	14	40	0	0	0	0	17	53	70	238
5:30 PM	0	0	0	0	23	15	38	0	0	0	0	60	28	88	0	0	0	0	17	6	23	0	0	0	0	21	60	81	230
5:45 PM	0	0	0	0	21	20	41	0	0	0	0	60	25	85	0	0	0	0	24	11	35	0	0	0	0	17	20	37	198
Total Volume	0	0	0	0	80	62	142	0	0	0	0	248	123	371	0	0	0	0	74	48	122	0	0	0	0	62	167	229	864
% Approach Total	0.0	0.0	0.0	0.0	56.3	43.7		0.0	0.0	0.0	0.0	66.8	33.2		0.0	0.0	0.0	0.0	60.7	39.3		0.0	0.0	0.0	0.0	27.1	72.9		
PHF	0.000	0.000	0.000	0.000	0.870	0.775	0.866	0.000	0.000	0.000	0.000	0.954	0.769	0.883	0.000	0.000	0.000	0.000	0.712	0.706	0.763	0.000	0.000	0.000	0.000	0.738	0.696	0.707	0.908
Entering Leg	0	0	0	0	80	62	142	0	0	0	0	248	123	371	0	0	0	0	74	48	122	0	0	0	0	62	167	229	864
Exiting Leg							142							371							122							229	864
Total							284							742							244							458	1728

PDI File #: **175517 B**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	108	11	0	119	0	0	0	0	0	2	149	0	0	151	5	1	13	0	19	289
7:15 AM	0	104	9	0	113	0	0	0	0	0	8	153	0	0	161	3	4	15	0	22	296
7:30 AM	0	127	10	0	137	0	0	0	0	0	5	170	0	0	175	2	3	27	0	32	344
7:45 AM	0	127	14	0	141	0	0	0	0	0	5	176	0	1	182	3	5	24	0	32	355
Total	0	466	44	0	510	0	0	0	0	0	20	648	0	1	669	13	13	79	0	105	1284
8:00 AM	0	144	19	0	163	0	0	0	0	0	9	223	0	0	232	7	3	30	0	40	435
8:15 AM	0	175	16	2	193	0	0	0	0	0	5	217	0	0	222	4	5	20	0	29	444
8:30 AM	0	168	21	0	189	0	0	0	0	0	9	212	0	0	221	6	5	40	0	51	461
8:45 AM	0	164	20	0	184	0	0	0	0	0	10	191	0	0	201	5	4	36	0	45	430
Total	0	651	76	2	729	0	0	0	0	0	33	843	0	0	876	22	17	126	0	165	1770
Grand Total	0	1117	120	2	1239	0	0	0	0	0	53	1491	0	1	1545	35	30	205	0	270	3054
Approach %	0.0	90.2	9.7	0.2		0.0	0.0	0.0	0.0		3.4	96.5	0.0	0.1		13.0	11.1	75.9	0.0		
Total %	0.0	36.6	3.9	0.1	40.6	0.0	0.0	0.0	0.0	0.0	1.7	48.8	0.0	0.0	50.6	1.1	1.0	6.7	0.0	8.8	
Exiting Leg Total					1698					203					1153					0	3054
Cars	0	1032	119	2	1153	0	0	0	0	0	51	1349	0	1	1401	35	29	202	0	266	2820
% Cars	0.0	92.4	99.2	100.0	93.1	0.0	0.0	0.0	0.0	0.0	96.2	90.5	0.0	100.0	90.7	100.0	96.7	98.5	0.0	98.5	92.3
Exiting Leg Total					1553					199					1068					0	2820
Heavy Vehicles	0	85	1	0	86	0	0	0	0	0	2	142	0	0	144	0	1	3	0	4	234
% Heavy Vehicles	0.0	7.6	0.8	0.0	6.9	0.0	0.0	0.0	0.0	0.0	3.8	9.5	0.0	0.0	9.3	0.0	3.3	1.5	0.0	1.5	7.7
Exiting Leg Total					145					4					85					0	234

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	144	19	0	163	0	0	0	0	0	9	223	0	0	232	7	3	30	0	40	435
8:15 AM	0	175	16	2	193	0	0	0	0	0	5	217	0	0	222	4	5	20	0	29	444
8:30 AM	0	168	21	0	189	0	0	0	0	0	9	212	0	0	221	6	5	40	0	51	461
8:45 AM	0	164	20	0	184	0	0	0	0	0	10	191	0	0	201	5	4	36	0	45	430
Total Volume	0	651	76	2	729	0	0	0	0	0	33	843	0	0	876	22	17	126	0	165	1770
% Approach Total	0.0	89.3	10.4	0.3		0.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0		13.3	10.3	76.4	0.0		
PHF	0.000	0.930	0.905	0.250	0.944	0.000	0.000	0.000	0.000	0.000	0.825	0.945	0.000	0.000	0.944	0.786	0.850	0.788	0.000	0.809	0.960
Cars	0	606	75	2	683	0	0	0	0	0	32	767	0	0	799	22	16	124	0	162	1644
Cars %	0.0	93.1	98.7	100.0	93.7	0.0	0.0	0.0	0.0	0.0	97.0	91.0	0.0	0.0	91.2	100.0	94.1	98.4	0.0	98.2	92.9
Heavy Vehicles	0	45	1	0	46	0	0	0	0	0	1	76	0	0	77	0	1	2	0	3	126
Heavy Vehicles %	0.0	6.9	1.3	0.0	6.3	0.0	0.0	0.0	0.0	0.0	3.0	9.0	0.0	0.0	8.8	0.0	5.9	1.6	0.0	1.8	7.1
Cars Enter Leg	0	606	75	2	683	0	0	0	0	0	32	767	0	0	799	22	16	124	0	162	1644
Heavy Enter Leg	0	45	1	0	46	0	0	0	0	0	1	76	0	0	77	0	1	2	0	3	126
Total Entering Leg	0	651	76	2	729	0	0	0	0	0	33	843	0	0	876	22	17	126	0	165	1770
Cars Exiting Leg					893					123					628					0	1644
Heavy Exit Leg					78					3					45					0	126
Total Exiting Leg					971					126					673					0	1770

PDI File #: **175517 B**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	99	11	0	110	0	0	0	0	0	2	134	0	0	136	5	1	13	0	19	265
7:15 AM	0	92	9	0	101	0	0	0	0	0	7	132	0	0	139	3	4	15	0	22	262
7:30 AM	0	116	10	0	126	0	0	0	0	0	5	156	0	0	161	2	3	27	0	32	319
7:45 AM	0	119	14	0	133	0	0	0	0	0	5	160	0	1	166	3	5	23	0	31	330
Total	0	426	44	0	470	0	0	0	0	0	19	582	0	1	602	13	13	78	0	104	1176
8:00 AM	0	139	19	0	158	0	0	0	0	0	9	205	0	0	214	7	3	29	0	39	411
8:15 AM	0	165	15	2	182	0	0	0	0	0	5	195	0	0	200	4	5	20	0	29	411
8:30 AM	0	157	21	0	178	0	0	0	0	0	9	196	0	0	205	6	4	39	0	49	432
8:45 AM	0	145	20	0	165	0	0	0	0	0	9	171	0	0	180	5	4	36	0	45	390
Total	0	606	75	2	683	0	0	0	0	0	32	767	0	0	799	22	16	124	0	162	1644
Grand Total	0	1032	119	2	1153	0	0	0	0	0	51	1349	0	1	1401	35	29	202	0	266	2820
Approach %	0.0	89.5	10.3	0.2		0.0	0.0	0.0	0.0		3.6	96.3	0.0	0.1		13.2	10.9	75.9	0.0		
Total %	0.0	36.6	4.2	0.1	40.9	0.0	0.0	0.0	0.0	0.0	1.8	47.8	0.0	0.0	49.7	1.2	1.0	7.2	0.0	9.4	
Exiting Leg Total					1553					199					1068					0	2820

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	139	19	0	158	0	0	0	0	0	9	205	0	0	214	7	3	29	0	39	411
8:15 AM	0	165	15	2	182	0	0	0	0	0	5	195	0	0	200	4	5	20	0	29	411
8:30 AM	0	157	21	0	178	0	0	0	0	0	9	196	0	0	205	6	4	39	0	49	432
8:45 AM	0	145	20	0	165	0	0	0	0	0	9	171	0	0	180	5	4	36	0	45	390
Total Volume	0	606	75	2	683	0	0	0	0	0	32	767	0	0	799	22	16	124	0	162	1644
% Approach Total	0.0	88.7	11.0	0.3		0.0	0.0	0.0	0.0		4.0	96.0	0.0	0.0		13.6	9.9	76.5	0.0		
PHF	0.000	0.918	0.893	0.250	0.938	0.000	0.000	0.000	0.000	0.000	0.889	0.935	0.000	0.000	0.933	0.786	0.800	0.795	0.000	0.827	0.951
Entering Leg	0	606	75	2	683	0	0	0	0	0	32	767	0	0	799	22	16	124	0	162	1644
Exiting Leg					893					123					628					0	1644
Total					1576					123					1427					162	3288

PDI File #: **175517 B**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	9	0	0	9	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	24
7:15 AM	0	12	0	0	12	0	0	0	0	0	1	21	0	0	22	0	0	0	0	0	34
7:30 AM	0	11	0	0	11	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	25
7:45 AM	0	8	0	0	8	0	0	0	0	0	0	16	0	0	16	0	0	1	0	1	25
Total	0	40	0	0	40	0	0	0	0	0	1	66	0	0	67	0	0	1	0	1	108
8:00 AM	0	5	0	0	5	0	0	0	0	0	0	18	0	0	18	0	0	1	0	1	24
8:15 AM	0	10	1	0	11	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	33
8:30 AM	0	11	0	0	11	0	0	0	0	0	0	16	0	0	16	0	1	1	0	2	29
8:45 AM	0	19	0	0	19	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	40
Total	0	45	1	0	46	0	0	0	0	0	1	76	0	0	77	0	1	2	0	3	126
Grand Total	0	85	1	0	86	0	0	0	0	0	2	142	0	0	144	0	1	3	0	4	234
Approach %	0.0	98.8	1.2	0.0		0.0	0.0	0.0	0.0		1.4	98.6	0.0	0.0		0.0	25.0	75.0	0.0		
Total %	0.0	36.3	0.4	0.0	36.8	0.0	0.0	0.0	0.0	0.0	0.9	60.7	0.0	0.0	61.5	0.0	0.4	1.3	0.0	1.7	
Exiting Leg Total					145					4					85					0	234

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	5	0	0	5	0	0	0	0	0	0	18	0	0	18	0	0	1	0	1	24
8:15 AM	0	10	1	0	11	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	33
8:30 AM	0	11	0	0	11	0	0	0	0	0	0	16	0	0	16	0	1	1	0	2	29
8:45 AM	0	19	0	0	19	0	0	0	0	0	1	20	0	0	21	0	0	0	0	0	40
Total Volume	0	45	1	0	46	0	0	0	0	0	1	76	0	0	77	0	1	2	0	3	126
% Approach Total	0.0	97.8	2.2	0.0		0.0	0.0	0.0	0.0		1.3	98.7	0.0	0.0		0.0	33.3	66.7	0.0		
PHF	0.000	0.592	0.250	0.000	0.605	0.000	0.000	0.000	0.000	0.000	0.250	0.864	0.000	0.000	0.875	0.000	0.250	0.500	0.000	0.375	0.788
Entering Leg	0	45	1	0	46	0	0	0	0	0	1	76	0	0	77	0	1	2	0	3	126
Exiting Leg					78					3					45					0	126
Total					124					3					122					3	252

PDI File #: **175517 B**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
7:15 AM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	12
7:30 AM	0	7	1	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	1	1	0	0	0	2	14
7:45 AM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	1	11	0	0	0	0	12	0	0	0	0	0	0	0	20
Total	0	26	1	0	0	0	27	0	0	0	0	0	4	4	1	19	0	0	0	0	20	0	1	1	0	0	0	2	53
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	0	0	0	2	13	0	0	0	0	15	0	1	1	0	0	1	3	27
8:15 AM	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0	13	0	0	1	0	14	0	1	2	0	0	0	3	34
8:30 AM	0	12	5	0	0	0	17	0	0	0	0	0	1	1	0	18	0	0	0	0	18	0	1	0	0	0	0	1	37
8:45 AM	0	23	2	0	0	0	25	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	1	1	0	0	0	2	40
Total	0	61	7	0	0	0	68	0	0	0	0	0	1	1	2	57	0	0	1	0	60	0	4	4	0	0	1	9	138
Grand Total	0	87	8	0	0	0	95	0	0	0	0	0	5	5	3	76	0	0	1	0	80	0	5	5	0	0	1	11	191
Approach %	0.0	91.6	8.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		3.8	95.0	0.0	0.0	1.3	0.0		0.0	45.5	45.5	0.0	0.0	9.1		
Total %	0.0	45.5	4.2	0.0	0.0	0.0	49.7	0.0	0.0	0.0	0.0	0.0	2.6	2.6	1.6	39.8	0.0	0.0	0.5	0.0	41.9	0.0	2.6	2.6	0.0	0.0	0.5	5.8	
Exiting Leg Total							81							21							88							1	191

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	0	0	0	2	13	0	0	0	0	15	0	1	1	0	0	1	3	27
8:15 AM	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0	13	0	0	1	0	14	0	1	2	0	0	0	3	34
8:30 AM	0	12	5	0	0	0	17	0	0	0	0	0	1	1	0	18	0	0	0	0	18	0	1	0	0	0	0	1	37
8:45 AM	0	23	2	0	0	0	25	0	0	0	0	0	0	0	0	13	0	0	0	0	13	0	1	1	0	0	0	2	40
Total Volume	0	61	7	0	0	0	68	0	0	0	0	0	1	1	2	57	0	0	1	0	60	0	4	4	0	0	1	9	138
% Approach Total	0.0	89.7	10.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		3.3	95.0	0.0	0.0	1.7	0.0		0.0	44.4	44.4	0.0	0.0	11.1		
PHF	0.000	0.663	0.350	0.000	0.000	0.000	0.680	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.792	0.000	0.000	0.250	0.000	0.833	0.000	1.000	0.500	0.000	0.000	0.250	0.750	0.863
Entering Leg	0	61	7	0	0	0	68	0	0	0	0	0	1	1	2	57	0	0	1	0	60	0	4	4	0	0	1	9	138
Exiting Leg							61							14							62							1	138
Total							129							15							122							10	276

PDI File #: **175517 B**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	1	2	3	0	0	0	0	16	30	46	0	0	0	0	4	8	12	0	0	0	0	6	9	15	76
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	15	15	30	0	0	0	0	2	5	7	0	0	0	0	11	11	22	61
7:30 AM	0	0	0	0	5	0	5	0	0	0	0	18	24	42	0	0	0	0	3	5	8	0	0	0	0	10	8	18	73
7:45 AM	0	0	0	0	6	3	9	0	0	0	0	25	27	52	0	0	0	0	3	1	4	0	0	0	0	9	30	39	104
Total	0	0	0	0	14	5	19	0	0	0	0	74	96	170	0	0	0	0	12	19	31	0	0	0	0	36	58	94	314
8:00 AM	0	0	0	0	8	4	12	0	0	0	0	31	19	50	0	0	0	0	1	2	3	0	0	0	0	9	24	33	98
8:15 AM	0	0	0	0	12	2	14	0	0	0	0	28	26	54	0	0	0	0	4	8	12	0	0	0	0	9	17	26	106
8:30 AM	0	0	0	0	1	3	4	0	0	0	0	22	25	47	0	0	0	0	4	6	10	0	0	0	0	12	19	31	92
8:45 AM	0	0	0	0	6	1	7	0	0	0	0	31	18	49	0	0	0	0	8	1	9	0	0	0	0	8	12	20	85
Total	0	0	0	0	27	10	37	0	0	0	0	112	88	200	0	0	0	0	17	17	34	0	0	0	0	38	72	110	381
Grand Total	0	0	0	0	41	15	56	0	0	0	0	186	184	370	0	0	0	0	29	36	65	0	0	0	0	74	130	204	695
Approach %	0.0	0.0	0.0	0.0	73.2	26.8		0.0	0.0	0.0	0.0	50.3	49.7		0.0	0.0	0.0	0.0	44.6	55.4		0.0	0.0	0.0	0.0	36.3	63.7		
Total %	0.0	0.0	0.0	0.0	5.9	2.2	8.1	0.0	0.0	0.0	0.0	26.8	26.5	53.2	0.0	0.0	0.0	0.0	4.2	5.2	9.4	0.0	0.0	0.0	0.0	10.6	18.7	29.4	
Exiting Leg Total							56							370							65							204	695

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	6	3	9	0	0	0	0	25	27	52	0	0	0	0	3	1	4	0	0	0	0	9	30	39	104
8:00 AM	0	0	0	0	8	4	12	0	0	0	0	31	19	50	0	0	0	0	1	2	3	0	0	0	0	9	24	33	98
8:15 AM	0	0	0	0	12	2	14	0	0	0	0	28	26	54	0	0	0	0	4	8	12	0	0	0	0	9	17	26	106
8:30 AM	0	0	0	0	1	3	4	0	0	0	0	22	25	47	0	0	0	0	4	6	10	0	0	0	0	12	19	31	92
Total Volume	0	0	0	0	27	12	39	0	0	0	0	106	97	203	0	0	0	0	12	17	29	0	0	0	0	39	90	129	400
% Approach Total	0.0	0.0	0.0	0.0	69.2	30.8		0.0	0.0	0.0	0.0	52.2	47.8		0.0	0.0	0.0	0.0	41.4	58.6		0.0	0.0	0.0	0.0	30.2	69.8		
PHF	0.000	0.000	0.000	0.000	0.563	0.750	0.696	0.000	0.000	0.000	0.000	0.855	0.898	0.940	0.000	0.000	0.000	0.000	0.750	0.531	0.604	0.000	0.000	0.000	0.000	0.813	0.750	0.827	0.943
Entering Leg	0	0	0	0	27	12	39	0	0	0	0	106	97	203	0	0	0	0	12	17	29	0	0	0	0	39	90	129	400
Exiting Leg							39							203							29							129	400
Total							78							406							58							258	800

PDI File #: **175517 BB**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	142	20	0	162	0	0	0	0	0	7	182	0	0	189	3	9	13	0	25	376
4:15 PM	0	160	16	0	176	0	0	0	0	0	9	156	0	0	165	2	7	22	0	31	372
4:30 PM	0	164	14	0	178	0	0	0	0	0	7	199	0	0	206	4	9	24	0	37	421
4:45 PM	0	139	19	0	158	0	0	0	0	0	5	179	0	0	184	2	11	27	0	40	382
Total	0	605	69	0	674	0	0	0	0	0	28	716	0	0	744	11	36	86	0	133	1551
5:00 PM	0	173	11	1	185	0	0	0	0	0	7	224	0	0	231	3	9	26	0	38	454
5:15 PM	0	180	28	0	208	0	0	0	0	0	5	208	0	0	213	1	8	33	0	42	463
5:30 PM	0	178	23	0	201	0	0	0	0	0	7	209	0	0	216	2	6	25	0	33	450
5:45 PM	0	166	22	0	188	0	0	0	0	0	5	202	0	0	207	2	5	17	0	24	419
Total	0	697	84	1	782	0	0	0	0	0	24	843	0	0	867	8	28	101	0	137	1786
Grand Total	0	1302	153	1	1456	0	0	0	0	0	52	1559	0	0	1611	19	64	187	0	270	3337
Approach %	0.0	89.4	10.5	0.1		0.0	0.0	0.0	0.0		3.2	96.8	0.0	0.0		7.0	23.7	69.3	0.0		
Total %	0.0	39.0	4.6	0.0	43.6	0.0	0.0	0.0	0.0	0.0	1.6	46.7	0.0	0.0	48.3	0.6	1.9	5.6	0.0	8.1	
Exiting Leg Total					1747					269					1321					0	3337
Cars	0	1253	151	1	1405	0	0	0	0	0	50	1476	0	0	1526	19	64	186	0	269	3200
% Cars	0.0	96.2	98.7	100.0	96.5	0.0	0.0	0.0	0.0	0.0	96.2	94.7	0.0	0.0	94.7	100.0	100.0	99.5	0.0	99.6	95.9
Exiting Leg Total					1663					265					1272					0	3200
Heavy Vehicles	0	49	2	0	51	0	0	0	0	0	2	83	0	0	85	0	0	1	0	1	137
% Heavy Vehicles	0.0	3.8	1.3	0.0	3.5	0.0	0.0	0.0	0.0	0.0	3.8	5.3	0.0	0.0	5.3	0.0	0.0	0.5	0.0	0.4	4.1
Exiting Leg Total					84					4					49					0	137

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	173	11	1	185	0	0	0	0	0	7	224	0	0	231	3	9	26	0	38	454
5:15 PM	0	180	28	0	208	0	0	0	0	0	5	208	0	0	213	1	8	33	0	42	463
5:30 PM	0	178	23	0	201	0	0	0	0	0	7	209	0	0	216	2	6	25	0	33	450
5:45 PM	0	166	22	0	188	0	0	0	0	0	5	202	0	0	207	2	5	17	0	24	419
Total Volume	0	697	84	1	782	0	0	0	0	0	24	843	0	0	867	8	28	101	0	137	1786
% Approach Total	0.0	89.1	10.7	0.1		0.0	0.0	0.0	0.0		2.8	97.2	0.0	0.0		5.8	20.4	73.7	0.0		
PHF	0.000	0.968	0.750	0.250	0.940	0.000	0.000	0.000	0.000	0.000	0.857	0.941	0.000	0.000	0.938	0.667	0.778	0.765	0.000	0.815	0.964
Cars	0	679	84	1	764	0	0	0	0	0	23	807	0	0	830	8	28	100	0	136	1730
Cars %	0.0	97.4	100.0	100.0	97.7	0.0	0.0	0.0	0.0	0.0	95.8	95.7	0.0	0.0	95.7	100.0	100.0	99.0	0.0	99.3	96.9
Heavy Vehicles	0	18	0	0	18	0	0	0	0	0	1	36	0	0	37	0	0	1	0	1	56
Heavy Vehicles %	0.0	2.6	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	4.2	4.3	0.0	0.0	4.3	0.0	0.0	1.0	0.0	0.7	3.1
Cars Enter Leg	0	679	84	1	764	0	0	0	0	0	23	807	0	0	830	8	28	100	0	136	1730
Heavy Enter Leg	0	18	0	0	18	0	0	0	0	0	1	36	0	0	37	0	0	1	0	1	56
Total Entering Leg	0	697	84	1	782	0	0	0	0	0	24	843	0	0	867	8	28	101	0	137	1786
Cars Exiting Leg					908					135					687					0	1730
Heavy Exit Leg					37					1					18					0	56
Total Exiting Leg					945					136					705					0	1786

PDI File #: **175517 BB**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	132	20	0	152	0	0	0	0	0	7	172	0	0	179	3	9	13	0	25	356
4:15 PM	0	152	15	0	167	0	0	0	0	0	9	146	0	0	155	2	7	22	0	31	353
4:30 PM	0	157	14	0	171	0	0	0	0	0	6	180	0	0	186	4	9	24	0	37	394
4:45 PM	0	133	18	0	151	0	0	0	0	0	5	171	0	0	176	2	11	27	0	40	367
Total	0	574	67	0	641	0	0	0	0	0	27	669	0	0	696	11	36	86	0	133	1470
5:00 PM	0	169	11	1	181	0	0	0	0	0	6	207	0	0	213	3	9	26	0	38	432
5:15 PM	0	177	28	0	205	0	0	0	0	0	5	201	0	0	206	1	8	33	0	42	453
5:30 PM	0	170	23	0	193	0	0	0	0	0	7	205	0	0	212	2	6	25	0	33	438
5:45 PM	0	163	22	0	185	0	0	0	0	0	5	194	0	0	199	2	5	16	0	23	407
Total	0	679	84	1	764	0	0	0	0	0	23	807	0	0	830	8	28	100	0	136	1730
Grand Total	0	1253	151	1	1405	0	0	0	0	0	50	1476	0	0	1526	19	64	186	0	269	3200
Approach %	0.0	89.2	10.7	0.1		0.0	0.0	0.0	0.0		3.3	96.7	0.0	0.0		7.1	23.8	69.1	0.0		
Total %	0.0	39.2	4.7	0.0	43.9	0.0	0.0	0.0	0.0	0.0	1.6	46.1	0.0	0.0	47.7	0.6	2.0	5.8	0.0	8.4	
Exiting Leg Total					1663					265					1272					0	3200

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	169	11	1	181	0	0	0	0	0	6	207	0	0	213	3	9	26	0	38	432
5:15 PM	0	177	28	0	205	0	0	0	0	0	5	201	0	0	206	1	8	33	0	42	453
5:30 PM	0	170	23	0	193	0	0	0	0	0	7	205	0	0	212	2	6	25	0	33	438
5:45 PM	0	163	22	0	185	0	0	0	0	0	5	194	0	0	199	2	5	16	0	23	407
Total Volume	0	679	84	1	764	0	0	0	0	0	23	807	0	0	830	8	28	100	0	136	1730
% Approach Total	0.0	88.9	11.0	0.1		0.0	0.0	0.0	0.0		2.8	97.2	0.0	0.0		5.9	20.6	73.5	0.0		
PHF	0.000	0.959	0.750	0.250	0.932	0.000	0.000	0.000	0.000	0.000	0.821	0.975	0.000	0.000	0.974	0.667	0.778	0.758	0.000	0.810	0.955
Entering Leg	0	679	84	1	764	0	0	0	0	0	23	807	0	0	830	8	28	100	0	136	1730
Exiting Leg					908					135					687					0	1730
Total					1672					135					1517					136	3460

PDI File #: **175517 BB**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	10	0	0	10	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	20
4:15 PM	0	8	1	0	9	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	19
4:30 PM	0	7	0	0	7	0	0	0	0	0	1	19	0	0	20	0	0	0	0	0	27
4:45 PM	0	6	1	0	7	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	15
Total	0	31	2	0	33	0	0	0	0	0	1	47	0	0	48	0	0	0	0	0	81
5:00 PM	0	4	0	0	4	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	22
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	10
5:30 PM	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	12
5:45 PM	0	3	0	0	3	0	0	0	0	0	0	8	0	0	8	0	0	1	0	1	12
Total	0	18	0	0	18	0	0	0	0	0	1	36	0	0	37	0	0	1	0	1	56
Grand Total	0	49	2	0	51	0	0	0	0	0	2	83	0	0	85	0	0	1	0	1	137
Approach %	0.0	96.1	3.9	0.0		0.0	0.0	0.0	0.0		2.4	97.6	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	35.8	1.5	0.0	37.2	0.0	0.0	0.0	0.0	0.0	1.5	60.6	0.0	0.0	62.0	0.0	0.0	0.7	0.0	0.7	
Exiting Leg Total					84					4					49					0	137

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

6:45 AM	Massachusetts Avenue (Route 2A)					Marlborough Street					Massachusetts Avenue (Route 2A)					Marlborough Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	9	0	0	9	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	24
7:15 AM	0	12	0	0	12	0	0	0	0	0	1	21	0	0	22	0	0	0	0	0	34
7:30 AM	0	11	0	0	11	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	25
Total Volume	0	32	0	0	32	0	0	0	0	0	1	50	0	0	51	0	0	0	0	0	83
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		2.0	98.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.250	0.595	0.000	0.000	0.580	0.000	0.000	0.000	0.000	0.000	0.610
Entering Leg	0	32	0	0	32	0	0	0	0	0	1	50	0	0	51	0	0	0	0	0	83
Exiting Leg					50					1					32					0	83
Total					82					1					83					0	166

PDI File #: **175517 BB**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	9	1	0	0	0	10	0	0	0	0	1	0	1	0	8	0	0	0	1	9	0	2	0	0	1	1	4	24
4:15 PM	0	10	1	0	0	0	11	0	0	0	0	3	0	3	0	12	0	0	0	0	12	0	2	1	0	2	0	5	31
4:30 PM	0	17	0	0	0	0	17	0	0	0	0	2	1	3	0	10	0	0	0	0	10	0	0	0	0	0	0	0	30
4:45 PM	0	19	0	0	0	0	19	0	0	0	0	0	2	2	0	12	0	0	0	0	12	0	0	1	0	0	2	3	36
Total	0	55	2	0	0	0	57	0	0	0	0	6	3	9	0	42	0	0	0	1	43	0	4	2	0	3	3	12	121
5:00 PM	0	19	0	0	0	0	19	0	0	0	0	2	3	5	0	23	0	0	0	0	23	0	1	1	0	0	1	3	50
5:15 PM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	0	22	0	0	0	0	22	0	2	1	0	0	0	3	52
5:30 PM	0	25	1	0	0	0	26	0	0	0	0	1	1	2	1	28	0	0	0	0	29	0	2	0	0	0	0	2	59
5:45 PM	0	20	0	0	0	0	20	0	0	0	0	0	0	0	0	19	0	0	0	0	19	0	0	1	0	0	0	1	40
Total	0	91	1	0	0	0	92	0	0	0	0	3	4	7	1	92	0	0	0	0	93	0	5	3	0	0	1	9	201
Grand Total	0	146	3	0	0	0	149	0	0	0	0	9	7	16	1	134	0	0	0	1	136	0	9	5	0	3	4	21	322
Approach %	0.0	98.0	2.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	56.3	43.8		0.7	98.5	0.0	0.0	0.0	0.7		0.0	42.9	23.8	0.0	14.3	19.0		
Total %	0.0	45.3	0.9	0.0	0.0	0.0	46.3	0.0	0.0	0.0	0.0	2.8	2.2	5.0	0.3	41.6	0.0	0.0	0.0	0.3	42.2	0.0	2.8	1.6	0.0	0.9	1.2	6.5	
Exiting Leg Total							139							29							147							7	322

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	19	0	0	0	0	19	0	0	0	0	2	3	5	0	23	0	0	0	0	23	0	1	1	0	0	1	3	50
5:15 PM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	0	22	0	0	0	0	22	0	2	1	0	0	0	3	52
5:30 PM	0	25	1	0	0	0	26	0	0	0	0	1	1	2	1	28	0	0	0	0	29	0	2	0	0	0	0	2	59
5:45 PM	0	20	0	0	0	0	20	0	0	0	0	0	0	0	0	19	0	0	0	0	19	0	0	1	0	0	0	1	40
Total Volume	0	91	1	0	0	0	92	0	0	0	0	3	4	7	1	92	0	0	0	0	93	0	5	3	0	0	1	9	201
% Approach Total	0.0	98.9	1.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	42.9	57.1		1.1	98.9	0.0	0.0	0.0	0.0		0.0	55.6	33.3	0.0	0.0	11.1		
PHF	0.000	0.843	0.250	0.000	0.000	0.000	0.852	0.000	0.000	0.000	0.000	0.375	0.333	0.350	0.250	0.821	0.000	0.000	0.000	0.000	0.802	0.000	0.625	0.750	0.000	0.000	0.250	0.750	0.852
Entering Leg	0	91	1	0	0	0	92	0	0	0	0	3	4	7	1	92	0	0	0	0	93	0	5	3	0	0	1	9	201
Exiting Leg							95							14							91							1	201
Total							187							21							184							10	402

PDI File #: **175517 BB**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Marlborough Street W: Marlborough Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	4	1	5	0	0	0	0	24	29	53	0	0	0	0	7	7	14	0	0	0	0	11	26	37	109
4:15 PM	0	0	0	0	5	0	5	0	0	0	0	38	37	75	0	0	0	0	8	7	15	0	0	0	0	18	23	41	136
4:30 PM	0	0	0	0	1	3	4	0	0	0	0	45	34	79	0	0	0	0	7	8	15	0	0	0	0	20	30	50	148
4:45 PM	0	0	0	0	7	9	16	0	0	0	0	56	43	99	0	0	0	0	8	4	12	0	0	0	0	21	19	40	167
Total	0	0	0	0	17	13	30	0	0	0	0	163	143	306	0	0	0	0	30	26	56	0	0	0	0	70	98	168	560
5:00 PM	0	0	0	0	5	1	6	0	0	0	0	57	75	132	0	0	0	0	3	6	9	0	0	0	0	14	32	46	193
5:15 PM	0	0	0	0	14	8	22	0	0	0	0	60	61	121	0	0	0	0	3	4	7	0	0	0	0	33	40	73	223
5:30 PM	0	0	0	0	9	7	16	0	0	0	0	71	43	114	0	0	0	0	11	8	19	0	0	0	0	26	55	81	230
5:45 PM	0	0	0	0	6	2	8	0	0	0	0	80	40	120	0	0	0	0	13	12	25	0	0	0	0	38	43	81	234
Total	0	0	0	0	34	18	52	0	0	0	0	268	219	487	0	0	0	0	30	30	60	0	0	0	0	111	170	281	880
Grand Total	0	0	0	0	51	31	82	0	0	0	0	431	362	793	0	0	0	0	60	56	116	0	0	0	0	181	268	449	1440
Approach %	0.0	0.0	0.0	0.0	62.2	37.8		0.0	0.0	0.0	0.0	54.4	45.6		0.0	0.0	0.0	0.0	51.7	48.3		0.0	0.0	0.0	0.0	40.3	59.7		
Total %	0.0	0.0	0.0	0.0	3.5	2.2	5.7	0.0	0.0	0.0	0.0	29.9	25.1	55.1	0.0	0.0	0.0	0.0	4.2	3.9	8.1	0.0	0.0	0.0	0.0	12.6	18.6	31.2	
Exiting Leg Total							82							793							116							449	1440

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Marlborough Street							Massachusetts Avenue (Route 2A)							Marlborough Street							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	5	1	6	0	0	0	0	57	75	132	0	0	0	0	3	6	9	0	0	0	0	14	32	46	193
5:15 PM	0	0	0	0	14	8	22	0	0	0	0	60	61	121	0	0	0	0	3	4	7	0	0	0	0	33	40	73	223
5:30 PM	0	0	0	0	9	7	16	0	0	0	0	71	43	114	0	0	0	0	11	8	19	0	0	0	0	26	55	81	230
5:45 PM	0	0	0	0	6	2	8	0	0	0	0	80	40	120	0	0	0	0	13	12	25	0	0	0	0	38	43	81	234
Total Volume	0	0	0	0	34	18	52	0	0	0	0	268	219	487	0	0	0	0	30	30	60	0	0	0	0	111	170	281	880
% Approach Total	0.0	0.0	0.0	0.0	65.4	34.6		0.0	0.0	0.0	0.0	55.0	45.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	39.5	60.5		
PHF	0.000	0.000	0.000	0.000	0.607	0.563	0.591	0.000	0.000	0.000	0.000	0.838	0.730	0.922	0.000	0.000	0.000	0.000	0.577	0.625	0.600	0.000	0.000	0.000	0.000	0.730	0.773	0.867	0.940
Entering Leg	0	0	0	0	34	18	52	0	0	0	0	268	219	487	0	0	0	0	30	30	60	0	0	0	0	111	170	281	880
Exiting Leg							52							487							60							281	880
Total							104							974							120							562	1760

PDI File #: **175517 C**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	115	0	0	121	12	0	16	0	28	0	143	0	0	143	0	0	0	0	0	292
7:15 AM	5	106	0	0	111	18	1	14	0	33	0	145	2	0	147	0	0	0	0	0	291
7:30 AM	6	122	0	0	128	19	1	11	0	31	0	156	1	0	157	0	0	0	0	0	316
7:45 AM	4	129	0	0	133	33	2	16	0	51	0	154	0	0	154	0	0	0	0	0	338
Total	21	472	0	0	493	82	4	57	0	143	0	598	3	0	601	0	0	0	0	0	1237
8:00 AM	5	152	0	0	157	35	4	17	0	56	0	196	1	0	197	0	0	0	0	0	410
8:15 AM	6	166	0	0	172	29	1	12	0	42	0	193	0	0	193	0	0	0	0	0	407
8:30 AM	8	162	0	0	170	31	6	13	0	50	0	190	0	0	190	0	0	0	0	0	410
8:45 AM	4	172	0	0	176	24	7	12	0	43	0	179	1	0	180	0	0	0	0	0	399
Total	23	652	0	0	675	119	18	54	0	191	0	758	2	0	760	0	0	0	0	0	1626
Grand Total	44	1124	0	0	1168	201	22	111	0	334	0	1356	5	0	1361	0	0	0	0	0	2863
Approach %	3.8	96.2	0.0	0.0		60.2	6.6	33.2	0.0		0.0	99.6	0.4	0.0		0.0	0.0	0.0	0.0		
Total %	1.5	39.3	0.0	0.0	40.8	7.0	0.8	3.9	0.0	11.7	0.0	47.4	0.2	0.0	47.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1557					0					1235					71	2863
Cars	40	1044	0	0	1084	199	19	109	0	327	0	1208	4	0	1212	0	0	0	0	0	2623
% Cars	90.9	92.9	0.0	0.0	92.8	99.0	86.4	98.2	0.0	97.9	0.0	89.1	80.0	0.0	89.1	0.0	0.0	0.0	0.0	0.0	91.6
Exiting Leg Total					1407					0					1153					63	2623
Heavy Vehicles	4	80	0	0	84	2	3	2	0	7	0	148	1	0	149	0	0	0	0	0	240
% Heavy Vehicles	9.1	7.1	0.0	0.0	7.2	1.0	13.6	1.8	0.0	2.1	0.0	10.9	20.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0	8.4
Exiting Leg Total					150					0					82					8	240

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	5	152	0	0	157	35	4	17	0	56	0	196	1	0	197	0	0	0	0	0	410
8:15 AM	6	166	0	0	172	29	1	12	0	42	0	193	0	0	193	0	0	0	0	0	407
8:30 AM	8	162	0	0	170	31	6	13	0	50	0	190	0	0	190	0	0	0	0	0	410
8:45 AM	4	172	0	0	176	24	7	12	0	43	0	179	1	0	180	0	0	0	0	0	399
Total Volume	23	652	0	0	675	119	18	54	0	191	0	758	2	0	760	0	0	0	0	0	1626
% Approach Total	3.4	96.6	0.0	0.0		62.3	9.4	28.3	0.0		0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.719	0.948	0.000	0.000	0.959	0.850	0.643	0.794	0.000	0.853	0.000	0.967	0.500	0.000	0.964	0.000	0.000	0.000	0.000	0.000	0.991
Cars	22	608	0	0	630	117	15	53	0	185	0	682	2	0	684	0	0	0	0	0	1499
Cars %	95.7	93.3	0.0	0.0	93.3	98.3	83.3	98.1	0.0	96.9	0.0	90.0	100.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0	92.2
Heavy Vehicles	1	44	0	0	45	2	3	1	0	6	0	76	0	0	76	0	0	0	0	0	127
Heavy Vehicles %	4.3	6.7	0.0	0.0	6.7	1.7	16.7	1.9	0.0	3.1	0.0	10.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	7.8
Cars Enter Leg	22	608	0	0	630	117	15	53	0	185	0	682	2	0	684	0	0	0	0	0	1499
Heavy Enter Leg	1	44	0	0	45	2	3	1	0	6	0	76	0	0	76	0	0	0	0	0	127
Total Entering Leg	23	652	0	0	675	119	18	54	0	191	0	758	2	0	760	0	0	0	0	0	1626
Cars Exiting Leg					799					0					661					39	1499
Heavy Exit Leg					78					0					45					4	127
Total Exiting Leg					877					0					706					43	1626

PDI File #: **175517 C**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	6	106	0	0	112	12	0	15	0	27	0	125	0	0	125	0	0	0	0	0	264
7:15 AM	3	94	0	0	97	18	1	14	0	33	0	122	1	0	123	0	0	0	0	0	253
7:30 AM	5	113	0	0	118	19	1	11	0	31	0	142	1	0	143	0	0	0	0	0	292
7:45 AM	4	123	0	0	127	33	2	16	0	51	0	137	0	0	137	0	0	0	0	0	315
Total	18	436	0	0	454	82	4	56	0	142	0	526	2	0	528	0	0	0	0	0	1124
8:00 AM	5	145	0	0	150	35	4	17	0	56	0	178	1	0	179	0	0	0	0	0	385
8:15 AM	6	159	0	0	165	27	1	11	0	39	0	172	0	0	172	0	0	0	0	0	376
8:30 AM	8	150	0	0	158	31	5	13	0	49	0	173	0	0	173	0	0	0	0	0	380
8:45 AM	3	154	0	0	157	24	5	12	0	41	0	159	1	0	160	0	0	0	0	0	358
Total	22	608	0	0	630	117	15	53	0	185	0	682	2	0	684	0	0	0	0	0	1499
Grand Total	40	1044	0	0	1084	199	19	109	0	327	0	1208	4	0	1212	0	0	0	0	0	2623
Approach %	3.7	96.3	0.0	0.0		60.9	5.8	33.3	0.0		0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		
Total %	1.5	39.8	0.0	0.0	41.3	7.6	0.7	4.2	0.0	12.5	0.0	46.1	0.2	0.0	46.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1407					0					1153					63	2623

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	5	145	0	0	150	35	4	17	0	56	0	178	1	0	179	0	0	0	0	0	385
8:15 AM	6	159	0	0	165	27	1	11	0	39	0	172	0	0	172	0	0	0	0	0	376
8:30 AM	8	150	0	0	158	31	5	13	0	49	0	173	0	0	173	0	0	0	0	0	380
8:45 AM	3	154	0	0	157	24	5	12	0	41	0	159	1	0	160	0	0	0	0	0	358
Total Volume	22	608	0	0	630	117	15	53	0	185	0	682	2	0	684	0	0	0	0	0	1499
% Approach Total	3.5	96.5	0.0	0.0		63.2	8.1	28.6	0.0		0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.688	0.956	0.000	0.000	0.955	0.836	0.750	0.779	0.000	0.826	0.000	0.958	0.500	0.000	0.955	0.000	0.000	0.000	0.000	0.000	0.973
Entering Leg	22	608	0	0	630	117	15	53	0	185	0	682	2	0	684	0	0	0	0	0	1499
Exiting Leg					799					0					661					39	1499
Total					1429					185					1345					39	2998

PDI File #: **175517 C**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	9	0	0	9	0	0	1	0	1	0	18	0	0	18	0	0	0	0	0	28
7:15 AM	2	12	0	0	14	0	0	0	0	0	0	23	1	0	24	0	0	0	0	0	38
7:30 AM	1	9	0	0	10	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	24
7:45 AM	0	6	0	0	6	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	23
Total	3	36	0	0	39	0	0	1	0	1	0	72	1	0	73	0	0	0	0	0	113
8:00 AM	0	7	0	0	7	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	25
8:15 AM	0	7	0	0	7	2	0	1	0	3	0	21	0	0	21	0	0	0	0	0	31
8:30 AM	0	12	0	0	12	0	1	0	0	1	0	17	0	0	17	0	0	0	0	0	30
8:45 AM	1	18	0	0	19	0	2	0	0	2	0	20	0	0	20	0	0	0	0	0	41
Total	1	44	0	0	45	2	3	1	0	6	0	76	0	0	76	0	0	0	0	0	127
Grand Total	4	80	0	0	84	2	3	2	0	7	0	148	1	0	149	0	0	0	0	0	240
Approach %	4.8	95.2	0.0	0.0		28.6	42.9	28.6	0.0		0.0	99.3	0.7	0.0		0.0	0.0	0.0	0.0		
Total %	1.7	33.3	0.0	0.0	35.0	0.8	1.3	0.8	0.0	2.9	0.0	61.7	0.4	0.0	62.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					150					0					82					8	240

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	7	0	0	7	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	25
8:15 AM	0	7	0	0	7	2	0	1	0	3	0	21	0	0	21	0	0	0	0	0	31
8:30 AM	0	12	0	0	12	0	1	0	0	1	0	17	0	0	17	0	0	0	0	0	30
8:45 AM	1	18	0	0	19	0	2	0	0	2	0	20	0	0	20	0	0	0	0	0	41
Total Volume	1	44	0	0	45	2	3	1	0	6	0	76	0	0	76	0	0	0	0	0	127
% Approach Total	2.2	97.8	0.0	0.0		33.3	50.0	16.7	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.611	0.000	0.000	0.592	0.250	0.375	0.250	0.000	0.500	0.000	0.905	0.000	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.774
Entering Leg	1	44	0	0	45	2	3	1	0	6	0	76	0	0	76	0	0	0	0	0	127
Exiting Leg					78					0					45					4	127
Total					123					6					121					4	254

PDI File #: **175517 C**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	4	4	0	5	0	0	0	0	5	0	0	0	0	0	0	0	12
7:15 AM	0	10	0	0	0	0	10	1	0	0	0	1	1	3	0	3	0	0	0	0	3	0	0	0	0	0	0	0	16
7:30 AM	0	7	0	0	0	0	7	1	0	0	0	1	0	2	0	4	0	0	0	0	4	0	0	0	0	0	0	0	13
7:45 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	19
Total	0	27	0	0	0	0	27	2	0	0	0	2	5	9	0	24	0	0	0	0	24	0	0	0	0	0	0	0	60
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	1	9	10	0	13	0	0	0	0	13	0	0	0	0	0	0	0	32
8:15 AM	0	13	0	0	0	0	13	1	0	0	0	0	5	6	0	14	0	0	0	0	14	0	0	0	0	0	0	0	33
8:30 AM	0	13	0	0	0	0	13	1	0	0	0	0	1	2	0	15	0	0	0	0	15	0	0	0	0	0	0	0	30
8:45 AM	0	21	0	0	0	0	21	1	0	0	0	0	1	2	0	11	0	0	0	0	11	0	0	0	0	1	1	2	36
Total	0	56	0	0	0	0	56	3	0	0	0	1	16	20	0	53	0	0	0	0	53	0	0	0	0	1	1	2	131
Grand Total	0	83	0	0	0	0	83	5	0	0	0	3	21	29	0	77	0	0	0	0	77	0	0	0	0	1	1	2	191
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		17.2	0.0	0.0	0.0	10.3	72.4		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		
Total %	0.0	43.5	0.0	0.0	0.0	0.0	43.5	2.6	0.0	0.0	0.0	1.6	11.0	15.2	0.0	40.3	0.0	0.0	0.0	0.0	40.3	0.0	0.0	0.0	0.0	0.5	0.5	1.0	
Exiting Leg Total							82							24							83							2	191

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	1	9	10	0	13	0	0	0	0	13	0	0	0	0	0	0	0	32
8:15 AM	0	13	0	0	0	0	13	1	0	0	0	0	5	6	0	14	0	0	0	0	14	0	0	0	0	0	0	0	33
8:30 AM	0	13	0	0	0	0	13	1	0	0	0	0	1	2	0	15	0	0	0	0	15	0	0	0	0	0	0	0	30
8:45 AM	0	21	0	0	0	0	21	1	0	0	0	0	1	2	0	11	0	0	0	0	11	0	0	0	0	1	1	2	36
Total Volume	0	56	0	0	0	0	56	3	0	0	0	1	16	20	0	53	0	0	0	0	53	0	0	0	0	1	1	2	131
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		15.0	0.0	0.0	0.0	5.0	80.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.667	0.000	0.000	0.000	0.000	0.667	0.750	0.000	0.000	0.000	0.250	0.444	0.500	0.000	0.883	0.000	0.000	0.000	0.000	0.883	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.910
Entering Leg	0	56	0	0	0	0	56	3	0	0	0	1	16	20	0	53	0	0	0	0	53	0	0	0	0	1	1	2	131
Exiting Leg							56							17							56							2	131
Total							112							37							109							4	262

PDI File #: **175517 C**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	3	3	6	0	0	0	0	26	26	52	0	0	0	0	0	1	1	0	0	0	0	3	8	11	70
7:15 AM	0	0	0	0	5	5	10	0	0	0	0	20	21	41	0	0	0	0	0	2	2	0	0	0	0	11	11	22	75
7:30 AM	0	0	0	0	3	2	5	0	0	0	0	29	19	48	0	0	0	0	2	2	4	0	0	0	0	11	16	27	84
7:45 AM	0	0	0	0	13	7	20	0	0	0	0	32	27	59	0	0	0	0	0	2	2	0	0	0	0	14	23	37	118
Total	0	0	0	0	24	17	41	0	0	0	0	107	93	200	0	0	0	0	2	7	9	0	0	0	0	39	58	97	347
8:00 AM	0	0	0	0	8	7	15	0	0	0	0	47	18	65	0	0	0	0	0	0	0	0	0	0	0	9	25	34	114
8:15 AM	0	0	0	0	6	3	9	0	0	0	0	57	29	86	0	0	0	0	0	0	0	0	0	0	0	9	15	24	119
8:30 AM	0	0	0	0	11	3	14	0	0	0	0	38	31	69	0	0	0	0	0	1	1	0	0	0	0	12	15	27	111
8:45 AM	0	0	0	0	9	5	14	0	0	0	0	33	28	61	0	0	0	0	1	0	1	0	0	0	0	11	25	36	112
Total	0	0	0	0	34	18	52	0	0	0	0	175	106	281	0	0	0	0	1	1	2	0	0	0	0	41	80	121	456
Grand Total	0	0	0	0	58	35	93	0	0	0	0	282	199	481	0	0	0	0	3	8	11	0	0	0	0	80	138	218	803
Approach %	0.0	0.0	0.0	0.0	62.4	37.6		0.0	0.0	0.0	0.0	58.6	41.4		0.0	0.0	0.0	0.0	27.3	72.7		0.0	0.0	0.0	0.0	36.7	63.3		
Total %	0.0	0.0	0.0	0.0	7.2	4.4	11.6	0.0	0.0	0.0	0.0	35.1	24.8	59.9	0.0	0.0	0.0	0.0	0.4	1.0	1.4	0.0	0.0	0.0	0.0	10.0	17.2	27.1	
Exiting Leg Total							93							481							11							218	803

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	13	7	20	0	0	0	0	32	27	59	0	0	0	0	0	2	2	0	0	0	0	14	23	37	118
8:00 AM	0	0	0	0	8	7	15	0	0	0	0	47	18	65	0	0	0	0	0	0	0	0	0	0	0	9	25	34	114
8:15 AM	0	0	0	0	6	3	9	0	0	0	0	57	29	86	0	0	0	0	0	0	0	0	0	0	0	9	15	24	119
8:30 AM	0	0	0	0	11	3	14	0	0	0	0	38	31	69	0	0	0	0	0	1	1	0	0	0	0	12	15	27	111
Total Volume	0	0	0	0	38	20	58	0	0	0	0	174	105	279	0	0	0	0	0	3	3	0	0	0	0	44	78	122	462
% Approach Total	0.0	0.0	0.0	0.0	65.5	34.5		0.0	0.0	0.0	0.0	62.4	37.6		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	36.1	63.9		
PHF	0.000	0.000	0.000	0.000	0.731	0.714	0.725	0.000	0.000	0.000	0.000	0.763	0.847	0.811	0.000	0.000	0.000	0.000	0.000	0.375	0.375	0.000	0.000	0.000	0.000	0.786	0.780	0.824	0.971
Entering Leg	0	0	0	0	38	20	58	0	0	0	0	174	105	279	0	0	0	0	0	3	3	0	0	0	0	44	78	122	462
Exiting Leg							58							279							3							122	462
Total							116							558							6							244	924

PDI File #: **175517 CC**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	4	142	0	0	146	29	6	11	0	46	0	157	1	0	158	0	0	0	0	0	350
4:15 PM	5	158	0	0	163	19	4	11	0	34	0	140	0	1	141	0	0	0	0	0	338
4:30 PM	5	154	0	0	159	23	7	11	0	41	0	177	0	0	177	0	0	0	0	0	377
4:45 PM	6	140	0	0	146	25	11	12	0	48	0	160	0	0	160	0	0	0	0	0	354
Total	20	594	0	0	614	96	28	45	0	169	0	634	1	1	636	0	0	0	0	0	1419
5:00 PM	6	164	0	0	170	36	10	7	0	53	0	189	0	0	189	0	0	0	0	0	412
5:15 PM	7	181	0	0	188	28	5	12	0	45	0	177	1	0	178	0	0	0	0	0	411
5:30 PM	8	170	0	0	178	36	9	17	0	62	0	182	0	0	182	0	0	0	0	0	422
5:45 PM	3	158	0	0	161	27	10	13	0	50	0	176	0	0	176	0	0	0	0	0	387
Total	24	673	0	0	697	127	34	49	0	210	0	724	1	0	725	0	0	0	0	0	1632
Grand Total	44	1267	0	0	1311	223	62	94	0	379	0	1358	2	1	1361	0	0	0	0	0	3051
Approach %	3.4	96.6	0.0	0.0		58.8	16.4	24.8	0.0		0.0	99.8	0.1	0.1		0.0	0.0	0.0	0.0		
Total %	1.4	41.5	0.0	0.0	43.0	7.3	2.0	3.1	0.0	12.4	0.0	44.5	0.1	0.0	44.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1581					0					1362					108	3051
Cars	44	1217	0	0	1261	221	62	92	0	375	0	1269	2	1	1272	0	0	0	0	0	2908
% Cars	100.0	96.1	0.0	0.0	96.2	99.1	100.0	97.9	0.0	98.9	0.0	93.4	100.0	100.0	93.5	0.0	0.0	0.0	0.0	0.0	95.3
Exiting Leg Total					1490					0					1310					108	2908
Heavy Vehicles	0	50	0	0	50	2	0	2	0	4	0	89	0	0	89	0	0	0	0	0	143
% Heavy Vehicles	0.0	3.9	0.0	0.0	3.8	0.9	0.0	2.1	0.0	1.1	0.0	6.6	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	4.7
Exiting Leg Total					91					0					52					0	143

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	6	164	0	0	170	36	10	7	0	53	0	189	0	0	189	0	0	0	0	0	412
5:15 PM	7	181	0	0	188	28	5	12	0	45	0	177	1	0	178	0	0	0	0	0	411
5:30 PM	8	170	0	0	178	36	9	17	0	62	0	182	0	0	182	0	0	0	0	0	422
5:45 PM	3	158	0	0	161	27	10	13	0	50	0	176	0	0	176	0	0	0	0	0	387
Total Volume	24	673	0	0	697	127	34	49	0	210	0	724	1	0	725	0	0	0	0	0	1632
% Approach Total	3.4	96.6	0.0	0.0		60.5	16.2	23.3	0.0		0.0	99.9	0.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.930	0.000	0.000	0.927	0.882	0.850	0.721	0.000	0.847	0.000	0.958	0.250	0.000	0.959	0.000	0.000	0.000	0.000	0.000	0.967
Cars	24	656	0	0	680	126	34	47	0	207	0	686	1	0	687	0	0	0	0	0	1574
Cars %	100.0	97.5	0.0	0.0	97.6	99.2	100.0	95.9	0.0	98.6	0.0	94.8	100.0	0.0	94.8	0.0	0.0	0.0	0.0	0.0	96.4
Heavy Vehicles	0	17	0	0	17	1	0	2	0	3	0	38	0	0	38	0	0	0	0	0	58
Heavy Vehicles %	0.0	2.5	0.0	0.0	2.4	0.8	0.0	4.1	0.0	1.4	0.0	5.2	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	3.6
Cars Enter Leg	24	656	0	0	680	126	34	47	0	207	0	686	1	0	687	0	0	0	0	0	1574
Heavy Enter Leg	0	17	0	0	17	1	0	2	0	3	0	38	0	0	38	0	0	0	0	0	58
Total Entering Leg	24	673	0	0	697	127	34	49	0	210	0	724	1	0	725	0	0	0	0	0	1632
Cars Exiting Leg					812					0					703					59	1574
Heavy Exit Leg					39					0					19					0	58
Total Exiting Leg					851					0					722					59	1632

PDI File #: **175517 CC**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	4	132	0	0	136	29	6	11	0	46	0	147	1	0	148	0	0	0	0	0	330
4:15 PM	5	151	0	0	156	19	4	11	0	34	0	129	0	1	130	0	0	0	0	0	320
4:30 PM	5	144	0	0	149	22	7	11	0	40	0	157	0	0	157	0	0	0	0	0	346
4:45 PM	6	134	0	0	140	25	11	12	0	48	0	150	0	0	150	0	0	0	0	0	338
Total	20	561	0	0	581	95	28	45	0	168	0	583	1	1	585	0	0	0	0	0	1334
5:00 PM	6	160	0	0	166	36	10	7	0	53	0	170	0	0	170	0	0	0	0	0	389
5:15 PM	7	178	0	0	185	28	5	12	0	45	0	169	1	0	170	0	0	0	0	0	400
5:30 PM	8	164	0	0	172	36	9	17	0	62	0	178	0	0	178	0	0	0	0	0	412
5:45 PM	3	154	0	0	157	26	10	11	0	47	0	169	0	0	169	0	0	0	0	0	373
Total	24	656	0	0	680	126	34	47	0	207	0	686	1	0	687	0	0	0	0	0	1574
Grand Total	44	1217	0	0	1261	221	62	92	0	375	0	1269	2	1	1272	0	0	0	0	0	2908
Approach %	3.5	96.5	0.0	0.0		58.9	16.5	24.5	0.0		0.0	99.8	0.2	0.1		0.0	0.0	0.0	0.0		
Total %	1.5	41.9	0.0	0.0	43.4	7.6	2.1	3.2	0.0	12.9	0.0	43.6	0.1	0.0	43.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1490					0					1310					108	2908

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	6	160	0	0	166	36	10	7	0	53	0	170	0	0	170	0	0	0	0	0	389
5:15 PM	7	178	0	0	185	28	5	12	0	45	0	169	1	0	170	0	0	0	0	0	400
5:30 PM	8	164	0	0	172	36	9	17	0	62	0	178	0	0	178	0	0	0	0	0	412
5:45 PM	3	154	0	0	157	26	10	11	0	47	0	169	0	0	169	0	0	0	0	0	373
Total Volume	24	656	0	0	680	126	34	47	0	207	0	686	1	0	687	0	0	0	0	0	1574
% Approach Total	3.5	96.5	0.0	0.0		60.9	16.4	22.7	0.0		0.0	99.9	0.1	0.0		0.0	0.0	0.0	0.0		
PHF	0.750	0.921	0.000	0.000	0.919	0.875	0.850	0.691	0.000	0.835	0.000	0.963	0.250	0.000	0.965	0.000	0.000	0.000	0.000	0.000	0.955
Entering Leg	24	656	0	0	680	126	34	47	0	207	0	686	1	0	687	0	0	0	0	0	1574
Exiting Leg					812					0					703					59	1574
Total					1492					207					1390					59	3148

PDI File #: **175517 CC**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	10	0	0	10	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	20
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
4:30 PM	0	10	0	0	10	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	31
4:45 PM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
Total	0	33	0	0	33	1	0	0	0	1	0	51	0	0	51	0	0	0	0	0	85
5:00 PM	0	4	0	0	4	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	23
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	11
5:30 PM	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10
5:45 PM	0	4	0	0	4	1	0	2	0	3	0	7	0	0	7	0	0	0	0	0	14
Total	0	17	0	0	17	1	0	2	0	3	0	38	0	0	38	0	0	0	0	0	58
Grand Total	0	50	0	0	50	2	0	2	0	4	0	89	0	0	89	0	0	0	0	0	143
Approach %	0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	35.0	0.0	0.0	35.0	1.4	0.0	1.4	0.0	2.8	0.0	62.2	0.0	0.0	62.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					91					0					52					0	143

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave WB (Route 2/20					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
4:30 PM	0	10	0	0	10	1	0	0	0	1	0	20	0	0	20	0	0	0	0	0	31
4:45 PM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
5:00 PM	0	4	0	0	4	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	23
Total Volume	0	27	0	0	27	1	0	0	0	1	0	60	0	0	60	0	0	0	0	0	88
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.675	0.000	0.000	0.675	0.250	0.000	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.710
Entering Leg	0	27	0	0	27	1	0	0	0	1	0	60	0	0	60	0	0	0	0	0	88
Exiting Leg					61					0					27					0	88
Total					88					1					87					0	176

PDI File #: **175517 CC**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	7	0	0	0	0	7	1	1	0	0	0	2	4	0	3	1	0	0	0	4	0	0	0	0	0	0	0	15
4:15 PM	0	8	0	0	0	0	8	0	2	0	0	1	1	4	0	7	1	0	0	0	8	0	0	0	0	0	0	0	20
4:30 PM	0	13	0	0	0	0	13	1	5	1	0	1	1	9	0	4	0	0	0	0	4	0	0	0	0	0	0	0	26
4:45 PM	1	17	0	0	0	0	18	0	2	1	0	3	1	7	0	8	0	0	0	0	8	0	0	0	0	0	0	0	33
Total	1	45	0	0	0	0	46	2	10	2	0	5	5	24	0	22	2	0	0	0	24	0	0	0	0	0	0	0	94
5:00 PM	0	22	0	0	0	1	23	3	3	0	0	1	0	7	0	16	1	0	0	0	17	0	0	0	0	1	1	2	49
5:15 PM	0	24	0	0	0	0	24	4	3	1	0	0	0	8	0	18	1	0	0	0	19	0	0	0	0	0	0	0	51
5:30 PM	0	24	0	0	0	1	25	0	1	0	0	1	0	2	0	27	2	0	1	0	30	0	0	0	0	0	0	0	57
5:45 PM	0	20	0	0	0	1	21	1	4	1	0	0	0	6	0	18	1	0	0	0	19	0	0	0	0	0	0	0	46
Total	0	90	0	0	0	3	93	8	11	2	0	2	0	23	0	79	5	0	1	0	85	0	0	0	0	1	1	2	203
Grand Total	1	135	0	0	0	3	139	10	21	4	0	7	5	47	0	101	7	0	1	0	109	0	0	0	0	1	1	2	297
Approach %	0.7	97.1	0.0	0.0	0.0	2.2		21.3	44.7	8.5	0.0	14.9	10.6		0.0	92.7	6.4	0.0	0.9	0.0		0.0	0.0	0.0	0.0	50.0	50.0		
Total %	0.3	45.5	0.0	0.0	0.0	1.0	46.8	3.4	7.1	1.3	0.0	2.4	1.7	15.8	0.0	34.0	2.4	0.0	0.3	0.0	36.7	0.0	0.0	0.0	0.0	0.3	0.3	0.7	
Exiting Leg Total							114							12							140							31	297

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	22	0	0	0	1	23	3	3	0	0	1	0	7	0	16	1	0	0	0	17	0	0	0	0	1	1	2	49
5:15 PM	0	24	0	0	0	0	24	4	3	1	0	0	0	8	0	18	1	0	0	0	19	0	0	0	0	0	0	0	51
5:30 PM	0	24	0	0	0	1	25	0	1	0	0	1	0	2	0	27	2	0	1	0	30	0	0	0	0	0	0	0	57
5:45 PM	0	20	0	0	0	1	21	1	4	1	0	0	0	6	0	18	1	0	0	0	19	0	0	0	0	0	0	0	46
Total Volume	0	90	0	0	0	3	93	8	11	2	0	2	0	23	0	79	5	0	1	0	85	0	0	0	0	1	1	2	203
% Approach Total	0.0	96.8	0.0	0.0	0.0	3.2		34.8	47.8	8.7	0.0	8.7	0.0		0.0	92.9	5.9	0.0	1.2	0.0		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.938	0.000	0.000	0.000	0.750	0.930	0.500	0.688	0.500	0.000	0.500	0.000	0.719	0.000	0.731	0.625	0.000	0.250	0.000	0.708	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.890
Entering Leg	0	90	0	0	0	3	93	8	11	2	0	2	0	23	0	79	5	0	1	0	85	0	0	0	0	1	1	2	203
Exiting Leg							90							2							93							18	203
Total							183							25							178							20	406

PDI File #: **175517 CC**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	6	16	22	0	0	0	0	25	37	62	0	0	0	0	2	0	2	0	0	0	0	12	32	44	130
4:15 PM	0	0	0	0	6	8	14	0	0	0	0	36	35	71	0	0	0	0	1	0	1	0	0	0	0	13	27	40	126
4:30 PM	0	0	0	0	9	15	24	0	0	0	0	31	41	72	0	0	0	0	0	2	2	0	0	0	0	12	27	39	137
4:45 PM	0	0	0	0	12	14	26	0	0	0	0	53	41	94	0	0	0	0	1	3	4	0	0	0	0	21	22	43	167
Total	0	0	0	0	33	53	86	0	0	0	0	145	154	299	0	0	0	0	4	5	9	0	0	0	0	58	108	166	560
5:00 PM	0	0	0	0	14	14	28	0	0	0	0	60	69	129	0	0	0	0	3	0	3	0	0	0	0	14	34	48	208
5:15 PM	0	0	0	0	11	32	43	0	0	0	0	58	51	109	0	0	0	0	1	1	2	0	0	0	0	32	54	86	240
5:30 PM	0	0	0	0	11	25	36	0	0	0	0	63	47	110	0	0	0	0	2	0	2	0	0	0	0	32	54	86	234
5:45 PM	0	0	0	0	5	27	32	0	0	0	0	53	47	100	0	0	0	0	6	1	7	0	0	0	0	39	45	84	223
Total	0	0	0	0	41	98	139	0	0	0	0	234	214	448	0	0	0	0	12	2	14	0	0	0	0	117	187	304	905
Grand Total	0	0	0	0	74	151	225	0	0	0	0	379	368	747	0	0	0	0	16	7	23	0	0	0	0	175	295	470	1465
Approach %	0.0	0.0	0.0	0.0	32.9	67.1		0.0	0.0	0.0	0.0	50.7	49.3		0.0	0.0	0.0	0.0	69.6	30.4		0.0	0.0	0.0	0.0	37.2	62.8		
Total %	0.0	0.0	0.0	0.0	5.1	10.3	15.4	0.0	0.0	0.0	0.0	25.9	25.1	51.0	0.0	0.0	0.0	0.0	1.1	0.5	1.6	0.0	0.0	0.0	0.0	11.9	20.1	32.1	
Exiting Leg Total							225							747							23							470	1465

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave WB (Route 2/20							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	14	14	28	0	0	0	0	60	69	129	0	0	0	0	3	0	3	0	0	0	0	14	34	48	208
5:15 PM	0	0	0	0	11	32	43	0	0	0	0	58	51	109	0	0	0	0	1	1	2	0	0	0	0	32	54	86	240
5:30 PM	0	0	0	0	11	25	36	0	0	0	0	63	47	110	0	0	0	0	2	0	2	0	0	0	0	32	54	86	234
5:45 PM	0	0	0	0	5	27	32	0	0	0	0	53	47	100	0	0	0	0	6	1	7	0	0	0	0	39	45	84	223
Total Volume	0	0	0	0	41	98	139	0	0	0	0	234	214	448	0	0	0	0	12	2	14	0	0	0	0	117	187	304	905
% Approach Total	0.0	0.0	0.0	0.0	29.5	70.5		0.0	0.0	0.0	0.0	52.2	47.8		0.0	0.0	0.0	0.0	85.7	14.3		0.0	0.0	0.0	0.0	38.5	61.5		
PHF	0.000	0.000	0.000	0.000	0.732	0.766	0.808	0.000	0.000	0.000	0.000	0.929	0.775	0.868	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.750	0.866	0.884	0.943
Entering Leg	0	0	0	0	41	98	139	0	0	0	0	234	214	448	0	0	0	0	12	2	14	0	0	0	0	117	187	304	905
Exiting Leg							139							448							14							304	905
Total							278							896							28							608	1810

PDI File #: **175517 D**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	111	20	0	131	0	0	0	0	0	8	128	0	0	136	44	2	15	0	61	328
7:15 AM	0	108	14	0	122	0	0	0	0	0	11	119	0	0	130	45	6	28	0	79	331
7:30 AM	0	116	15	0	131	0	0	0	0	0	5	128	0	0	133	47	2	28	0	77	341
7:45 AM	0	130	22	0	152	0	0	0	0	0	10	120	0	0	130	59	13	33	0	105	387
Total	0	465	71	0	536	0	0	0	0	0	34	495	0	0	529	195	23	104	0	322	1387
8:00 AM	0	139	24	0	163	0	0	0	0	0	8	141	0	0	149	52	9	47	0	108	420
8:15 AM	0	139	31	0	170	0	0	0	0	0	9	145	0	0	154	46	2	51	0	99	423
8:30 AM	0	148	30	0	178	0	0	0	0	0	7	144	0	0	151	49	5	40	0	94	423
8:45 AM	0	157	32	0	189	0	0	0	0	0	10	124	0	0	134	48	7	51	0	106	429
Total	0	583	117	0	700	0	0	0	0	0	34	554	0	0	588	195	23	189	0	407	1695
Grand Total	0	1048	188	0	1236	0	0	0	0	0	68	1049	0	0	1117	390	46	293	0	729	3082
Approach %	0.0	84.8	15.2	0.0		0.0	0.0	0.0	0.0		6.1	93.9	0.0	0.0		53.5	6.3	40.2	0.0		
Total %	0.0	34.0	6.1	0.0	40.1	0.0	0.0	0.0	0.0	0.0	2.2	34.0	0.0	0.0	36.2	12.7	1.5	9.5	0.0	23.7	
Exiting Leg Total					1342					302					1438					0	3082
Cars	0	971	184	0	1155	0	0	0	0	0	60	935	0	0	995	345	43	266	0	654	2804
% Cars	0.0	92.7	97.9	0.0	93.4	0.0	0.0	0.0	0.0	0.0	88.2	89.1	0.0	0.0	89.1	88.5	93.5	90.8	0.0	89.7	91.0
Exiting Leg Total					1201					287					1316					0	2804
Heavy Vehicles	0	77	4	0	81	0	0	0	0	0	8	114	0	0	122	45	3	27	0	75	278
% Heavy Vehicles	0.0	7.3	2.1	0.0	6.6	0.0	0.0	0.0	0.0	0.0	11.8	10.9	0.0	0.0	10.9	11.5	6.5	9.2	0.0	10.3	9.0
Exiting Leg Total					141					15					122					0	278

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	139	24	0	163	0	0	0	0	0	8	141	0	0	149	52	9	47	0	108	420
8:15 AM	0	139	31	0	170	0	0	0	0	0	9	145	0	0	154	46	2	51	0	99	423
8:30 AM	0	148	30	0	178	0	0	0	0	0	7	144	0	0	151	49	5	40	0	94	423
8:45 AM	0	157	32	0	189	0	0	0	0	0	10	124	0	0	134	48	7	51	0	106	429
Total Volume	0	583	117	0	700	0	0	0	0	0	34	554	0	0	588	195	23	189	0	407	1695
% Approach Total	0.0	83.3	16.7	0.0		0.0	0.0	0.0	0.0		5.8	94.2	0.0	0.0		47.9	5.7	46.4	0.0		
PHF	0.000	0.928	0.914	0.000	0.926	0.000	0.000	0.000	0.000	0.000	0.850	0.955	0.000	0.000	0.955	0.938	0.639	0.926	0.000	0.942	0.988
Cars	0	542	117	0	659	0	0	0	0	0	33	498	0	0	531	172	21	171	0	364	1554
Cars %	0.0	93.0	100.0	0.0	94.1	0.0	0.0	0.0	0.0	0.0	97.1	89.9	0.0	0.0	90.3	88.2	91.3	90.5	0.0	89.4	91.7
Heavy Vehicles	0	41	0	0	41	0	0	0	0	0	1	56	0	0	57	23	2	18	0	43	141
Heavy Vehicles %	0.0	7.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	2.9	10.1	0.0	0.0	9.7	11.8	8.7	9.5	0.0	10.6	8.3
Cars Enter Leg	0	542	117	0	659	0	0	0	0	0	33	498	0	0	531	172	21	171	0	364	1554
Heavy Enter Leg	0	41	0	0	41	0	0	0	0	0	1	56	0	0	57	23	2	18	0	43	141
Total Entering Leg	0	583	117	0	700	0	0	0	0	0	34	554	0	0	588	195	23	189	0	407	1695
Cars Exiting Leg					669					171					714					0	1554
Heavy Exit Leg					74					3					64					0	141
Total Exiting Leg					743					174					778					0	1695

PDI File #: **175517 D**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	101	19	0	120	0	0	0	0	0	8	114	0	0	122	37	2	14	0	53	295
7:15 AM	0	96	13	0	109	0	0	0	0	0	8	99	0	0	107	39	5	25	0	69	285
7:30 AM	0	108	14	0	122	0	0	0	0	0	3	116	0	0	119	42	2	26	0	70	311
7:45 AM	0	124	21	0	145	0	0	0	0	0	8	108	0	0	116	55	13	30	0	98	359
Total	0	429	67	0	496	0	0	0	0	0	27	437	0	0	464	173	22	95	0	290	1250
8:00 AM	0	132	24	0	156	0	0	0	0	0	8	129	0	0	137	44	7	41	0	92	385
8:15 AM	0	134	31	0	165	0	0	0	0	0	9	131	0	0	140	40	2	45	0	87	392
8:30 AM	0	137	30	0	167	0	0	0	0	0	6	131	0	0	137	42	5	37	0	84	388
8:45 AM	0	139	32	0	171	0	0	0	0	0	10	107	0	0	117	46	7	48	0	101	389
Total	0	542	117	0	659	0	0	0	0	0	33	498	0	0	531	172	21	171	0	364	1554
Grand Total	0	971	184	0	1155	0	0	0	0	0	60	935	0	0	995	345	43	266	0	654	2804
Approach %	0.0	84.1	15.9	0.0		0.0	0.0	0.0	0.0		6.0	94.0	0.0	0.0		52.8	6.6	40.7	0.0		
Total %	0.0	34.6	6.6	0.0	41.2	0.0	0.0	0.0	0.0	0.0	2.1	33.3	0.0	0.0	35.5	12.3	1.5	9.5	0.0	23.3	
Exiting Leg Total					1201					287					1316					0	2804

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	132	24	0	156	0	0	0	0	0	8	129	0	0	137	44	7	41	0	92	385
8:15 AM	0	134	31	0	165	0	0	0	0	0	9	131	0	0	140	40	2	45	0	87	392
8:30 AM	0	137	30	0	167	0	0	0	0	0	6	131	0	0	137	42	5	37	0	84	388
8:45 AM	0	139	32	0	171	0	0	0	0	0	10	107	0	0	117	46	7	48	0	101	389
Total Volume	0	542	117	0	659	0	0	0	0	0	33	498	0	0	531	172	21	171	0	364	1554
% Approach Total	0.0	82.2	17.8	0.0		0.0	0.0	0.0	0.0		6.2	93.8	0.0	0.0		47.3	5.8	47.0	0.0		
PHF	0.000	0.975	0.914	0.000	0.963	0.000	0.000	0.000	0.000	0.000	0.825	0.950	0.000	0.000	0.948	0.935	0.750	0.891	0.000	0.901	0.991
Entering Leg	0	542	117	0	659	0	0	0	0	0	33	498	0	0	531	172	21	171	0	364	1554
Exiting Leg					669					171					714					0	1554
Total					1328					171					1245					364	3108

PDI File #: **175517 D**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	10	1	0	11	0	0	0	0	0	0	14	0	0	14	7	0	1	0	8	33
7:15 AM	0	12	1	0	13	0	0	0	0	0	3	20	0	0	23	6	1	3	0	10	46
7:30 AM	0	8	1	0	9	0	0	0	0	0	2	12	0	0	14	5	0	2	0	7	30
7:45 AM	0	6	1	0	7	0	0	0	0	0	2	12	0	0	14	4	0	3	0	7	28
Total	0	36	4	0	40	0	0	0	0	0	7	58	0	0	65	22	1	9	0	32	137
8:00 AM	0	7	0	0	7	0	0	0	0	0	0	12	0	0	12	8	2	6	0	16	35
8:15 AM	0	5	0	0	5	0	0	0	0	0	0	14	0	0	14	6	0	6	0	12	31
8:30 AM	0	11	0	0	11	0	0	0	0	0	1	13	0	0	14	7	0	3	0	10	35
8:45 AM	0	18	0	0	18	0	0	0	0	0	0	17	0	0	17	2	0	3	0	5	40
Total	0	41	0	0	41	0	0	0	0	0	1	56	0	0	57	23	2	18	0	43	141
Grand Total	0	77	4	0	81	0	0	0	0	0	8	114	0	0	122	45	3	27	0	75	278
Approach %	0.0	95.1	4.9	0.0		0.0	0.0	0.0	0.0		6.6	93.4	0.0	0.0		60.0	4.0	36.0	0.0		
Total %	0.0	27.7	1.4	0.0	29.1	0.0	0.0	0.0	0.0	0.0	2.9	41.0	0.0	0.0	43.9	16.2	1.1	9.7	0.0	27.0	
Exiting Leg Total					141					15					122					0	278

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	7	0	0	7	0	0	0	0	0	0	12	0	0	12	8	2	6	0	16	35
8:15 AM	0	5	0	0	5	0	0	0	0	0	0	14	0	0	14	6	0	6	0	12	31
8:30 AM	0	11	0	0	11	0	0	0	0	0	1	13	0	0	14	7	0	3	0	10	35
8:45 AM	0	18	0	0	18	0	0	0	0	0	0	17	0	0	17	2	0	3	0	5	40
Total Volume	0	41	0	0	41	0	0	0	0	0	1	56	0	0	57	23	2	18	0	43	141
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		1.8	98.2	0.0	0.0		53.5	4.7	41.9	0.0		
PHF	0.000	0.569	0.000	0.000	0.569	0.000	0.000	0.000	0.000	0.000	0.250	0.824	0.000	0.000	0.838	0.719	0.250	0.750	0.000	0.672	0.881
Entering Leg	0	41	0	0	41	0	0	0	0	0	1	56	0	0	57	23	2	18	0	43	141
Exiting Leg					74					3					64					0	141
Total					115					3					121					43	282

PDI File #: **175517 D**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	1	1	0	5	0	0	1	1	7	1	0	0	0	0	1	2	12
7:15 AM	1	10	0	0	0	0	11	0	0	0	0	1	0	1	0	4	0	0	0	0	4	0	0	0	0	0	0	0	16
7:30 AM	0	7	0	0	0	0	7	0	0	0	0	1	1	2	0	4	0	0	1	0	5	2	1	0	0	2	0	5	19
7:45 AM	0	6	1	0	0	0	7	0	0	0	0	0	0	0	0	10	0	0	0	2	12	1	0	0	0	0	0	1	20
Total	1	25	1	0	0	0	27	0	0	0	0	2	2	4	0	23	0	0	2	3	28	4	1	0	0	2	1	8	67
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	1	0	1	0	11	0	0	0	0	11	0	0	4	0	0	0	4	25
8:15 AM	0	11	1	0	0	0	12	0	0	0	0	1	0	1	1	13	0	0	0	0	14	4	1	2	0	0	0	7	34
8:30 AM	0	15	0	0	0	0	15	0	0	0	0	0	0	0	0	12	0	0	0	0	12	2	2	4	0	0	0	8	35
8:45 AM	0	19	1	0	0	0	20	0	0	0	0	0	0	0	0	9	0	0	1	1	11	6	0	3	0	0	0	9	40
Total	0	54	2	0	0	0	56	0	0	0	0	2	0	2	1	45	0	0	1	1	48	12	3	13	0	0	0	28	134
Grand Total	1	79	3	0	0	0	83	0	0	0	0	4	2	6	1	68	0	0	3	4	76	16	4	13	0	2	1	36	201
Approach %	1.2	95.2	3.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	66.7	33.3		1.3	89.5	0.0	0.0	3.9	5.3		44.4	11.1	36.1	0.0	5.6	2.8		
Total %	0.5	39.3	1.5	0.0	0.0	0.0	41.3	0.0	0.0	0.0	0.0	2.0	1.0	3.0	0.5	33.8	0.0	0.0	1.5	2.0	37.8	8.0	2.0	6.5	0.0	1.0	0.5	17.9	
Exiting Leg Total							81							14							102							4	201

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	9	0	0	0	0	9	0	0	0	0	1	0	1	0	11	0	0	0	0	11	0	0	4	0	0	0	4	25
8:15 AM	0	11	1	0	0	0	12	0	0	0	0	1	0	1	1	13	0	0	0	0	14	4	1	2	0	0	0	7	34
8:30 AM	0	15	0	0	0	0	15	0	0	0	0	0	0	0	0	12	0	0	0	0	12	2	2	4	0	0	0	8	35
8:45 AM	0	19	1	0	0	0	20	0	0	0	0	0	0	0	0	9	0	0	1	1	11	6	0	3	0	0	0	9	40
Total Volume	0	54	2	0	0	0	56	0	0	0	0	2	0	2	1	45	0	0	1	1	48	12	3	13	0	0	0	28	134
% Approach Total	0.0	96.4	3.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		2.1	93.8	0.0	0.0	2.1	2.1		42.9	10.7	46.4	0.0	0.0	0.0		
PHF	0.000	0.711	0.500	0.000	0.000	0.000	0.700	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.250	0.865	0.000	0.000	0.250	0.250	0.857	0.500	0.375	0.813	0.000	0.000	0.000	0.778	0.838
Entering Leg	0	54	2	0	0	0	56	0	0	0	0	2	0	2	1	45	0	0	1	1	48	12	3	13	0	0	0	28	134
Exiting Leg							58							8							68							0	134
Total							114							10							116							28	268

PDI File #: **175517 D**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	25	27	52	0	0	0	0	4	5	9	0	0	0	0	4	9	13	74
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	23	21	44	0	0	0	0	13	6	19	0	0	0	0	10	7	17	81
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	33	20	53	0	0	0	0	7	11	18	0	0	0	0	7	15	22	93
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	34	23	57	0	0	0	0	6	10	16	0	0	0	0	13	22	35	108
Total	0	0	0	0	1	0	1	0	0	0	0	115	91	206	0	0	0	0	30	32	62	0	0	0	0	34	53	87	356
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	42	22	64	0	0	0	0	8	26	34	0	0	0	0	8	21	29	127
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	54	24	78	0	0	0	0	13	23	36	0	0	0	0	5	11	16	130
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	38	22	60	0	0	0	0	8	17	25	0	0	0	0	10	14	24	109
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	36	23	59	0	0	0	0	10	31	41	0	0	0	0	9	21	30	131
Total	0	0	0	0	1	0	1	0	0	0	0	170	91	261	0	0	0	0	39	97	136	0	0	0	0	32	67	99	497
Grand Total	0	0	0	0	2	0	2	0	0	0	0	285	182	467	0	0	0	0	69	129	198	0	0	0	0	66	120	186	853
Approach %	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	61.0	39.0		0.0	0.0	0.0	0.0	34.8	65.2		0.0	0.0	0.0	0.0	35.5	64.5		
Total %	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	33.4	21.3	54.7	0.0	0.0	0.0	0.0	8.1	15.1	23.2	0.0	0.0	0.0	0.0	7.7	14.1	21.8	
Exiting Leg Total							2							467							198							186	853

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	42	22	64	0	0	0	0	8	26	34	0	0	0	0	8	21	29	127
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	54	24	78	0	0	0	0	13	23	36	0	0	0	0	5	11	16	130
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	38	22	60	0	0	0	0	8	17	25	0	0	0	0	10	14	24	109
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	36	23	59	0	0	0	0	10	31	41	0	0	0	0	9	21	30	131
Total Volume	0	0	0	0	1	0	1	0	0	0	0	170	91	261	0	0	0	0	39	97	136	0	0	0	0	32	67	99	497
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	65.1	34.9		0.0	0.0	0.0	0.0	28.7	71.3		0.0	0.0	0.0	0.0	32.3	67.7		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.787	0.948	0.837	0.000	0.000	0.000	0.000	0.750	0.782	0.829	0.000	0.000	0.000	0.000	0.800	0.798	0.825	0.948
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	170	91	261	0	0	0	0	39	97	136	0	0	0	0	32	67	99	497
Exiting Leg							1							261							136							99	497
Total							2							522							272							198	994

PDI File #: **175517 DD**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	132	19	0	152	0	0	0	0	0	6	113	0	0	119	49	8	42	0	99	370
4:15 PM	0	142	27	0	169	0	0	0	0	0	3	119	0	0	122	59	15	34	0	108	399
4:30 PM	0	148	14	0	162	0	0	0	0	0	12	144	0	0	156	52	9	40	0	101	419
4:45 PM	0	134	22	0	156	0	0	0	0	0	19	130	0	0	149	51	20	32	0	103	408
Total	1	556	82	0	639	0	0	0	0	0	40	506	0	0	546	211	52	148	0	411	1596
5:00 PM	0	153	17	0	170	0	0	0	0	0	11	140	0	0	151	48	13	50	0	111	432
5:15 PM	0	163	19	0	182	0	0	0	0	0	13	146	0	0	159	55	20	39	0	114	455
5:30 PM	0	171	24	0	195	0	0	0	0	0	8	132	0	0	140	64	13	48	0	125	460
5:45 PM	0	135	28	0	163	0	0	0	0	0	14	132	0	0	146	45	13	38	0	96	405
Total	0	622	88	0	710	0	0	0	0	0	46	550	0	0	596	212	59	175	0	446	1752
Grand Total	1	1178	170	0	1349	0	0	0	0	0	86	1056	0	0	1142	423	111	323	0	857	3348
Approach %	0.1	87.3	12.6	0.0		0.0	0.0	0.0	0.0		7.5	92.5	0.0	0.0		49.4	13.0	37.7	0.0		
Total %	0.0	35.2	5.1	0.0	40.3	0.0	0.0	0.0	0.0	0.0	2.6	31.5	0.0	0.0	34.1	12.6	3.3	9.6	0.0	25.6	
Exiting Leg Total					1379					367					1601					1	3348
Cars	1	1131	169	0	1301	0	0	0	0	0	82	999	0	0	1081	408	108	295	0	811	3193
% Cars	100.0	96.0	99.4	0.0	96.4	0.0	0.0	0.0	0.0	0.0	95.3	94.6	0.0	0.0	94.7	96.5	97.3	91.3	0.0	94.6	95.4
Exiting Leg Total					1294					359					1539					1	3193
Heavy Vehicles	0	47	1	0	48	0	0	0	0	0	4	57	0	0	61	15	3	28	0	46	155
% Heavy Vehicles	0.0	4.0	0.6	0.0	3.6	0.0	0.0	0.0	0.0	0.0	4.7	5.4	0.0	0.0	5.3	3.5	2.7	8.7	0.0	5.4	4.6
Exiting Leg Total					85					8					62					0	155

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	134	22	0	156	0	0	0	0	0	19	130	0	0	149	51	20	32	0	103	408
5:00 PM	0	153	17	0	170	0	0	0	0	0	11	140	0	0	151	48	13	50	0	111	432
5:15 PM	0	163	19	0	182	0	0	0	0	0	13	146	0	0	159	55	20	39	0	114	455
5:30 PM	0	171	24	0	195	0	0	0	0	0	8	132	0	0	140	64	13	48	0	125	460
Total Volume	0	621	82	0	703	0	0	0	0	0	51	548	0	0	599	218	66	169	0	453	1755
% Approach Total	0.0	88.3	11.7	0.0		0.0	0.0	0.0	0.0		8.5	91.5	0.0	0.0		48.1	14.6	37.3	0.0		
PHF	0.000	0.908	0.854	0.000	0.901	0.000	0.000	0.000	0.000	0.000	0.671	0.938	0.000	0.000	0.942	0.852	0.825	0.845	0.000	0.906	0.954
Cars	0	602	82	0	684	0	0	0	0	0	50	522	0	0	572	211	65	157	0	433	1689
Cars %	0.0	96.9	100.0	0.0	97.3	0.0	0.0	0.0	0.0	0.0	98.0	95.3	0.0	0.0	95.5	96.8	98.5	92.9	0.0	95.6	96.2
Heavy Vehicles	0	19	0	0	19	0	0	0	0	0	1	26	0	0	27	7	1	12	0	20	66
Heavy Vehicles %	0.0	3.1	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.0	4.7	0.0	0.0	4.5	3.2	1.5	7.1	0.0	4.4	3.8
Cars Enter Leg	0	602	82	0	684	0	0	0	0	0	50	522	0	0	572	211	65	157	0	433	1689
Heavy Enter Leg	0	19	0	0	19	0	0	0	0	0	1	26	0	0	27	7	1	12	0	20	66
Total Entering Leg	0	621	82	0	703	0	0	0	0	0	51	548	0	0	599	218	66	169	0	453	1755
Cars Exiting Leg					679					197					813					0	1689
Heavy Exit Leg					38					2					26					0	66
Total Exiting Leg					717					199					839					0	1755

PDI File #: **175517 DD**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	123	19	0	143	0	0	0	0	0	6	107	0	0	113	45	7	38	0	90	346
4:15 PM	0	135	27	0	162	0	0	0	0	0	3	111	0	0	114	57	15	31	0	103	379
4:30 PM	0	142	13	0	155	0	0	0	0	0	12	133	0	0	145	50	8	33	0	91	391
4:45 PM	0	129	22	0	151	0	0	0	0	0	19	123	0	0	142	48	20	29	0	97	390
Total	1	529	81	0	611	0	0	0	0	0	40	474	0	0	514	200	50	131	0	381	1506
5:00 PM	0	148	17	0	165	0	0	0	0	0	10	128	0	0	138	47	13	45	0	105	408
5:15 PM	0	160	19	0	179	0	0	0	0	0	13	141	0	0	154	53	20	37	0	110	443
5:30 PM	0	165	24	0	189	0	0	0	0	0	8	130	0	0	138	63	12	46	0	121	448
5:45 PM	0	129	28	0	157	0	0	0	0	0	11	126	0	0	137	45	13	36	0	94	388
Total	0	602	88	0	690	0	0	0	0	0	42	525	0	0	567	208	58	164	0	430	1687
Grand Total	1	1131	169	0	1301	0	0	0	0	0	82	999	0	0	1081	408	108	295	0	811	3193
Approach %	0.1	86.9	13.0	0.0		0.0	0.0	0.0	0.0		7.6	92.4	0.0	0.0		50.3	13.3	36.4	0.0		
Total %	0.0	35.4	5.3	0.0	40.7	0.0	0.0	0.0	0.0	0.0	2.6	31.3	0.0	0.0	33.9	12.8	3.4	9.2	0.0	25.4	
Exiting Leg Total					1294					359					1539					1	3193

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	129	22	0	151	0	0	0	0	0	19	123	0	0	142	48	20	29	0	97	390
5:00 PM	0	148	17	0	165	0	0	0	0	0	10	128	0	0	138	47	13	45	0	105	408
5:15 PM	0	160	19	0	179	0	0	0	0	0	13	141	0	0	154	53	20	37	0	110	443
5:30 PM	0	165	24	0	189	0	0	0	0	0	8	130	0	0	138	63	12	46	0	121	448
Total Volume	0	602	82	0	684	0	0	0	0	0	50	522	0	0	572	211	65	157	0	433	1689
% Approach Total	0.0	88.0	12.0	0.0		0.0	0.0	0.0	0.0		8.7	91.3	0.0	0.0		48.7	15.0	36.3	0.0		
PHF	0.000	0.912	0.854	0.000	0.905	0.000	0.000	0.000	0.000	0.000	0.658	0.926	0.000	0.000	0.929	0.837	0.813	0.853	0.000	0.895	0.943
Entering Leg	0	602	82	0	684	0	0	0	0	0	50	522	0	0	572	211	65	157	0	433	1689
Exiting Leg					679					197					813					0	1689
Total					1363					197					1385					433	3378

PDI File #: **175517 DD**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	4	1	4	0	9	24
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	2	0	3	0	5	20
4:30 PM	0	6	1	0	7	0	0	0	0	0	0	11	0	0	11	2	1	7	0	10	28
4:45 PM	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	3	0	3	0	6	18
Total	0	27	1	0	28	0	0	0	0	0	0	32	0	0	32	11	2	17	0	30	90
5:00 PM	0	5	0	0	5	0	0	0	0	0	1	12	0	0	13	1	0	5	0	6	24
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	2	0	2	0	4	12
5:30 PM	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	1	1	2	0	4	12
5:45 PM	0	6	0	0	6	0	0	0	0	0	3	6	0	0	9	0	0	2	0	2	17
Total	0	20	0	0	20	0	0	0	0	0	4	25	0	0	29	4	1	11	0	16	65
Grand Total	0	47	1	0	48	0	0	0	0	0	4	57	0	0	61	15	3	28	0	46	155
Approach %	0.0	97.9	2.1	0.0		0.0	0.0	0.0	0.0		6.6	93.4	0.0	0.0		32.6	6.5	60.9	0.0		
Total %	0.0	30.3	0.6	0.0	31.0	0.0	0.0	0.0	0.0	0.0	2.6	36.8	0.0	0.0	39.4	9.7	1.9	18.1	0.0	29.7	
Exiting Leg Total					85					8					62					0	155

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					Massachusetts Avenue (Route 2A)					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	9	0	0	9	0	0	0	0	0	0	6	0	0	6	4	1	4	0	9	24
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	8	0	0	8	2	0	3	0	5	20
4:30 PM	0	6	1	0	7	0	0	0	0	0	0	11	0	0	11	2	1	7	0	10	28
4:45 PM	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	3	0	3	0	6	18
Total Volume	0	27	1	0	28	0	0	0	0	0	0	32	0	0	32	11	2	17	0	30	90
% Approach Total	0.0	96.4	3.6	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		36.7	6.7	56.7	0.0		
PHF	0.000	0.750	0.250	0.000	0.778	0.000	0.000	0.000	0.000	0.000	0.000	0.727	0.000	0.000	0.727	0.688	0.500	0.607	0.000	0.750	0.804
Entering Leg	0	27	1	0	28	0	0	0	0	0	0	32	0	0	32	11	2	17	0	30	90
Exiting Leg					49					3					38					0	90
Total					77					3					70					30	180

PDI File #: **175517 DD**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	10	0	0	0	0	10	2	0	0	0	1	0	3	21
4:15 PM	0	8	0	0	0	0	8	0	0	0	0	0	0	0	0	10	0	0	1	0	11	3	1	2	0	1	0	7	26
4:30 PM	0	13	0	0	0	0	13	0	0	0	0	1	0	1	0	7	0	0	1	0	8	2	1	2	0	0	0	5	27
4:45 PM	0	13	3	0	0	0	16	0	0	0	0	0	0	0	0	10	0	0	2	5	17	1	0	1	0	0	3	5	38
Total	0	42	3	0	0	0	45	0	0	0	0	1	0	1	0	37	0	0	4	5	46	8	2	5	0	2	3	20	112
5:00 PM	0	22	0	0	0	1	23	0	0	0	0	1	2	3	0	20	1	0	0	0	21	2	0	0	0	0	0	2	49
5:15 PM	0	18	2	0	0	0	20	0	0	0	0	0	0	0	0	18	0	0	0	0	18	3	0	0	0	0	0	3	41
5:30 PM	0	17	1	0	1	0	19	0	0	0	0	1	0	1	0	29	0	0	2	0	31	3	0	4	0	0	1	8	59
5:45 PM	0	20	0	0	0	0	20	0	0	0	0	1	0	1	0	18	0	0	0	2	20	0	1	1	0	1	1	4	45
Total	0	77	3	0	1	1	82	0	0	0	0	3	2	5	0	85	1	0	2	2	90	8	1	5	0	1	2	17	194
Grand Total	0	119	6	0	1	1	127	0	0	0	0	4	2	6	0	122	1	0	6	7	136	16	3	10	0	3	5	37	306
Approach %	0.0	93.7	4.7	0.0	0.8	0.8		0.0	0.0	0.0	0.0	66.7	33.3		0.0	89.7	0.7	0.0	4.4	5.1		43.2	8.1	27.0	0.0	8.1	13.5		
Total %	0.0	38.9	2.0	0.0	0.3	0.3	41.5	0.0	0.0	0.0	0.0	1.3	0.7	2.0	0.0	39.9	0.3	0.0	2.0	2.3	44.4	5.2	1.0	3.3	0.0	1.0	1.6	12.1	
Exiting Leg Total							134							15							148							9	306

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	22	0	0	0	1	23	0	0	0	0	1	2	3	0	20	1	0	0	0	21	2	0	0	0	0	0	2	49
5:15 PM	0	18	2	0	0	0	20	0	0	0	0	0	0	0	0	18	0	0	0	0	18	3	0	0	0	0	0	3	41
5:30 PM	0	17	1	0	1	0	19	0	0	0	0	1	0	1	0	29	0	0	2	0	31	3	0	4	0	0	1	8	59
5:45 PM	0	20	0	0	0	0	20	0	0	0	0	1	0	1	0	18	0	0	0	2	20	0	1	1	0	1	1	4	45
Total Volume	0	77	3	0	1	1	82	0	0	0	0	3	2	5	0	85	1	0	2	2	90	8	1	5	0	1	2	17	194
% Approach Total	0.0	93.9	3.7	0.0	1.2	1.2		0.0	0.0	0.0	0.0	60.0	40.0		0.0	94.4	1.1	0.0	2.2	2.2		47.1	5.9	29.4	0.0	5.9	11.8		
PHF	0.000	0.875	0.375	0.000	0.250	0.250	0.891	0.000	0.000	0.000	0.000	0.750	0.250	0.417	0.000	0.733	0.250	0.000	0.250	0.250	0.726	0.667	0.250	0.313	0.000	0.250	0.500	0.531	0.822
Entering Leg	0	77	3	0	1	1	82	0	0	0	0	3	2	5	0	85	1	0	2	2	90	8	1	5	0	1	2	17	194
Exiting Leg							92							9							89							4	194
Total							174							14							179							21	388

PDI File #: **175517 DD**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	1	1	0	0	0	0	25	34	59	0	0	0	0	35	18	53	0	0	0	0	11	29	40	153
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	33	40	73	0	0	0	0	19	7	26	0	0	0	0	9	24	33	132
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	29	33	62	0	0	0	0	29	25	54	0	0	0	0	16	26	42	159
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	62	50	112	0	0	0	0	33	20	53	0	0	0	0	16	21	37	203
Total	0	0	0	0	2	1	3	0	0	0	0	149	157	306	0	0	0	0	116	70	186	0	0	0	0	52	100	152	647
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	52	71	123	0	0	0	0	40	29	69	0	0	0	0	9	32	41	234
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	59	58	117	0	0	0	0	23	26	49	0	0	0	0	23	44	67	233
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	59	51	110	0	0	0	0	40	31	71	0	0	0	0	27	45	72	253
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	52	52	104	0	0	0	0	56	36	92	0	0	0	0	36	38	74	271
Total	0	0	0	0	0	2	2	0	0	0	0	222	232	454	0	0	0	0	159	122	281	0	0	0	0	95	159	254	991
Grand Total	0	0	0	0	2	3	5	0	0	0	0	371	389	760	0	0	0	0	275	192	467	0	0	0	0	147	259	406	1638
Approach %	0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	48.8	51.2		0.0	0.0	0.0	0.0	58.9	41.1		0.0	0.0	0.0	0.0	36.2	63.8		
Total %	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.0	0.0	22.6	23.7	46.4	0.0	0.0	0.0	0.0	16.8	11.7	28.5	0.0	0.0	0.0	0.0	9.0	15.8	24.8	
Exiting Leg Total							5							760							467							406	1638

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							Massachusetts Avenue (Route 2A)							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	52	71	123	0	0	0	0	40	29	69	0	0	0	0	9	32	41	234
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	59	58	117	0	0	0	0	23	26	49	0	0	0	0	23	44	67	233
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	59	51	110	0	0	0	0	40	31	71	0	0	0	0	27	45	72	253
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	52	52	104	0	0	0	0	56	36	92	0	0	0	0	36	38	74	271
Total Volume	0	0	0	0	0	2	2	0	0	0	0	222	232	454	0	0	0	0	159	122	281	0	0	0	0	95	159	254	991
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	48.9	51.1		0.0	0.0	0.0	0.0	56.6	43.4		0.0	0.0	0.0	0.0	37.4	62.6		
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.941	0.817	0.923	0.000	0.000	0.000	0.000	0.710	0.847	0.764	0.000	0.000	0.000	0.000	0.660	0.883	0.858	0.914
Entering Leg	0	0	0	0	0	2	2	0	0	0	0	222	232	454	0	0	0	0	159	122	281	0	0	0	0	95	159	254	991
Exiting Leg							2							454							281							254	991
Total							4							908							562							508	1982

PDI File #: **175517 E**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	5	74	0	0	79	0	10	11	0	21	0	0	0	0	0	100
7:15 AM	0	0	0	0	0	12	72	0	0	84	0	14	20	0	34	0	0	0	0	0	118
7:30 AM	0	0	0	0	0	6	88	0	0	94	0	12	19	0	31	0	0	0	0	0	125
7:45 AM	0	0	0	0	0	6	115	0	0	121	0	23	21	0	44	0	0	0	0	0	165
Total	0	0	0	0	0	29	349	0	0	378	0	59	71	0	130	0	0	0	0	0	508
8:00 AM	0	0	0	0	0	10	119	0	0	129	0	21	21	0	42	0	0	0	0	0	171
8:15 AM	0	0	0	0	0	8	101	0	0	109	0	20	18	0	38	0	0	0	0	0	147
8:30 AM	0	0	0	0	0	6	112	0	0	118	0	20	23	0	43	0	0	0	0	0	161
8:45 AM	0	0	0	0	0	6	115	0	0	121	0	20	23	0	43	0	0	0	0	0	164
Total	0	0	0	0	0	30	447	0	0	477	0	81	85	0	166	0	0	0	0	0	643
Grand Total	0	0	0	0	0	59	796	0	0	855	0	140	156	0	296	0	0	0	0	0	1151
Approach %	0.0	0.0	0.0	0.0		6.9	93.1	0.0	0.0		0.0	47.3	52.7	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	5.1	69.2	0.0	0.0	74.3	0.0	12.2	13.6	0.0	25.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					199					0					0					952	1151
Cars	0	0	0	0	0	53	777	0	0	830	0	128	150	0	278	0	0	0	0	0	1108
% Cars	0.0	0.0	0.0	0.0	0.0	89.8	97.6	0.0	0.0	97.1	0.0	91.4	96.2	0.0	93.9	0.0	0.0	0.0	0.0	0.0	96.3
Exiting Leg Total					181					0					0					927	1108
Heavy Vehicles	0	0	0	0	0	6	19	0	0	25	0	12	6	0	18	0	0	0	0	0	43
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	10.2	2.4	0.0	0.0	2.9	0.0	8.6	3.8	0.0	6.1	0.0	0.0	0.0	0.0	0.0	3.7
Exiting Leg Total					18					0					0					25	43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	0	0	0	0	6	115	0	0	121	0	23	21	0	44	0	0	0	0	0	165
8:00 AM	0	0	0	0	0	10	119	0	0	129	0	21	21	0	42	0	0	0	0	0	171
8:15 AM	0	0	0	0	0	8	101	0	0	109	0	20	18	0	38	0	0	0	0	0	147
8:30 AM	0	0	0	0	0	6	112	0	0	118	0	20	23	0	43	0	0	0	0	0	161
Total Volume	0	0	0	0	0	30	447	0	0	477	0	84	83	0	167	0	0	0	0	0	644
% Approach Total	0.0	0.0	0.0	0.0		6.3	93.7	0.0	0.0		0.0	50.3	49.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.939	0.000	0.000	0.924	0.000	0.913	0.902	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.942
Cars	0	0	0	0	0	29	436	0	0	465	0	76	82	0	158	0	0	0	0	0	623
Cars %	0.0	0.0	0.0	0.0	0.0	96.7	97.5	0.0	0.0	97.5	0.0	90.5	98.8	0.0	94.6	0.0	0.0	0.0	0.0	0.0	96.7
Heavy Vehicles	0	0	0	0	0	1	11	0	0	12	0	8	1	0	9	0	0	0	0	0	21
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	3.3	2.5	0.0	0.0	2.5	0.0	9.5	1.2	0.0	5.4	0.0	0.0	0.0	0.0	0.0	3.3
Cars Enter Leg	0	0	0	0	0	29	436	0	0	465	0	76	82	0	158	0	0	0	0	0	623
Heavy Enter Leg	0	0	0	0	0	1	11	0	0	12	0	8	1	0	9	0	0	0	0	0	21
Total Entering Leg	0	0	0	0	0	30	447	0	0	477	0	84	83	0	167	0	0	0	0	0	644
Cars Exiting Leg					105					0					0					518	623
Heavy Exit Leg					9					0					0					12	21
Total Exiting Leg					114					0					0					530	644

PDI File #: **175517 E**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	5	73	0	0	78	0	10	9	0	19	0	0	0	0	0	97
7:15 AM	0	0	0	0	0	8	69	0	0	77	0	12	19	0	31	0	0	0	0	0	108
7:30 AM	0	0	0	0	0	5	86	0	0	91	0	12	17	0	29	0	0	0	0	0	120
7:45 AM	0	0	0	0	0	6	111	0	0	117	0	17	21	0	38	0	0	0	0	0	155
Total	0	0	0	0	0	24	339	0	0	363	0	51	66	0	117	0	0	0	0	0	480
8:00 AM	0	0	0	0	0	9	119	0	0	128	0	20	21	0	41	0	0	0	0	0	169
8:15 AM	0	0	0	0	0	8	98	0	0	106	0	19	17	0	36	0	0	0	0	0	142
8:30 AM	0	0	0	0	0	6	108	0	0	114	0	20	23	0	43	0	0	0	0	0	157
8:45 AM	0	0	0	0	0	6	113	0	0	119	0	18	23	0	41	0	0	0	0	0	160
Total	0	0	0	0	0	29	438	0	0	467	0	77	84	0	161	0	0	0	0	0	628
Grand Total	0	0	0	0	0	53	777	0	0	830	0	128	150	0	278	0	0	0	0	0	1108
Approach %	0.0	0.0	0.0	0.0		6.4	93.6	0.0	0.0		0.0	46.0	54.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	4.8	70.1	0.0	0.0	74.9	0.0	11.6	13.5	0.0	25.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					181					0					0					927	1108

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	9	119	0	0	128	0	20	21	0	41	0	0	0	0	0	169
8:15 AM	0	0	0	0	0	8	98	0	0	106	0	19	17	0	36	0	0	0	0	0	142
8:30 AM	0	0	0	0	0	6	108	0	0	114	0	20	23	0	43	0	0	0	0	0	157
8:45 AM	0	0	0	0	0	6	113	0	0	119	0	18	23	0	41	0	0	0	0	0	160
Total Volume	0	0	0	0	0	29	438	0	0	467	0	77	84	0	161	0	0	0	0	0	628
% Approach Total	0.0	0.0	0.0	0.0		6.2	93.8	0.0	0.0		0.0	47.8	52.2	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.806	0.920	0.000	0.000	0.912	0.000	0.963	0.913	0.000	0.936	0.000	0.000	0.000	0.000	0.000	0.929
Entering Leg	0	0	0	0	0	29	438	0	0	467	0	77	84	0	161	0	0	0	0	0	628
Exiting Leg					106					0					0					522	628
Total					106					467					161					522	1256

PDI File #: **175517 E**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	4	3	0	0	7	0	2	1	0	3	0	0	0	0	0	10
7:30 AM	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	5
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	10
Total	0	0	0	0	0	5	10	0	0	15	0	8	5	0	13	0	0	0	0	0	28
8:00 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	3	0	0	3	0	1	1	0	2	0	0	0	0	0	5
8:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	4
Total	0	0	0	0	0	1	9	0	0	10	0	4	1	0	5	0	0	0	0	0	15
Grand Total	0	0	0	0	0	6	19	0	0	25	0	12	6	0	18	0	0	0	0	0	43
Approach %	0.0	0.0	0.0	0.0		24.0	76.0	0.0	0.0		0.0	66.7	33.3	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	14.0	44.2	0.0	0.0	58.1	0.0	27.9	14.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					18					0					0					25	43

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	4	3	0	0	7	0	2	1	0	3	0	0	0	0	0	10
7:30 AM	0	0	0	0	0	1	2	0	0	3	0	0	2	0	2	0	0	0	0	0	5
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	10
Total Volume	0	0	0	0	0	5	10	0	0	15	0	8	5	0	13	0	0	0	0	0	28
% Approach Total	0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	61.5	38.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.313	0.625	0.000	0.000	0.536	0.000	0.333	0.625	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.700
Entering Leg	0	0	0	0	0	5	10	0	0	15	0	8	5	0	13	0	0	0	0	0	28
Exiting Leg					13					0					0					15	28
Total					13					15					13					15	56

PDI File #: **175517 E**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 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	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	1	0	0	0	0	1	0	0	0	0	0	0	0	6
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	1	1	0	0	0	2	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	0	0	1	7	0	0	0	0	8	0	4	1	0	0	0	5	0	0	0	0	0	1	1	14
Grand Total	0	0	0	0	0	0	0	2	11	0	0	0	0	13	0	5	1	0	0	0	6	0	0	0	0	0	1	1	20
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		15.4	84.6	0.0	0.0	0.0	0.0		0.0	83.3	16.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	55.0	0.0	0.0	0.0	0.0	65.0	0.0	25.0	5.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	
Exiting Leg Total							7							0							0							13	20

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	0	0	0	0	3	0	0	0	0	0	0	0	4
8:30 AM	0	0	0	0	0	0	0	1	2	0	0	0	0	3	0	1	1	0	0	0	2	0	0	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total Volume	0	0	0	0	0	0	0	1	7	0	0	0	0	8	0	4	1	0	0	0	5	0	0	0	0	0	1	1	14
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0	0.0	0.0		0.0	80.0	20.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.875	0.000	0.000	0.000	0.000	0.667	0.000	0.333	0.250	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.700
Entering Leg	0	0	0	0	0	0	0	1	7	0	0	0	0	8	0	4	1	0	0	0	5	0	0	0	0	0	1	1	14
Exiting Leg							5							0							0							9	14
Total							5							8							5							10	28

PDI File #: **175517 E**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class: **Pedestrians**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	8	5	13	0	0	0	0	9	3	12	0	0	0	0	0	0	0	0	0	0	0	7	3	10	35
7:15 AM	0	0	0	0	8	6	14	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	5	6	11	31
7:30 AM	0	0	0	0	7	4	11	0	0	0	0	6	5	11	0	0	0	0	0	0	0	0	0	0	0	5	9	14	36
7:45 AM	0	0	0	0	12	6	18	0	0	0	0	6	5	11	0	0	0	0	0	0	0	0	0	0	0	11	6	17	46
Total	0	0	0	0	35	21	56	0	0	0	0	25	15	40	0	0	0	0	0	0	0	0	0	0	0	28	24	52	148
8:00 AM	0	0	0	0	8	7	15	0	0	0	0	9	10	19	0	0	0	0	0	1	1	0	0	0	0	5	10	15	50
8:15 AM	0	0	0	0	6	4	10	0	0	0	0	5	6	11	0	0	0	0	0	1	1	0	0	0	0	8	6	14	36
8:30 AM	0	0	0	0	13	9	22	0	0	0	0	11	3	14	0	0	0	0	0	1	1	0	0	0	0	4	17	21	58
8:45 AM	0	0	0	0	8	1	9	0	0	0	0	9	1	10	0	0	0	0	1	1	2	0	0	0	0	6	10	16	37
Total	0	0	0	0	35	21	56	0	0	0	0	34	20	54	0	0	0	0	1	4	5	0	0	0	0	23	43	66	181
Grand Total	0	0	0	0	70	42	112	0	0	0	0	59	35	94	0	0	0	0	1	4	5	0	0	0	0	51	67	118	329
Approach %	0.0	0.0	0.0	0.0	62.5	37.5		0.0	0.0	0.0	0.0	62.8	37.2		0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	43.2	56.8		
Total %	0.0	0.0	0.0	0.0	21.3	12.8	34.0	0.0	0.0	0.0	0.0	17.9	10.6	28.6	0.0	0.0	0.0	0.0	0.3	1.2	1.5	0.0	0.0	0.0	0.0	15.5	20.4	35.9	
Exiting Leg Total							112							94							5							118	329

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	12	6	18	0	0	0	0	6	5	11	0	0	0	0	0	0	0	0	0	0	0	11	6	17	46
8:00 AM	0	0	0	0	8	7	15	0	0	0	0	9	10	19	0	0	0	0	0	1	1	0	0	0	0	5	10	15	50
8:15 AM	0	0	0	0	6	4	10	0	0	0	0	5	6	11	0	0	0	0	0	1	1	0	0	0	0	8	6	14	36
8:30 AM	0	0	0	0	13	9	22	0	0	0	0	11	3	14	0	0	0	0	0	1	1	0	0	0	0	4	17	21	58
Total Volume	0	0	0	0	39	26	65	0	0	0	0	31	24	55	0	0	0	0	0	3	3	0	0	0	0	28	39	67	190
% Approach Total	0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	56.4	43.6		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	41.8	58.2		
PHF	0.000	0.000	0.000	0.000	0.750	0.722	0.739	0.000	0.000	0.000	0.000	0.705	0.600	0.724	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.000	0.000	0.636	0.574	0.798	0.819
Entering Leg	0	0	0	0	39	26	65	0	0	0	0	31	24	55	0	0	0	0	0	3	3	0	0	0	0	28	39	67	190
Exiting Leg							65							55							3							67	190
Total							130							110							6							134	380

PDI File #: **175517 EE**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	6	100	0	0	106	0	20	31	0	51	0	0	0	0	0	157
4:15 PM	0	0	0	0	0	1	94	0	0	95	0	23	30	0	53	0	0	0	0	0	148
4:30 PM	0	0	0	0	0	1	106	0	0	107	0	18	23	0	41	0	0	0	0	0	148
4:45 PM	0	0	0	0	0	3	133	0	0	136	0	33	23	0	56	0	0	0	0	0	192
Total	0	0	0	0	0	11	433	0	0	444	0	94	107	0	201	0	0	0	0	0	645
5:00 PM	0	0	0	0	0	8	138	0	0	146	0	31	29	0	60	0	0	0	0	0	206
5:15 PM	0	0	0	0	0	11	131	0	0	142	0	29	24	0	53	0	0	0	0	0	195
5:30 PM	0	0	0	0	0	19	169	0	0	188	0	21	26	0	47	0	0	0	0	0	235
5:45 PM	0	0	0	0	0	15	148	0	0	163	0	35	27	0	62	0	0	0	0	0	225
Total	0	0	0	0	0	53	586	0	0	639	0	116	106	0	222	0	0	0	0	0	861
Grand Total	0	0	0	0	0	64	1019	0	0	1083	0	210	213	0	423	0	0	0	0	0	1506
Approach %	0.0	0.0	0.0	0.0		5.9	94.1	0.0	0.0		0.0	49.6	50.4	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	4.2	67.7	0.0	0.0	71.9	0.0	13.9	14.1	0.0	28.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					274					0					0					1232	1506
Cars	0	0	0	0	0	63	1012	0	0	1075	0	208	210	0	418	0	0	0	0	0	1493
% Cars	0.0	0.0	0.0	0.0	0.0	98.4	99.3	0.0	0.0	99.3	0.0	99.0	98.6	0.0	98.8	0.0	0.0	0.0	0.0	0.0	99.1
Exiting Leg Total					271					0					0					1222	1493
Heavy Vehicles	0	0	0	0	0	1	7	0	0	8	0	2	3	0	5	0	0	0	0	0	13
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	1.6	0.7	0.0	0.0	0.7	0.0	1.0	1.4	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.9
Exiting Leg Total					3					0					0					10	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	8	138	0	0	146	0	31	29	0	60	0	0	0	0	0	206
5:15 PM	0	0	0	0	0	11	131	0	0	142	0	29	24	0	53	0	0	0	0	0	195
5:30 PM	0	0	0	0	0	19	169	0	0	188	0	21	26	0	47	0	0	0	0	0	235
5:45 PM	0	0	0	0	0	15	148	0	0	163	0	35	27	0	62	0	0	0	0	0	225
Total Volume	0	0	0	0	0	53	586	0	0	639	0	116	106	0	222	0	0	0	0	0	861
% Approach Total	0.0	0.0	0.0	0.0		8.3	91.7	0.0	0.0		0.0	52.3	47.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.697	0.867	0.000	0.000	0.850	0.000	0.829	0.914	0.000	0.895	0.000	0.000	0.000	0.000	0.000	0.916
Cars	0	0	0	0	0	52	583	0	0	635	0	115	105	0	220	0	0	0	0	0	855
Cars %	0.0	0.0	0.0	0.0	0.0	98.1	99.5	0.0	0.0	99.4	0.0	99.1	99.1	0.0	99.1	0.0	0.0	0.0	0.0	0.0	99.3
Heavy Vehicles	0	0	0	0	0	1	3	0	0	4	0	1	1	0	2	0	0	0	0	0	6
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	1.9	0.5	0.0	0.0	0.6	0.0	0.9	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.7
Cars Enter Leg	0	0	0	0	0	52	583	0	0	635	0	115	105	0	220	0	0	0	0	0	855
Heavy Enter Leg	0	0	0	0	0	1	3	0	0	4	0	1	1	0	2	0	0	0	0	0	6
Total Entering Leg	0	0	0	0	0	53	586	0	0	639	0	116	106	0	222	0	0	0	0	0	861
Cars Exiting Leg					167					0					0					688	855
Heavy Exit Leg					2					0					0					4	6
Total Exiting Leg					169					0					0					692	861

PDI File #: **175517 EE**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	6	99	0	0	105	0	20	31	0	51	0	0	0	0	0	156
4:15 PM	0	0	0	0	0	1	93	0	0	94	0	23	30	0	53	0	0	0	0	0	147
4:30 PM	0	0	0	0	0	1	105	0	0	106	0	18	21	0	39	0	0	0	0	0	145
4:45 PM	0	0	0	0	0	3	132	0	0	135	0	32	23	0	55	0	0	0	0	0	190
Total	0	0	0	0	0	11	429	0	0	440	0	93	105	0	198	0	0	0	0	0	638
5:00 PM	0	0	0	0	0	7	138	0	0	145	0	31	29	0	60	0	0	0	0	0	205
5:15 PM	0	0	0	0	0	11	130	0	0	141	0	29	24	0	53	0	0	0	0	0	194
5:30 PM	0	0	0	0	0	19	169	0	0	188	0	21	26	0	47	0	0	0	0	0	235
5:45 PM	0	0	0	0	0	15	146	0	0	161	0	34	26	0	60	0	0	0	0	0	221
Total	0	0	0	0	0	52	583	0	0	635	0	115	105	0	220	0	0	0	0	0	855
Grand Total	0	0	0	0	0	63	1012	0	0	1075	0	208	210	0	418	0	0	0	0	0	1493
Approach %	0.0	0.0	0.0	0.0		5.9	94.1	0.0	0.0		0.0	49.8	50.2	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	4.2	67.8	0.0	0.0	72.0	0.0	13.9	14.1	0.0	28.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					271					0					0					1222	1493

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	7	138	0	0	145	0	31	29	0	60	0	0	0	0	0	205
5:15 PM	0	0	0	0	0	11	130	0	0	141	0	29	24	0	53	0	0	0	0	0	194
5:30 PM	0	0	0	0	0	19	169	0	0	188	0	21	26	0	47	0	0	0	0	0	235
5:45 PM	0	0	0	0	0	15	146	0	0	161	0	34	26	0	60	0	0	0	0	0	221
Total Volume	0	0	0	0	0	52	583	0	0	635	0	115	105	0	220	0	0	0	0	0	855
% Approach Total	0.0	0.0	0.0	0.0		8.2	91.8	0.0	0.0		0.0	52.3	47.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.684	0.862	0.000	0.000	0.844	0.000	0.846	0.905	0.000	0.917	0.000	0.000	0.000	0.000	0.000	0.910
Entering Leg	0	0	0	0	0	52	583	0	0	635	0	115	105	0	220	0	0	0	0	0	855
Exiting Leg					167					0					0					688	855
Total					167					635					220					688	1710

PDI File #: **175517 EE**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	0	4	0	0	4	0	1	2	0	3	0	0	0	0	0	7
5:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	0	0	0	0	0	4
Total	0	0	0	0	0	1	3	0	0	4	0	1	1	0	2	0	0	0	0	0	6
Grand Total	0	0	0	0	0	1	7	0	0	8	0	2	3	0	5	0	0	0	0	0	13
Approach %	0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0		0.0	40.0	60.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	7.7	53.8	0.0	0.0	61.5	0.0	15.4	23.1	0.0	38.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					3					0					0					10	13

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Hereford Street					Commonwealth Ave WB (Route 2/20)					Hereford Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	4	0	0	4	0	1	2	0	3	0	0	0	0	0	7
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	33.3	66.7	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	0.250	0.250	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.583
Entering Leg	0	0	0	0	0	0	4	0	0	4	0	1	2	0	3	0	0	0	0	0	7
Exiting Leg					1					0					0					6	7
Total					1					4					3					6	14

PDI File #: **175517 EE**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	1	1	0	2	0	0	0	0	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	4
4:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	3	2	0	0	0	5	0	0	0	0	0	0	0	11
4:45 PM	0	0	0	0	0	0	0	0	9	0	0	0	0	9	0	1	1	0	0	0	2	0	0	0	0	0	0	0	11
Total	0	0	0	0	0	1	1	0	20	0	0	0	0	20	0	4	4	0	0	0	8	0	0	0	0	0	0	0	29
5:00 PM	0	1	0	0	0	0	1	0	10	0	0	0	0	10	0	2	2	0	0	0	4	0	0	0	0	0	0	0	15
5:15 PM	0	0	0	0	0	0	0	0	14	0	0	0	0	14	0	1	1	0	0	0	2	0	0	0	0	0	0	0	16
5:30 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	1	0	0	0	0	1	0	0	0	0	0	0	0	7
5:45 PM	1	0	0	0	0	0	1	1	19	0	0	0	0	20	0	1	2	0	0	0	3	0	0	0	0	0	0	0	24
Total	1	1	0	0	0	0	2	1	49	0	0	0	0	50	0	5	5	0	0	0	10	0	0	0	0	0	0	0	62
Grand Total	1	1	0	0	0	1	3	1	69	0	0	0	0	70	0	9	9	0	0	0	18	0	0	0	0	0	0	0	91
Approach %	33.3	33.3	0.0	0.0	0.0	33.3		1.4	98.6	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	1.1	1.1	0.0	0.0	0.0	1.1	3.3	1.1	75.8	0.0	0.0	0.0	0.0	76.9	0.0	9.9	9.9	0.0	0.0	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							11							0							1							79	91

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	1	0	0	0	0	1	0	10	0	0	0	0	10	0	2	2	0	0	0	4	0	0	0	0	0	0	0	15
5:15 PM	0	0	0	0	0	0	0	0	14	0	0	0	0	14	0	1	1	0	0	0	2	0	0	0	0	0	0	0	16
5:30 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	1	0	0	0	0	1	0	0	0	0	0	0	0	7
5:45 PM	1	0	0	0	0	0	1	1	19	0	0	0	0	20	0	1	2	0	0	0	3	0	0	0	0	0	0	0	24
Total Volume	1	1	0	0	0	0	2	1	49	0	0	0	0	50	0	5	5	0	0	0	10	0	0	0	0	0	0	0	62
% Approach Total	50.0	50.0	0.0	0.0	0.0	0.0		2.0	98.0	0.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.000	0.000	0.000	0.500	0.250	0.645	0.000	0.000	0.000	0.000	0.625	0.000	0.625	0.625	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.646
Entering Leg	1	1	0	0	0	0	2	1	49	0	0	0	0	50	0	5	5	0	0	0	10	0	0	0	0	0	0	0	62
Exiting Leg							6							0							1							55	62
Total							8							50							11							55	124

PDI File #: **175517 EE**
Location: **N: Hereford Street S: Hereford Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class: **Pedestrians**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	4	12	16	0	0	0	0	4	8	12	0	0	0	0	1	1	2	0	0	0	0	12	5	17	47
4:15 PM	0	0	0	0	10	6	16	0	0	0	0	6	9	15	0	0	0	0	2	1	3	0	0	0	0	13	9	22	56
4:30 PM	0	0	0	0	7	4	11	0	0	0	0	7	3	10	0	0	0	0	1	1	2	0	0	0	0	20	12	32	55
4:45 PM	0	0	0	0	8	13	21	0	0	0	0	5	10	15	0	0	0	0	1	1	2	0	0	0	0	12	14	26	64
Total	0	0	0	0	29	35	64	0	0	0	0	22	30	52	0	0	0	0	5	4	9	0	0	0	0	57	40	97	222
5:00 PM	0	0	0	0	14	11	25	0	0	0	0	14	11	25	0	0	0	0	0	2	2	0	0	0	0	12	10	22	74
5:15 PM	0	0	0	0	10	12	22	0	0	0	0	12	11	23	0	0	0	0	2	0	2	0	0	0	0	23	6	29	76
5:30 PM	0	0	0	0	8	18	26	0	0	0	0	13	10	23	0	0	0	0	3	2	5	0	0	0	0	20	9	29	83
5:45 PM	0	0	0	0	10	14	24	0	0	0	0	4	21	25	0	0	0	0	3	0	3	0	0	0	0	31	12	43	95
Total	0	0	0	0	42	55	97	0	0	0	0	43	53	96	0	0	0	0	8	4	12	0	0	0	0	86	37	123	328
Grand Total	0	0	0	0	71	90	161	0	0	0	0	65	83	148	0	0	0	0	13	8	21	0	0	0	0	143	77	220	550
Approach %	0.0	0.0	0.0	0.0	44.1	55.9		0.0	0.0	0.0	0.0	43.9	56.1		0.0	0.0	0.0	0.0	61.9	38.1		0.0	0.0	0.0	0.0	65.0	35.0		
Total %	0.0	0.0	0.0	0.0	12.9	16.4	29.3	0.0	0.0	0.0	0.0	11.8	15.1	26.9	0.0	0.0	0.0	0.0	2.4	1.5	3.8	0.0	0.0	0.0	0.0	26.0	14.0	40.0	
Exiting Leg Total							161							148							21							220	550

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Street							Commonwealth Ave WB (Route 2/20)							Hereford Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	14	11	25	0	0	0	0	14	11	25	0	0	0	0	0	2	2	0	0	0	0	12	10	22	74
5:15 PM	0	0	0	0	10	12	22	0	0	0	0	12	11	23	0	0	0	0	2	0	2	0	0	0	0	23	6	29	76
5:30 PM	0	0	0	0	8	18	26	0	0	0	0	13	10	23	0	0	0	0	3	2	5	0	0	0	0	20	9	29	83
5:45 PM	0	0	0	0	10	14	24	0	0	0	0	4	21	25	0	0	0	0	3	0	3	0	0	0	0	31	12	43	95
Total Volume	0	0	0	0	42	55	97	0	0	0	0	43	53	96	0	0	0	0	8	4	12	0	0	0	0	86	37	123	328
% Approach Total	0.0	0.0	0.0	0.0	43.3	56.7		0.0	0.0	0.0	0.0	44.8	55.2		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	69.9	30.1		
PHF	0.000	0.000	0.000	0.000	0.750	0.764	0.933	0.000	0.000	0.000	0.000	0.768	0.631	0.960	0.000	0.000	0.000	0.000	0.667	0.500	0.600	0.000	0.000	0.000	0.000	0.694	0.771	0.715	0.863
Entering Leg	0	0	0	0	42	55	97	0	0	0	0	43	53	96	0	0	0	0	8	4	12	0	0	0	0	86	37	123	328
Exiting Leg							97							96							12							123	328
Total							194							192							24							246	656

PDI File #: **175517 F**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	10	16	0	0	26	0	128	5	0	133	159
7:15 AM	0	0	0	0	0	0	0	0	0	0	19	25	0	0	44	0	151	9	0	160	204
7:30 AM	0	0	0	0	0	0	0	0	0	0	13	31	0	0	44	0	157	6	0	163	207
7:45 AM	0	0	0	0	0	0	0	0	0	0	20	33	0	0	53	0	210	11	0	221	274
Total	0	0	0	0	0	0	0	0	0	0	62	105	0	0	167	0	646	31	0	677	844
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	27	0	0	58	0	211	15	0	226	284
8:15 AM	0	0	0	0	0	0	0	0	0	0	15	30	0	0	45	0	195	8	0	203	248
8:30 AM	0	0	0	0	0	0	0	0	0	0	14	29	0	0	43	0	217	14	0	231	274
8:45 AM	0	0	0	0	0	0	0	0	0	0	14	30	0	0	44	0	228	12	0	240	284
Total	0	0	0	0	0	0	0	0	0	0	74	116	0	0	190	0	851	49	0	900	1090
Grand Total	0	0	0	0	0	0	0	0	0	0	136	221	0	0	357	0	1497	80	0	1577	1934
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		38.1	61.9	0.0	0.0		0.0	94.9	5.1	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	11.4	0.0	0.0	18.5	0.0	77.4	4.1	0.0	81.5	
Exiting Leg Total					301					1633					0					0	1934
Cars	0	0	0	0	0	0	0	0	0	0	132	209	0	0	341	0	1465	74	0	1539	1880
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.1	94.6	0.0	0.0	95.5	0.0	97.9	92.5	0.0	97.6	97.2
Exiting Leg Total					283					1597					0					0	1880
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	4	12	0	0	16	0	32	6	0	38	54
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	5.4	0.0	0.0	4.5	0.0	2.1	7.5	0.0	2.4	2.8
Exiting Leg Total					18					36					0					0	54

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	27	0	0	58	0	211	15	0	226	284
8:15 AM	0	0	0	0	0	0	0	0	0	0	15	30	0	0	45	0	195	8	0	203	248
8:30 AM	0	0	0	0	0	0	0	0	0	0	14	29	0	0	43	0	217	14	0	231	274
8:45 AM	0	0	0	0	0	0	0	0	0	0	14	30	0	0	44	0	228	12	0	240	284
Total Volume	0	0	0	0	0	0	0	0	0	0	74	116	0	0	190	0	851	49	0	900	1090
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		38.9	61.1	0.0	0.0		0.0	94.6	5.4	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.597	0.967	0.000	0.000	0.819	0.000	0.933	0.817	0.000	0.938	0.960
Cars	0	0	0	0	0	0	0	0	0	0	72	113	0	0	185	0	839	47	0	886	1071
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.3	97.4	0.0	0.0	97.4	0.0	98.6	95.9	0.0	98.4	98.3
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	12	2	0	14	19
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.6	0.0	0.0	2.6	0.0	1.4	4.1	0.0	1.6	1.7
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	72	113	0	0	185	0	839	47	0	886	1071
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	12	2	0	14	19
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	74	116	0	0	190	0	851	49	0	900	1090
Cars Exiting Leg					160					911					0					0	1071
Heavy Exit Leg					5					14					0					0	19
Total Exiting Leg					165					925					0					0	1090

PDI File #: **175517 F**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	10	14	0	0	24	0	126	5	0	131	155
7:15 AM	0	0	0	0	0	0	0	0	0	0	17	24	0	0	41	0	143	7	0	150	191
7:30 AM	0	0	0	0	0	0	0	0	0	0	13	29	0	0	42	0	149	6	0	155	197
7:45 AM	0	0	0	0	0	0	0	0	0	0	20	29	0	0	49	0	208	9	0	217	266
Total	0	0	0	0	0	0	0	0	0	0	60	96	0	0	156	0	626	27	0	653	809
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	27	0	0	58	0	207	14	0	221	279
8:15 AM	0	0	0	0	0	0	0	0	0	0	15	29	0	0	44	0	192	7	0	199	243
8:30 AM	0	0	0	0	0	0	0	0	0	0	13	29	0	0	42	0	214	14	0	228	270
8:45 AM	0	0	0	0	0	0	0	0	0	0	13	28	0	0	41	0	226	12	0	238	279
Total	0	0	0	0	0	0	0	0	0	0	72	113	0	0	185	0	839	47	0	886	1071
Grand Total	0	0	0	0	0	0	0	0	0	0	132	209	0	0	341	0	1465	74	0	1539	1880
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		38.7	61.3	0.0	0.0		0.0	95.2	4.8	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	11.1	0.0	0.0	18.1	0.0	77.9	3.9	0.0	81.9	
Exiting Leg Total					283					1597					0					0	1880

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	31	27	0	0	58	0	207	14	0	221	279
8:15 AM	0	0	0	0	0	0	0	0	0	0	15	29	0	0	44	0	192	7	0	199	243
8:30 AM	0	0	0	0	0	0	0	0	0	0	13	29	0	0	42	0	214	14	0	228	270
8:45 AM	0	0	0	0	0	0	0	0	0	0	13	28	0	0	41	0	226	12	0	238	279
Total Volume	0	0	0	0	0	0	0	0	0	0	72	113	0	0	185	0	839	47	0	886	1071
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		38.9	61.1	0.0	0.0		0.0	94.7	5.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.581	0.974	0.000	0.000	0.797	0.000	0.928	0.839	0.000	0.931	0.960
Entering Leg	0	0	0	0	0	0	0	0	0	0	72	113	0	0	185	0	839	47	0	886	1071
Exiting Leg					160					911					0					0	1071
Total					160					911					185					886	2142

PDI File #: **175517 F**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	8	2	0	10	13
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	0	0	8	10
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	2	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	2	9	0	0	11	0	20	4	0	24	35
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	12	2	0	14	19
Grand Total	0	0	0	0	0	0	0	0	0	0	4	12	0	0	16	0	32	6	0	38	54
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0		0.0	84.2	15.8	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	22.2	0.0	0.0	29.6	0.0	59.3	11.1	0.0	70.4	
Exiting Leg Total					18					36					0					0	54

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	8	2	0	10	13
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	0	0	8	10
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	2	0	4	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	5
Total Volume	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	22	5	0	27	36
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		22.2	77.8	0.0	0.0		0.0	81.5	18.5	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.438	0.000	0.000	0.563	0.000	0.688	0.625	0.000	0.675	0.692
Entering Leg	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	22	5	0	27	36
Exiting Leg					12					24					0					0	36
Total					12					24					9					27	72

PDI File #: **175517 F**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Avenue (North)							Commonwealth Ave EB (Route 2/20) (East)							Hereford Avenue (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	1	7	7
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	0	10	0	0	0	0	10	13
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	0	29	0	0	0	1	30	33
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	8	0	0	0	0	8	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	22	0	0	0	0	22	26
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	19	0	0	0	0	19	21
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	20	0	0	0	0	20	21
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	5	0	0	1	0	6	0	69	0	0	0	0	69	77
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	6	0	0	1	0	7	0	98	0	0	0	1	99	110
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	85.7	0.0	0.0	14.3	0.0		0.0	99.0	0.0	0.0	0.0	1.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	3.6	0.0	5.5	0.0	0.0	0.9	0.0	6.4	0.0	89.1	0.0	0.0	0.0	0.9	90.0	
Exiting Leg Total							6							102							1							1	110

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Avenue (North)							Commonwealth Ave EB (Route 2/20) (East)							Hereford Avenue (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	8	0	0	0	0	8	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	22	0	0	0	0	22	26
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	0	19	0	0	0	0	19	21
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	20	0	0	0	0	20	21
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	5	0	0	1	0	6	0	69	0	0	0	0	69	77
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	83.3	0.0	0.0	16.7	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.313	0.000	0.000	0.250	0.000	0.375	0.000	0.784	0.000	0.000	0.000	0.000	0.784	0.740
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	5	0	0	1	0	6	0	69	0	0	0	0	69	77
Exiting Leg							5							71							1							0	77
Total							5							73							7							69	154

PDI File #: **175517 F**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	5	9	14	0	0	0	0	4	6	10	33
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	1	6	0	0	0	0	8	5	13	0	0	0	0	1	8	9	28
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	8	5	13	0	0	0	0	5	9	14	0	0	0	0	5	7	12	40
7:45 AM	0	0	0	0	0	1	1	0	0	0	0	4	7	11	0	0	0	0	11	14	25	0	0	0	0	11	9	20	57
Total	0	0	0	0	1	1	2	0	0	0	0	22	17	39	0	0	0	0	29	37	66	0	0	0	0	21	30	51	158
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	6	7	13	0	0	0	0	4	14	18	0	0	0	0	5	11	16	48
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	7	5	12	0	0	0	0	10	21	31	0	0	0	0	8	7	15	59
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	7	2	9	0	0	0	0	8	8	16	0	0	0	0	6	13	19	45
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0	0	17	21	38	0	0	0	0	4	13	17	62
Total	0	0	0	0	0	3	3	0	0	0	0	25	16	41	0	0	0	0	39	64	103	0	0	0	0	23	44	67	214
Grand Total	0	0	0	0	1	4	5	0	0	0	0	47	33	80	0	0	0	0	68	101	169	0	0	0	0	44	74	118	372
Approach %	0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	58.8	41.3		0.0	0.0	0.0	0.0	40.2	59.8		0.0	0.0	0.0	0.0	37.3	62.7		
Total %	0.0	0.0	0.0	0.0	0.3	1.1	1.3	0.0	0.0	0.0	0.0	12.6	8.9	21.5	0.0	0.0	0.0	0.0	18.3	27.2	45.4	0.0	0.0	0.0	0.0	11.8	19.9	31.7	
Exiting Leg Total							5							80							169							118	372

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	6	7	13	0	0	0	0	4	14	18	0	0	0	0	5	11	16	48
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	7	5	12	0	0	0	0	10	21	31	0	0	0	0	8	7	15	59
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	7	2	9	0	0	0	0	8	8	16	0	0	0	0	6	13	19	45
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0	0	17	21	38	0	0	0	0	4	13	17	62
Total Volume	0	0	0	0	0	3	3	0	0	0	0	25	16	41	0	0	0	0	39	64	103	0	0	0	0	23	44	67	214
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	61.0	39.0		0.0	0.0	0.0	0.0	37.9	62.1		0.0	0.0	0.0	0.0	34.3	65.7		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.000	0.000	0.893	0.571	0.788	0.000	0.000	0.000	0.000	0.574	0.762	0.678	0.000	0.000	0.000	0.000	0.719	0.846	0.882	0.863
Entering Leg	0	0	0	0	0	3	3	0	0	0	0	25	16	41	0	0	0	0	39	64	103	0	0	0	0	23	44	67	214
Exiting Leg							3							41							103							67	214
Total							6							82							206							134	428

PDI File #: **175517 FF**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	19	42	0	0	61	0	154	10	0	164	225
4:15 PM	0	0	0	0	0	0	0	0	0	0	15	43	0	0	58	0	174	11	0	185	243
4:30 PM	0	0	0	0	0	0	0	0	0	0	17	30	0	0	47	0	163	9	0	172	219
4:45 PM	0	0	0	0	0	0	0	0	0	0	25	41	0	0	66	1	222	15	0	238	304
Total	0	0	0	0	0	0	0	0	0	0	76	156	0	0	232	1	713	45	0	759	991
5:00 PM	0	0	0	0	0	0	0	0	0	0	25	43	0	0	68	0	184	16	0	200	268
5:15 PM	0	0	0	0	0	0	0	0	0	0	28	38	0	0	66	0	193	15	0	208	274
5:30 PM	0	0	0	0	0	0	0	0	0	0	22	35	0	0	57	0	192	12	0	204	261
5:45 PM	0	0	0	0	0	0	0	0	0	0	25	44	0	0	69	0	209	19	0	228	297
Total	0	0	0	0	0	0	0	0	0	0	100	160	0	0	260	0	778	62	0	840	1100
Grand Total	0	0	0	0	0	0	0	0	0	0	176	316	0	0	492	1	1491	107	0	1599	2091
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		35.8	64.2	0.0	0.0		0.1	93.2	6.7	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	15.1	0.0	0.0	23.5	0.0	71.3	5.1	0.0	76.5	
Exiting Leg Total					423					1667					1					0	2091
Cars	0	0	0	0	0	0	0	0	0	0	175	314	0	0	489	1	1471	103	0	1575	2064
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.4	99.4	0.0	0.0	99.4	100.0	98.7	96.3	0.0	98.5	98.7
Exiting Leg Total					417					1646					1					0	2064
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	20	4	0	24	27
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.0	0.6	0.0	1.3	3.7	0.0	1.5	1.3
Exiting Leg Total					6					21					0					0	27

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	25	41	0	0	66	1	222	15	0	238	304
5:00 PM	0	0	0	0	0	0	0	0	0	0	25	43	0	0	68	0	184	16	0	200	268
5:15 PM	0	0	0	0	0	0	0	0	0	0	28	38	0	0	66	0	193	15	0	208	274
5:30 PM	0	0	0	0	0	0	0	0	0	0	22	35	0	0	57	0	192	12	0	204	261
Total Volume	0	0	0	0	0	0	0	0	0	0	100	157	0	0	257	1	791	58	0	850	1107
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		38.9	61.1	0.0	0.0		0.1	93.1	6.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.893	0.913	0.000	0.000	0.945	0.250	0.891	0.906	0.000	0.893	0.910
Cars	0	0	0	0	0	0	0	0	0	0	100	156	0	0	256	1	784	57	0	842	1098
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	99.4	0.0	0.0	99.6	100.0	99.1	98.3	0.0	99.1	99.2
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	7	1	0	8	9
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.9	1.7	0.0	0.9	0.8
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	100	156	0	0	256	1	784	57	0	842	1098
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	7	1	0	8	9
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	100	157	0	0	257	1	791	58	0	850	1107
Cars Exiting Leg					213					884					1					0	1098
Heavy Exit Leg					2					7					0					0	9
Total Exiting Leg					215					891					1					0	1107

PDI File #: **175517 FF**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	19	42	0	0	61	0	149	10	0	159	220
4:15 PM	0	0	0	0	0	0	0	0	0	0	14	43	0	0	57	0	173	11	0	184	241
4:30 PM	0	0	0	0	0	0	0	0	0	0	17	30	0	0	47	0	161	7	0	168	215
4:45 PM	0	0	0	0	0	0	0	0	0	0	25	40	0	0	65	1	222	15	0	238	303
Total	0	0	0	0	0	0	0	0	0	0	75	155	0	0	230	1	705	43	0	749	979
5:00 PM	0	0	0	0	0	0	0	0	0	0	25	43	0	0	68	0	182	16	0	198	266
5:15 PM	0	0	0	0	0	0	0	0	0	0	28	38	0	0	66	0	191	14	0	205	271
5:30 PM	0	0	0	0	0	0	0	0	0	0	22	35	0	0	57	0	189	12	0	201	258
5:45 PM	0	0	0	0	0	0	0	0	0	0	25	43	0	0	68	0	204	18	0	222	290
Total	0	0	0	0	0	0	0	0	0	0	100	159	0	0	259	0	766	60	0	826	1085
Grand Total	0	0	0	0	0	0	0	0	0	0	175	314	0	0	489	1	1471	103	0	1575	2064
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		35.8	64.2	0.0	0.0		0.1	93.4	6.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	15.2	0.0	0.0	23.7	0.0	71.3	5.0	0.0	76.3	
Exiting Leg Total					417					1646					1					0	2064

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	25	40	0	0	65	1	222	15	0	238	303
5:00 PM	0	0	0	0	0	0	0	0	0	0	25	43	0	0	68	0	182	16	0	198	266
5:15 PM	0	0	0	0	0	0	0	0	0	0	28	38	0	0	66	0	191	14	0	205	271
5:30 PM	0	0	0	0	0	0	0	0	0	0	22	35	0	0	57	0	189	12	0	201	258
Total Volume	0	0	0	0	0	0	0	0	0	0	100	156	0	0	256	1	784	57	0	842	1098
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		39.1	60.9	0.0	0.0		0.1	93.1	6.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.893	0.907	0.000	0.000	0.941	0.250	0.883	0.891	0.000	0.884	0.906
Entering Leg	0	0	0	0	0	0	0	0	0	0	100	156	0	0	256	1	784	57	0	842	1098
Exiting Leg					213					884					1					0	1098
Total					213					884					257					842	2196

PDI File #: **175517 FF**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	8	2	0	10	12
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	1	0	6	7
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	12	2	0	14	15
Grand Total	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	20	4	0	24	27
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	83.3	16.7	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	7.4	0.0	0.0	11.1	0.0	74.1	14.8	0.0	88.9	
Exiting Leg Total					6					21					0					0	27

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Avenue					Commonwealth Ave EB (Route 2/20)					Hereford Avenue					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	1	0	6	7
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	12	2	0	14	15
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	85.7	14.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.600	0.500	0.000	0.583	0.536
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	12	2	0	14	15
Exiting Leg					3					12					0					0	15
Total					3					12					1					14	30

PDI File #: **175517 FF**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	8	0	0	0	0	8	10
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	3	0	0	0	0	3	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	0	8	0	0	0	0	8	12
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	1	0	11	0	25	0	0	0	0	25	36
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	0	0	0	4	0	4	0	0	1	0	5	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	7	0	0	0	0	7	9
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	6	0	0	0	0	6	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	4	0	0	0	0	4	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	5	0	0	0	1	8	0	21	0	0	1	0	22	32
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	14	0	0	1	1	19	0	46	0	0	1	0	47	68
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		15.8	73.7	0.0	0.0	5.3	5.3		0.0	97.9	0.0	0.0	2.1	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	2.9	4.4	20.6	0.0	0.0	1.5	1.5	27.9	0.0	67.6	0.0	0.0	1.5	0.0	69.1	
Exiting Leg Total							14							51							2							1	68

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	3	0	0	0	0	3	8
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	0	8	0	0	0	0	8	12
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	0	0	0	4	0	4	0	0	1	0	5	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	7	0	0	0	0	7	9
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11	0	0	1	1	15	0	22	0	0	1	0	23	39
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		13.3	73.3	0.0	0.0	6.7	6.7		0.0	95.7	0.0	0.0	4.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.688	0.000	0.000	0.250	0.250	0.750	0.000	0.688	0.000	0.000	0.250	0.000	0.719	0.813
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11	0	0	1	1	15	0	22	0	0	1	0	23	39
Exiting Leg							11							25							2							1	39
Total							11							26							17							24	78

PDI File #: **175517 FF**
Location: **N: Hereford Avenue S: Hereford Avenue**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	1	2	3	0	0	0	0	5	7	12	0	0	0	0	12	17	29	0	0	0	0	9	7	16	60
4:15 PM	0	0	0	0	0	2	2	0	0	0	0	8	10	18	0	0	0	0	22	5	27	0	0	0	0	13	11	24	71
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	7	3	10	0	0	0	0	17	20	37	0	0	0	0	20	13	33	81
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	11	11	22	0	0	0	0	21	14	35	0	0	0	0	13	15	28	85
Total	0	0	0	0	2	4	6	0	0	0	0	31	31	62	0	0	0	0	72	56	128	0	0	0	0	55	46	101	297
5:00 PM	0	0	0	0	1	1	2	0	0	0	0	12	15	27	0	0	0	0	16	21	37	0	0	0	0	15	13	28	94
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	11	9	20	0	0	0	0	16	19	35	0	0	0	0	17	10	27	83
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	14	3	17	0	0	0	0	27	20	47	0	0	0	0	18	16	34	100
5:45 PM	0	0	0	0	0	4	4	0	0	0	0	9	15	24	0	0	0	0	35	31	66	0	0	0	0	22	12	34	128
Total	0	0	0	0	4	5	9	0	0	0	0	46	42	88	0	0	0	0	94	91	185	0	0	0	0	72	51	123	405
Grand Total	0	0	0	0	6	9	15	0	0	0	0	77	73	150	0	0	0	0	166	147	313	0	0	0	0	127	97	224	702
Approach %	0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	51.3	48.7		0.0	0.0	0.0	0.0	53.0	47.0		0.0	0.0	0.0	0.0	56.7	43.3		
Total %	0.0	0.0	0.0	0.0	0.9	1.3	2.1	0.0	0.0	0.0	0.0	11.0	10.4	21.4	0.0	0.0	0.0	0.0	23.6	20.9	44.6	0.0	0.0	0.0	0.0	18.1	13.8	31.9	
Exiting Leg Total							15							150							313							224	702

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Hereford Avenue							Commonwealth Ave EB (Route 2/20)							Hereford Avenue							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	1	1	2	0	0	0	0	12	15	27	0	0	0	0	16	21	37	0	0	0	0	15	13	28	94
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	11	9	20	0	0	0	0	16	19	35	0	0	0	0	17	10	27	83
5:30 PM	0	0	0	0	2	0	2	0	0	0	0	14	3	17	0	0	0	0	27	20	47	0	0	0	0	18	16	34	100
5:45 PM	0	0	0	0	0	4	4	0	0	0	0	9	15	24	0	0	0	0	35	31	66	0	0	0	0	22	12	34	128
Total Volume	0	0	0	0	4	5	9	0	0	0	0	46	42	88	0	0	0	0	94	91	185	0	0	0	0	72	51	123	405
% Approach Total	0.0	0.0	0.0	0.0	44.4	55.6		0.0	0.0	0.0	0.0	52.3	47.7		0.0	0.0	0.0	0.0	50.8	49.2		0.0	0.0	0.0	0.0	58.5	41.5		
PHF	0.000	0.000	0.000	0.000	0.500	0.313	0.563	0.000	0.000	0.000	0.000	0.821	0.700	0.815	0.000	0.000	0.000	0.000	0.671	0.734	0.701	0.000	0.000	0.000	0.000	0.818	0.797	0.904	0.791
Entering Leg	0	0	0	0	4	5	9	0	0	0	0	46	42	88	0	0	0	0	94	91	185	0	0	0	0	72	51	123	405
Exiting Leg							9							88							185							123	405
Total							18							176							370							246	810

PDI File #: **175517 G**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	26	0	0	33	0	78	9	0	87	0	0	0	0	0	0	0	0	0	0	120
7:15 AM	13	28	0	0	41	0	69	9	0	78	0	0	0	0	0	0	0	0	0	0	119
7:30 AM	14	22	0	0	36	0	83	17	0	100	0	0	0	0	0	0	0	0	0	0	136
7:45 AM	16	38	0	0	54	0	107	11	0	118	0	0	0	0	0	0	0	0	0	0	172
Total	50	114	0	0	164	0	337	46	0	383	0	0	0	0	0	0	0	0	0	0	547
8:00 AM	7	29	0	0	36	0	114	16	0	130	0	0	0	0	0	0	0	0	0	0	166
8:15 AM	5	31	0	0	36	0	104	24	0	128	0	0	0	0	0	0	0	0	0	0	164
8:30 AM	5	41	0	0	46	0	110	17	0	127	0	0	0	0	0	0	0	0	0	0	173
8:45 AM	5	28	0	0	33	0	118	18	0	136	0	0	0	0	0	0	0	0	0	0	169
Total	22	129	0	0	151	0	446	75	0	521	0	0	0	0	0	0	0	0	0	0	672
Grand Total	72	243	0	0	315	0	783	121	0	904	0	0	0	0	0	0	0	0	0	0	1219
Approach %	22.9	77.1	0.0	0.0		0.0	86.6	13.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	5.9	19.9	0.0	0.0	25.8	0.0	64.2	9.9	0.0	74.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					364					855	1219
Cars	68	240	0	0	308	0	762	115	0	877	0	0	0	0	0	0	0	0	0	0	1185
% Cars	94.4	98.8	0.0	0.0	97.8	0.0	97.3	95.0	0.0	97.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.2
Exiting Leg Total					0					0					355					830	1185
Heavy Vehicles	4	3	0	0	7	0	21	6	0	27	0	0	0	0	0	0	0	0	0	0	34
% Heavy Vehicles	5.6	1.2	0.0	0.0	2.2	0.0	2.7	5.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Exiting Leg Total					0					0					9					25	34

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	16	38	0	0	54	0	107	11	0	118	0	0	0	0	0	0	0	0	0	0	172
8:00 AM	7	29	0	0	36	0	114	16	0	130	0	0	0	0	0	0	0	0	0	0	166
8:15 AM	5	31	0	0	36	0	104	24	0	128	0	0	0	0	0	0	0	0	0	0	164
8:30 AM	5	41	0	0	46	0	110	17	0	127	0	0	0	0	0	0	0	0	0	0	173
Total Volume	33	139	0	0	172	0	435	68	0	503	0	0	0	0	0	0	0	0	0	0	675
% Approach Total	19.2	80.8	0.0	0.0		0.0	86.5	13.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.516	0.848	0.000	0.000	0.796	0.000	0.954	0.708	0.000	0.967	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.975
Cars	33	136	0	0	169	0	424	67	0	491	0	0	0	0	0	0	0	0	0	0	660
Cars %	100.0	97.8	0.0	0.0	98.3	0.0	97.5	98.5	0.0	97.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.8
Heavy Vehicles	0	3	0	0	3	0	11	1	0	12	0	0	0	0	0	0	0	0	0	0	15
Heavy Vehicles %	0.0	2.2	0.0	0.0	1.7	0.0	2.5	1.5	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	33	136	0	0	169	0	424	67	0	491	0	0	0	0	0	0	0	0	0	0	660
Heavy Enter Leg	0	3	0	0	3	0	11	1	0	12	0	0	0	0	0	0	0	0	0	0	15
Total Entering Leg	33	139	0	0	172	0	435	68	0	503	0	0	0	0	0	0	0	0	0	0	675
Cars Exiting Leg					0					0					203					457	660
Heavy Exit Leg					0					0					4					11	15
Total Exiting Leg					0					0					207					468	675

PDI File #: **175517 G**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	7	26	0	0	33	0	77	9	0	86	0	0	0	0	0	0	0	0	0	0	119
7:15 AM	10	28	0	0	38	0	67	6	0	73	0	0	0	0	0	0	0	0	0	0	111
7:30 AM	13	22	0	0	35	0	81	16	0	97	0	0	0	0	0	0	0	0	0	0	132
7:45 AM	16	38	0	0	54	0	103	11	0	114	0	0	0	0	0	0	0	0	0	0	168
Total	46	114	0	0	160	0	328	42	0	370	0	0	0	0	0	0	0	0	0	0	530
8:00 AM	7	27	0	0	34	0	113	16	0	129	0	0	0	0	0	0	0	0	0	0	163
8:15 AM	5	31	0	0	36	0	101	23	0	124	0	0	0	0	0	0	0	0	0	0	160
8:30 AM	5	40	0	0	45	0	107	17	0	124	0	0	0	0	0	0	0	0	0	0	169
8:45 AM	5	28	0	0	33	0	113	17	0	130	0	0	0	0	0	0	0	0	0	0	163
Total	22	126	0	0	148	0	434	73	0	507	0	0	0	0	0	0	0	0	0	0	655
Grand Total	68	240	0	0	308	0	762	115	0	877	0	0	0	0	0	0	0	0	0	0	1185
Approach %	22.1	77.9	0.0	0.0		0.0	86.9	13.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	5.7	20.3	0.0	0.0	26.0	0.0	64.3	9.7	0.0	74.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					355					830	1185

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	16	38	0	0	54	0	103	11	0	114	0	0	0	0	0	0	0	0	0	0	168
8:00 AM	7	27	0	0	34	0	113	16	0	129	0	0	0	0	0	0	0	0	0	0	163
8:15 AM	5	31	0	0	36	0	101	23	0	124	0	0	0	0	0	0	0	0	0	0	160
8:30 AM	5	40	0	0	45	0	107	17	0	124	0	0	0	0	0	0	0	0	0	0	169
Total Volume	33	136	0	0	169	0	424	67	0	491	0	0	0	0	0	0	0	0	0	0	660
% Approach Total	19.5	80.5	0.0	0.0		0.0	86.4	13.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.516	0.850	0.000	0.000	0.782	0.000	0.938	0.728	0.000	0.952	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.976
Entering Leg	33	136	0	0	169	0	424	67	0	491	0	0	0	0	0	0	0	0	0	0	660
Exiting Leg					0					0					203					457	660
Total					169					491					203					457	1320

PDI File #: **175517 G**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	3	0	0	0	3	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	8
7:30 AM	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	4	0	0	0	4	0	9	4	0	13	0	0	0	0	0	0	0	0	0	0	17
8:00 AM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	6
Total	0	3	0	0	3	0	12	2	0	14	0	0	0	0	0	0	0	0	0	0	17
Grand Total	4	3	0	0	7	0	21	6	0	27	0	0	0	0	0	0	0	0	0	0	34
Approach %	57.1	42.9	0.0	0.0		0.0	77.8	22.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	11.8	8.8	0.0	0.0	20.6	0.0	61.8	17.6	0.0	79.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					9					25	34

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	3	0	0	0	3	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	8
7:30 AM	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total Volume	4	2	0	0	6	0	9	4	0	13	0	0	0	0	0	0	0	0	0	0	19
% Approach Total	66.7	33.3	0.0	0.0		0.0	69.2	30.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.333	0.250	0.000	0.000	0.500	0.000	0.563	0.333	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.594
Entering Leg	4	2	0	0	6	0	9	4	0	13	0	0	0	0	0	0	0	0	0	0	19
Exiting Leg					0					0					6					13	19
Total					6					13					6					13	38

PDI File #: **175517 G**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gloucester Street							Commonwealth Ave WB (Route 2/20)							Gloucester Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 AM	0	1	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	2	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	4	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7
8:15 AM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	1	1	0	0	0	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	0	0	1	0	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	1	8	0	0	0	0	9	0	7	2	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	19
Grand Total	1	10	0	0	0	0	11	0	12	2	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	1	1	26
Approach %	9.1	90.9	0.0	0.0	0.0	0.0		0.0	85.7	14.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	3.8	38.5	0.0	0.0	0.0	0.0	42.3	0.0	46.2	7.7	0.0	0.0	0.0	53.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8	
Exiting Leg Total							0							0							12							14	26

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street							Commonwealth Ave WB (Route 2/20)							Gloucester Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	4	0	0	0	0	4	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	7
8:15 AM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	1	1	0	0	0	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	0	0	1	0	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	1	8	0	0	0	0	9	0	7	2	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	19
% Approach Total	11.1	88.9	0.0	0.0	0.0	0.0		0.0	77.8	22.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.250	0.500	0.000	0.000	0.000	0.000	0.563	0.000	0.875	0.250	0.000	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.679
Entering Leg	1	8	0	0	0	0	9	0	7	2	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	19
Exiting Leg							0							0							10							9	19
Total							9							9							10							10	38

PDI File #: **175517 G**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street							Commonwealth Ave WB (Route 2/20)							Gloucester Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	4	4	8	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	3	3	6	22
7:15 AM	0	0	0	0	4	3	7	0	0	0	0	6	3	9	0	0	0	0	0	0	0	0	0	0	0	6	7	13	29
7:30 AM	0	0	0	0	7	0	7	0	0	0	0	8	2	10	0	0	0	0	1	0	1	0	0	0	0	1	1	2	20
7:45 AM	0	0	0	0	9	6	15	0	0	0	0	9	4	13	0	0	0	0	0	0	0	0	0	0	0	3	5	8	36
Total	0	0	0	0	24	13	37	0	0	0	0	28	12	40	0	0	0	0	1	0	1	0	0	0	0	13	16	29	107
8:00 AM	0	0	0	0	6	10	16	0	0	0	0	8	4	12	0	0	0	0	0	0	0	0	0	0	0	4	9	13	41
8:15 AM	0	0	0	0	4	3	7	0	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	0	0	4	7	11	34
8:30 AM	0	0	0	0	10	6	16	0	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0	1	8	9	31
8:45 AM	0	0	0	0	6	3	9	0	0	0	0	13	2	15	0	0	0	0	0	0	0	0	0	0	0	2	9	11	35
Total	0	0	0	0	26	22	48	0	0	0	0	33	16	49	0	0	0	0	0	0	0	0	0	0	0	11	33	44	141
Grand Total	0	0	0	0	50	35	85	0	0	0	0	61	28	89	0	0	0	0	1	0	1	0	0	0	0	24	49	73	248
Approach %	0.0	0.0	0.0	0.0	58.8	41.2		0.0	0.0	0.0	0.0	68.5	31.5		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	32.9	67.1		
Total %	0.0	0.0	0.0	0.0	20.2	14.1	34.3	0.0	0.0	0.0	0.0	24.6	11.3	35.9	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	9.7	19.8	29.4	
Exiting Leg Total							85							89							1							73	248

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Gloucester Street							Commonwealth Ave WB (Route 2/20)							Gloucester Street							Commonwealth Ave WB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	9	6	15	0	0	0	0	9	4	13	0	0	0	0	0	0	0	0	0	0	0	3	5	8	36
8:00 AM	0	0	0	0	6	10	16	0	0	0	0	8	4	12	0	0	0	0	0	0	0	0	0	0	0	4	9	13	41
8:15 AM	0	0	0	0	4	3	7	0	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	0	0	4	7	11	34
8:30 AM	0	0	0	0	10	6	16	0	0	0	0	3	3	6	0	0	0	0	0	0	0	0	0	0	0	1	8	9	31
Total Volume	0	0	0	0	29	25	54	0	0	0	0	29	18	47	0	0	0	0	0	0	0	0	0	0	0	12	29	41	142
% Approach Total	0.0	0.0	0.0	0.0	53.7	46.3		0.0	0.0	0.0	0.0	61.7	38.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	29.3	70.7		
PHF	0.000	0.000	0.000	0.000	0.725	0.625	0.844	0.000	0.000	0.000	0.000	0.806	0.643	0.734	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.806	0.788	0.866
Entering Leg	0	0	0	0	29	25	54	0	0	0	0	29	18	47	0	0	0	0	0	0	0	0	0	0	0	12	29	41	142
Exiting Leg							54							47							0							41	142
Total							108							94							0							82	284

PDI File #: **175517 GG**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	27	0	0	35	0	98	15	0	113	0	0	0	0	0	0	0	0	0	0	148
4:15 PM	6	24	0	0	30	0	96	27	0	123	0	0	0	0	0	0	0	0	0	0	153
4:30 PM	7	24	0	0	31	0	104	18	0	122	0	0	0	0	0	0	0	0	0	0	153
4:45 PM	8	20	0	0	28	0	130	21	0	151	0	0	0	0	0	0	0	0	0	0	179
Total	29	95	0	0	124	0	428	81	0	509	0	0	0	0	0	0	0	0	0	0	633
5:00 PM	6	33	0	0	39	0	142	24	0	166	0	0	0	0	0	0	1	0	0	1	206
5:15 PM	6	30	0	0	36	0	137	23	0	160	0	0	0	0	0	0	1	0	0	1	197
5:30 PM	12	22	0	0	34	0	179	32	0	211	0	0	0	0	0	0	0	0	0	0	245
5:45 PM	9	29	0	0	38	0	154	31	0	185	0	0	0	0	0	0	0	0	0	0	223
Total	33	114	0	0	147	0	612	110	0	722	0	0	0	0	0	0	2	0	0	2	871
Grand Total	62	209	0	0	271	0	1040	191	0	1231	0	0	0	0	0	0	2	0	0	2	1504
Approach %	22.9	77.1	0.0	0.0		0.0	84.5	15.5	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	4.1	13.9	0.0	0.0	18.0	0.0	69.1	12.7	0.0	81.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	
Exiting Leg Total					0					2					400					1102	1504
Cars	61	206	0	0	267	0	1032	189	0	1221	0	0	0	0	0	0	2	0	0	2	1490
% Cars	98.4	98.6	0.0	0.0	98.5	0.0	99.2	99.0	0.0	99.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	99.1
Exiting Leg Total					0					2					395					1093	1490
Heavy Vehicles	1	3	0	0	4	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	14
% Heavy Vehicles	1.6	1.4	0.0	0.0	1.5	0.0	0.8	1.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Exiting Leg Total					0					0					5					9	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	6	33	0	0	39	0	142	24	0	166	0	0	0	0	0	0	1	0	0	1	206
5:15 PM	6	30	0	0	36	0	137	23	0	160	0	0	0	0	0	0	1	0	0	1	197
5:30 PM	12	22	0	0	34	0	179	32	0	211	0	0	0	0	0	0	0	0	0	0	245
5:45 PM	9	29	0	0	38	0	154	31	0	185	0	0	0	0	0	0	0	0	0	0	223
Total Volume	33	114	0	0	147	0	612	110	0	722	0	0	0	0	0	0	2	0	0	2	871
% Approach Total	22.4	77.6	0.0	0.0		0.0	84.8	15.2	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.688	0.864	0.000	0.000	0.942	0.000	0.855	0.859	0.000	0.855	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.889
Cars	32	113	0	0	145	0	608	109	0	717	0	0	0	0	0	0	2	0	0	2	864
Cars %	97.0	99.1	0.0	0.0	98.6	0.0	99.3	99.1	0.0	99.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	99.2
Heavy Vehicles	1	1	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
Heavy Vehicles %	3.0	0.9	0.0	0.0	1.4	0.0	0.7	0.9	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Cars Enter Leg	32	113	0	0	145	0	608	109	0	717	0	0	0	0	0	0	2	0	0	2	864
Heavy Enter Leg	1	1	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
Total Entering Leg	33	114	0	0	147	0	612	110	0	722	0	0	0	0	0	0	2	0	0	2	871
Cars Exiting Leg					0					2					222					640	864
Heavy Exit Leg					0					0					2					5	7
Total Exiting Leg					0					2					224					645	871

PDI File #: **175517 GG**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	8	27	0	0	35	0	97	15	0	112	0	0	0	0	0	0	0	0	0	0	147
4:15 PM	6	23	0	0	29	0	95	26	0	121	0	0	0	0	0	0	0	0	0	0	150
4:30 PM	7	24	0	0	31	0	103	18	0	121	0	0	0	0	0	0	0	0	0	0	152
4:45 PM	8	19	0	0	27	0	129	21	0	150	0	0	0	0	0	0	0	0	0	0	177
Total	29	93	0	0	122	0	424	80	0	504	0	0	0	0	0	0	0	0	0	0	626
5:00 PM	5	32	0	0	37	0	142	23	0	165	0	0	0	0	0	0	1	0	0	1	203
5:15 PM	6	30	0	0	36	0	136	23	0	159	0	0	0	0	0	0	1	0	0	1	196
5:30 PM	12	22	0	0	34	0	179	32	0	211	0	0	0	0	0	0	0	0	0	0	245
5:45 PM	9	29	0	0	38	0	151	31	0	182	0	0	0	0	0	0	0	0	0	0	220
Total	32	113	0	0	145	0	608	109	0	717	0	0	0	0	0	0	2	0	0	2	864
Grand Total	61	206	0	0	267	0	1032	189	0	1221	0	0	0	0	0	0	2	0	0	2	1490
Approach %	22.8	77.2	0.0	0.0		0.0	84.5	15.5	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	4.1	13.8	0.0	0.0	17.9	0.0	69.3	12.7	0.0	81.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	
Exiting Leg Total					0					2					395					1093	1490

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	5	32	0	0	37	0	142	23	0	165	0	0	0	0	0	0	1	0	0	1	203
5:15 PM	6	30	0	0	36	0	136	23	0	159	0	0	0	0	0	0	1	0	0	1	196
5:30 PM	12	22	0	0	34	0	179	32	0	211	0	0	0	0	0	0	0	0	0	0	245
5:45 PM	9	29	0	0	38	0	151	31	0	182	0	0	0	0	0	0	0	0	0	0	220
Total Volume	32	113	0	0	145	0	608	109	0	717	0	0	0	0	0	0	2	0	0	2	864
% Approach Total	22.1	77.9	0.0	0.0		0.0	84.8	15.2	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.667	0.883	0.000	0.000	0.954	0.000	0.849	0.852	0.000	0.850	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.882
Entering Leg	32	113	0	0	145	0	608	109	0	717	0	0	0	0	0	0	2	0	0	2	864
Exiting Leg					0					2					222					640	864
Total					145					719					222					642	1728

PDI File #: **175517 GG**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
5:00 PM	1	1	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	1	1	0	0	2	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	7
Grand Total	1	3	0	0	4	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	14
Approach %	25.0	75.0	0.0	0.0		0.0	80.0	20.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	7.1	21.4	0.0	0.0	28.6	0.0	57.1	14.3	0.0	71.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					5					9	14

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

6:30 AM	Gloucester Street					Commonwealth Ave WB (Route 2/20)					Gloucester Street					Commonwealth Ave WB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	3	0	0	0	3	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	8
Total Volume	3	0	0	0	3	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	9
% Approach Total	100.0	0.0	0.0	0.0		0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.000	0.375	0.250	0.000	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.281
Entering Leg	3	0	0	0	3	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	9
Exiting Leg					0					0					3					6	9
Total					3					6					3					6	18

PDI File #: **175517 GG**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gloucester Street (North)							Commonwealth Ave WB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave WB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	2	0	0	0	0	2	1	3	1	0	1	0	6	0	0	0	0	0	1	1	0	0	0	0	0	1	1	10
4:30 PM	0	1	0	0	0	0	1	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
4:45 PM	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	0	3	0	0	0	0	3	1	25	2	0	1	0	29	0	0	0	0	0	1	1	0	0	0	0	0	1	1	34
5:00 PM	0	1	0	0	0	0	1	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
5:15 PM	0	1	0	0	0	0	1	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
5:30 PM	0	1	0	0	0	0	1	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
5:45 PM	0	4	0	0	0	0	4	0	19	0	0	0	1	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Total	0	7	0	0	0	0	7	0	52	0	0	0	1	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Grand Total	0	10	0	0	0	0	10	1	77	2	0	1	1	82	0	0	0	0	0	1	1	0	0	0	0	0	1	1	94
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		1.2	93.9	2.4	0.0	1.2	1.2		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	0.0	10.6	0.0	0.0	0.0	0.0	10.6	1.1	81.9	2.1	0.0	1.1	1.1	87.2	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	0.0	1.1	1.1	
Exiting Leg Total							1							2							13							78	94

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street (North)							Commonwealth Ave WB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave WB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	1	0	0	0	0	1	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
5:15 PM	0	1	0	0	0	0	1	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
5:30 PM	0	1	0	0	0	0	1	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
5:45 PM	0	4	0	0	0	0	4	0	19	0	0	0	1	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Total Volume	0	7	0	0	0	0	7	0	52	0	0	0	1	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	98.1	0.0	0.0	0.0	1.9		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.438	0.000	0.000	0.000	0.000	0.438	0.000	0.684	0.000	0.000	0.000	0.250	0.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	7	0	0	0	0	7	0	52	0	0	0	1	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Exiting Leg							0							1							7							52	60
Total							7							54							7							52	120

PDI File #: **175517 GG**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave WB (Route 2/20) W: Commonwealth Ave WB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street (North)							Commonwealth Ave WB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave WB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	4	9	13	0	0	0	0	3	5	8	0	0	0	0	0	1	1	0	0	0	0	5	10	15	37
4:15 PM	0	0	0	0	10	7	17	0	0	0	0	4	2	6	0	0	0	0	1	0	1	0	0	0	0	9	10	19	43
4:30 PM	0	0	0	0	8	5	13	0	0	0	0	8	9	17	0	0	0	0	0	1	1	0	0	0	0	6	2	8	39
4:45 PM	0	0	0	0	5	9	14	0	0	0	0	10	10	20	0	0	0	0	3	0	3	0	0	0	0	9	5	14	51
Total	0	0	0	0	27	30	57	0	0	0	0	25	26	51	0	0	0	0	4	2	6	0	0	0	0	29	27	56	170
5:00 PM	0	0	0	0	13	12	25	0	0	0	0	11	11	22	0	0	0	0	1	2	3	0	0	0	0	11	6	17	67
5:15 PM	0	0	0	0	9	9	18	0	0	0	0	3	17	20	0	0	0	0	0	0	0	0	0	0	0	12	10	22	60
5:30 PM	0	0	0	0	6	15	21	0	0	0	0	2	11	13	0	0	0	0	4	0	4	0	0	0	0	16	5	21	59
5:45 PM	0	0	0	0	13	12	25	0	0	0	0	11	6	17	0	0	0	0	0	0	0	0	0	0	0	14	5	19	61
Total	0	0	0	0	41	48	89	0	0	0	0	27	45	72	0	0	0	0	5	2	7	0	0	0	0	53	26	79	247
Grand Total	0	0	0	0	68	78	146	0	0	0	0	52	71	123	0	0	0	0	9	4	13	0	0	0	0	82	53	135	417
Approach %	0.0	0.0	0.0	0.0	46.6	53.4		0.0	0.0	0.0	0.0	42.3	57.7		0.0	0.0	0.0	0.0	69.2	30.8		0.0	0.0	0.0	0.0	60.7	39.3		
Total %	0.0	0.0	0.0	0.0	16.3	18.7	35.0	0.0	0.0	0.0	0.0	12.5	17.0	29.5	0.0	0.0	0.0	0.0	2.2	1.0	3.1	0.0	0.0	0.0	0.0	19.7	12.7	32.4	
Exiting Leg Total							146							123							13							135	417

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street (North)							Commonwealth Ave WB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave WB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	13	12	25	0	0	0	0	11	11	22	0	0	0	0	1	2	3	0	0	0	0	11	6	17	67
5:15 PM	0	0	0	0	9	9	18	0	0	0	0	3	17	20	0	0	0	0	0	0	0	0	0	0	0	12	10	22	60
5:30 PM	0	0	0	0	6	15	21	0	0	0	0	2	11	13	0	0	0	0	4	0	4	0	0	0	0	16	5	21	59
5:45 PM	0	0	0	0	13	12	25	0	0	0	0	11	6	17	0	0	0	0	0	0	0	0	0	0	0	14	5	19	61
Total Volume	0	0	0	0	41	48	89	0	0	0	0	27	45	72	0	0	0	0	5	2	7	0	0	0	0	53	26	79	247
% Approach Total	0.0	0.0	0.0	0.0	46.1	53.9		0.0	0.0	0.0	0.0	37.5	62.5		0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	0.0	0.0	67.1	32.9		
PHF	0.000	0.000	0.000	0.000	0.788	0.800	0.890	0.000	0.000	0.000	0.000	0.614	0.662	0.818	0.000	0.000	0.000	0.000	0.313	0.250	0.438	0.000	0.000	0.000	0.000	0.828	0.650	0.898	0.922
Entering Leg	0	0	0	0	41	48	89	0	0	0	0	27	45	72	0	0	0	0	5	2	7	0	0	0	0	53	26	79	247
Exiting Leg							89							72							7							79	247
Total							178							144							14							158	494

PDI File #: **175517 H**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	21	14	0	35	0	0	0	0	0	0	0	0	0	0	27	108	0	0	135	170
7:15 AM	0	25	9	0	34	0	0	0	0	0	0	0	0	0	0	30	144	0	0	174	208
7:30 AM	0	28	12	0	40	0	0	0	0	0	0	0	0	0	0	13	153	0	0	166	206
7:45 AM	0	30	19	0	49	0	0	0	0	0	0	0	0	0	0	32	194	0	0	226	275
Total	0	104	54	0	158	0	0	0	0	0	0	0	0	0	0	102	599	0	0	701	859
8:00 AM	0	35	12	0	47	0	0	0	0	0	0	0	0	0	0	29	208	0	0	237	284
8:15 AM	0	31	22	0	53	0	0	0	0	0	0	0	0	0	0	25	192	0	0	217	270
8:30 AM	0	43	15	0	58	0	0	0	0	0	0	0	0	0	0	39	190	0	0	229	287
8:45 AM	0	26	21	0	47	0	0	0	0	0	0	0	0	0	0	45	196	0	0	241	288
Total	0	135	70	0	205	0	0	0	0	0	0	0	0	0	0	138	786	0	0	924	1129
Grand Total	0	239	124	0	363	0	0	0	0	0	0	0	0	0	0	240	1385	0	0	1625	1988
Approach %	0.0	65.8	34.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.8	85.2	0.0	0.0		
Total %	0.0	12.0	6.2	0.0	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	69.7	0.0	0.0	81.7	
Exiting Leg Total					0					1509					479					0	1988
Cars	0	230	124	0	354	0	0	0	0	0	0	0	0	0	0	231	1359	0	0	1590	1944
% Cars	0.0	96.2	100.0	0.0	97.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.3	98.1	0.0	0.0	97.8	97.8
Exiting Leg Total					0					1483					461					0	1944
Heavy Vehicles	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	9	26	0	0	35	44
% Heavy Vehicles	0.0	3.8	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.9	0.0	0.0	2.2	2.2
Exiting Leg Total					0					26					18					0	44

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	35	12	0	47	0	0	0	0	0	0	0	0	0	0	29	208	0	0	237	284
8:15 AM	0	31	22	0	53	0	0	0	0	0	0	0	0	0	0	25	192	0	0	217	270
8:30 AM	0	43	15	0	58	0	0	0	0	0	0	0	0	0	0	39	190	0	0	229	287
8:45 AM	0	26	21	0	47	0	0	0	0	0	0	0	0	0	0	45	196	0	0	241	288
Total Volume	0	135	70	0	205	0	0	0	0	0	0	0	0	0	0	138	786	0	0	924	1129
% Approach Total	0.0	65.9	34.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.9	85.1	0.0	0.0		
PHF	0.000	0.785	0.795	0.000	0.884	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.767	0.945	0.000	0.000	0.959	0.980
Cars	0	130	70	0	200	0	0	0	0	0	0	0	0	0	0	135	778	0	0	913	1113
Cars %	0.0	96.3	100.0	0.0	97.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.8	99.0	0.0	0.0	98.8	98.6
Heavy Vehicles	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	3	8	0	0	11	16
Heavy Vehicles %	0.0	3.7	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	1.0	0.0	0.0	1.2	1.4
Cars Enter Leg	0	130	70	0	200	0	0	0	0	0	0	0	0	0	0	135	778	0	0	913	1113
Heavy Enter Leg	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	3	8	0	0	11	16
Total Entering Leg	0	135	70	0	205	0	0	0	0	0	0	0	0	0	0	138	786	0	0	924	1129
Cars Exiting Leg					0					848					265					0	1113
Heavy Exit Leg					0					8					8					0	16
Total Exiting Leg					0					856					273					0	1129

PDI File #: **175517 H**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	21	14	0	35	0	0	0	0	0	0	0	0	0	0	26	107	0	0	133	168
7:15 AM	0	22	9	0	31	0	0	0	0	0	0	0	0	0	0	27	137	0	0	164	195
7:30 AM	0	27	12	0	39	0	0	0	0	0	0	0	0	0	0	11	145	0	0	156	195
7:45 AM	0	30	19	0	49	0	0	0	0	0	0	0	0	0	0	32	192	0	0	224	273
Total	0	100	54	0	154	0	0	0	0	0	0	0	0	0	0	96	581	0	0	677	831
8:00 AM	0	33	12	0	45	0	0	0	0	0	0	0	0	0	0	28	205	0	0	233	278
8:15 AM	0	30	22	0	52	0	0	0	0	0	0	0	0	0	0	25	191	0	0	216	268
8:30 AM	0	42	15	0	57	0	0	0	0	0	0	0	0	0	0	38	188	0	0	226	283
8:45 AM	0	25	21	0	46	0	0	0	0	0	0	0	0	0	0	44	194	0	0	238	284
Total	0	130	70	0	200	0	0	0	0	0	0	0	0	0	0	135	778	0	0	913	1113
Grand Total	0	230	124	0	354	0	0	0	0	0	0	0	0	0	0	231	1359	0	0	1590	1944
Approach %	0.0	65.0	35.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.5	85.5	0.0	0.0		
Total %	0.0	11.8	6.4	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	69.9	0.0	0.0	81.8	
Exiting Leg Total					0					1483					461					0	1944

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	33	12	0	45	0	0	0	0	0	0	0	0	0	0	28	205	0	0	233	278
8:15 AM	0	30	22	0	52	0	0	0	0	0	0	0	0	0	0	25	191	0	0	216	268
8:30 AM	0	42	15	0	57	0	0	0	0	0	0	0	0	0	0	38	188	0	0	226	283
8:45 AM	0	25	21	0	46	0	0	0	0	0	0	0	0	0	0	44	194	0	0	238	284
Total Volume	0	130	70	0	200	0	0	0	0	0	0	0	0	0	0	135	778	0	0	913	1113
% Approach Total	0.0	65.0	35.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.8	85.2	0.0	0.0		
PHF	0.000	0.774	0.795	0.000	0.877	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.767	0.949	0.000	0.000	0.959	0.980
Entering Leg	0	130	70	0	200	0	0	0	0	0	0	0	0	0	0	135	778	0	0	913	1113
Exiting Leg					0					848					265					0	1113
Total					200					848					265					913	2226

PDI File #: **175517 H**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
7:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	13
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	8	0	0	10	11
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	6	18	0	0	24	28
8:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	6
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4
Total	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	3	8	0	0	11	16
Grand Total	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	9	26	0	0	35	44
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		25.7	74.3	0.0	0.0		
Total %	0.0	20.5	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	59.1	0.0	0.0	79.5	
Exiting Leg Total					0					26					18					0	44

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:15 AM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	13
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	8	0	0	10	11
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
8:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	6
Total Volume	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	6	20	0	0	26	32
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		23.1	76.9	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.625	0.000	0.000	0.650	0.615
Entering Leg	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	6	20	0	0	26	32
Exiting Leg					0					20					12					0	32
Total					6					20					12					26	64

PDI File #: **175517 H**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gloucester Street							Commonwealth Ave EB (Route 2/20)							Gloucester Street							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
7:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	8
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	25	0	0	0	0	26	27
8:00 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	8	0	0	0	0	8	13
8:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	21	0	0	0	0	22	25
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	20
8:45 AM	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	17	0	0	0	0	19	24
Total	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	2	4	3	65	0	0	0	0	68	82
Grand Total	0	9	2	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4	90	0	0	0	0	94	109
Approach %	0.0	81.8	18.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		4.3	95.7	0.0	0.0	0.0	0.0		
Total %	0.0	8.3	1.8	0.0	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	3.7	3.7	82.6	0.0	0.0	0.0	0.0	86.2	
Exiting Leg Total							0							92							17							0	109

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street							Commonwealth Ave EB (Route 2/20)							Gloucester Street							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	8	0	0	0	0	8	13
8:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	21	0	0	0	0	22	25
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	20
8:45 AM	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	17	0	0	0	0	19	24
Total Volume	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	2	4	3	65	0	0	0	0	68	82
% Approach Total	0.0	90.0	10.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		4.4	95.6	0.0	0.0	0.0	0.0		
PHF	0.000	0.563	0.250	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.500	0.375	0.774	0.000	0.000	0.000	0.000	0.773	0.820
Entering Leg	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	2	4	3	65	0	0	0	0	68	82
Exiting Leg							0							66							16							0	82
Total							10							66							20							68	164

PDI File #: **175517 H**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street							Commonwealth Ave EB (Route 2/20)							Gloucester Street							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	6	7	0	0	0	0	3	5	8	0	0	0	0	2	3	5	20
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	5	10	0	0	0	0	3	4	7	0	0	0	0	2	5	7	24
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	1	6	0	0	0	0	1	6	7	0	0	0	0	1	1	2	15
7:45 AM	0	0	0	0	0	1	1	0	0	0	0	9	4	13	0	0	0	0	7	9	16	0	0	0	0	2	5	7	37
Total	0	0	0	0	0	1	1	0	0	0	0	20	16	36	0	0	0	0	14	24	38	0	0	0	0	7	14	21	96
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	7	5	12	0	0	0	0	4	8	12	0	0	0	0	3	5	8	33
8:15 AM	0	0	0	0	2	0	2	0	0	0	0	9	3	12	0	0	0	0	17	23	40	0	0	0	0	5	3	8	62
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0	0	8	7	15	0	0	0	0	2	8	10	32
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	14	2	16	0	0	0	0	28	14	42	0	0	0	0	2	8	10	69
Total	0	0	0	0	4	0	4	0	0	0	0	35	12	47	0	0	0	0	57	52	109	0	0	0	0	12	24	36	196
Grand Total	0	0	0	0	4	1	5	0	0	0	0	55	28	83	0	0	0	0	71	76	147	0	0	0	0	19	38	57	292
Approach %	0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	0.0	0.0	66.3	33.7		0.0	0.0	0.0	0.0	48.3	51.7		0.0	0.0	0.0	0.0	33.3	66.7		
Total %	0.0	0.0	0.0	0.0	1.4	0.3	1.7	0.0	0.0	0.0	0.0	18.8	9.6	28.4	0.0	0.0	0.0	0.0	24.3	26.0	50.3	0.0	0.0	0.0	0.0	6.5	13.0	19.5	
Exiting Leg Total							5							83							147							57	292

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Gloucester Street							Commonwealth Ave EB (Route 2/20)							Gloucester Street							Commonwealth Ave EB (Route 2/20)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	1	0	1	0	0	0	0	7	5	12	0	0	0	0	4	8	12	0	0	0	0	3	5	8	33
8:15 AM	0	0	0	0	2	0	2	0	0	0	0	9	3	12	0	0	0	0	17	23	40	0	0	0	0	5	3	8	62
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	2	7	0	0	0	0	8	7	15	0	0	0	0	2	8	10	32
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	14	2	16	0	0	0	0	28	14	42	0	0	0	0	2	8	10	69
Total Volume	0	0	0	0	4	0	4	0	0	0	0	35	12	47	0	0	0	0	57	52	109	0	0	0	0	12	24	36	196
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	74.5	25.5		0.0	0.0	0.0	0.0	52.3	47.7		0.0	0.0	0.0	0.0	33.3	66.7		
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.625	0.600	0.734	0.000	0.000	0.000	0.000	0.509	0.565	0.649	0.000	0.000	0.000	0.000	0.600	0.750	0.900	0.710
Entering Leg	0	0	0	0	4	0	4	0	0	0	0	35	12	47	0	0	0	0	57	52	109	0	0	0	0	12	24	36	196
Exiting Leg							4							47							109							36	196
Total							8							94							218							72	392

PDI File #: **175517 HH**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	31	12	0	43	0	0	0	0	0	0	0	0	0	0	35	141	0	0	176	219
4:15 PM	0	41	11	0	52	0	0	0	0	0	0	0	0	0	0	35	152	0	0	187	239
4:30 PM	0	32	10	0	42	0	0	0	0	0	0	0	0	0	0	37	145	0	0	182	224
4:45 PM	0	32	8	0	40	0	0	0	0	0	0	0	0	0	0	46	197	0	0	243	283
Total	0	136	41	0	177	0	0	0	0	0	0	0	0	0	0	153	635	0	0	788	965
5:00 PM	0	44	13	0	57	0	0	0	0	0	0	0	0	0	0	40	174	0	0	214	271
5:15 PM	0	41	12	0	53	0	0	0	0	0	0	0	0	0	0	39	180	0	0	219	272
5:30 PM	0	42	10	0	52	0	0	0	0	0	0	0	0	0	0	33	183	0	0	216	268
5:45 PM	0	48	11	0	59	0	0	0	0	0	0	0	0	0	0	49	185	0	0	234	293
Total	0	175	46	0	221	0	0	0	0	0	0	0	0	0	0	161	722	0	0	883	1104
Grand Total	0	311	87	0	398	0	0	0	0	0	0	0	0	0	0	314	1357	0	0	1671	2069
Approach %	0.0	78.1	21.9	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.8	81.2	0.0	0.0		
Total %	0.0	15.0	4.2	0.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.2	65.6	0.0	0.0	80.8	
Exiting Leg Total					0					1444					625					0	2069
Cars	0	306	85	0	391	0	0	0	0	0	0	0	0	0	0	309	1340	0	0	1649	2040
% Cars	0.0	98.4	97.7	0.0	98.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.4	98.7	0.0	0.0	98.7	98.6
Exiting Leg Total					0					1425					615					0	2040
Heavy Vehicles	0	5	2	0	7	0	0	0	0	0	0	0	0	0	0	5	17	0	0	22	29
% Heavy Vehicles	0.0	1.6	2.3	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.3	0.0	0.0	1.3	1.4
Exiting Leg Total					0					19					10					0	29

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	44	13	0	57	0	0	0	0	0	0	0	0	0	0	40	174	0	0	214	271
5:15 PM	0	41	12	0	53	0	0	0	0	0	0	0	0	0	0	39	180	0	0	219	272
5:30 PM	0	42	10	0	52	0	0	0	0	0	0	0	0	0	0	33	183	0	0	216	268
5:45 PM	0	48	11	0	59	0	0	0	0	0	0	0	0	0	0	49	185	0	0	234	293
Total Volume	0	175	46	0	221	0	0	0	0	0	0	0	0	0	0	161	722	0	0	883	1104
% Approach Total	0.0	79.2	20.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.2	81.8	0.0	0.0		
PHF	0.000	0.911	0.885	0.000	0.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.821	0.976	0.000	0.000	0.943	0.942
Cars	0	172	45	0	217	0	0	0	0	0	0	0	0	0	0	158	715	0	0	873	1090
Cars %	0.0	98.3	97.8	0.0	98.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.1	99.0	0.0	0.0	98.9	98.7
Heavy Vehicles	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	14
Heavy Vehicles %	0.0	1.7	2.2	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	0.0	0.0	1.1	1.3
Cars Enter Leg	0	172	45	0	217	0	0	0	0	0	0	0	0	0	0	158	715	0	0	873	1090
Heavy Enter Leg	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	14
Total Entering Leg	0	175	46	0	221	0	0	0	0	0	0	0	0	0	0	161	722	0	0	883	1104
Cars Exiting Leg					0					760					330					0	1090
Heavy Exit Leg					0					8					6					0	14
Total Exiting Leg					0					768					336					0	1104

PDI File #: **175517 HH**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	31	12	0	43	0	0	0	0	0	0	0	0	0	0	33	136	0	0	169	212
4:15 PM	0	39	10	0	49	0	0	0	0	0	0	0	0	0	0	35	150	0	0	185	234
4:30 PM	0	32	10	0	42	0	0	0	0	0	0	0	0	0	0	37	142	0	0	179	221
4:45 PM	0	32	8	0	40	0	0	0	0	0	0	0	0	0	0	46	197	0	0	243	283
Total	0	134	40	0	174	0	0	0	0	0	0	0	0	0	0	151	625	0	0	776	950
5:00 PM	0	42	12	0	54	0	0	0	0	0	0	0	0	0	0	40	172	0	0	212	266
5:15 PM	0	41	12	0	53	0	0	0	0	0	0	0	0	0	0	39	178	0	0	217	270
5:30 PM	0	41	10	0	51	0	0	0	0	0	0	0	0	0	0	32	182	0	0	214	265
5:45 PM	0	48	11	0	59	0	0	0	0	0	0	0	0	0	0	47	183	0	0	230	289
Total	0	172	45	0	217	0	0	0	0	0	0	0	0	0	0	158	715	0	0	873	1090
Grand Total	0	306	85	0	391	0	0	0	0	0	0	0	0	0	0	309	1340	0	0	1649	2040
Approach %	0.0	78.3	21.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.7	81.3	0.0	0.0		
Total %	0.0	15.0	4.2	0.0	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1	65.7	0.0	0.0	80.8	
Exiting Leg Total					0					1425					615					0	2040

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	42	12	0	54	0	0	0	0	0	0	0	0	0	0	40	172	0	0	212	266
5:15 PM	0	41	12	0	53	0	0	0	0	0	0	0	0	0	0	39	178	0	0	217	270
5:30 PM	0	41	10	0	51	0	0	0	0	0	0	0	0	0	0	32	182	0	0	214	265
5:45 PM	0	48	11	0	59	0	0	0	0	0	0	0	0	0	0	47	183	0	0	230	289
Total Volume	0	172	45	0	217	0	0	0	0	0	0	0	0	0	0	158	715	0	0	873	1090
% Approach Total	0.0	79.3	20.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.1	81.9	0.0	0.0		
PHF	0.000	0.896	0.938	0.000	0.919	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.840	0.977	0.000	0.000	0.949	0.943
Entering Leg	0	172	45	0	217	0	0	0	0	0	0	0	0	0	0	158	715	0	0	873	1090
Exiting Leg					0					760					330					0	1090
Total					217					760					330					873	2180

PDI File #: **175517 HH**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Heavy Vehicles

	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	7
4:15 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	2	10	0	0	12	15
5:00 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	4
Total	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	14
Grand Total	0	5	2	0	7	0	0	0	0	0	0	0	0	0	0	5	17	0	0	22	29
Approach %	0.0	71.4	28.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		22.7	77.3	0.0	0.0		
Total %	0.0	17.2	6.9	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	58.6	0.0	0.0	75.9	
Exiting Leg Total					0					19					10					0	29

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

6:30 AM	Gloucester Street					Commonwealth Ave EB (Route 2/20)					Gloucester Street					Commonwealth Ave EB (Route 2/20)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
7:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	13
Total Volume	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4	8	0	0	12	15
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.286	0.000	0.000	0.300	0.288
Entering Leg	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4	8	0	0	12	15
Exiting Leg					0					8					7					0	15
Total					3					8					7					12	30

PDI File #: **175517 HH**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Gloucester Street (North)							Commonwealth Ave EB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	6	0	0	0	0	7	9
4:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	9
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	4	0	0	0	0	4	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	7	0	0	0	0	7	8
Total	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	3	5	1	24	0	0	0	0	25	33
5:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	5	6
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	8	9
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4
5:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	7
Total	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16	0	0	0	0	19	26
Grand Total	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	2	3	5	4	40	0	0	0	0	44	59
Approach %	0.0	90.0	10.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	40.0	60.0		9.1	90.9	0.0	0.0	0.0	0.0		
Total %	0.0	15.3	1.7	0.0	0.0	0.0	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	5.1	8.5	6.8	67.8	0.0	0.0	0.0	0.0	74.6	
Exiting Leg Total							0							41							18							0	59

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Gloucester Street (North)							Commonwealth Ave EB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	6	0	0	0	0	7	9
4:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	9
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	4	0	0	0	0	4	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	7	0	0	0	0	7	8
Total Volume	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	3	5	1	24	0	0	0	0	25	33
% Approach Total	0.0	66.7	33.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	40.0	60.0		4.0	96.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.250	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.375	0.625	0.250	0.857	0.000	0.000	0.000	0.000	0.893	0.917
Entering Leg	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	3	5	1	24	0	0	0	0	25	33
Exiting Leg							0							25							8							0	33
Total							3							25							13							25	66

PDI File #: **175517 HH**
Location: **N: Gloucester Street S: Gloucester Street**
Location: **E: Commonwealth Ave EB (Route 2/20) W: Commonwealth Ave EB (Route 2/20)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Gloucester Street (North)							Commonwealth Ave EB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	5	8	0	0	0	0	11	18	29	0	0	0	0	7	10	17	54
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	7	9	0	0	0	0	18	5	23	0	0	0	0	6	11	17	49
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	13	7	20	0	0	0	0	12	19	31	0	0	0	0	8	1	9	60
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	8	10	18	0	0	0	0	21	18	39	0	0	0	0	9	8	17	76
Total	0	0	0	0	1	1	2	0	0	0	0	26	29	55	0	0	0	0	62	60	122	0	0	0	0	30	30	60	239
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	9	9	18	0	0	0	0	15	19	34	0	0	0	0	10	7	17	70
5:15 PM	0	0	0	0	4	0	4	0	0	0	0	10	14	24	0	0	0	0	11	19	30	0	0	0	0	8	12	20	78
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	2	13	15	0	0	0	0	26	25	51	0	0	0	0	8	11	19	86
5:45 PM	0	0	0	0	1	2	3	0	0	0	0	9	6	15	0	0	0	0	28	24	52	0	0	0	0	14	8	22	92
Total	0	0	0	0	6	3	9	0	0	0	0	30	42	72	0	0	0	0	80	87	167	0	0	0	0	40	38	78	326
Grand Total	0	0	0	0	7	4	11	0	0	0	0	56	71	127	0	0	0	0	142	147	289	0	0	0	0	70	68	138	565
Approach %	0.0	0.0	0.0	0.0	63.6	36.4		0.0	0.0	0.0	0.0	44.1	55.9		0.0	0.0	0.0	0.0	49.1	50.9		0.0	0.0	0.0	0.0	50.7	49.3		
Total %	0.0	0.0	0.0	0.0	1.2	0.7	1.9	0.0	0.0	0.0	0.0	9.9	12.6	22.5	0.0	0.0	0.0	0.0	25.1	26.0	51.2	0.0	0.0	0.0	0.0	12.4	12.0	24.4	
Exiting Leg Total							11							127							289							138	565

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Gloucester Street (North)							Commonwealth Ave EB (Route 2/20) (East)							Gloucester Street (South)							Commonwealth Ave EB (Route 2/20) (West)							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	1	0	1	0	0	0	0	9	9	18	0	0	0	0	15	19	34	0	0	0	0	10	7	17	70
5:15 PM	0	0	0	0	4	0	4	0	0	0	0	10	14	24	0	0	0	0	11	19	30	0	0	0	0	8	12	20	78
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	2	13	15	0	0	0	0	26	25	51	0	0	0	0	8	11	19	86
5:45 PM	0	0	0	0	1	2	3	0	0	0	0	9	6	15	0	0	0	0	28	24	52	0	0	0	0	14	8	22	92
Total Volume	0	0	0	0	6	3	9	0	0	0	0	30	42	72	0	0	0	0	80	87	167	0	0	0	0	40	38	78	326
% Approach Total	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	41.7	58.3		0.0	0.0	0.0	0.0	47.9	52.1		0.0	0.0	0.0	0.0	51.3	48.7		
PHF	0.000	0.000	0.000	0.000	0.375	0.375	0.563	0.000	0.000	0.000	0.000	0.750	0.750	0.750	0.000	0.000	0.000	0.000	0.714	0.870	0.803	0.000	0.000	0.000	0.000	0.714	0.792	0.886	0.886
Entering Leg	0	0	0	0	6	3	9	0	0	0	0	30	42	72	0	0	0	0	80	87	167	0	0	0	0	40	38	78	326
Exiting Leg							9							72							167							78	326
Total							18							144							334							156	652

PDI File #: **175517 I**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern [illegible]**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	5	102	0	0	107	2	5	6	0	13	0	177	18	0	195	0	0	0	0	0	315
7:15 AM	5	102	0	0	107	6	1	3	0	10	0	163	17	1	181	0	0	0	0	0	298
7:30 AM	3	116	0	0	119	8	4	5	0	17	0	137	10	0	147	0	0	0	0	0	283
7:45 AM	8	137	0	0	145	9	10	4	0	23	0	141	12	0	153	0	0	0	0	0	321
Total	21	457	0	0	478	25	20	18	0	63	0	618	57	1	676	0	0	0	0	0	1217
8:00 AM	7	138	0	0	145	7	6	7	0	20	0	144	9	0	153	0	0	0	0	0	318
8:15 AM	6	113	0	0	119	10	4	5	0	19	0	154	6	0	160	0	0	0	0	0	298
8:30 AM	7	140	0	0	147	18	6	4	0	28	0	132	12	0	144	0	0	0	0	0	319
8:45 AM	9	150	0	0	159	7	8	4	0	19	0	139	6	0	145	0	0	0	0	0	323
Total	29	541	0	0	570	42	24	20	0	86	0	569	33	0	602	0	0	0	0	0	1258
Grand Total	50	998	0	0	1048	67	44	38	0	149	0	1187	90	1	1278	0	0	0	0	0	2475
Approach %	4.8	95.2	0.0	0.0		45.0	29.5	25.5	0.0		0.0	92.9	7.0	0.1		0.0	0.0	0.0	0.0		
Total %	2.0	40.3	0.0	0.0	42.3	2.7	1.8	1.5	0.0	6.0	0.0	48.0	3.6	0.0	51.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1254					0					1037					184	2475
Cars	47	902	0	0	949	63	43	35	0	141	0	1052	85	1	1138	0	0	0	0	0	2228
% Cars	94.0	90.4	0.0	0.0	90.6	94.0	97.7	92.1	0.0	94.6	0.0	88.6	94.4	100.0	89.0	0.0	0.0	0.0	0.0	0.0	90.0
Exiting Leg Total					1115					0					938					175	2228
Heavy Vehicles	3	96	0	0	99	4	1	3	0	8	0	135	5	0	140	0	0	0	0	0	247
% Heavy Vehicles	6.0	9.6	0.0	0.0	9.4	6.0	2.3	7.9	0.0	5.4	0.0	11.4	5.6	0.0	11.0	0.0	0.0	0.0	0.0	0.0	10.0
Exiting Leg Total					139					0					99					9	247

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	7	138	0	0	145	7	6	7	0	20	0	144	9	0	153	0	0	0	0	0	318
8:15 AM	6	113	0	0	119	10	4	5	0	19	0	154	6	0	160	0	0	0	0	0	298
8:30 AM	7	140	0	0	147	18	6	4	0	28	0	132	12	0	144	0	0	0	0	0	319
8:45 AM	9	150	0	0	159	7	8	4	0	19	0	139	6	0	145	0	0	0	0	0	323
Total Volume	29	541	0	0	570	42	24	20	0	86	0	569	33	0	602	0	0	0	0	0	1258
% Approach Total	5.1	94.9	0.0	0.0		48.8	27.9	23.3	0.0		0.0	94.5	5.5	0.0		0.0	0.0	0.0	0.0		
PHF	0.806	0.902	0.000	0.000	0.896	0.583	0.750	0.714	0.000	0.768	0.000	0.924	0.688	0.000	0.941	0.000	0.000	0.000	0.000	0.000	0.974
Cars	27	499	0	0	526	40	24	19	0	83	0	522	32	0	554	0	0	0	0	0	1163
Cars %	93.1	92.2	0.0	0.0	92.3	95.2	100.0	95.0	0.0	96.5	0.0	91.7	97.0	0.0	92.0	0.0	0.0	0.0	0.0	0.0	92.4
Heavy Vehicles	2	42	0	0	44	2	0	1	0	3	0	47	1	0	48	0	0	0	0	0	95
Heavy Vehicles %	6.9	7.8	0.0	0.0	7.7	4.8	0.0	5.0	0.0	3.5	0.0	8.3	3.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	7.6
Cars Enter Leg	27	499	0	0	526	40	24	19	0	83	0	522	32	0	554	0	0	0	0	0	1163
Heavy Enter Leg	2	42	0	0	44	2	0	1	0	3	0	47	1	0	48	0	0	0	0	0	95
Total Entering Leg	29	541	0	0	570	42	24	20	0	86	0	569	33	0	602	0	0	0	0	0	1258
Cars Exiting Leg					562					0					518					83	1163
Heavy Exit Leg					49					0					43					3	95
Total Exiting Leg					611					0					561					86	1258

PDI File #: **175517 I**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern [illegible]**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	5	90	0	0	95	2	4	6	0	12	0	152	18	0	170	0	0	0	0	0	277
7:15 AM	5	88	0	0	93	6	1	2	0	9	0	142	17	1	160	0	0	0	0	0	262
7:30 AM	3	102	0	0	105	7	4	4	0	15	0	117	8	0	125	0	0	0	0	0	245
7:45 AM	7	123	0	0	130	8	10	4	0	22	0	119	10	0	129	0	0	0	0	0	281
Total	20	403	0	0	423	23	19	16	0	58	0	530	53	1	584	0	0	0	0	0	1065
8:00 AM	7	130	0	0	137	6	6	7	0	19	0	133	9	0	142	0	0	0	0	0	298
8:15 AM	6	105	0	0	111	10	4	4	0	18	0	143	6	0	149	0	0	0	0	0	278
8:30 AM	6	123	0	0	129	17	6	4	0	27	0	118	11	0	129	0	0	0	0	0	285
8:45 AM	8	141	0	0	149	7	8	4	0	19	0	128	6	0	134	0	0	0	0	0	302
Total	27	499	0	0	526	40	24	19	0	83	0	522	32	0	554	0	0	0	0	0	1163
Grand Total	47	902	0	0	949	63	43	35	0	141	0	1052	85	1	1138	0	0	0	0	0	2228
Approach %	5.0	95.0	0.0	0.0		44.7	30.5	24.8	0.0		0.0	92.4	7.5	0.1		0.0	0.0	0.0	0.0		
Total %	2.1	40.5	0.0	0.0	42.6	2.8	1.9	1.6	0.0	6.3	0.0	47.2	3.8	0.0	51.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1115					0					938					175	2228

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	7	130	0	0	137	6	6	7	0	19	0	133	9	0	142	0	0	0	0	0	298
8:15 AM	6	105	0	0	111	10	4	4	0	18	0	143	6	0	149	0	0	0	0	0	278
8:30 AM	6	123	0	0	129	17	6	4	0	27	0	118	11	0	129	0	0	0	0	0	285
8:45 AM	8	141	0	0	149	7	8	4	0	19	0	128	6	0	134	0	0	0	0	0	302
Total Volume	27	499	0	0	526	40	24	19	0	83	0	522	32	0	554	0	0	0	0	0	1163
% Approach Total	5.1	94.9	0.0	0.0		48.2	28.9	22.9	0.0		0.0	94.2	5.8	0.0		0.0	0.0	0.0	0.0		
PHF	0.844	0.885	0.000	0.000	0.883	0.588	0.750	0.679	0.000	0.769	0.000	0.913	0.727	0.000	0.930	0.000	0.000	0.000	0.000	0.000	0.963
Entering Leg	27	499	0	0	526	40	24	19	0	83	0	522	32	0	554	0	0	0	0	0	1163
Exiting Leg					562					0					518					83	1163
Total					1088					83					1072					83	2326

PDI File #: **175517 I**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern [illegible]**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	12	0	0	12	0	1	0	0	1	0	25	0	0	25	0	0	0	0	0	38
7:15 AM	0	14	0	0	14	0	0	1	0	1	0	21	0	0	21	0	0	0	0	0	36
7:30 AM	0	14	0	0	14	1	0	1	0	2	0	20	2	0	22	0	0	0	0	0	38
7:45 AM	1	14	0	0	15	1	0	0	0	1	0	22	2	0	24	0	0	0	0	0	40
Total	1	54	0	0	55	2	1	2	0	5	0	88	4	0	92	0	0	0	0	0	152
8:00 AM	0	8	0	0	8	1	0	0	0	1	0	11	0	0	11	0	0	0	0	0	20
8:15 AM	0	8	0	0	8	0	0	1	0	1	0	11	0	0	11	0	0	0	0	0	20
8:30 AM	1	17	0	0	18	1	0	0	0	1	0	14	1	0	15	0	0	0	0	0	34
8:45 AM	1	9	0	0	10	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	21
Total	2	42	0	0	44	2	0	1	0	3	0	47	1	0	48	0	0	0	0	0	95
Grand Total	3	96	0	0	99	4	1	3	0	8	0	135	5	0	140	0	0	0	0	0	247
Approach %	3.0	97.0	0.0	0.0		50.0	12.5	37.5	0.0		0.0	96.4	3.6	0.0		0.0	0.0	0.0	0.0		
Total %	1.2	38.9	0.0	0.0	40.1	1.6	0.4	1.2	0.0	3.2	0.0	54.7	2.0	0.0	56.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					139					0					99					9	247

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	12	0	0	12	0	1	0	0	1	0	25	0	0	25	0	0	0	0	0	38
7:15 AM	0	14	0	0	14	0	0	1	0	1	0	21	0	0	21	0	0	0	0	0	36
7:30 AM	0	14	0	0	14	1	0	1	0	2	0	20	2	0	22	0	0	0	0	0	38
7:45 AM	1	14	0	0	15	1	0	0	0	1	0	22	2	0	24	0	0	0	0	0	40
Total Volume	1	54	0	0	55	2	1	2	0	5	0	88	4	0	92	0	0	0	0	0	152
% Approach Total	1.8	98.2	0.0	0.0		40.0	20.0	40.0	0.0		0.0	95.7	4.3	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.964	0.000	0.000	0.917	0.500	0.250	0.500	0.000	0.625	0.000	0.880	0.500	0.000	0.920	0.000	0.000	0.000	0.000	0.000	0.950
Entering Leg	1	54	0	0	55	2	1	2	0	5	0	88	4	0	92	0	0	0	0	0	152
Exiting Leg					90					0					56					6	152
Total					145					5					148					6	304

PDI File #: **175517 I**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern most crossv**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	1	0	1	16
7:15 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	1	9
7:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	6
7:45 AM	0	3	0	0	0	2	5	0	0	0	0	0	0	1	0	0	0	0	1	0	8	0	0	0	0	8	0	0	0	0	1	0	1	15
Total	0	17	0	0	0	2	19	0	0	0	0	0	1	1	0	0	0	0	2	0	22	0	0	0	0	22	0	0	0	0	3	0	3	46
8:00 AM	0	6	0	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	15
8:15 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	15
8:30 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	19
8:45 AM	0	19	0	0	1	0	20	0	0	0	0	0	0	0	0	0	0	1	1	0	9	0	0	0	0	9	0	0	0	0	0	1	1	31
Total	0	39	0	0	2	0	41	0	0	0	0	0	0	0	0	0	0	1	1	0	37	0	0	0	0	37	0	0	0	0	0	1	1	80
Grand Total	0	56	0	0	2	2	60	0	0	0	0	0	1	1	0	0	0	1	3	0	59	0	0	0	0	59	0	0	0	0	3	1	4	126
Approach %	0.0	93.3	0.0	0.0	3.3	3.3		0.0	0.0	0.0		0.0	33.3	33.3	0.0	0.0	0.0	33.3		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	75.0	25.0		
Total %	0.0	44.4	0.0	0.0	1.6	1.6	47.6	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.8	2.4	0.0	46.8	0.0	0.0	0.0	0.0	46.8	0.0	0.0	0.0	0.0	2.4	0.8	3.2	
Exiting Leg Total							64				0								1							56							5	126

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	6	0	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	15
8:15 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	15
8:30 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	19
8:45 AM	0	19	0	0	1	0	20	0	0	0	0	0	0	0	0	0	0	1	1	0	9	0	0	0	0	9	0	0	0	0	0	1	1	31
Total Volume	0	39	0	0	2	0	41	0	0	0	0	0	0	0	0	0	0	1	1	0	37	0	0	0	0	37	0	0	0	0	0	1	1	80
% Approach Total	0.0	95.1	0.0	0.0	4.9	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.513	0.000	0.000	0.500	0.000	0.513	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.771	0.000	0.000	0.000	0.000	0.771	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.645
Entering Leg	0	39	0	0	2	0	41	0	0	0	0	0	0	0	0	0	0	1	1	0	37	0	0	0	0	37	0	0	0	0	0	1	1	80
Exiting Leg							39				0								1							39							1	80
Total							80				0								2							76							2	160

PDI File #: **175517 I**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern most crossv**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	2	2	4	0	5	3	8	0	0	0	0	0	10	19	29	0	0	0	0	0	3	3	0	0	0	0	21	14	35	79
7:15 AM	0	0	0	0	3	5	8	0	6	3	9	0	0	0	0	0	13	18	31	0	0	0	0	2	1	3	0	0	0	0	8	8	16	67
7:30 AM	0	0	0	0	11	5	16	0	6	3	9	0	0	0	0	0	24	22	46	0	0	0	0	2	6	8	0	0	0	0	19	21	40	119
7:45 AM	0	0	0	0	4	9	13	0	7	4	11	0	0	0	0	0	27	19	46	0	0	0	0	4	7	11	0	0	0	0	30	28	58	139
Total	0	0	0	0	20	21	41	0	24	13	37	0	0	0	0	0	74	78	152	0	0	0	0	8	17	25	0	0	0	0	78	71	149	404
8:00 AM	0	0	0	0	10	9	19	0	16	5	21	0	0	0	0	0	33	20	53	0	0	0	0	6	9	15	0	0	0	0	30	43	73	181
8:15 AM	0	0	0	0	7	5	12	0	7	5	12	0	0	0	0	0	45	15	60	0	0	0	0	13	11	24	0	0	0	0	37	33	70	178
8:30 AM	0	0	0	0	10	6	16	0	19	7	26	0	0	0	0	0	54	25	79	0	0	0	0	12	15	27	0	0	0	0	40	31	71	219
8:45 AM	0	0	0	0	25	24	49	0	47	45	92	0	0	0	0	0	45	114	159	0	0	0	0	27	21	48	0	0	0	0	68	56	124	472
Total	0	0	0	0	52	44	96	0	89	62	151	0	0	0	0	0	177	174	351	0	0	0	0	58	56	114	0	0	0	0	175	163	338	1050
Grand Total	0	0	0	0	72	65	137	0	113	75	188	0	0	0	0	0	251	252	503	0	0	0	0	66	73	139	0	0	0	0	253	234	487	1454
Approach %	0.0	0.0	0.0	0.0	52.6	47.4		0.0	60.1	39.9		0.0	0.0	0.0	0.0	0.0	49.9	50.1		0.0	0.0	0.0	0.0	47.5	52.5		0.0	0.0	0.0	0.0	52.0	48.0		
Total %	0.0	0.0	0.0	0.0	5.0	4.5	9.4	0.0	7.8	5.2	12.9	0.0	0.0	0.0	0.0	0.0	17.3	17.3	34.6	0.0	0.0	0.0	0.0	4.5	5.0	9.6	0.0	0.0	0.0	0.0	17.4	16.1	33.5	
Exiting Leg Total							137				188								503							139							487	1454

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	10	9	19	0	16	5	21	0	0	0	0	0	33	20	53	0	0	0	0	6	9	15	0	0	0	0	30	43	73	181
8:15 AM	0	0	0	0	7	5	12	0	7	5	12	0	0	0	0	0	45	15	60	0	0	0	0	13	11	24	0	0	0	0	37	33	70	178
8:30 AM	0	0	0	0	10	6	16	0	19	7	26	0	0	0	0	0	54	25	79	0	0	0	0	12	15	27	0	0	0	0	40	31	71	219
8:45 AM	0	0	0	0	25	24	49	0	47	45	92	0	0	0	0	0	45	114	159	0	0	0	0	27	21	48	0	0	0	0	68	56	124	472
Total Volume	0	0	0	0	52	44	96	0	89	62	151	0	0	0	0	0	177	174	351	0	0	0	0	58	56	114	0	0	0	0	175	163	338	1050
% Approach Total	0.0	0.0	0.0	0.0	54.2	45.8		0.0	58.9	41.1		0.0	0.0	0.0	0.0	0.0	50.4	49.6		0.0	0.0	0.0	0.0	50.9	49.1		0.0	0.0	0.0	0.0	51.8	48.2		
PHF	0.000	0.000	0.000	0.000	0.520	0.458	0.490	0.000	0.473	0.344	0.410	0.000	0.000	0.000	0.000	0.000	0.819	0.382	0.552	0.000	0.000	0.000	0.000	0.537	0.667	0.594	0.000	0.000	0.000	0.000	0.643	0.728	0.681	0.556
Entering Leg	0	0	0	0	52	44	96	0	89	62	151	0	0	0	0	0	177	174	351	0	0	0	0	58	56	114	0	0	0	0	175	163	338	1050
Exiting Leg							96				151								351							114							338	1050
Total							192				302								702							228							676	2100

PDI File #: **175517 II**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern r ...wark**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	152	0	0	158	8	13	8	0	29	0	110	8	0	118	0	0	0	0	0	305
4:15 PM	4	148	0	0	152	9	7	4	0	20	0	121	4	0	125	0	0	0	0	0	297
4:30 PM	8	148	0	0	156	15	7	4	0	26	0	155	5	0	160	0	0	0	0	0	342
4:45 PM	2	147	0	0	149	9	6	8	0	23	0	135	8	1	144	0	0	0	0	0	316
Total	20	595	0	0	615	41	33	24	0	98	0	521	25	1	547	0	0	0	0	0	1260
5:00 PM	10	153	2	0	165	12	7	13	0	32	0	148	8	1	157	0	0	0	0	0	354
5:15 PM	9	186	3	0	198	25	9	10	0	44	0	143	12	1	156	0	0	0	0	0	398
5:30 PM	8	159	3	0	170	18	11	10	0	39	0	117	13	0	130	0	0	0	0	0	339
5:45 PM	4	158	5	0	167	11	13	7	0	31	0	128	9	0	137	0	0	0	0	0	335
Total	31	656	13	0	700	66	40	40	0	146	0	536	42	2	580	0	0	0	0	0	1426
Grand Total	51	1251	13	0	1315	107	73	64	0	244	0	1057	67	3	1127	0	0	0	0	0	2686
Approach %	3.9	95.1	1.0	0.0		43.9	29.9	26.2	0.0		0.0	93.8	5.9	0.3		0.0	0.0	0.0	0.0		
Total %	1.9	46.6	0.5	0.0	49.0	4.0	2.7	2.4	0.0	9.1	0.0	39.4	2.5	0.1	42.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1164					13					1318					191	2686
Cars	51	1204	13	0	1268	107	73	61	0	241	0	1001	66	3	1070	0	0	0	0	0	2579
% Cars	100.0	96.2	100.0	0.0	96.4	100.0	100.0	95.3	0.0	98.8	0.0	94.7	98.5	100.0	94.9	0.0	0.0	0.0	0.0	0.0	96.0
Exiting Leg Total					1108					13					1268					190	2579
Heavy Vehicles	0	47	0	0	47	0	0	3	0	3	0	56	1	0	57	0	0	0	0	0	107
% Heavy Vehicles	0.0	3.8	0.0	0.0	3.6	0.0	0.0	4.7	0.0	1.2	0.0	5.3	1.5	0.0	5.1	0.0	0.0	0.0	0.0	0.0	4.0
Exiting Leg Total					56					0					50					1	107

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	10	153	2	0	165	12	7	13	0	32	0	148	8	1	157	0	0	0	0	0	354
5:15 PM	9	186	3	0	198	25	9	10	0	44	0	143	12	1	156	0	0	0	0	0	398
5:30 PM	8	159	3	0	170	18	11	10	0	39	0	117	13	0	130	0	0	0	0	0	339
5:45 PM	4	158	5	0	167	11	13	7	0	31	0	128	9	0	137	0	0	0	0	0	335
Total Volume	31	656	13	0	700	66	40	40	0	146	0	536	42	2	580	0	0	0	0	0	1426
% Approach Total	4.4	93.7	1.9	0.0		45.2	27.4	27.4	0.0		0.0	92.4	7.2	0.3		0.0	0.0	0.0	0.0		
PHF	0.775	0.882	0.650	0.000	0.884	0.660	0.769	0.769	0.000	0.830	0.000	0.905	0.808	0.500	0.924	0.000	0.000	0.000	0.000	0.000	0.896
Cars	31	638	13	0	682	66	40	37	0	143	0	513	41	2	556	0	0	0	0	0	1381
Cars %	100.0	97.3	100.0	0.0	97.4	100.0	100.0	92.5	0.0	97.9	0.0	95.7	97.6	100.0	95.9	0.0	0.0	0.0	0.0	0.0	96.8
Heavy Vehicles	0	18	0	0	18	0	0	3	0	3	0	23	1	0	24	0	0	0	0	0	45
Heavy Vehicles %	0.0	2.7	0.0	0.0	2.6	0.0	0.0	7.5	0.0	2.1	0.0	4.3	2.4	0.0	4.1	0.0	0.0	0.0	0.0	0.0	3.2
Cars Enter Leg	31	638	13	0	682	66	40	37	0	143	0	513	41	2	556	0	0	0	0	0	1381
Heavy Enter Leg	0	18	0	0	18	0	0	3	0	3	0	23	1	0	24	0	0	0	0	0	45
Total Entering Leg	31	656	13	0	700	66	40	40	0	146	0	536	42	2	580	0	0	0	0	0	1426
Cars Exiting Leg					579					13					677					112	1381
Heavy Exit Leg					23					0					21					1	45
Total Exiting Leg					602					13					698					113	1426

PDI File #: **175517 II**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern r ...wark**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	6	144	0	0	150	8	13	8	0	29	0	106	8	0	114	0	0	0	0	0	293
4:15 PM	4	140	0	0	144	9	7	4	0	20	0	113	4	0	117	0	0	0	0	0	281
4:30 PM	8	141	0	0	149	15	7	4	0	26	0	144	5	0	149	0	0	0	0	0	324
4:45 PM	2	141	0	0	143	9	6	8	0	23	0	125	8	1	134	0	0	0	0	0	300
Total	20	566	0	0	586	41	33	24	0	98	0	488	25	1	514	0	0	0	0	0	1198
5:00 PM	10	147	2	0	159	12	7	12	0	31	0	139	8	1	148	0	0	0	0	0	338
5:15 PM	9	183	3	0	195	25	9	10	0	44	0	139	11	1	151	0	0	0	0	0	390
5:30 PM	8	156	3	0	167	18	11	9	0	38	0	112	13	0	125	0	0	0	0	0	330
5:45 PM	4	152	5	0	161	11	13	6	0	30	0	123	9	0	132	0	0	0	0	0	323
Total	31	638	13	0	682	66	40	37	0	143	0	513	41	2	556	0	0	0	0	0	1381
Grand Total	51	1204	13	0	1268	107	73	61	0	241	0	1001	66	3	1070	0	0	0	0	0	2579
Approach %	4.0	95.0	1.0	0.0		44.4	30.3	25.3	0.0		0.0	93.6	6.2	0.3		0.0	0.0	0.0	0.0		
Total %	2.0	46.7	0.5	0.0	49.2	4.1	2.8	2.4	0.0	9.3	0.0	38.8	2.6	0.1	41.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1108					13					1268					190	2579

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	10	147	2	0	159	12	7	12	0	31	0	139	8	1	148	0	0	0	0	0	338
5:15 PM	9	183	3	0	195	25	9	10	0	44	0	139	11	1	151	0	0	0	0	0	390
5:30 PM	8	156	3	0	167	18	11	9	0	38	0	112	13	0	125	0	0	0	0	0	330
5:45 PM	4	152	5	0	161	11	13	6	0	30	0	123	9	0	132	0	0	0	0	0	323
Total Volume	31	638	13	0	682	66	40	37	0	143	0	513	41	2	556	0	0	0	0	0	1381
% Approach Total	4.5	93.5	1.9	0.0		46.2	28.0	25.9	0.0		0.0	92.3	7.4	0.4		0.0	0.0	0.0	0.0		
PHF	0.775	0.872	0.650	0.000	0.874	0.660	0.769	0.771	0.000	0.813	0.000	0.923	0.788	0.500	0.921	0.000	0.000	0.000	0.000	0.000	0.885
Entering Leg	31	638	13	0	682	66	40	37	0	143	0	513	41	2	556	0	0	0	0	0	1381
Exiting Leg					579					13					677					112	1381
Total					1261					156					1233					112	2762

PDI File #: **175517 II**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern r ...wark**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	12
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
4:30 PM	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
4:45 PM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
Total	0	29	0	0	29	0	0	0	0	0	0	33	0	0	33	0	0	0	0	0	62
5:00 PM	0	6	0	0	6	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	16
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	8
5:30 PM	0	3	0	0	3	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	9
5:45 PM	0	6	0	0	6	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	12
Total	0	18	0	0	18	0	0	3	0	3	0	23	1	0	24	0	0	0	0	0	45
Grand Total	0	47	0	0	47	0	0	3	0	3	0	56	1	0	57	0	0	0	0	0	107
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	98.2	1.8	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	43.9	0.0	0.0	43.9	0.0	0.0	2.8	0.0	2.8	0.0	52.3	0.9	0.0	53.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					56					0					50					1	107

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Massachusetts Avenue (Route 2A)					Belvedere Street					Massachusetts Avenue (Route 2A)					Haviland Street					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
4:30 PM	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
4:45 PM	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	16
5:00 PM	0	6	0	0	6	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	16
Total Volume	0	27	0	0	27	0	0	1	0	1	0	38	0	0	38	0	0	0	0	0	66
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.844	0.000	0.000	0.844	0.000	0.000	0.250	0.000	0.250	0.000	0.864	0.000	0.000	0.864	0.000	0.000	0.000	0.000	0.000	0.917
Entering Leg	0	27	0	0	27	0	0	1	0	1	0	38	0	0	38	0	0	0	0	0	66
Exiting Leg					38					0					28					0	66
Total					65					1					66					0	132

PDI File #: **175517 II**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern most crossv**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	9	0	0	2	0	11	0	0	0	0	0	0	0	1	0	1	0	2	0	5	0	0	0	0	5	0	0	0	0	0	0	0	18
4:15 PM	0	5	0	0	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	1	1	20
4:30 PM	0	12	0	0	0	0	12	0	0	0	0	0	1	0	1	0	0	0	2	0	4	1	0	0	0	5	0	0	0	0	0	0	0	19
4:45 PM	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	0	0	0	0	0	0	0	25
Total	0	35	0	0	4	0	39	0	0	0	0	0	1	0	2	0	1	0	4	0	37	1	0	0	0	38	0	0	0	0	0	1	1	82
5:00 PM	0	14	0	0	0	0	14	0	0	0	0	0	1	0	0	0	0	0	1	0	14	1	0	0	0	15	0	0	0	0	0	0	0	30
5:15 PM	0	14	0	0	1	0	15	0	1	0	1	0	2	0	0	0	1	1	4	0	12	0	0	0	0	12	0	0	0	0	0	1	1	33
5:30 PM	0	13	0	0	1	0	14	0	1	0	1	0	4	0	0	0	0	0	4	0	14	0	0	0	0	14	0	0	0	0	0	0	0	33
5:45 PM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	1	0	1	1	3	0	11	0	0	0	0	11	0	0	0	0	0	0	0	32
Total	0	59	0	0	2	0	61	0	2	0	2	0	7	0	1	0	2	2	12	0	51	1	0	0	0	52	0	0	0	0	0	1	1	128
Grand Total	0	94	0	0	6	0	100	0	2	0	2	0	8	0	3	0	3	2	16	0	88	2	0	0	0	90	0	0	0	0	0	2	2	210
Approach %	0.0	94.0	0.0	0.0	6.0	0.0		0.0	100.0	0.0		0.0	50.0	0.0	18.8	0.0	18.8	12.5		0.0	97.8	2.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	0.0	44.8	0.0	0.0	2.9	0.0	47.6	0.0	1.0	0.0	1.0	0.0	3.8	0.0	1.4	0.0	1.4	1.0	7.6	0.0	41.9	1.0	0.0	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	1.0	1.0	
Exiting Leg Total							102				2								5							97							4	210

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	14	0	0	0	0	14	0	0	0	0	0	1	0	0	0	0	0	1	0	14	1	0	0	0	15	0	0	0	0	0	0	0	30
5:15 PM	0	14	0	0	1	0	15	0	1	0	1	0	2	0	0	0	1	1	4	0	12	0	0	0	0	12	0	0	0	0	0	1	1	33
5:30 PM	0	13	0	0	1	0	14	0	1	0	1	0	4	0	0	0	0	0	4	0	14	0	0	0	0	14	0	0	0	0	0	0	0	33
5:45 PM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	1	0	1	1	3	0	11	0	0	0	0	11	0	0	0	0	0	0	0	32
Total Volume	0	59	0	0	2	0	61	0	2	0	2	0	7	0	1	0	2	2	12	0	51	1	0	0	0	52	0	0	0	0	0	1	1	128
% Approach Total	0.0	96.7	0.0	0.0	3.3	0.0		0.0	100.0	0.0		0.0	58.3	0.0	8.3	0.0	16.7	16.7		0.0	98.1	1.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.819	0.000	0.000	0.500	0.000	0.847	0.000	0.500	0.000	0.500	0.000	0.438	0.000	0.250	0.000	0.500	0.500	0.750	0.000	0.911	0.250	0.000	0.000	0.000	0.867	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.970
Entering Leg	0	59	0	0	2	0	61	0	2	0	2	0	7	0	1	0	2	2	12	0	51	1	0	0	0	52	0	0	0	0	0	1	1	128
Exiting Leg							60				2								4							60							2	128
Total							121				4								16							112							3	256

PDI File #: **175517 II**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NE: northern most crossv**
Location: **E: Belvedere Street W: Haviland Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	19	22	41	0	62	20	82	0	0	0	0	0	80	117	197	0	0	0	0	30	31	61	0	0	0	0	75	66	141	522
4:15 PM	0	0	0	0	11	19	30	0	29	18	47	0	0	0	0	0	64	76	140	0	0	0	0	18	5	23	0	0	0	0	69	72	141	381
4:30 PM	0	0	0	0	13	15	28	0	27	26	53	0	0	0	0	0	70	88	158	0	0	0	0	20	20	40	0	0	0	0	73	73	146	425
4:45 PM	0	0	0	0	13	32	45	0	22	42	64	0	0	0	0	0	120	93	213	0	0	0	0	15	33	48	0	0	0	0	64	89	153	523
Total	0	0	0	0	56	88	144	0	140	106	246	0	0	0	0	0	334	374	708	0	0	0	0	83	89	172	0	0	0	0	281	300	581	1851
5:00 PM	0	0	0	0	9	15	24	0	42	35	77	0	0	0	0	0	109	68	177	0	0	0	0	20	30	50	0	0	0	0	71	70	141	469
5:15 PM	0	0	0	0	22	35	57	0	24	13	37	0	0	0	0	0	74	68	142	0	0	0	0	18	31	49	0	0	0	0	65	90	155	440
5:30 PM	0	0	0	0	22	20	42	0	33	32	65	0	0	0	0	0	79	91	170	0	0	0	0	21	20	41	0	0	0	0	71	76	147	465
5:45 PM	0	0	0	0	45	65	110	0	61	78	139	0	0	0	0	0	221	121	342	0	0	0	0	39	51	90	0	0	0	0	83	90	173	854
Total	0	0	0	0	98	135	233	0	160	158	318	0	0	0	0	0	483	348	831	0	0	0	0	98	132	230	0	0	0	0	290	326	616	2228
Grand Total	0	0	0	0	154	223	377	0	300	264	564	0	0	0	0	0	817	722	1539	0	0	0	0	181	221	402	0	0	0	0	571	626	1197	4079
Approach %	0.0	0.0	0.0	0.0	40.8	59.2		0.0	53.2	46.8		0.0	0.0	0.0	0.0	0.0	53.1	46.9		0.0	0.0	0.0	0.0	45.0	55.0		0.0	0.0	0.0	0.0	47.7	52.3		
Total %	0.0	0.0	0.0	0.0	3.8	5.5	9.2	0.0	7.4	6.5	13.8	0.0	0.0	0.0	0.0	0.0	20.0	17.7	37.7	0.0	0.0	0.0	0.0	4.4	5.4	9.9	0.0	0.0	0.0	0.0	14.0	15.3	29.3	
Exiting Leg Total							377				564								1539							402							1197	4079

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							northern most crosswalk				Belvedere Street								Massachusetts Avenue (Route 2A)							Haviland Street							
	North							Northeast				East								South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	U-Turn	CW-SEB	CW-NWB	Total	Hard Righ	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	9	15	24	0	42	35	77	0	0	0	0	0	109	68	177	0	0	0	0	20	30	50	0	0	0	0	71	70	141	469
5:15 PM	0	0	0	0	22	35	57	0	24	13	37	0	0	0	0	0	74	68	142	0	0	0	0	18	31	49	0	0	0	0	65	90	155	440
5:30 PM	0	0	0	0	22	20	42	0	33	32	65	0	0	0	0	0	79	91	170	0	0	0	0	21	20	41	0	0	0	0	71	76	147	465
5:45 PM	0	0	0	0	45	65	110	0	61	78	139	0	0	0	0	0	221	121	342	0	0	0	0	39	51	90	0	0	0	0	83	90	173	854
Total Volume	0	0	0	0	98	135	233	0	160	158	318	0	0	0	0	0	483	348	831	0	0	0	0	98	132	230	0	0	0	0	290	326	616	2228
% Approach Total	0.0	0.0	0.0	0.0	42.1	57.9		0.0	50.3	49.7		0.0	0.0	0.0	0.0	0.0	58.1	41.9		0.0	0.0	0.0	0.0	42.6	57.4		0.0	0.0	0.0	0.0	47.1	52.9		
PHF	0.000	0.000	0.000	0.000	0.544	0.519	0.530	0.000	0.656	0.506	0.572	0.000	0.000	0.000	0.000	0.000	0.546	0.719	0.607	0.000	0.000	0.000	0.000	0.628	0.647	0.639	0.000	0.000	0.000	0.000	0.873	0.906	0.890	0.652
Entering Leg	0	0	0	0	98	135	233	0	160	158	318	0	0	0	0	0	483	348	831	0	0	0	0	98	132	230	0	0	0	0	290	326	616	2228
Exiting Leg							233				318								831							230							616	2228
Total							466				636								1662							460							1232	4456

PDI File #: **175517 J**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
7:00 AM	7	7	91	1	0	106	5	2	0	0	0	7	3	171	65	6	0	245	0	0	0	0	0	0	3	82	1	0	0	86	444
7:15 AM	10	8	82	1	0	101	4	1	0	0	0	5	2	173	56	1	0	232	0	0	0	0	0	0	0	79	0	0	0	79	417
7:30 AM	4	4	107	0	0	115	2	0	0	0	0	2	1	157	74	3	0	235	0	0	0	0	0	0	1	81	0	0	0	82	434
7:45 AM	14	6	114	1	0	135	2	2	0	1	0	5	4	151	70	3	0	228	0	0	0	0	0	0	3	76	2	0	0	81	449
Total	35	25	394	3	0	457	13	5	0	1	0	19	10	652	265	13	0	940	0	0	0	0	0	0	7	318	3	0	0	328	1744
8:00 AM	8	8	126	1	0	143	2	4	0	0	0	6	5	144	44	3	0	196	0	0	0	0	0	0	2	80	1	0	0	83	428
8:15 AM	8	6	102	1	0	117	3	2	0	1	0	6	5	156	59	5	0	225	0	0	0	0	0	0	2	95	0	0	0	97	445
8:30 AM	4	4	131	3	0	142	1	2	0	0	0	3	8	130	69	1	0	208	0	0	0	0	0	0	6	99	1	0	0	106	459
8:45 AM	5	8	141	4	0	158	0	3	0	0	0	3	13	160	58	3	0	234	0	0	0	0	0	0	3	73	1	0	0	77	472
Total	25	26	500	9	0	560	6	11	0	1	0	18	31	590	230	12	0	863	0	0	0	0	0	0	13	347	3	0	0	363	1804
Grand Total	60	51	894	12	0	1017	19	16	0	2	0	37	41	1242	495	25	0	1803	0	0	0	0	0	0	20	665	6	0	0	691	3548
Approach %	5.9	5.0	87.9	1.2	0.0		51.4	43.2	0.0	5.4	0.0		2.3	68.9	27.5	1.4	0.0		0.0	0.0	0.0	0.0	0.0		2.9	96.2	0.9	0.0	0.0		
Total %	1.7	1.4	25.2	0.3	0.0	28.7	0.5	0.5	0.0	0.1	0.0	1.0	1.2	35.0	14.0	0.7	0.0	50.8	0.0	0.0	0.0	0.0	0.0	0.0	0.6	18.7	0.2	0.0	0.0	19.5	
Exiting Leg Total						1261						59						1561						96						571	3548
Cars	48	45	814	12	0	919	19	16	0	1	0	36	40	1101	467	19	0	1627	0	0	0	0	0	0	18	645	6	0	0	669	3251
% Cars	80.0	88.2	91.1	100.0	0.0	90.4	100.0	100.0	0.0	50.0	0.0	97.3	97.6	88.6	94.3	76.0	0.0	90.2	0.0	0.0	0.0	0.0	0.0	0.0	90.0	97.0	100.0	0.0	0.0	96.8	91.6
Exiting Leg Total						1120						58						1460						82						531	3251
Heavy Vehicles	12	6	80	0	0	98	0	0	0	1	0	1	1	141	28	6	0	176	0	0	0	0	0	0	2	20	0	0	0	22	297
% Heavy Vehicles	20.0	11.8	8.9	0.0	0.0	9.6	0.0	0.0	0.0	50.0	0.0	2.7	2.4	11.4	5.7	24.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	10.0	3.0	0.0	0.0	0.0	3.2	8.4
Exiting Leg Total						141						1						101						14						40	297

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
8:00 AM	8	8	126	1	0	143	2	4	0	0	0	6	5	144	44	3	0	196	0	0	0	0	0	0	2	80	1	0	0	83	428
8:15 AM	8	6	102	1	0	117	3	2	0	1	0	6	5	156	59	5	0	225	0	0	0	0	0	0	2	95	0	0	0	97	445
8:30 AM	4	4	131	3	0	142	1	2	0	0	0	3	8	130	69	1	0	208	0	0	0	0	0	0	6	99	1	0	0	106	459
8:45 AM	5	8	141	4	0	158	0	3	0	0	0	3	13	160	58	3	0	234	0	0	0	0	0	0	3	73	1	0	0	77	472
Total Volume	25	26	500	9	0	560	6	11	0	1	0	18	31	590	230	12	0	863	0	0	0	0	0	0	13	347	3	0	0	363	1804
% Approach Total	4.5	4.6	89.3	1.6	0.0		33.3	61.1	0.0	5.6	0.0		3.6	68.4	26.7	1.4	0.0		0.0	0.0	0.0	0.0	0.0		3.6	95.6	0.8	0.0	0.0		
PHF	0.781	0.813	0.887	0.563	0.000	0.886	0.500	0.688	0.000	0.250	0.000	0.750	0.596	0.922	0.833	0.600	0.000	0.922	0.000	0.000	0.000	0.000	0.000	0.000	0.542	0.876	0.750	0.000	0.000	0.856	0.956
Cars	20	25	464	9	0	518	6	11	0	0	0	17	31	543	221	11	0	806	0	0	0	0	0	0	12	336	3	0	0	351	1692
Cars %	80.0	96.2	92.8	100.0	0.0	92.5	100.0	100.0	0.0	0.0	0.0	94.4	100.0	92.0	96.1	91.7	0.0	93.4	0.0	0.0	0.0	0.0	0.0	0.0	92.3	96.8	100.0	0.0	0.0	96.7	93.8
Heavy Vehicles	5	1	36	0	0	42	0	0	0	1	0	1	0	47	9	1	0	57	0	0	0	0	0	0	1	11	0	0	0	12	112
Heavy Vehicles %	20.0	3.8	7.2	0.0	0.0	7.5	0.0	0.0	0.0	100.0	0.0	5.6	0.0	8.0	3.9	8.3	0.0	6.6	0.0	0.0	0.0	0.0	0.0	0.0	7.7	3.2	0.0	0.0	0.0	3.3	6.2
Cars Enter Leg	20	25	464	9	0	518	6	11	0	0	0	17	31	543	221	11	0	806	0	0	0	0	0	0	12	336	3	0	0	351	1692
Heavy Enter Leg	5	1	36	0	0	42	0	0	0	1	0	1	0	47	9	1	0	57	0	0	0	0	0	0	1	11	0	0	0	12	112
Total Entering Leg	25	26	500	9	0	560	6	11	0	1	0	18	31	590	230	12	0	863	0	0	0	0	0	0	13	347	3	0	0	363	1804
Cars Exiting Leg						549						43						800						48						252	1692
Heavy Exit Leg						47						0						48						3						14	112
Total Exiting Leg						596						43						848						51						266	1804

PDI File #: **175517 J**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
7:00 AM	7	6	78	1	0	92	5	2	0	0	0	7	3	149	60	5	0	217	0	0	0	0	0	0	2	82	1	0	0	85	401
7:15 AM	8	7	72	1	0	88	4	1	0	0	0	5	2	148	52	1	0	203	0	0	0	0	0	0	0	76	0	0	0	76	372
7:30 AM	3	4	96	0	0	103	2	0	0	0	0	2	1	134	72	1	0	208	0	0	0	0	0	0	1	79	0	0	0	80	393
7:45 AM	10	3	104	1	0	118	2	2	0	1	0	5	3	127	62	1	0	193	0	0	0	0	0	0	3	72	2	0	0	77	393
Total	28	20	350	3	0	401	13	5	0	1	0	19	9	558	246	8	0	821	0	0	0	0	0	0	6	309	3	0	0	318	1559
8:00 AM	6	7	120	1	0	134	2	4	0	0	0	6	5	134	41	2	0	182	0	0	0	0	0	0	2	77	1	0	0	80	402
8:15 AM	7	6	95	1	0	109	3	2	0	0	0	5	5	146	58	5	0	214	0	0	0	0	0	0	2	92	0	0	0	94	422
8:30 AM	2	4	120	3	0	129	1	2	0	0	0	3	8	115	67	1	0	191	0	0	0	0	0	0	5	95	1	0	0	101	424
8:45 AM	5	8	129	4	0	146	0	3	0	0	0	3	13	148	55	3	0	219	0	0	0	0	0	0	3	72	1	0	0	76	444
Total	20	25	464	9	0	518	6	11	0	0	0	17	31	543	221	11	0	806	0	0	0	0	0	0	12	336	3	0	0	351	1692
Grand Total	48	45	814	12	0	919	19	16	0	1	0	36	40	1101	467	19	0	1627	0	0	0	0	0	0	18	645	6	0	0	669	3251
Approach %	5.2	4.9	88.6	1.3	0.0		52.8	44.4	0.0	2.8	0.0		2.5	67.7	28.7	1.2	0.0		0.0	0.0	0.0	0.0	0.0		2.7	96.4	0.9	0.0	0.0		
Total %	1.5	1.4	25.0	0.4	0.0	28.3	0.6	0.5	0.0	0.0	0.0	1.1	1.2	33.9	14.4	0.6	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	19.8	0.2	0.0	0.0	20.6	
Exiting Leg Total						1120						58						1460						82						531	3251

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
8:00 AM	6	7	120	1	0	134	2	4	0	0	0	6	5	134	41	2	0	182	0	0	0	0	0	0	2	77	1	0	0	80	402
8:15 AM	7	6	95	1	0	109	3	2	0	0	0	5	5	146	58	5	0	214	0	0	0	0	0	0	2	92	0	0	0	94	422
8:30 AM	2	4	120	3	0	129	1	2	0	0	0	3	8	115	67	1	0	191	0	0	0	0	0	0	5	95	1	0	0	101	424
8:45 AM	5	8	129	4	0	146	0	3	0	0	0	3	13	148	55	3	0	219	0	0	0	0	0	0	3	72	1	0	0	76	444
Total Volume	20	25	464	9	0	518	6	11	0	0	0	17	31	543	221	11	0	806	0	0	0	0	0	0	12	336	3	0	0	351	1692
% Approach Total	3.9	4.8	89.6	1.7	0.0		35.3	64.7	0.0	0.0	0.0		3.8	67.4	27.4	1.4	0.0		0.0	0.0	0.0	0.0	0.0		3.4	95.7	0.9	0.0	0.0		
PHF	0.714	0.781	0.899	0.563	0.000	0.887	0.500	0.688	0.000	0.000	0.000	0.708	0.596	0.917	0.825	0.550	0.000	0.920	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.884	0.750	0.000	0.000	0.869	0.953
Entering Leg	20	25	464	9	0	518	6	11	0	0	0	17	31	543	221	11	0	806	0	0	0	0	0	0	12	336	3	0	0	351	1692
Exiting Leg						549						43						800						48						252	1692
Total						1067						60						1606						48						603	3384

PDI File #: **175517 J**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	1	13	0	0	14	0	0	0	0	0	0	0	22	5	1	0	28	0	0	0	0	0	0	1	0	0	0	0	1	43
7:15 AM	2	1	10	0	0	13	0	0	0	0	0	0	0	25	4	0	0	29	0	0	0	0	0	0	0	3	0	0	0	3	45
7:30 AM	1	0	11	0	0	12	0	0	0	0	0	0	0	23	2	2	0	27	0	0	0	0	0	0	0	2	0	0	0	2	41
7:45 AM	4	3	10	0	0	17	0	0	0	0	0	0	1	24	8	2	0	35	0	0	0	0	0	0	0	4	0	0	0	4	56
Total	7	5	44	0	0	56	0	0	0	0	0	0	1	94	19	5	0	119	0	0	0	0	0	0	1	9	0	0	0	10	185
8:00 AM	2	1	6	0	0	9	0	0	0	0	0	0	0	10	3	1	0	14	0	0	0	0	0	0	0	3	0	0	0	3	26
8:15 AM	1	0	7	0	0	8	0	0	0	1	0	1	0	10	1	0	0	11	0	0	0	0	0	0	0	3	0	0	0	3	23
8:30 AM	2	0	11	0	0	13	0	0	0	0	0	0	0	15	2	0	0	17	0	0	0	0	0	0	1	4	0	0	0	5	35
8:45 AM	0	0	12	0	0	12	0	0	0	0	0	0	0	12	3	0	0	15	0	0	0	0	0	0	0	1	0	0	0	1	28
Total	5	1	36	0	0	42	0	0	0	1	0	1	0	47	9	1	0	57	0	0	0	0	0	0	1	11	0	0	0	12	112
Grand Total	12	6	80	0	0	98	0	0	0	1	0	1	1	141	28	6	0	176	0	0	0	0	0	0	2	20	0	0	0	22	297
Approach %	12.2	6.1	81.6	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.6	80.1	15.9	3.4	0.0		0.0	0.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0	0.0		
Total %	4.0	2.0	26.9	0.0	0.0	33.0	0.0	0.0	0.0	0.3	0.0	0.3	0.3	47.5	9.4	2.0	0.0	59.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.7	0.0	0.0	0.0	7.4	
Exiting Leg Total						141						1						101						14						40	297

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
7:00 AM	0	1	13	0	0	14	0	0	0	0	0	0	0	22	5	1	0	28	0	0	0	0	0	0	1	0	0	0	0	1	43
7:15 AM	2	1	10	0	0	13	0	0	0	0	0	0	0	25	4	0	0	29	0	0	0	0	0	0	0	3	0	0	0	3	45
7:30 AM	1	0	11	0	0	12	0	0	0	0	0	0	0	23	2	2	0	27	0	0	0	0	0	0	0	2	0	0	0	2	41
7:45 AM	4	3	10	0	0	17	0	0	0	0	0	0	1	24	8	2	0	35	0	0	0	0	0	0	0	4	0	0	0	4	56
Total Volume	7	5	44	0	0	56	0	0	0	0	0	0	1	94	19	5	0	119	0	0	0	0	0	0	1	9	0	0	0	10	185
% Approach Total	12.5	8.9	78.6	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.8	79.0	16.0	4.2	0.0		0.0	0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0	0.0		
PHF	0.438	0.417	0.846	0.000	0.000	0.824	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.940	0.594	0.625	0.000	0.850	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.563	0.000	0.000	0.000	0.625	0.826
Entering Leg	7	5	44	0	0	56	0	0	0	0	0	0	1	94	19	5	0	119	0	0	0	0	0	0	1	9	0	0	0	10	185
Exiting Leg						94						1						53						11						26	185
Total						150						1						172						11						36	370

PDI File #: **175517 J**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
7:00 AM	0	1	0	1	0	0	0	2	0	0	0	0	0	0	1	1	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	11
7:15 AM	0	3	3	0	0	0	0	6	0	0	1	0	0	0	1	2	1	2	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	14
7:30 AM	0	0	1	0	0	0	1	2	0	1	0	0	0	0	1	2	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	7
7:45 AM	0	1	2	0	0	4	0	7	0	0	0	0	0	1	0	1	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	19
Total	0	5	6	1	0	4	1	17	0	1	1	0	0	1	3	6	1	20	1	0	0	0	0	22	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	6	51
8:00 AM	0	2	3	0	0	0	0	5	0	1	0	0	0	1	0	2	1	5	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	17
8:15 AM	0	0	6	0	0	1	1	8	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	18
8:30 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	4	17
8:45 AM	0	5	9	0	0	1	0	15	0	0	0	1	0	0	0	1	2	9	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	29
Total	0	7	21	0	0	2	1	31	0	1	0	1	0	1	0	3	3	31	2	0	0	0	0	36	0	0	0	0	0	0	0	0	0	6	3	0	0	2	0	11	81
Grand Total	0	12	27	1	0	6	2	48	0	2	1	1	0	2	3	9	4	51	3	0	0	0	0	58	0	0	0	0	0	0	0	0	0	10	3	0	0	4	0	17	132
Approach %	0.0	25.0	56.3	2.1	0.0	12.5	4.2		0.0	22.2	11.1	11.1	0.0	22.2	33.3		6.9	87.9	5.2	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	58.8	17.6	0.0	0.0	23.5	0.0		
Total %	0.0	9.1	20.5	0.8	0.0	4.5	1.5	36.4	0.0	1.5	0.8	0.8	0.0	1.5	2.3	6.8	3.0	38.6	2.3	0.0	0.0	0.0	0.0	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	2.3	0.0	0.0	3.0	0.0	12.9	
Exiting Leg Total								59								13								38								13								9	132

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
8:00 AM	0	2	3	0	0	0	0	5	0	1	0	0	0	1	0	2	1	5	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3	17
8:15 AM	0	0	6	0	0	1	1	8	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	8	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	18
8:30 AM	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	4	17
8:45 AM	0	5	9	0	0	1	0	15	0	0	0	1	0	0	0	1	2	9	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	29
Total Volume	0	7	21	0	0	2	1	31	0	1	0	1	0	1	0	3	3	31	2	0	0	0	0	36	0	0	0	0	0	0	0	0	0	6	3	0	0	2	0	11	81
% Approach Total	0.0	22.6	67.7	0.0	0.0	6.5	3.2		0.0	33.3	0.0	33.3	0.0	33.3	0.0		8.3	86.1	5.6	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	54.5	27.3	0.0	0.0	18.2	0.0		
PHF	0.000	0.350	0.583	0.000	0.000	0.500	0.250	0.517	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.375	0.375	0.775	0.500	0.000	0.000	0.000	0.000	0.818	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.500	0.000	0.688	0.698
Entering Leg	0	7	21	0	0	2	1	31	0	1	0	1	0	1	0	3	3	31	2	0	0	0	0	36	0	0	0	0	0	0	0	0	0	6	3	0	0	2	0	11	81
Exiting Leg								34								7								28								7								5	81
Total								65								10								64								7								16	162

PDI File #: **175517 J**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
7:00 AM	0	0	0	0	0	8	3	11	0	0	0	0	0	9	13	22	0	0	0	0	0	0	5	5	0	0	0	0	0	18	23	41	0	0	0	0	0	10	13	23	102
7:15 AM	0	0	0	0	0	9	3	12	0	0	0	0	0	9	12	21	0	0	0	0	0	1	2	3	0	0	0	0	0	19	28	47	0	0	0	0	0	17	13	30	113
7:30 AM	0	0	0	0	0	12	3	15	0	0	0	0	0	8	16	24	0	0	0	0	0	4	4	8	0	0	0	0	0	21	50	71	0	0	0	0	0	25	28	53	171
7:45 AM	0	0	0	0	0	10	6	16	0	0	0	0	0	9	16	25	0	0	0	0	0	4	3	7	0	0	0	0	0	31	52	83	0	0	0	0	0	33	26	59	190
Total	0	0	0	0	0	39	15	54	0	0	0	0	0	35	57	92	0	0	0	0	0	9	14	23	0	0	0	0	0	89	153	242	0	0	0	0	0	85	80	165	576
8:00 AM	0	0	0	0	0	14	6	20	0	0	0	0	0	15	13	28	0	0	0	0	0	5	17	22	0	0	0	0	0	27	60	87	0	0	0	0	0	31	28	59	216
8:15 AM	0	0	0	0	0	17	9	26	0	0	0	0	0	10	13	23	0	0	0	0	0	3	13	16	0	0	0	0	0	27	64	91	0	0	0	0	0	29	37	66	222
8:30 AM	0	0	0	0	0	17	3	20	0	0	0	0	0	12	17	29	0	0	0	0	0	3	18	21	0	0	0	0	0	32	69	101	0	0	0	0	0	36	37	73	244
8:45 AM	0	0	0	0	0	19	7	26	0	0	0	0	0	9	20	29	0	0	0	0	0	1	23	24	0	0	0	0	0	54	74	128	0	0	0	0	0	58	37	95	302
Total	0	0	0	0	0	67	25	92	0	0	0	0	0	46	63	109	0	0	0	0	0	12	71	83	0	0	0	0	0	140	267	407	0	0	0	0	0	154	139	293	984
Grand Total	0	0	0	0	0	106	40	146	0	0	0	0	0	81	120	201	0	0	0	0	0	21	85	106	0	0	0	0	0	229	420	649	0	0	0	0	0	239	219	458	1560
Approach %	0.0	0.0	0.0	0.0	0.0	72.6	27.4		0.0	0.0	0.0	0.0	0.0	40.3	59.7		0.0	0.0	0.0	0.0	0.0	19.8	80.2		0.0	0.0	0.0	0.0	0.0	35.3	64.7		0.0	0.0	0.0	0.0	0.0	52.2	47.8		
Total %	0.0	0.0	0.0	0.0	0.0	6.8	2.6	9.4	0.0	0.0	0.0	0.0	0.0	5.2	7.7	12.9	0.0	0.0	0.0	0.0	0.0	1.3	5.4	6.8	0.0	0.0	0.0	0.0	0.0	14.7	26.9	41.6	0.0	0.0	0.0	0.0	0.0	15.3	14.0	29.4	
Exiting Leg Total								146								201								106								649								458	1560

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
8:00 AM	0	0	0	0	0	14	6	20	0	0	0	0	0	15	13	28	0	0	0	0	0	5	17	22	0	0	0	0	0	27	60	87	0	0	0	0	0	31	28	59	216
8:15 AM	0	0	0	0	0	17	9	26	0	0	0	0	0	10	13	23	0	0	0	0	0	3	13	16	0	0	0	0	0	27	64	91	0	0	0	0	0	29	37	66	222
8:30 AM	0	0	0	0	0	17	3	20	0	0	0	0	0	12	17	29	0	0	0	0	0	3	18	21	0	0	0	0	0	32	69	101	0	0	0	0	0	36	37	73	244
8:45 AM	0	0	0	0	0	19	7	26	0	0	0	0	0	9	20	29	0	0	0	0	0	1	23	24	0	0	0	0	0	54	74	128	0	0	0	0	0	58	37	95	302
Total Volume	0	0	0	0	0	67	25	92	0	0	0	0	0	46	63	109	0	0	0	0	0	12	71	83	0	0	0	0	0	140	267	407	0	0	0	0	0	154	139	293	984
% Approach Total	0.0	0.0	0.0	0.0	0.0	72.8	27.2		0.0	0.0	0.0	0.0	0.0	42.2	57.8		0.0	0.0	0.0	0.0	0.0	14.5	85.5		0.0	0.0	0.0	0.0	0.0	34.4	65.6		0.0	0.0	0.0	0.0	0.0	52.6	47.4		
PHF	0.000	0.000	0.000	0.000	0.000	0.882	0.694	0.885	0.000	0.000	0.000	0.000	0.000	0.767	0.788	0.940	0.000	0.000	0.000	0.000	0.000	0.600	0.772	0.865	0.000	0.000	0.000	0.000	0.000	0.648	0.902	0.795	0.000	0.000	0.000	0.000	0.000	0.664	0.939	0.771	0.815
Entering Leg	0	0	0	0	0	67	25	92	0	0	0	0	0	46	63	109	0	0	0	0	0	12	71	83	0	0	0	0	0	140	267	407	0	0	0	0	0	154	139	293	984
Exiting Leg								92								109								83								407								293	984
Total								184								218								166								814								586	1968

PDI File #: **175517 JJ**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:00 PM	14	6	139	0	0	159	8	4	1	1	0	14	3	144	65	1	0	213	0	0	0	0	0	0	4	83	2	0	0	89	475
4:15 PM	13	3	133	2	0	151	4	2	0	0	0	6	1	152	75	2	0	230	0	0	0	0	0	0	4	73	0	0	0	77	464
4:30 PM	12	9	133	0	0	154	6	6	1	0	0	13	0	134	59	1	0	194	0	0	0	0	0	0	2	67	1	0	0	70	431
4:45 PM	9	6	141	0	0	156	8	3	1	2	0	14	2	128	82	5	0	217	0	0	0	0	0	0	3	83	0	0	0	86	473
Total	48	24	546	2	0	620	26	15	3	3	0	47	6	558	281	9	0	854	0	0	0	0	0	0	13	306	3	0	0	322	1843
5:00 PM	12	8	152	0	0	172	6	4	0	2	0	12	3	124	58	2	0	187	0	0	0	0	0	0	2	93	0	0	0	95	466
5:15 PM	9	9	156	0	0	174	8	6	1	5	0	20	3	139	85	4	0	231	0	0	0	0	0	0	2	100	0	0	0	102	527
5:30 PM	20	11	142	1	0	174	3	6	0	1	0	10	3	144	69	1	0	217	0	0	0	0	0	0	3	90	0	0	0	93	494
5:45 PM	20	6	128	0	0	154	9	8	0	2	0	19	2	116	64	3	0	185	0	0	0	0	0	0	5	78	0	0	0	83	441
Total	61	34	578	1	0	674	26	24	1	10	0	61	11	523	276	10	0	820	0	0	0	0	0	0	12	361	0	0	0	373	1928
Grand Total	109	58	1124	3	0	1294	52	39	4	13	0	108	17	1081	557	19	0	1674	0	0	0	0	0	0	25	667	3	0	0	695	3771
Approach %	8.4	4.5	86.9	0.2	0.0		48.1	36.1	3.7	12.0	0.0		1.0	64.6	33.3	1.1	0.0		0.0	0.0	0.0	0.0	0.0		3.6	96.0	0.4	0.0	0.0		
Total %	2.9	1.5	29.8	0.1	0.0	34.3	1.4	1.0	0.1	0.3	0.0	2.9	0.5	28.7	14.8	0.5	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	17.7	0.1	0.0	0.0	18.4	
Exiting Leg Total						1133						23						1804						106						705	3771
Cars	108	57	1071	3	0	1239	52	39	4	13	0	108	17	1020	547	19	0	1603	0	0	0	0	0	0	25	653	3	0	0	681	3631
% Cars	99.1	98.3	95.3	100.0	0.0	95.7	100.0	100.0	100.0	100.0	0.0	100.0	100.0	94.4	98.2	100.0	0.0	95.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	97.9	100.0	0.0	0.0	98.0	96.3
Exiting Leg Total						1072						23						1737						105						694	3631
Heavy Vehicles	1	1	53	0	0	55	0	0	0	0	0	0	0	61	10	0	0	71	0	0	0	0	0	0	0	14	0	0	0	14	140
% Heavy Vehicles	0.9	1.7	4.7	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	1.8	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.0	3.7
Exiting Leg Total						61						0						67						1						11	140

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:45 PM	9	6	141	0	0	156	8	3	1	2	0	14	2	128	82	5	0	217	0	0	0	0	0	0	3	83	0	0	0	86	473
5:00 PM	12	8	152	0	0	172	6	4	0	2	0	12	3	124	58	2	0	187	0	0	0	0	0	0	2	93	0	0	0	95	466
5:15 PM	9	9	156	0	0	174	8	6	1	5	0	20	3	139	85	4	0	231	0	0	0	0	0	0	2	100	0	0	0	102	527
5:30 PM	20	11	142	1	0	174	3	6	0	1	0	10	3	144	69	1	0	217	0	0	0	0	0	0	3	90	0	0	0	93	494
Total Volume	50	34	591	1	0	676	25	19	2	10	0	56	11	535	294	12	0	852	0	0	0	0	0	0	10	366	0	0	0	376	1960
% Approach Total	7.4	5.0	87.4	0.1	0.0		44.6	33.9	3.6	17.9	0.0		1.3	62.8	34.5	1.4	0.0		0.0	0.0	0.0	0.0	0.0		2.7	97.3	0.0	0.0	0.0		
PHF	0.625	0.773	0.947	0.250	0.000	0.971	0.781	0.792	0.500	0.500	0.000	0.700	0.917	0.929	0.865	0.600	0.000	0.922	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.915	0.000	0.000	0.000	0.922	0.930
Cars	50	34	570	1	0	655	25	19	2	10	0	56	11	507	289	12	0	819	0	0	0	0	0	0	10	362	0	0	0	372	1902
Cars %	100.0	100.0	96.4	100.0	0.0	96.9	100.0	100.0	100.0	100.0	0.0	100.0	100.0	94.8	98.3	100.0	0.0	96.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	98.9	0.0	0.0	0.0	98.9	97.0
Heavy Vehicles	0	0	21	0	0	21	0	0	0	0	0	0	0	28	5	0	0	33	0	0	0	0	0	0	0	4	0	0	0	4	58
Heavy Vehicles %	0.0	0.0	3.6	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	1.7	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.1	3.0
Cars Enter Leg	50	34	570	1	0	655	25	19	2	10	0	56	11	507	289	12	0	819	0	0	0	0	0	0	10	362	0	0	0	372	1902
Heavy Enter Leg	0	0	21	0	0	21	0	0	0	0	0	0	0	28	5	0	0	33	0	0	0	0	0	0	0	4	0	0	0	4	58
Total Entering Leg	50	34	591	1	0	676	25	19	2	10	0	56	11	535	294	12	0	852	0	0	0	0	0	0	10	366	0	0	0	376	1960
Cars Exiting Leg						532						12						942						58						358	1902
Heavy Exit Leg						28						0						25						0						5	58
Total Exiting Leg						560						12						967						58						363	1960

PDI File #: **175517 JJ**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:00 PM	14	5	132	0	0	151	8	4	1	1	0	14	3	134	63	1	0	201	0	0	0	0	0	0	4	79	2	0	0	85	451
4:15 PM	12	3	125	2	0	142	4	2	0	0	0	6	1	143	73	2	0	219	0	0	0	0	0	0	4	72	0	0	0	76	443
4:30 PM	12	9	125	0	0	146	6	6	1	0	0	13	0	125	58	1	0	184	0	0	0	0	0	0	2	63	1	0	0	66	409
4:45 PM	9	6	133	0	0	148	8	3	1	2	0	14	2	118	79	5	0	204	0	0	0	0	0	0	3	80	0	0	0	83	449
Total	47	23	515	2	0	587	26	15	3	3	0	47	6	520	273	9	0	808	0	0	0	0	0	0	13	294	3	0	0	310	1752
5:00 PM	12	8	145	0	0	165	6	4	0	2	0	12	3	117	58	2	0	180	0	0	0	0	0	0	2	93	0	0	0	95	452
5:15 PM	9	9	152	0	0	170	8	6	1	5	0	20	3	134	83	4	0	224	0	0	0	0	0	0	2	100	0	0	0	102	516
5:30 PM	20	11	140	1	0	172	3	6	0	1	0	10	3	138	69	1	0	211	0	0	0	0	0	0	3	89	0	0	0	92	485
5:45 PM	20	6	119	0	0	145	9	8	0	2	0	19	2	111	64	3	0	180	0	0	0	0	0	0	5	77	0	0	0	82	426
Total	61	34	556	1	0	652	26	24	1	10	0	61	11	500	274	10	0	795	0	0	0	0	0	0	12	359	0	0	0	371	1879
Grand Total	108	57	1071	3	0	1239	52	39	4	13	0	108	17	1020	547	19	0	1603	0	0	0	0	0	0	25	653	3	0	0	681	3631
Approach %	8.7	4.6	86.4	0.2	0.0		48.1	36.1	3.7	12.0	0.0		1.1	63.6	34.1	1.2	0.0		0.0	0.0	0.0	0.0	0.0		3.7	95.9	0.4	0.0	0.0		
Total %	3.0	1.6	29.5	0.1	0.0	34.1	1.4	1.1	0.1	0.4	0.0	3.0	0.5	28.1	15.1	0.5	0.0	44.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	18.0	0.1	0.0	0.0	18.8	
Exiting Leg Total						1072						23						1737						105						694	3631

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:45 PM	9	6	133	0	0	148	8	3	1	2	0	14	2	118	79	5	0	204	0	0	0	0	0	0	3	80	0	0	0	83	449
5:00 PM	12	8	145	0	0	165	6	4	0	2	0	12	3	117	58	2	0	180	0	0	0	0	0	0	2	93	0	0	0	95	452
5:15 PM	9	9	152	0	0	170	8	6	1	5	0	20	3	134	83	4	0	224	0	0	0	0	0	0	2	100	0	0	0	102	516
5:30 PM	20	11	140	1	0	172	3	6	0	1	0	10	3	138	69	1	0	211	0	0	0	0	0	0	3	89	0	0	0	92	485
Total Volume	50	34	570	1	0	655	25	19	2	10	0	56	11	507	289	12	0	819	0	0	0	0	0	0	10	362	0	0	0	372	1902
% Approach Total	7.6	5.2	87.0	0.2	0.0		44.6	33.9	3.6	17.9	0.0		1.3	61.9	35.3	1.5	0.0		0.0	0.0	0.0	0.0	0.0		2.7	97.3	0.0	0.0	0.0		
PHF	0.625	0.773	0.938	0.250	0.000	0.952	0.781	0.792	0.500	0.500	0.000	0.700	0.917	0.918	0.870	0.600	0.000	0.914	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.905	0.000	0.000	0.000	0.912	0.922
Entering Leg	50	34	570	1	0	655	25	19	2	10	0	56	11	507	289	12	0	819	0	0	0	0	0	0	10	362	0	0	0	372	1902
Exiting Leg						532						12						942						58						358	1902
Total						1187						68						1761						58						730	3804

PDI File #: **175517 JJ**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	1	7	0	0	8	0	0	0	0	0	0	0	10	2	0	0	12	0	0	0	0	0	0	0	4	0	0	0	4	24
4:15 PM	1	0	8	0	0	9	0	0	0	0	0	0	0	9	2	0	0	11	0	0	0	0	0	0	0	1	0	0	0	1	21
4:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	9	1	0	0	10	0	0	0	0	0	0	0	4	0	0	0	4	22
4:45 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	10	3	0	0	13	0	0	0	0	0	0	0	3	0	0	0	3	24
Total	1	1	31	0	0	33	0	0	0	0	0	0	0	38	8	0	0	46	0	0	0	0	0	0	0	12	0	0	0	12	91
5:00 PM	0	0	7	0	0	7	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	14
5:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	5	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	11
5:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	9
5:45 PM	0	0	9	0	0	9	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0	1	15
Total	0	0	22	0	0	22	0	0	0	0	0	0	0	23	2	0	0	25	0	0	0	0	0	0	0	2	0	0	0	2	49
Grand Total	1	1	53	0	0	55	0	0	0	0	0	0	0	61	10	0	0	71	0	0	0	0	0	0	0	14	0	0	0	14	140
Approach %	1.8	1.8	96.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	85.9	14.1	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
Total %	0.7	0.7	37.9	0.0	0.0	39.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.6	7.1	0.0	0.0	50.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	10.0	
Exiting Leg Total						61						0						67						1						11	140

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue (Route 2A)						Falmouth Street						Massachusetts Avenue (Route 2A)						St. Stephen Street						Westland Avenue						
	North						East						South						West						Northwest						
	Hard Righ	Right	Thru	Left	U-Turn	Total	Right	Bear Righ	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	Total	Total
4:00 PM	0	1	7	0	0	8	0	0	0	0	0	0	0	10	2	0	0	12	0	0	0	0	0	0	0	4	0	0	0	4	24
4:15 PM	1	0	8	0	0	9	0	0	0	0	0	0	0	9	2	0	0	11	0	0	0	0	0	0	0	1	0	0	0	1	21
4:30 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	9	1	0	0	10	0	0	0	0	0	0	0	4	0	0	0	4	22
4:45 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	10	3	0	0	13	0	0	0	0	0	0	0	3	0	0	0	3	24
Total Volume	1	1	31	0	0	33	0	0	0	0	0	0	0	38	8	0	0	46	0	0	0	0	0	0	0	12	0	0	0	12	91
% Approach Total	3.0	3.0	93.9	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	82.6	17.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
PHF	0.250	0.250	0.969	0.000	0.000	0.917	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.950	0.667	0.000	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.750	0.948
Entering Leg	1	1	31	0	0	33	0	0	0	0	0	0	0	38	8	0	0	46	0	0	0	0	0	0	0	12	0	0	0	12	91
Exiting Leg						38						0						43						1						9	91
Total						71						0						89						1						21	182

PDI File #: **175517 JJ**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
4:00 PM	0	3	5	0	0	0	0	8	0	0	0	0	0	1	0	1	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	18
4:15 PM	0	2	2	0	0	1	0	5	0	0	0	0	0	0	2	2	0	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3	19
4:30 PM	0	1	10	0	0	0	0	11	0	0	0	0	0	0	0	0	1	4	3	0	0	0	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	20
4:45 PM	0	1	5	0	0	0	1	7	0	1	0	0	0	0	3	4	0	9	0	0	0	0	0	9	0	0	0	0	0	1	0	1	0	2	0	0	0	1	0	3	24
Total	0	7	22	0	0	1	1	31	0	1	0	0	0	1	5	7	1	30	3	0	0	0	0	34	0	0	0	0	0	1	0	1	0	6	0	0	0	1	1	8	81
5:00 PM	0	2	10	0	0	0	0	12	0	0	0	2	0	1	1	4	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	25
5:15 PM	0	0	13	0	0	0	0	13	2	2	1	0	0	0	4	9	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	34
5:30 PM	0	3	6	0	0	0	0	9	0	0	0	2	0	0	0	2	0	17	0	0	0	0	0	17	0	0	0	0	0	2	0	2	1	0	0	0	0	1	2	4	34
5:45 PM	0	2	17	0	0	0	0	19	0	1	0	0	0	0	0	1	0	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	25
Total	0	7	46	0	0	0	0	53	2	3	1	4	0	1	5	16	0	35	1	0	0	0	0	36	0	0	0	0	0	2	0	2	1	5	1	0	0	1	3	11	118
Grand Total	0	14	68	0	0	1	1	84	2	4	1	4	0	2	10	23	1	65	4	0	0	0	0	70	0	0	0	0	0	3	0	3	1	11	1	0	0	2	4	19	199
Approach %	0.0	16.7	81.0	0.0	0.0	1.2	1.2		8.7	17.4	4.3	17.4	0.0	8.7	43.5		1.4	92.9	5.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0	0.0		5.3	57.9	5.3	0.0	0.0	10.5	21.1		
Total %	0.0	7.0	34.2	0.0	0.0	0.5	0.5	42.2	1.0	2.0	0.5	2.0	0.0	1.0	5.0	11.6	0.5	32.7	2.0	0.0	0.0	0.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.5	0.5	5.5	0.5	0.0	0.0	1.0	2.0	9.5	
Exiting Leg Total								69								14								83								19								14	199

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
5:00 PM	0	2	10	0	0	0	0	12	0	0	0	2	0	1	1	4	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	25
5:15 PM	0	0	13	0	0	0	0	13	2	2	1	0	0	0	4	9	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4	34
5:30 PM	0	3	6	0	0	0	0	9	0	0	0	2	0	0	0	2	0	17	0	0	0	0	0	17	0	0	0	0	0	2	0	2	1	0	0	0	0	1	2	4	34
5:45 PM	0	2	17	0	0	0	0	19	0	1	0	0	0	0	0	1	0	3	1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	25
Total Volume	0	7	46	0	0	0	0	53	2	3	1	4	0	1	5	16	0	35	1	0	0	0	0	36	0	0	0	0	0	2	0	2	1	5	1	0	0	1	3	11	118
% Approach Total	0.0	13.2	86.8	0.0	0.0	0.0	0.0		12.5	18.8	6.3	25.0	0.0	6.3	31.3		0.0	97.2	2.8	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0	0.0		9.1	45.5	9.1	0.0	0.0	9.1	27.3		
PHF	0.000	0.583	0.676	0.000	0.000	0.000	0.000	0.697	0.250	0.375	0.250	0.500	0.000	0.250	0.313	0.444	0.000	0.515	0.250	0.000	0.000	0.000	0.000	0.529	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.417	0.250	0.000	0.000	0.250	0.375	0.688	0.868
Entering Leg	0	7	46	0	0	0	0	53	2	3	1	4	0	1	5	16	0	35	1	0	0	0	0	36	0	0	0	0	0	2	0	2	1	5	1	0	0	1	3	11	118
Exiting Leg								37								7								55								11								8	118
Total								90								23								91								13								19	236

PDI File #: **175517 JJ**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A) NW: Westland Avenue**
Location: **E: Falmouth Street W: St. Stephen Street**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
4:00 PM	0	0	0	0	0	14	18	32	0	0	0	0	0	29	18	47	0	0	0	0	0	18	18	36	0	0	0	0	0	76	72	148	0	0	0	0	0	77	58	135	398
4:15 PM	0	0	0	0	0	17	20	37	0	0	0	0	0	40	36	76	0	0	0	0	0	8	13	21	0	0	0	0	0	79	76	155	0	0	0	0	0	84	61	145	434
4:30 PM	0	0	0	0	0	11	19	30	0	0	0	0	0	31	26	57	0	0	0	0	0	19	11	30	0	0	0	0	0	71	60	131	0	0	0	0	0	61	48	109	357
4:45 PM	0	0	0	0	0	9	19	28	0	0	0	0	0	28	30	58	0	0	0	0	0	21	8	29	0	0	0	0	0	75	83	158	0	0	0	0	0	56	62	118	391
Total	0	0	0	0	0	51	76	127	0	0	0	0	0	128	110	238	0	0	0	0	0	66	50	116	0	0	0	0	0	301	291	592	0	0	0	0	0	278	229	507	1580
5:00 PM	0	0	0	0	0	21	28	49	0	0	0	0	0	22	32	54	0	0	0	0	0	15	14	29	0	0	0	0	0	96	97	193	0	0	0	0	0	100	71	171	496
5:15 PM	0	0	0	0	0	17	31	48	0	0	0	0	0	24	38	62	0	0	0	0	0	17	11	28	0	0	0	0	0	91	90	181	0	0	0	0	0	67	74	141	460
5:30 PM	0	0	0	0	0	19	35	54	0	0	0	0	0	21	46	67	0	0	0	0	0	18	19	37	0	0	0	0	0	110	89	199	0	0	0	0	0	101	87	188	545
5:45 PM	0	0	0	0	0	21	34	55	0	0	0	0	0	27	34	61	0	0	0	0	0	17	12	29	0	0	0	0	0	115	104	219	0	0	0	0	0	84	97	181	545
Total	0	0	0	0	0	78	128	206	0	0	0	0	0	94	150	244	0	0	0	0	0	67	56	123	0	0	0	0	0	412	380	792	0	0	0	0	0	352	329	681	2046
Grand Total	0	0	0	0	0	129	204	333	0	0	0	0	0	222	260	482	0	0	0	0	0	133	106	239	0	0	0	0	0	713	671	####	0	0	0	0	0	630	558	####	3626
Approach %	0.0	0.0	0.0	0.0	0.0	38.7	61.3		0.0	0.0	0.0	0.0	0.0	46.1	53.9		0.0	0.0	0.0	0.0	0.0	55.6	44.4		0.0	0.0	0.0	0.0	0.0	51.5	48.5		0.0	0.0	0.0	0.0	0.0	53.0	47.0		
Total %	0.0	0.0	0.0	0.0	0.0	3.6	5.6	9.2	0.0	0.0	0.0	0.0	0.0	6.1	7.2	13.3	0.0	0.0	0.0	0.0	0.0	3.7	2.9	6.6	0.0	0.0	0.0	0.0	0.0	19.7	18.5	38.2	0.0	0.0	0.0	0.0	0.0	17.4	15.4	32.8	
Exiting Leg Total								333								482								239								####								####	3626

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)								Falmouth Street								Massachusetts Avenue (Route 2A)								St. Stephen Street								Westland Avenue								
	North								East								South								West								Northwest								
	Hard Righ	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Righ	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Righ	Bear Righ	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total
5:00 PM	0	0	0	0	0	21	28	49	0	0	0	0	0	22	32	54	0	0	0	0	0	15	14	29	0	0	0	0	0	96	97	193	0	0	0	0	0	100	71	171	496
5:15 PM	0	0	0	0	0	17	31	48	0	0	0	0	0	24	38	62	0	0	0	0	0	17	11	28	0	0	0	0	0	91	90	181	0	0	0	0	0	67	74	141	460
5:30 PM	0	0	0	0	0	19	35	54	0	0	0	0	0	21	46	67	0	0	0	0	0	18	19	37	0	0	0	0	0	110	89	199	0	0	0	0	0	101	87	188	545
5:45 PM	0	0	0	0	0	21	34	55	0	0	0	0	0	27	34	61	0	0	0	0	0	17	12	29	0	0	0	0	0	115	104	219	0	0	0	0	0	84	97	181	545
Total Volume	0	0	0	0	0	78	128	206	0	0	0	0	0	94	150	244	0	0	0	0	0	67	56	123	0	0	0	0	0	412	380	792	0	0	0	0	0	352	329	681	2046
% Approach Total	0.0	0.0	0.0	0.0	0.0	37.9	62.1		0.0	0.0	0.0	0.0	0.0	38.5	61.5		0.0	0.0	0.0	0.0	0.0	54.5	45.5		0.0	0.0	0.0	0.0	0.0	52.0	48.0		0.0	0.0	0.0	0.0	0.0	51.7	48.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.929	0.914	0.936	0.000	0.000	0.000	0.000	0.000	0.870	0.815	0.910	0.000	0.000	0.000	0.000	0.000	0.931	0.737	0.831	0.000	0.000	0.000	0.000	0.000	0.896	0.913	0.904	0.000	0.000	0.000	0.000	0.000	0.871	0.848	0.906	0.939
Entering Leg	0	0	0	0	0	78	128	206	0	0	0	0	0	94	150	244	0	0	0	0	0	67	56	123	0	0	0	0	0	412	380	792	0	0	0	0	0	352	329	681	2046
Exiting Leg								206								244								123								792								681	2046
Total								412								488								246								####								####	4092

PDI File #: **175517 K**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class:

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	13	153	0	0	166	9	7	9	0	25	13	209	3	0	225	10	4	35	2	51	467
7:15 AM	12	146	0	0	158	9	4	17	2	32	8	207	2	0	217	13	0	19	1	33	440
7:30 AM	21	171	0	0	192	14	5	26	2	47	18	197	8	0	223	19	3	21	1	44	506
7:45 AM	20	181	1	0	202	6	5	19	0	30	12	189	6	0	207	19	5	17	3	44	483
Total	66	651	1	0	718	38	21	71	4	134	51	802	19	0	872	61	12	92	7	172	1896
8:00 AM	19	183	0	0	202	8	6	32	4	50	25	167	6	0	198	17	11	18	0	46	496
8:15 AM	10	184	0	0	194	14	4	17	0	35	23	198	2	0	223	12	3	14	2	31	483
8:30 AM	23	210	0	0	233	15	3	15	4	37	22	173	2	0	197	19	1	18	0	38	505
8:45 AM	30	177	0	0	207	15	6	24	2	47	19	205	4	0	228	16	6	18	1	41	523
Total	82	754	0	0	836	52	19	88	10	169	89	743	14	0	846	64	21	68	3	156	2007
Grand Total	148	1405	1	0	1554	90	40	159	14	303	140	1545	33	0	1718	125	33	160	10	328	3903
Approach %	9.5	90.4	0.1	0.0		29.7	13.2	52.5	4.6		8.1	89.9	1.9	0.0		38.1	10.1	48.8	3.0		
Total %	3.8	36.0	0.0	0.0	39.8	2.3	1.0	4.1	0.4	7.8	3.6	39.6	0.8	0.0	44.0	3.2	0.8	4.1	0.3	8.4	
Exiting Leg Total					1795					188					1689					231	3903
Cars	139	1317	0	0	1456	74	34	140	12	260	134	1404	28	0	1566	112	29	139	9	289	3571
% Cars	93.9	93.7	0.0	0.0	93.7	82.2	85.0	88.1	85.7	85.8	95.7	90.9	84.8	0.0	91.2	89.6	87.9	86.9	90.0	88.1	91.5
Exiting Leg Total					1617					175					1569					210	3571
Heavy Vehicles	9	88	1	0	98	16	6	19	2	43	6	141	5	0	152	13	4	21	1	39	332
% Heavy Vehicles	6.1	6.3	100.0	0.0	6.3	17.8	15.0	11.9	14.3	14.2	4.3	9.1	15.2	0.0	8.8	10.4	12.1	13.1	10.0	11.9	8.5
Exiting Leg Total					178					13					120					21	332

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	19	183	0	0	202	8	6	32	4	50	25	167	6	0	198	17	11	18	0	46	496
8:15 AM	10	184	0	0	194	14	4	17	0	35	23	198	2	0	223	12	3	14	2	31	483
8:30 AM	23	210	0	0	233	15	3	15	4	37	22	173	2	0	197	19	1	18	0	38	505
8:45 AM	30	177	0	0	207	15	6	24	2	47	19	205	4	0	228	16	6	18	1	41	523
Total Volume	82	754	0	0	836	52	19	88	10	169	89	743	14	0	846	64	21	68	3	156	2007
% Approach Total	9.8	90.2	0.0	0.0		30.8	11.2	52.1	5.9		10.5	87.8	1.7	0.0		41.0	13.5	43.6	1.9		
PHF	0.683	0.898	0.000	0.000	0.897	0.867	0.792	0.688	0.625	0.845	0.890	0.906	0.583	0.000	0.928	0.842	0.477	0.944	0.375	0.848	0.959
Cars	79	713	0	0	792	48	17	79	10	154	86	697	12	0	795	54	18	63	3	138	1879
Cars %	96.3	94.6	0.0	0.0	94.7	92.3	89.5	89.8	100.0	91.1	96.6	93.8	85.7	0.0	94.0	84.4	85.7	92.6	100.0	88.5	93.6
Heavy Vehicles	3	41	0	0	44	4	2	9	0	15	3	46	2	0	51	10	3	5	0	18	128
Heavy Vehicles %	3.7	5.4	0.0	0.0	5.3	7.7	10.5	10.2	0.0	8.9	3.4	6.2	14.3	0.0	6.0	15.6	14.3	7.4	0.0	11.5	6.4
Cars Enter Leg	79	713	0	0	792	48	17	79	10	154	86	697	12	0	795	54	18	63	3	138	1879
Heavy Enter Leg	3	41	0	0	44	4	2	9	0	15	3	46	2	0	51	10	3	5	0	18	128
Total Entering Leg	82	754	0	0	836	52	19	88	10	169	89	743	14	0	846	64	21	68	3	156	2007
Cars Exiting Leg					808					114					846					111	1879
Heavy Exit Leg					55					6					60					7	128
Total Exiting Leg					863					120					906					118	2007

PDI File #: **175517 K**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	13	140	0	0	153	6	5	8	0	19	12	186	2	0	200	9	3	31	2	45	417
7:15 AM	11	135	0	0	146	8	3	14	1	26	7	184	2	0	193	13	0	16	1	30	395
7:30 AM	17	161	0	0	178	9	5	22	1	37	17	178	8	0	203	19	3	15	0	37	455
7:45 AM	19	168	0	0	187	3	4	17	0	24	12	159	4	0	175	17	5	14	3	39	425
Total	60	604	0	0	664	26	17	61	2	106	48	707	16	0	771	58	11	76	6	151	1692
8:00 AM	19	175	0	0	194	7	4	29	4	44	25	159	4	0	188	11	9	15	0	35	461
8:15 AM	9	177	0	0	186	12	4	14	0	30	23	191	2	0	216	9	2	14	2	27	459
8:30 AM	22	196	0	0	218	14	3	14	4	35	20	157	2	0	179	18	1	18	0	37	469
8:45 AM	29	165	0	0	194	15	6	22	2	45	18	190	4	0	212	16	6	16	1	39	490
Total	79	713	0	0	792	48	17	79	10	154	86	697	12	0	795	54	18	63	3	138	1879
Grand Total	139	1317	0	0	1456	74	34	140	12	260	134	1404	28	0	1566	112	29	139	9	289	3571
Approach %	9.5	90.5	0.0	0.0		28.5	13.1	53.8	4.6		8.6	89.7	1.8	0.0		38.8	10.0	48.1	3.1		
Total %	3.9	36.9	0.0	0.0	40.8	2.1	1.0	3.9	0.3	7.3	3.8	39.3	0.8	0.0	43.9	3.1	0.8	3.9	0.3	8.1	
Exiting Leg Total					1617					175					1569					210	3571

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	19	175	0	0	194	7	4	29	4	44	25	159	4	0	188	11	9	15	0	35	461
8:15 AM	9	177	0	0	186	12	4	14	0	30	23	191	2	0	216	9	2	14	2	27	459
8:30 AM	22	196	0	0	218	14	3	14	4	35	20	157	2	0	179	18	1	18	0	37	469
8:45 AM	29	165	0	0	194	15	6	22	2	45	18	190	4	0	212	16	6	16	1	39	490
Total Volume	79	713	0	0	792	48	17	79	10	154	86	697	12	0	795	54	18	63	3	138	1879
% Approach Total	10.0	90.0	0.0	0.0		31.2	11.0	51.3	6.5		10.8	87.7	1.5	0.0		39.1	13.0	45.7	2.2		
PHF	0.681	0.909	0.000	0.000	0.908	0.800	0.708	0.681	0.625	0.856	0.860	0.912	0.750	0.000	0.920	0.750	0.500	0.875	0.375	0.885	0.959
Entering Leg	79	713	0	0	792	48	17	79	10	154	86	697	12	0	795	54	18	63	3	138	1879
Exiting Leg					808					114					846					111	1879
Total					1600					268					1641					249	3758

PDI File #: **175517 K**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	13	0	0	13	3	2	1	0	6	1	23	1	0	25	1	1	4	0	6	50
7:15 AM	1	11	0	0	12	1	1	3	1	6	1	23	0	0	24	0	0	3	0	3	45
7:30 AM	4	10	0	0	14	5	0	4	1	10	1	19	0	0	20	0	0	6	1	7	51
7:45 AM	1	13	1	0	15	3	1	2	0	6	0	30	2	0	32	2	0	3	0	5	58
Total	6	47	1	0	54	12	4	10	2	28	3	95	3	0	101	3	1	16	1	21	204
8:00 AM	0	8	0	0	8	1	2	3	0	6	0	8	2	0	10	6	2	3	0	11	35
8:15 AM	1	7	0	0	8	2	0	3	0	5	0	7	0	0	7	3	1	0	0	4	24
8:30 AM	1	14	0	0	15	1	0	1	0	2	2	16	0	0	18	1	0	0	0	1	36
8:45 AM	1	12	0	0	13	0	0	2	0	2	1	15	0	0	16	0	0	2	0	2	33
Total	3	41	0	0	44	4	2	9	0	15	3	46	2	0	51	10	3	5	0	18	128
Grand Total	9	88	1	0	98	16	6	19	2	43	6	141	5	0	152	13	4	21	1	39	332
Approach %	9.2	89.8	1.0	0.0		37.2	14.0	44.2	4.7		3.9	92.8	3.3	0.0		33.3	10.3	53.8	2.6		
Total %	2.7	26.5	0.3	0.0	29.5	4.8	1.8	5.7	0.6	13.0	1.8	42.5	1.5	0.0	45.8	3.9	1.2	6.3	0.3	11.7	
Exiting Leg Total					178					13					120					21	332

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	13	0	0	13	3	2	1	0	6	1	23	1	0	25	1	1	4	0	6	50
7:15 AM	1	11	0	0	12	1	1	3	1	6	1	23	0	0	24	0	0	3	0	3	45
7:30 AM	4	10	0	0	14	5	0	4	1	10	1	19	0	0	20	0	0	6	1	7	51
7:45 AM	1	13	1	0	15	3	1	2	0	6	0	30	2	0	32	2	0	3	0	5	58
Total Volume	6	47	1	0	54	12	4	10	2	28	3	95	3	0	101	3	1	16	1	21	204
% Approach Total	11.1	87.0	1.9	0.0		42.9	14.3	35.7	7.1		3.0	94.1	3.0	0.0		14.3	4.8	76.2	4.8		
PHF	0.375	0.904	0.250	0.000	0.900	0.600	0.500	0.625	0.500	0.700	0.750	0.792	0.375	0.000	0.789	0.375	0.250	0.667	0.250	0.750	0.879
Entering Leg	6	47	1	0	54	12	4	10	2	28	3	95	3	0	101	3	1	16	1	21	204
Exiting Leg					123					7					60					14	204
Total					177					35					161					35	408

PDI File #: **175517 K**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	1	0	1	0	2	10
7:15 AM	0	4	0	0	0	1	5	0	0	0	0	0	1	1	0	4	0	0	1	0	5	0	0	0	0	0	0	0	11
7:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	5
7:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	8	1	0	0	0	9	1	0	1	0	0	0	2	12
Total	0	8	0	0	0	1	9	0	0	0	0	0	1	1	0	22	1	0	1	0	24	1	0	2	0	1	0	4	38
8:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	2	8	1	0	0	0	11	0	1	1	0	0	0	2	16
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	1	0	9	0	0	0	0	1	0	1	10
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	3	0	0	0	3	11
8:45 AM	0	4	0	0	1	0	5	1	0	0	0	0	0	1	0	11	2	0	0	0	13	0	0	0	0	0	0	0	19
Total	0	8	0	0	1	0	9	1	0	0	0	0	0	1	4	32	3	0	1	0	40	0	1	4	0	1	0	6	56
Grand Total	0	16	0	0	1	1	18	1	0	0	0	0	1	2	4	54	4	0	2	0	64	1	1	6	0	2	0	10	94
Approach %	0.0	88.9	0.0	0.0	5.6	5.6		50.0	0.0	0.0	0.0	0.0	50.0		6.3	84.4	6.3	0.0	3.1	0.0		10.0	10.0	60.0	0.0	20.0	0.0		
Total %	0.0	17.0	0.0	0.0	1.1	1.1	19.1	1.1	0.0	0.0	0.0	0.0	1.1	2.1	4.3	57.4	4.3	0.0	2.1	0.0	68.1	1.1	1.1	6.4	0.0	2.1	0.0	10.6	
Exiting Leg Total							63							6							19							6	94

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	2	8	1	0	0	0	11	0	1	1	0	0	0	2	16
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	1	0	9	0	0	0	0	1	0	1	10
8:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	6	0	0	0	0	7	0	0	3	0	0	0	3	11
8:45 AM	0	4	0	0	1	0	5	1	0	0	0	0	0	1	0	11	2	0	0	0	13	0	0	0	0	0	0	0	19
Total Volume	0	8	0	0	1	0	9	1	0	0	0	0	0	1	4	32	3	0	1	0	40	0	1	4	0	1	0	6	56
% Approach Total	0.0	88.9	0.0	0.0	11.1	0.0		100.0	0.0	0.0	0.0	0.0	0.0		10.0	80.0	7.5	0.0	2.5	0.0		0.0	16.7	66.7	0.0	16.7	0.0		
PHF	0.000	0.500	0.000	0.000	0.250	0.000	0.450	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.727	0.375	0.000	0.250	0.000	0.769	0.000	0.250	0.333	0.000	0.250	0.000	0.500	0.737
Entering Leg	0	8	0	0	1	0	9	1	0	0	0	0	0	1	4	32	3	0	1	0	40	0	1	4	0	1	0	6	56
Exiting Leg							38							5							9							4	56
Total							47							6							49							10	112

PDI File #: **175517 K**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	6	6	12	0	0	0	0	8	19	27	0	0	0	0	4	7	11	0	0	0	0	18	20	38	88
7:15 AM	0	0	0	0	5	8	13	0	0	0	0	7	21	28	0	0	0	0	2	3	5	0	0	0	0	15	29	44	90
7:30 AM	0	0	0	0	7	3	10	0	0	0	0	8	26	34	0	0	0	0	4	5	9	0	0	0	0	30	52	82	135
7:45 AM	0	0	0	0	10	6	16	0	0	0	0	10	30	40	0	0	0	0	3	16	19	0	0	0	0	30	65	95	170
Total	0	0	0	0	28	23	51	0	0	0	0	33	96	129	0	0	0	0	13	31	44	0	0	0	0	93	166	259	483
8:00 AM	0	0	0	0	11	14	25	0	0	0	0	13	28	41	0	0	0	0	4	11	15	0	0	0	0	39	81	120	201
8:15 AM	0	0	0	0	11	8	19	0	0	0	0	8	34	42	0	0	0	0	10	8	18	0	0	0	0	35	74	109	188
8:30 AM	0	0	0	0	14	3	17	0	0	0	0	14	24	38	0	0	0	0	8	20	28	0	0	0	0	47	78	125	208
8:45 AM	0	0	0	0	11	15	26	0	0	0	0	18	35	53	0	0	0	0	6	10	16	0	0	0	0	78	68	146	241
Total	0	0	0	0	47	40	87	0	0	0	0	53	121	174	0	0	0	0	28	49	77	0	0	0	0	199	301	500	838
Grand Total	0	0	0	0	75	63	138	0	0	0	0	86	217	303	0	0	0	0	41	80	121	0	0	0	0	292	467	759	1321
Approach %	0.0	0.0	0.0	0.0	54.3	45.7		0.0	0.0	0.0	0.0	28.4	71.6		0.0	0.0	0.0	0.0	33.9	66.1		0.0	0.0	0.0	0.0	38.5	61.5		
Total %	0.0	0.0	0.0	0.0	5.7	4.8	10.4	0.0	0.0	0.0	0.0	6.5	16.4	22.9	0.0	0.0	0.0	0.0	3.1	6.1	9.2	0.0	0.0	0.0	0.0	22.1	35.4	57.5	
Exiting Leg Total							138							303							121							759	1321

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	11	14	25	0	0	0	0	13	28	41	0	0	0	0	4	11	15	0	0	0	0	39	81	120	201
8:15 AM	0	0	0	0	11	8	19	0	0	0	0	8	34	42	0	0	0	0	10	8	18	0	0	0	0	35	74	109	188
8:30 AM	0	0	0	0	14	3	17	0	0	0	0	14	24	38	0	0	0	0	8	20	28	0	0	0	0	47	78	125	208
8:45 AM	0	0	0	0	11	15	26	0	0	0	0	18	35	53	0	0	0	0	6	10	16	0	0	0	0	78	68	146	241
Total Volume	0	0	0	0	47	40	87	0	0	0	0	53	121	174	0	0	0	0	28	49	77	0	0	0	0	199	301	500	838
% Approach Total	0.0	0.0	0.0	0.0	54.0	46.0		0.0	0.0	0.0	0.0	30.5	69.5		0.0	0.0	0.0	0.0	36.4	63.6		0.0	0.0	0.0	0.0	39.8	60.2		
PHF	0.000	0.000	0.000	0.000	0.839	0.667	0.837	0.000	0.000	0.000	0.000	0.736	0.864	0.821	0.000	0.000	0.000	0.000	0.700	0.613	0.688	0.000	0.000	0.000	0.000	0.638	0.929	0.856	0.869
Entering Leg	0	0	0	0	47	40	87	0	0	0	0	53	121	174	0	0	0	0	28	49	77	0	0	0	0	199	301	500	838
Exiting Leg							87							174							77							500	838
Total							174							348							154							1000	1676

PDI File #: **175517 KK**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	24	192	0	0	216	10	8	20	6	44	16	177	4	0	197	22	8	16	1	47	504
4:15 PM	18	187	1	0	206	11	13	15	2	41	34	191	7	0	232	21	5	26	4	56	535
4:30 PM	22	181	0	0	203	14	17	28	3	62	22	155	4	0	181	24	4	22	2	52	498
4:45 PM	18	199	1	0	218	18	2	39	3	62	29	185	5	1	220	32	4	13	3	52	552
Total	82	759	2	0	843	53	40	102	14	209	101	708	20	1	830	99	21	77	10	207	2089
5:00 PM	19	228	1	0	248	11	4	31	5	51	25	178	4	0	207	24	11	11	1	47	553
5:15 PM	22	225	0	0	247	15	9	37	3	64	22	188	8	0	218	27	2	15	2	46	575
5:30 PM	30	204	1	0	235	24	11	33	3	71	15	184	7	0	206	15	3	16	2	36	548
5:45 PM	14	199	0	0	213	14	7	23	4	48	24	152	8	0	184	18	8	15	0	41	486
Total	85	856	2	0	943	64	31	124	15	234	86	702	27	0	815	84	24	57	5	170	2162
Grand Total	167	1615	4	0	1786	117	71	226	29	443	187	1410	47	1	1645	183	45	134	15	377	4251
Approach %	9.4	90.4	0.2	0.0		26.4	16.0	51.0	6.5		11.4	85.7	2.9	0.1		48.5	11.9	35.5	4.0		
Total %	3.9	38.0	0.1	0.0	42.0	2.8	1.7	5.3	0.7	10.4	4.4	33.2	1.1	0.0	38.7	4.3	1.1	3.2	0.4	8.9	
Exiting Leg Total					1661					265					2025					300	4251
Cars	161	1551	4	0	1716	112	69	218	27	426	182	1344	47	1	1574	179	42	130	14	365	4081
% Cars	96.4	96.0	100.0	0.0	96.1	95.7	97.2	96.5	93.1	96.2	97.3	95.3	100.0	100.0	95.7	97.8	93.3	97.0	93.3	96.8	96.0
Exiting Leg Total					1586					255					1949					291	4081
Heavy Vehicles	6	64	0	0	70	5	2	8	2	17	5	66	0	0	71	4	3	4	1	12	170
% Heavy Vehicles	3.6	4.0	0.0	0.0	3.9	4.3	2.8	3.5	6.9	3.8	2.7	4.7	0.0	0.0	4.3	2.2	6.7	3.0	6.7	3.2	4.0
Exiting Leg Total					75					10					76					9	170

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	18	199	1	0	218	18	2	39	3	62	29	185	5	1	220	32	4	13	3	52	552
5:00 PM	19	228	1	0	248	11	4	31	5	51	25	178	4	0	207	24	11	11	1	47	553
5:15 PM	22	225	0	0	247	15	9	37	3	64	22	188	8	0	218	27	2	15	2	46	575
5:30 PM	30	204	1	0	235	24	11	33	3	71	15	184	7	0	206	15	3	16	2	36	548
Total Volume	89	856	3	0	948	68	26	140	14	248	91	735	24	1	851	98	20	55	8	181	2228
% Approach Total	9.4	90.3	0.3	0.0		27.4	10.5	56.5	5.6		10.7	86.4	2.8	0.1		54.1	11.0	30.4	4.4		
PHF	0.742	0.939	0.750	0.000	0.956	0.708	0.591	0.897	0.700	0.873	0.784	0.977	0.750	0.250	0.967	0.766	0.455	0.859	0.667	0.870	0.969
Cars	86	833	3	0	922	64	24	136	14	238	88	702	24	1	815	95	18	54	7	174	2149
Cars %	96.6	97.3	100.0	0.0	97.3	94.1	92.3	97.1	100.0	96.0	96.7	95.5	100.0	100.0	95.8	96.9	90.0	98.2	87.5	96.1	96.5
Heavy Vehicles	3	23	0	0	26	4	2	4	0	10	3	33	0	0	36	3	2	1	1	7	79
Heavy Vehicles %	3.4	2.7	0.0	0.0	2.7	5.9	7.7	2.9	0.0	4.0	3.3	4.5	0.0	0.0	4.2	3.1	10.0	1.8	12.5	3.9	3.5
Cars Enter Leg	86	833	3	0	922	64	24	136	14	238	88	702	24	1	815	95	18	54	7	174	2149
Heavy Enter Leg	3	23	0	0	26	4	2	4	0	10	3	33	0	0	36	3	2	1	1	7	79
Total Entering Leg	89	856	3	0	948	68	26	140	14	248	91	735	24	1	851	98	20	55	8	181	2228
Cars Exiting Leg					820					123					1065					141	2149
Heavy Exit Leg					38					5					30					6	79
Total Exiting Leg					858					128					1095					147	2228

PDI File #: **175517 KK**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	23	182	0	0	205	9	8	18	4	39	15	166	4	0	185	22	7	16	1	46	475
4:15 PM	17	176	1	0	194	11	13	15	2	41	33	182	7	0	222	20	5	25	4	54	511
4:30 PM	21	171	0	0	192	14	17	26	3	60	22	147	4	0	173	24	4	20	2	50	475
4:45 PM	17	189	1	0	207	18	2	38	3	61	27	171	5	1	204	31	4	12	3	50	522
Total	78	718	2	0	798	52	40	97	12	201	97	666	20	1	784	97	20	73	10	200	1983
5:00 PM	17	223	1	0	241	10	4	29	5	48	25	170	4	0	199	24	10	11	0	45	533
5:15 PM	22	220	0	0	242	13	9	36	3	61	21	182	8	0	211	25	2	15	2	44	558
5:30 PM	30	201	1	0	232	23	9	33	3	68	15	179	7	0	201	15	2	16	2	35	536
5:45 PM	14	189	0	0	203	14	7	23	4	48	24	147	8	0	179	18	8	15	0	41	471
Total	83	833	2	0	918	60	29	121	15	225	85	678	27	0	790	82	22	57	4	165	2098
Grand Total	161	1551	4	0	1716	112	69	218	27	426	182	1344	47	1	1574	179	42	130	14	365	4081
Approach %	9.4	90.4	0.2	0.0		26.3	16.2	51.2	6.3		11.6	85.4	3.0	0.1		49.0	11.5	35.6	3.8		
Total %	3.9	38.0	0.1	0.0	42.0	2.7	1.7	5.3	0.7	10.4	4.5	32.9	1.2	0.0	38.6	4.4	1.0	3.2	0.3	8.9	
Exiting Leg Total					1586					255					1949					291	4081

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	17	189	1	0	207	18	2	38	3	61	27	171	5	1	204	31	4	12	3	50	522
5:00 PM	17	223	1	0	241	10	4	29	5	48	25	170	4	0	199	24	10	11	0	45	533
5:15 PM	22	220	0	0	242	13	9	36	3	61	21	182	8	0	211	25	2	15	2	44	558
5:30 PM	30	201	1	0	232	23	9	33	3	68	15	179	7	0	201	15	2	16	2	35	536
Total Volume	86	833	3	0	922	64	24	136	14	238	88	702	24	1	815	95	18	54	7	174	2149
% Approach Total	9.3	90.3	0.3	0.0		26.9	10.1	57.1	5.9		10.8	86.1	2.9	0.1		54.6	10.3	31.0	4.0		
PHF	0.717	0.934	0.750	0.000	0.952	0.696	0.667	0.895	0.700	0.875	0.815	0.964	0.750	0.250	0.966	0.766	0.450	0.844	0.583	0.870	0.963
Entering Leg	86	833	3	0	922	64	24	136	14	238	88	702	24	1	815	95	18	54	7	174	2149
Exiting Leg					820					123					1065					141	2149
Total					1742					361					1880					315	4298

PDI File #: **175517 KK**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	10	0	0	11	1	0	2	2	5	1	11	0	0	12	0	1	0	0	1	29
4:15 PM	1	11	0	0	12	0	0	0	0	0	1	9	0	0	10	1	0	1	0	2	24
4:30 PM	1	10	0	0	11	0	0	2	0	2	0	8	0	0	8	0	0	2	0	2	23
4:45 PM	1	10	0	0	11	0	0	1	0	1	2	14	0	0	16	1	0	1	0	2	30
Total	4	41	0	0	45	1	0	5	2	8	4	42	0	0	46	2	1	4	0	7	106
5:00 PM	2	5	0	0	7	1	0	2	0	3	0	8	0	0	8	0	1	0	1	2	20
5:15 PM	0	5	0	0	5	2	0	1	0	3	1	6	0	0	7	2	0	0	0	2	17
5:30 PM	0	3	0	0	3	1	2	0	0	3	0	5	0	0	5	0	1	0	0	1	12
5:45 PM	0	10	0	0	10	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	15
Total	2	23	0	0	25	4	2	3	0	9	1	24	0	0	25	2	2	0	1	5	64
Grand Total	6	64	0	0	70	5	2	8	2	17	5	66	0	0	71	4	3	4	1	12	170
Approach %	8.6	91.4	0.0	0.0		29.4	11.8	47.1	11.8		7.0	93.0	0.0	0.0		33.3	25.0	33.3	8.3		
Total %	3.5	37.6	0.0	0.0	41.2	2.9	1.2	4.7	1.2	10.0	2.9	38.8	0.0	0.0	41.8	2.4	1.8	2.4	0.6	7.1	
Exiting Leg Total					75					10					76					9	170

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					Massachusetts Avenue (Route 2A)					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	1	10	0	0	11	1	0	2	2	5	1	11	0	0	12	0	1	0	0	1	29
4:15 PM	1	11	0	0	12	0	0	0	0	0	1	9	0	0	10	1	0	1	0	2	24
4:30 PM	1	10	0	0	11	0	0	2	0	2	0	8	0	0	8	0	0	2	0	2	23
4:45 PM	1	10	0	0	11	0	0	1	0	1	2	14	0	0	16	1	0	1	0	2	30
Total Volume	4	41	0	0	45	1	0	5	2	8	4	42	0	0	46	2	1	4	0	7	106
% Approach Total	8.9	91.1	0.0	0.0		12.5	0.0	62.5	25.0		8.7	91.3	0.0	0.0		28.6	14.3	57.1	0.0		
PHF	1.000	0.932	0.000	0.000	0.938	0.250	0.000	0.625	0.250	0.400	0.500	0.750	0.000	0.000	0.719	0.500	0.250	0.500	0.000	0.875	0.883
Entering Leg	4	41	0	0	45	1	0	5	2	8	4	42	0	0	46	2	1	4	0	7	106
Exiting Leg					47					7					48					4	106
Total					92					15					94					11	212

PDI File #: **175517 KK**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	0	0	0	4	0	1	0	0	0	0	1	7
4:15 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	2	1	0	0	0	3	10
4:30 PM	1	0	0	0	0	0	1	2	0	0	0	0	0	2	2	3	1	0	0	0	6	0	0	1	0	0	0	1	10
4:45 PM	0	1	0	0	0	0	1	1	0	0	0	0	2	3	0	4	0	0	0	0	4	1	1	0	0	0	0	2	10
Total	1	4	0	0	0	0	5	3	0	0	0	2	2	7	2	15	1	0	0	0	18	1	4	2	0	0	0	7	37
5:00 PM	2	3	0	0	1	2	8	0	1	1	0	2	0	4	0	5	0	0	1	0	6	0	1	1	0	0	0	2	20
5:15 PM	2	1	0	0	0	0	3	0	2	1	0	0	2	5	0	5	0	0	0	0	5	1	0	2	0	0	0	3	16
5:30 PM	2	0	0	0	0	1	3	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	2	0	0	0	3	14
5:45 PM	0	2	0	0	0	0	2	0	1	0	0	0	0	1	0	2	0	0	0	0	2	1	1	2	0	0	0	4	9
Total	6	6	0	0	1	3	16	0	4	2	0	2	2	10	0	20	0	0	1	0	21	2	3	7	0	0	0	12	59
Grand Total	7	10	0	0	1	3	21	3	4	2	0	4	4	17	2	35	1	0	1	0	39	3	7	9	0	0	0	19	96
Approach %	33.3	47.6	0.0	0.0	4.8	14.3		17.6	23.5	11.8	0.0	23.5	23.5		5.1	89.7	2.6	0.0	2.6	0.0		15.8	36.8	47.4	0.0	0.0	0.0		
Total %	7.3	10.4	0.0	0.0	1.0	3.1	21.9	3.1	4.2	2.1	0.0	4.2	4.2	17.7	2.1	36.5	1.0	0.0	1.0	0.0	40.6	3.1	7.3	9.4	0.0	0.0	0.0	19.8	
Exiting Leg Total							51							17							16							12	96

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	1	0	0	0	0	1	1	0	0	0	0	2	3	0	4	0	0	0	0	4	1	1	0	0	0	0	2	10
5:00 PM	2	3	0	0	1	2	8	0	1	1	0	2	0	4	0	5	0	0	1	0	6	0	1	1	0	0	0	2	20
5:15 PM	2	1	0	0	0	0	3	0	2	1	0	0	2	5	0	5	0	0	0	0	5	1	0	2	0	0	0	3	16
5:30 PM	2	0	0	0	0	1	3	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	2	0	0	0	3	14
Total Volume	6	5	0	0	1	3	15	1	3	2	0	2	4	12	0	22	0	0	1	0	23	2	3	5	0	0	0	10	60
% Approach Total	40.0	33.3	0.0	0.0	6.7	20.0		8.3	25.0	16.7	0.0	16.7	33.3		0.0	95.7	0.0	0.0	4.3	0.0		20.0	30.0	50.0	0.0	0.0	0.0		
PHF	0.750	0.417	0.000	0.000	0.250	0.375	0.469	0.250	0.375	0.500	0.000	0.250	0.500	0.600	0.000	0.688	0.000	0.000	0.250	0.000	0.719	0.500	0.750	0.625	0.000	0.000	0.000	0.833	0.750
Entering Leg	6	5	0	0	1	3	15	1	3	2	0	2	4	12	0	22	0	0	1	0	23	2	3	5	0	0	0	10	60
Exiting Leg							32							9							10							9	60
Total							47							21							33							19	120

PDI File #: **175517 KK**
Location: **N: Massachusetts Avenue (Route 2A) S: Massachusetts Avenue (Route 2A)**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	23	25	48	0	0	0	0	37	33	70	0	0	0	0	28	28	56	0	0	0	0	50	85	135	309
4:15 PM	0	0	0	0	18	27	45	0	0	0	0	53	45	98	0	0	0	0	25	18	43	0	0	0	0	65	86	151	337
4:30 PM	0	0	0	0	23	17	40	0	0	0	0	40	40	80	0	0	0	0	37	45	82	0	0	0	0	44	77	121	323
4:45 PM	0	0	0	0	26	23	49	0	0	0	0	33	45	78	0	0	0	0	19	27	46	0	0	0	0	64	107	171	344
Total	0	0	0	0	90	92	182	0	0	0	0	163	163	326	0	0	0	0	109	118	227	0	0	0	0	223	355	578	1313
5:00 PM	0	0	0	0	56	37	93	0	0	0	0	70	41	111	0	0	0	0	27	42	69	0	0	0	0	66	113	179	452
5:15 PM	0	0	0	0	28	25	53	0	0	0	0	58	50	108	0	0	0	0	21	46	67	0	0	0	0	62	90	152	380
5:30 PM	0	0	0	0	30	25	55	0	0	0	0	40	66	106	0	0	0	0	45	27	72	0	0	0	0	71	91	162	395
5:45 PM	0	0	0	0	27	24	51	0	0	0	0	40	48	88	0	0	0	0	38	45	83	0	0	0	0	79	104	183	405
Total	0	0	0	0	141	111	252	0	0	0	0	208	205	413	0	0	0	0	131	160	291	0	0	0	0	278	398	676	1632
Grand Total	0	0	0	0	231	203	434	0	0	0	0	371	368	739	0	0	0	0	240	278	518	0	0	0	0	501	753	1254	2945
Approach %	0.0	0.0	0.0	0.0	53.2	46.8		0.0	0.0	0.0	0.0	50.2	49.8		0.0	0.0	0.0	0.0	46.3	53.7		0.0	0.0	0.0	0.0	40.0	60.0		
Total %	0.0	0.0	0.0	0.0	7.8	6.9	14.7	0.0	0.0	0.0	0.0	12.6	12.5	25.1	0.0	0.0	0.0	0.0	8.1	9.4	17.6	0.0	0.0	0.0	0.0	17.0	25.6	42.6	
Exiting Leg Total							434							739							518							1254	2945

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							Massachusetts Avenue (Route 2A)							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	56	37	93	0	0	0	0	70	41	111	0	0	0	0	27	42	69	0	0	0	0	66	113	179	452
5:15 PM	0	0	0	0	28	25	53	0	0	0	0	58	50	108	0	0	0	0	21	46	67	0	0	0	0	62	90	152	380
5:30 PM	0	0	0	0	30	25	55	0	0	0	0	40	66	106	0	0	0	0	45	27	72	0	0	0	0	71	91	162	395
5:45 PM	0	0	0	0	27	24	51	0	0	0	0	40	48	88	0	0	0	0	38	45	83	0	0	0	0	79	104	183	405
Total Volume	0	0	0	0	141	111	252	0	0	0	0	208	205	413	0	0	0	0	131	160	291	0	0	0	0	278	398	676	1632
% Approach Total	0.0	0.0	0.0	0.0	56.0	44.0		0.0	0.0	0.0	0.0	50.4	49.6		0.0	0.0	0.0	0.0	45.0	55.0		0.0	0.0	0.0	0.0	41.1	58.9		
PHF	0.000	0.000	0.000	0.000	0.629	0.750	0.677	0.000	0.000	0.000	0.000	0.743	0.777	0.930	0.000	0.000	0.000	0.000	0.728	0.870	0.877	0.000	0.000	0.000	0.000	0.880	0.881	0.923	0.903
Entering Leg	0	0	0	0	141	111	252	0	0	0	0	208	205	413	0	0	0	0	131	160	291	0	0	0	0	278	398	676	1632
Exiting Leg							252							413							291							676	1632
Total							504							826							582							1352	3264

PDI File #: **175517 L**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	2	114	0	0	116	12	0	0	0	12	3	80	0	0	83	213
7:15 AM	1	0	0	0	1	0	143	0	0	143	12	0	0	0	12	4	88	0	0	92	248
7:30 AM	4	0	0	0	4	0	133	0	0	133	11	0	0	0	11	14	103	0	0	117	265
7:45 AM	0	0	0	0	0	0	144	0	0	144	6	0	0	0	6	9	126	0	0	135	285
Total	7	0	0	0	7	2	534	0	0	536	41	0	0	0	41	30	397	0	0	427	1011
8:00 AM	0	0	0	0	0	2	159	0	0	161	12	0	0	0	12	11	121	0	0	132	305
8:15 AM	0	0	0	0	0	0	159	0	0	159	7	0	0	0	7	11	140	0	0	151	317
8:30 AM	1	0	0	0	1	1	149	0	0	150	15	0	0	0	15	5	128	0	0	133	299
8:45 AM	0	0	0	0	0	0	151	0	0	151	18	0	0	0	18	17	134	0	0	151	320
Total	1	0	0	0	1	3	618	0	0	621	52	0	0	0	52	44	523	0	0	567	1241
Grand Total	8	0	0	0	8	5	1152	0	0	1157	93	0	0	0	93	74	920	0	0	994	2252
Approach %	100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		100.0	0.0	0.0	0.0		7.4	92.6	0.0	0.0		
Total %	0.4	0.0	0.0	0.0	0.4	0.2	51.2	0.0	0.0	51.4	4.1	0.0	0.0	0.0	4.1	3.3	40.9	0.0	0.0	44.1	
Exiting Leg Total					5					1013					74					1160	2252
Cars	4	0	0	0	4	4	1063	0	0	1067	90	0	0	0	90	74	847	0	0	921	2082
% Cars	50.0	0.0	0.0	0.0	50.0	80.0	92.3	0.0	0.0	92.2	96.8	0.0	0.0	0.0	96.8	100.0	92.1	0.0	0.0	92.7	92.5
Exiting Leg Total					4					937					74					1067	2082
Heavy Vehicles	4	0	0	0	4	1	89	0	0	90	3	0	0	0	3	0	73	0	0	73	170
% Heavy Vehicles	50.0	0.0	0.0	0.0	50.0	20.0	7.7	0.0	0.0	7.8	3.2	0.0	0.0	0.0	3.2	0.0	7.9	0.0	0.0	7.3	7.5
Exiting Leg Total					1					76					0					93	170

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	2	159	0	0	161	12	0	0	0	12	11	121	0	0	132	305
8:15 AM	0	0	0	0	0	0	159	0	0	159	7	0	0	0	7	11	140	0	0	151	317
8:30 AM	1	0	0	0	1	1	149	0	0	150	15	0	0	0	15	5	128	0	0	133	299
8:45 AM	0	0	0	0	0	0	151	0	0	151	18	0	0	0	18	17	134	0	0	151	320
Total Volume	1	0	0	0	1	3	618	0	0	621	52	0	0	0	52	44	523	0	0	567	1241
% Approach Total	100.0	0.0	0.0	0.0		0.5	99.5	0.0	0.0		100.0	0.0	0.0	0.0		7.8	92.2	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.375	0.972	0.000	0.000	0.964	0.722	0.000	0.000	0.000	0.722	0.647	0.934	0.000	0.000	0.939	0.970
Cars	0	0	0	0	0	2	583	0	0	585	51	0	0	0	51	44	482	0	0	526	1162
Cars %	0.0	0.0	0.0	0.0	0.0	66.7	94.3	0.0	0.0	94.2	98.1	0.0	0.0	0.0	98.1	100.0	92.2	0.0	0.0	92.8	93.6
Heavy Vehicles	1	0	0	0	1	1	35	0	0	36	1	0	0	0	1	0	41	0	0	41	79
Heavy Vehicles %	100.0	0.0	0.0	0.0	100.0	33.3	5.7	0.0	0.0	5.8	1.9	0.0	0.0	0.0	1.9	0.0	7.8	0.0	0.0	7.2	6.4
Cars Enter Leg	0	0	0	0	0	2	583	0	0	585	51	0	0	0	51	44	482	0	0	526	1162
Heavy Enter Leg	1	0	0	0	1	1	35	0	0	36	1	0	0	0	1	0	41	0	0	41	79
Total Entering Leg	1	0	0	0	1	3	618	0	0	621	52	0	0	0	52	44	523	0	0	567	1241
Cars Exiting Leg					2					533					44					583	1162
Heavy Exit Leg					1					42					0					36	79
Total Exiting Leg					3					575					44					619	1241

PDI File #: **175517 L**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	2	103	0	0	105	10	0	0	0	10	3	75	0	0	78	193
7:15 AM	0	0	0	0	0	0	131	0	0	131	12	0	0	0	12	4	81	0	0	85	228
7:30 AM	4	0	0	0	4	0	118	0	0	118	11	0	0	0	11	14	92	0	0	106	239
7:45 AM	0	0	0	0	0	0	128	0	0	128	6	0	0	0	6	9	117	0	0	126	260
Total	4	0	0	0	4	2	480	0	0	482	39	0	0	0	39	30	365	0	0	395	920
8:00 AM	0	0	0	0	0	2	146	0	0	148	12	0	0	0	12	11	113	0	0	124	284
8:15 AM	0	0	0	0	0	0	150	0	0	150	7	0	0	0	7	11	128	0	0	139	296
8:30 AM	0	0	0	0	0	0	145	0	0	145	15	0	0	0	15	5	116	0	0	121	281
8:45 AM	0	0	0	0	0	0	142	0	0	142	17	0	0	0	17	17	125	0	0	142	301
Total	0	0	0	0	0	2	583	0	0	585	51	0	0	0	51	44	482	0	0	526	1162
Grand Total	4	0	0	0	4	4	1063	0	0	1067	90	0	0	0	90	74	847	0	0	921	2082
Approach %	100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		100.0	0.0	0.0	0.0		8.0	92.0	0.0	0.0		
Total %	0.2	0.0	0.0	0.0	0.2	0.2	51.1	0.0	0.0	51.2	4.3	0.0	0.0	0.0	4.3	3.6	40.7	0.0	0.0	44.2	
Exiting Leg Total					4					937					74					1067	2082

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	2	146	0	0	148	12	0	0	0	12	11	113	0	0	124	284
8:15 AM	0	0	0	0	0	0	150	0	0	150	7	0	0	0	7	11	128	0	0	139	296
8:30 AM	0	0	0	0	0	0	145	0	0	145	15	0	0	0	15	5	116	0	0	121	281
8:45 AM	0	0	0	0	0	0	142	0	0	142	17	0	0	0	17	17	125	0	0	142	301
Total Volume	0	0	0	0	0	2	583	0	0	585	51	0	0	0	51	44	482	0	0	526	1162
% Approach Total	0.0	0.0	0.0	0.0		0.3	99.7	0.0	0.0		100.0	0.0	0.0	0.0		8.4	91.6	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.972	0.000	0.000	0.975	0.750	0.000	0.000	0.000	0.750	0.647	0.941	0.000	0.000	0.926	0.965
Entering Leg	0	0	0	0	0	2	583	0	0	585	51	0	0	0	51	44	482	0	0	526	1162
Exiting Leg					2					533					44					583	1162
Total					2					1118					95					1109	2324

PDI File #: **175517 L**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	2	0	0	0	2	0	11	0	0	11	2	0	0	0	2	0	5	0	0	5	20
7:15 AM	1	0	0	0	1	0	12	0	0	12	0	0	0	0	0	0	7	0	0	7	20
7:30 AM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	11	0	0	11	26
7:45 AM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	9	0	0	9	25
Total	3	0	0	0	3	0	54	0	0	54	2	0	0	0	2	0	32	0	0	32	91
8:00 AM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	8	0	0	8	21
8:15 AM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	12	0	0	12	21
8:30 AM	1	0	0	0	1	1	4	0	0	5	0	0	0	0	0	0	12	0	0	12	18
8:45 AM	0	0	0	0	0	0	9	0	0	9	1	0	0	0	1	0	9	0	0	9	19
Total	1	0	0	0	1	1	35	0	0	36	1	0	0	0	1	0	41	0	0	41	79
Grand Total	4	0	0	0	4	1	89	0	0	90	3	0	0	0	3	0	73	0	0	73	170
Approach %	100.0	0.0	0.0	0.0		1.1	98.9	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	2.4	0.0	0.0	0.0	2.4	0.6	52.4	0.0	0.0	52.9	1.8	0.0	0.0	0.0	1.8	0.0	42.9	0.0	0.0	42.9	
Exiting Leg Total					1					76					0					93	170

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	11	0	0	11	26
7:45 AM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	9	0	0	9	25
8:00 AM	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	8	0	0	8	21
8:15 AM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	12	0	0	12	21
Total Volume	0	0	0	0	0	0	53	0	0	53	0	0	0	0	0	0	40	0	0	40	93
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.828	0.000	0.000	0.828	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.000	0.833	0.894
Entering Leg	0	0	0	0	0	0	53	0	0	53	0	0	0	0	0	0	40	0	0	40	93
Exiting Leg					0					40					0					53	93
Total					0					93					0					93	186

PDI File #: **175517 L**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:30 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	0	0	0	0
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
Total	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	5
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4	0	0	0	0	5	7
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	10	0	0	0	0	11	13
Grand Total	0	0	0	0	2	1	3	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	12	0	0	0	0	13	18
Approach %	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		7.7	92.3	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	11.1	5.6	16.7	0.0	0.0	0.0	0.0	0.0	11.1	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	66.7	0.0	0.0	0.0	0.0	72.2	
Exiting Leg Total							3							14							1							0	18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	4	0	0	0	0	5	7
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
Total Volume	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	10	0	0	0	0	11	14
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.625	0.000	0.000	0.000	0.000	0.550	0.500
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	10	0	0	0	0	11	14
Exiting Leg							2							11							1							0	14
Total							4							12							1							11	28

PDI File #: **175517 L**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **7:00 AM**
End Time: **9:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	7	4	11	0	0	0	0	1	3	4	0	0	0	0	1	3	4	0	0	0	0	0	0	0	19
7:15 AM	0	0	0	0	10	4	14	0	0	0	0	0	6	6	0	0	0	0	4	7	11	0	0	0	0	0	0	0	31
7:30 AM	0	0	0	0	16	0	16	0	0	0	0	2	5	7	0	0	0	0	4	5	9	0	0	0	0	0	0	0	32
7:45 AM	0	0	0	0	12	8	20	0	0	0	0	0	3	3	0	0	0	0	5	9	14	0	0	0	0	0	0	0	37
Total	0	0	0	0	45	16	61	0	0	0	0	3	17	20	0	0	0	0	14	24	38	0	0	0	0	0	0	0	119
8:00 AM	0	0	0	0	26	11	37	0	0	0	0	3	19	22	0	0	0	0	4	5	9	0	0	0	0	0	0	0	68
8:15 AM	0	0	0	0	18	9	27	0	0	0	0	5	10	15	0	0	0	0	11	9	20	0	0	0	0	0	0	0	62
8:30 AM	0	0	0	0	23	5	28	0	0	0	0	3	9	12	0	0	0	0	8	13	21	0	0	0	0	0	0	0	61
8:45 AM	0	0	0	0	27	7	34	0	0	0	0	4	16	20	0	0	0	0	10	18	28	0	0	0	0	0	0	0	82
Total	0	0	0	0	94	32	126	0	0	0	0	15	54	69	0	0	0	0	33	45	78	0	0	0	0	0	0	0	273
Grand Total	0	0	0	0	139	48	187	0	0	0	0	18	71	89	0	0	0	0	47	69	116	0	0	0	0	0	0	0	392
Approach %	0.0	0.0	0.0	0.0	74.3	25.7		0.0	0.0	0.0	0.0	20.2	79.8		0.0	0.0	0.0	0.0	40.5	59.5		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	35.5	12.2	47.7	0.0	0.0	0.0	0.0	4.6	18.1	22.7	0.0	0.0	0.0	0.0	12.0	17.6	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							187							89							116							0	392

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	26	11	37	0	0	0	0	3	19	22	0	0	0	0	4	5	9	0	0	0	0	0	0	0	68
8:15 AM	0	0	0	0	18	9	27	0	0	0	0	5	10	15	0	0	0	0	11	9	20	0	0	0	0	0	0	0	62
8:30 AM	0	0	0	0	23	5	28	0	0	0	0	3	9	12	0	0	0	0	8	13	21	0	0	0	0	0	0	0	61
8:45 AM	0	0	0	0	27	7	34	0	0	0	0	4	16	20	0	0	0	0	10	18	28	0	0	0	0	0	0	0	82
Total Volume	0	0	0	0	94	32	126	0	0	0	0	15	54	69	0	0	0	0	33	45	78	0	0	0	0	0	0	0	273
% Approach Total	0.0	0.0	0.0	0.0	74.6	25.4		0.0	0.0	0.0	0.0	21.7	78.3		0.0	0.0	0.0	0.0	42.3	57.7		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.870	0.727	0.851	0.000	0.000	0.000	0.000	0.750	0.711	0.784	0.000	0.000	0.000	0.000	0.750	0.625	0.696	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.832
Entering Leg	0	0	0	0	94	32	126	0	0	0	0	15	54	69	0	0	0	0	33	45	78	0	0	0	0	0	0	0	273
Exiting Leg							126							69							78							0	273
Total							252							138							156							0	546

PDI File #: **175517 LL**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	125	0	0	125	8	0	0	0	8	19	117	0	0	136	269
4:15 PM	0	0	0	0	0	0	139	0	0	139	8	0	0	0	8	15	142	0	0	157	304
4:30 PM	0	0	0	0	0	0	144	0	0	144	15	0	0	0	15	5	128	0	0	133	292
4:45 PM	1	0	0	0	1	0	158	0	0	158	13	0	0	0	13	13	131	0	0	144	316
Total	1	0	0	0	1	0	566	0	0	566	44	0	0	0	44	52	518	0	0	570	1181
5:00 PM	0	0	0	0	0	0	142	0	0	142	14	0	0	0	14	17	142	0	0	159	315
5:15 PM	0	0	0	0	0	1	185	0	0	186	21	0	0	0	21	13	113	0	0	126	333
5:30 PM	0	0	0	0	0	0	195	0	0	195	11	0	0	0	11	2	132	0	0	134	340
5:45 PM	0	0	0	0	0	0	158	0	0	158	18	0	0	0	18	13	117	0	0	130	306
Total	0	0	0	0	0	1	680	0	0	681	64	0	0	0	64	45	504	0	0	549	1294
Grand Total	1	0	0	0	1	1	1246	0	0	1247	108	0	0	0	108	97	1022	0	0	1119	2475
Approach %	100.0	0.0	0.0	0.0		0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		8.7	91.3	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.3	0.0	0.0	50.4	4.4	0.0	0.0	0.0	4.4	3.9	41.3	0.0	0.0	45.2	
Exiting Leg Total					1					1130					97					1247	2475
Cars	1	0	0	0	1	1	1204	0	0	1205	107	0	0	0	107	97	979	0	0	1076	2389
% Cars	100.0	0.0	0.0	0.0	100.0	100.0	96.6	0.0	0.0	96.6	99.1	0.0	0.0	0.0	99.1	100.0	95.8	0.0	0.0	96.2	96.5
Exiting Leg Total					1					1086					97					1205	2389
Heavy Vehicles	0	0	0	0	0	0	42	0	0	42	1	0	0	0	1	0	43	0	0	43	86
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.4	0.9	0.0	0.0	0.0	0.9	0.0	4.2	0.0	0.0	3.8	3.5
Exiting Leg Total					0					44					0					42	86

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	1	0	0	0	1	0	158	0	0	158	13	0	0	0	13	13	131	0	0	144	316
5:00 PM	0	0	0	0	0	0	142	0	0	142	14	0	0	0	14	17	142	0	0	159	315
5:15 PM	0	0	0	0	0	1	185	0	0	186	21	0	0	0	21	13	113	0	0	126	333
5:30 PM	0	0	0	0	0	0	195	0	0	195	11	0	0	0	11	2	132	0	0	134	340
Total Volume	1	0	0	0	1	1	680	0	0	681	59	0	0	0	59	45	518	0	0	563	1304
% Approach Total	100.0	0.0	0.0	0.0		0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		8.0	92.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.250	0.872	0.000	0.000	0.873	0.702	0.000	0.000	0.000	0.702	0.662	0.912	0.000	0.000	0.885	0.959
Cars	1	0	0	0	1	1	658	0	0	659	59	0	0	0	59	45	496	0	0	541	1260
Cars %	100.0	0.0	0.0	0.0	100.0	100.0	96.8	0.0	0.0	96.8	100.0	0.0	0.0	0.0	100.0	100.0	95.8	0.0	0.0	96.1	96.6
Heavy Vehicles	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	22	0	0	22	44
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	3.9	3.4
Cars Enter Leg	1	0	0	0	1	1	658	0	0	659	59	0	0	0	59	45	496	0	0	541	1260
Heavy Enter Leg	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	22	0	0	22	44
Total Entering Leg	1	0	0	0	1	1	680	0	0	681	59	0	0	0	59	45	518	0	0	563	1304
Cars Exiting Leg					1					555					45					659	1260
Heavy Exit Leg					0					22					0					22	44
Total Exiting Leg					1					577					45					681	1304

PDI File #: **175517 LL**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	120	0	0	120	8	0	0	0	8	19	107	0	0	126	254
4:15 PM	0	0	0	0	0	0	132	0	0	132	8	0	0	0	8	15	139	0	0	154	294
4:30 PM	0	0	0	0	0	0	139	0	0	139	14	0	0	0	14	5	125	0	0	130	283
4:45 PM	1	0	0	0	1	0	153	0	0	153	13	0	0	0	13	13	126	0	0	139	306
Total	1	0	0	0	1	0	544	0	0	544	43	0	0	0	43	52	497	0	0	549	1137
5:00 PM	0	0	0	0	0	0	137	0	0	137	14	0	0	0	14	17	137	0	0	154	305
5:15 PM	0	0	0	0	0	1	181	0	0	182	21	0	0	0	21	13	104	0	0	117	320
5:30 PM	0	0	0	0	0	0	187	0	0	187	11	0	0	0	11	2	129	0	0	131	329
5:45 PM	0	0	0	0	0	0	155	0	0	155	18	0	0	0	18	13	112	0	0	125	298
Total	0	0	0	0	0	1	660	0	0	661	64	0	0	0	64	45	482	0	0	527	1252
Grand Total	1	0	0	0	1	1	1204	0	0	1205	107	0	0	0	107	97	979	0	0	1076	2389
Approach %	100.0	0.0	0.0	0.0		0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		9.0	91.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	50.4	0.0	0.0	50.4	4.5	0.0	0.0	0.0	4.5	4.1	41.0	0.0	0.0	45.0	
Exiting Leg Total					1					1086					97					1205	2389

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	1	0	0	0	1	0	153	0	0	153	13	0	0	0	13	13	126	0	0	139	306
5:00 PM	0	0	0	0	0	0	137	0	0	137	14	0	0	0	14	17	137	0	0	154	305
5:15 PM	0	0	0	0	0	1	181	0	0	182	21	0	0	0	21	13	104	0	0	117	320
5:30 PM	0	0	0	0	0	0	187	0	0	187	11	0	0	0	11	2	129	0	0	131	329
Total Volume	1	0	0	0	1	1	658	0	0	659	59	0	0	0	59	45	496	0	0	541	1260
% Approach Total	100.0	0.0	0.0	0.0		0.2	99.8	0.0	0.0		100.0	0.0	0.0	0.0		8.3	91.7	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.250	0.250	0.880	0.000	0.000	0.881	0.702	0.000	0.000	0.000	0.702	0.662	0.905	0.000	0.000	0.878	0.957
Entering Leg	1	0	0	0	1	1	658	0	0	659	59	0	0	0	59	45	496	0	0	541	1260
Exiting Leg					1					555					45					659	1260
Total					2					1214					104					1200	2520

PDI File #: **175517 LL**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles

	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	10	0	0	10	15
4:15 PM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	10
4:30 PM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	0	3	0	0	3	9
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Total	0	0	0	0	0	0	22	0	0	22	1	0	0	0	1	0	21	0	0	21	44
5:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
5:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	9	0	0	9	13
5:30 PM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	3	0	0	3	11
5:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	8
Total	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	0	22	0	0	22	42
Grand Total	0	0	0	0	0	0	42	0	0	42	1	0	0	0	1	0	43	0	0	43	86
Approach %	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	48.8	0.0	0.0	48.8	1.2	0.0	0.0	0.0	1.2	0.0	50.0	0.0	0.0	50.0	
Exiting Leg Total					0					44					0					42	86

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Driveway					Huntington Avenue (Route 9)					Cumberland Street					Huntington Avenue (Route 9)					
	North					East					South					West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	10	0	0	10	15
4:15 PM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	10
4:30 PM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	0	3	0	0	3	9
4:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
Total Volume	0	0	0	0	0	0	22	0	0	22	1	0	0	0	1	0	21	0	0	21	44
% Approach Total	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.786	0.000	0.000	0.786	0.250	0.000	0.000	0.000	0.250	0.000	0.525	0.000	0.000	0.525	0.733
Entering Leg	0	0	0	0	0	0	22	0	0	22	1	0	0	0	1	0	21	0	0	21	44
Exiting Leg					0					22					0					22	44
Total					0					44					1					43	88

PDI File #: **175517 LL**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	5	0	0	0	0	5	6
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	10	0	0	0	0	10	12
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2	0	0	0	0	0	2	0	3	0	0	0	0	3	7
5:15 PM	0	0	0	0	0	1	1	0	2	0	0	1	0	3	0	0	0	0	2	0	2	0	2	0	0	0	0	2	8
5:30 PM	0	0	0	0	0	0	0	0	4	0	0	0	1	5	0	0	1	0	0	0	1	0	1	0	0	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Total	0	0	0	0	0	1	1	0	9	0	0	2	1	12	2	0	1	0	2	0	5	0	7	0	0	0	0	7	25
Grand Total	0	0	0	0	0	1	1	0	9	0	0	2	2	13	2	0	1	0	3	0	6	0	17	0	0	0	0	17	37
Approach %	0.0	0.0	0.0	0.0	0.0	100.0		0.0	69.2	0.0	0.0	15.4	15.4		33.3	0.0	16.7	0.0	50.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.0	24.3	0.0	0.0	5.4	5.4	35.1	5.4	0.0	2.7	0.0	8.1	0.0	16.2	0.0	45.9	0.0	0.0	0.0	0.0	45.9	
Exiting Leg Total							1							23							3							10	37

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2	0	0	0	0	0	2	0	3	0	0	0	0	3	7
5:15 PM	0	0	0	0	0	1	1	0	2	0	0	1	0	3	0	0	0	0	2	0	2	0	2	0	0	0	0	2	8
5:30 PM	0	0	0	0	0	0	0	0	4	0	0	0	1	5	0	0	1	0	0	0	1	0	1	0	0	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
Total Volume	0	0	0	0	0	1	1	0	9	0	0	2	1	12	2	0	1	0	2	0	5	0	7	0	0	0	0	7	25
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	75.0	0.0	0.0	16.7	8.3		40.0	0.0	20.0	0.0	40.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.563	0.000	0.000	0.500	0.250	0.600	0.250	0.000	0.250	0.000	0.250	0.000	0.625	0.000	0.583	0.000	0.000	0.000	0.000	0.583	0.781
Entering Leg	0	0	0	0	0	1	1	0	9	0	0	2	1	12	2	0	1	0	2	0	5	0	7	0	0	0	0	7	25
Exiting Leg							1							12							2							10	25
Total							2							24							7							17	50

PDI File #: **175517 LL**
Location: **N: Driveway S: Cumberland Street**
Location: **E: Huntington Avenue (Route 9) W: Huntington Avenue (Route 9)**
City, State: **Boston, MA**
Client: **VHB/ C. Dube**
Site Code: **13148.00**
Count Date: **Wednesday, March 8, 2017**
Start Time: **4:00 PM**
End Time: **6:00 PM**
Class:

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Email: datarequests@pdillc.com

Pedestrians

	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:00 PM	0	0	0	0	31	31	62	0	0	0	0	9	6	15	0	0	0	0	9	22	31	0	0	0	0	5	0	5	113
4:15 PM	0	0	0	0	15	28	43	0	0	0	0	13	6	19	0	0	0	0	23	17	40	0	0	0	0	0	0	0	102
4:30 PM	0	0	0	0	21	28	49	0	0	0	0	10	10	20	0	0	0	0	15	22	37	0	0	0	0	0	0	0	106
4:45 PM	0	0	0	0	30	19	49	0	0	0	0	8	11	19	0	0	0	0	10	25	35	0	0	0	0	0	0	0	103
Total	0	0	0	0	97	106	203	0	0	0	0	40	33	73	0	0	0	0	57	86	143	0	0	0	0	5	0	5	424
5:00 PM	0	0	0	0	44	75	119	0	0	0	0	17	12	29	0	0	0	0	18	34	52	0	0	0	0	0	0	0	200
5:15 PM	0	0	0	0	43	51	94	0	0	0	0	11	8	19	0	0	0	0	15	31	46	0	0	0	0	0	0	0	159
5:30 PM	0	0	0	0	31	41	72	0	0	0	0	9	5	14	0	0	0	0	26	14	40	0	0	0	0	0	0	0	126
5:45 PM	0	0	0	0	47	37	84	0	0	0	0	11	13	24	0	0	0	0	23	23	46	0	0	0	0	0	0	0	154
Total	0	0	0	0	165	204	369	0	0	0	0	48	38	86	0	0	0	0	82	102	184	0	0	0	0	0	0	0	639
Grand Total	0	0	0	0	262	310	572	0	0	0	0	88	71	159	0	0	0	0	139	188	327	0	0	0	0	5	0	5	1063
Approach %	0.0	0.0	0.0	0.0	45.8	54.2		0.0	0.0	0.0	0.0	55.3	44.7		0.0	0.0	0.0	0.0	42.5	57.5		0.0	0.0	0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	24.6	29.2	53.8	0.0	0.0	0.0	0.0	8.3	6.7	15.0	0.0	0.0	0.0	0.0	13.1	17.7	30.8	0.0	0.0	0.0	0.0	0.5	0.0	0.5	
Exiting Leg Total							572							159							327							5	1063

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Driveway							Huntington Avenue (Route 9)							Cumberland Street							Huntington Avenue (Route 9)							
	North							East							South							West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	44	75	119	0	0	0	0	17	12	29	0	0	0	0	18	34	52	0	0	0	0	0	0	0	200
5:15 PM	0	0	0	0	43	51	94	0	0	0	0	11	8	19	0	0	0	0	15	31	46	0	0	0	0	0	0	0	159
5:30 PM	0	0	0	0	31	41	72	0	0	0	0	9	5	14	0	0	0	0	26	14	40	0	0	0	0	0	0	0	126
5:45 PM	0	0	0	0	47	37	84	0	0	0	0	11	13	24	0	0	0	0	23	23	46	0	0	0	0	0	0	0	154
Total Volume	0	0	0	0	165	204	369	0	0	0	0	48	38	86	0	0	0	0	82	102	184	0	0	0	0	0	0	0	639
% Approach Total	0.0	0.0	0.0	0.0	44.7	55.3		0.0	0.0	0.0	0.0	55.8	44.2		0.0	0.0	0.0	0.0	44.6	55.4		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.878	0.680	0.775	0.000	0.000	0.000	0.000	0.706	0.731	0.741	0.000	0.000	0.000	0.000	0.788	0.750	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.799
Entering Leg	0	0	0	0	165	204	369	0	0	0	0	48	38	86	0	0	0	0	82	102	184	0	0	0	0	0	0	0	639
Exiting Leg							369							86							184							0	639
Total							738							172							368							0	1278

Crash Analysis Worksheets

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

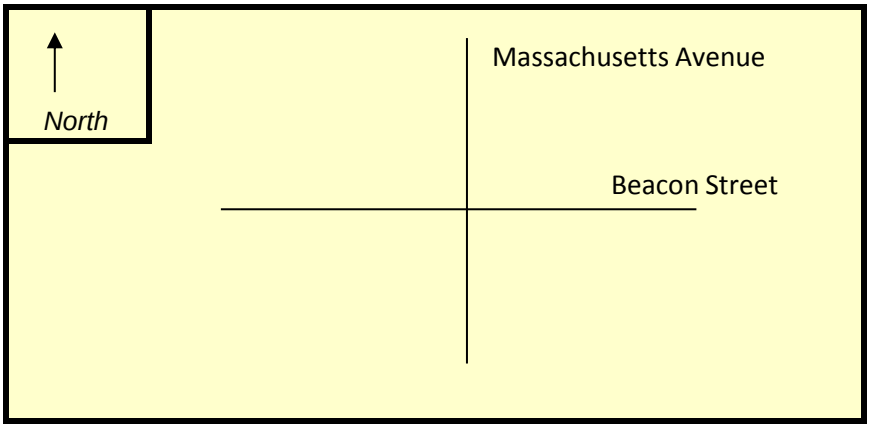
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Beacon Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	940	985	0	495		

" K " FACTOR : 0.09 | APPROACH ADT : 26888.889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 17 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 3.40

CRASH RATE CALCULATION : 0.35 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

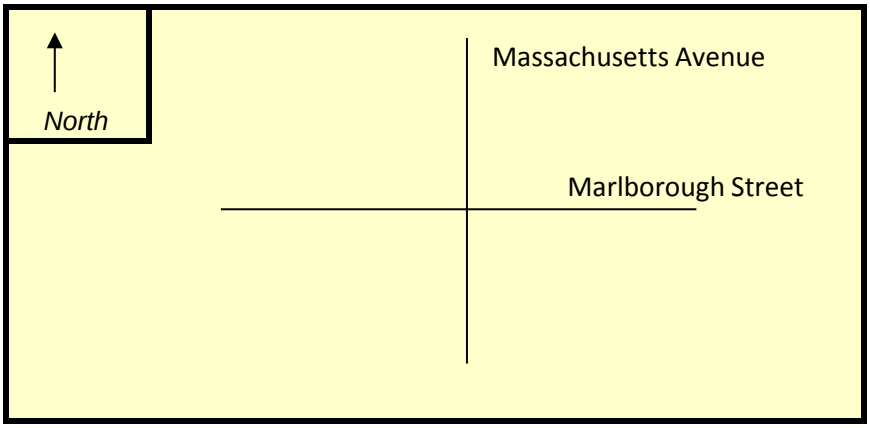
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Marlborough Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	855	745	155	0		

" K " FACTOR : 0.09 | APPROACH ADT : 19500 | **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.80

CRASH RATE CALCULATION : 0.11 | RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

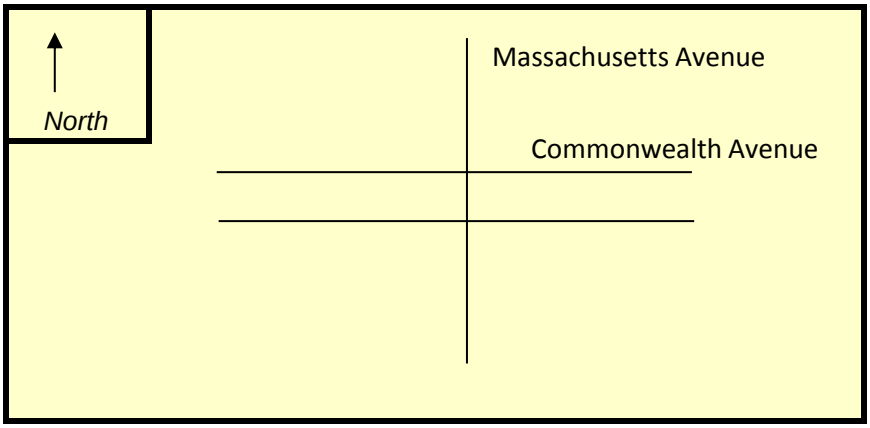
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Commonwealth Avenue

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	725	705	445	215		

" K " FACTOR : 0.09 | APPROACH ADT : 23222.222 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 6 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 1.20

CRASH RATE CALCULATION : 0.14 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

MassDOT USE ONL

Source #

RIN #

RIN #

RIN #

RIN #

RIN #

INTERSECTION
REF #

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

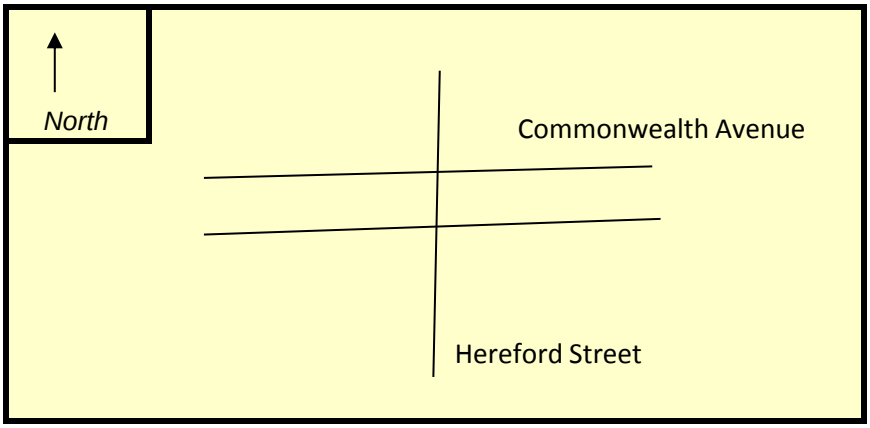
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Hereford Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	215	0	850	610		

" K " FACTOR : 0.09 | APPROACH ADT : 18611.111 | **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.20

CRASH RATE CALCULATION : 0.03 | RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

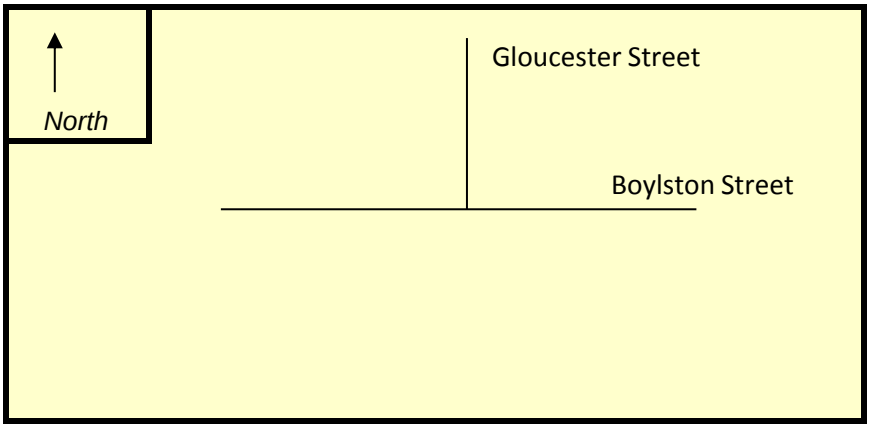
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Boylston Street

MINOR STREET(S) : Gloucester Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	0	365	565	0		

" K " FACTOR : 0.09 | APPROACH ADT : 10333.333 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 0 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.00

CRASH RATE CALCULATION : 0.00 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

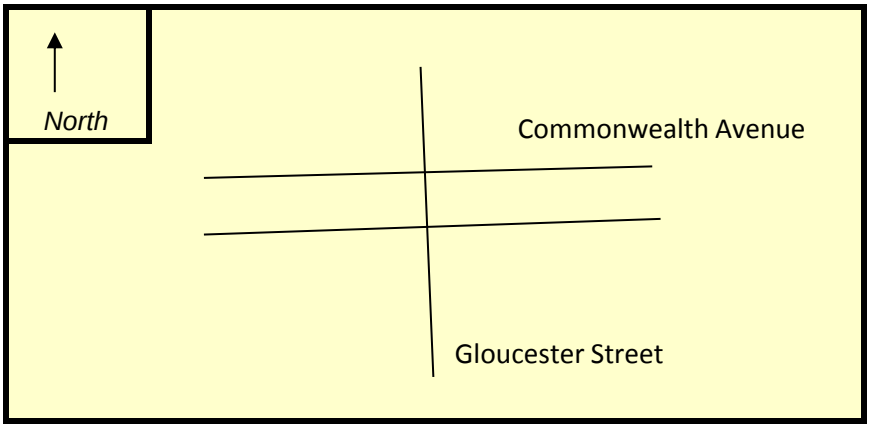
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Commonwealth Avenue

MINOR STREET(S) : Gloucester Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	0	210	890	680		

" K " FACTOR : 0.09 | APPROACH ADT : 19777.778 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 3 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.60

CRASH RATE CALCULATION : 0.08 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

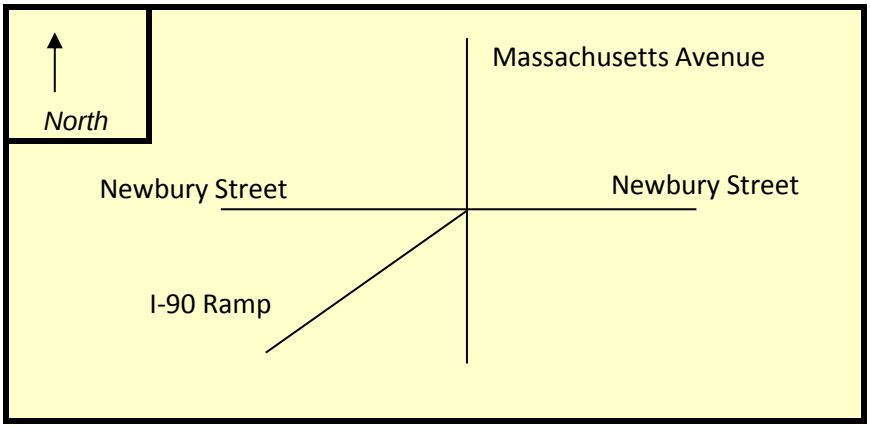
~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Newbury Street

I-90 on-ramp

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	825	845	0	320		

" K " FACTOR : 0.09 | APPROACH ADT : 22111.111 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.80

CRASH RATE CALCULATION : 0.10 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

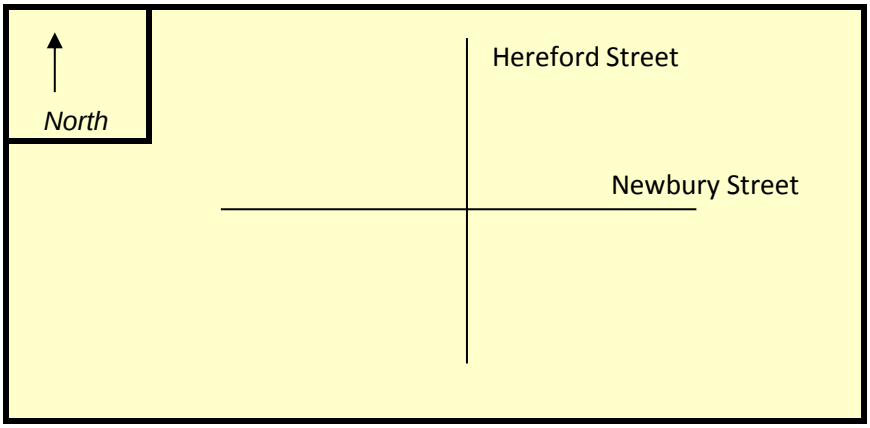
DISTRICT : 6 | UNSIGNALIZED : X | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Newbury Street

MINOR STREET(S) : Hereford Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	280	0	0	295		

" K " FACTOR : 0.09 | APPROACH ADT : 6388.8889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 0 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.00

CRASH RATE CALCULATION : 0.00 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

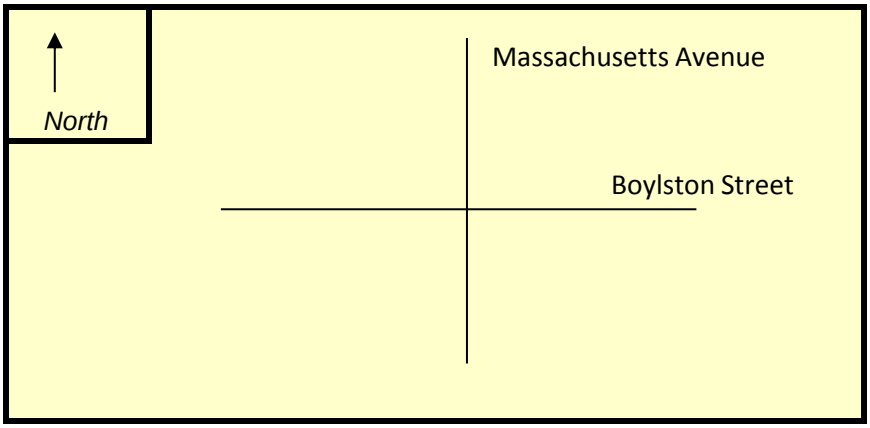
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Boylston Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	650	725	585	350		

" K " FACTOR : 0.09 | APPROACH ADT : 25666.667 | **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 6 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 1.20

CRASH RATE CALCULATION : 0.13 | RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

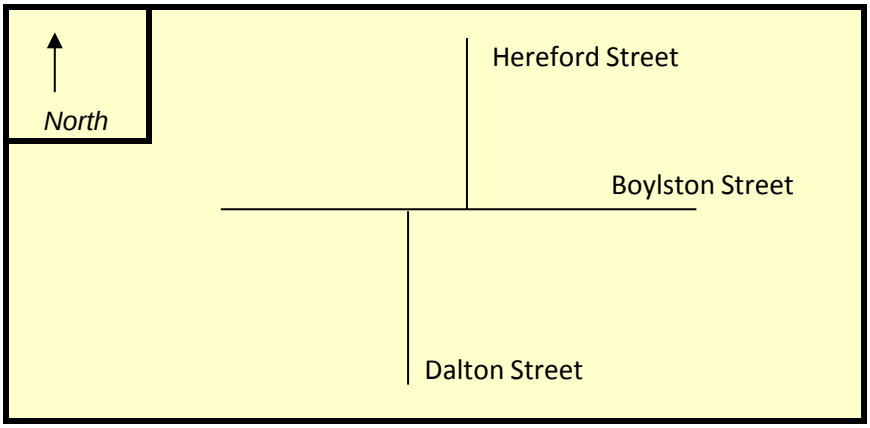
~ INTERSECTION DATA ~

MAJOR STREET : Boylston Street

MINOR STREET(S) : Dalton Street

Hereford Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	670	0	520	0		

" K " FACTOR : 0.09 | APPROACH ADT : 13222.222 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.20

CRASH RATE CALCULATION : 0.04 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : March 2017

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

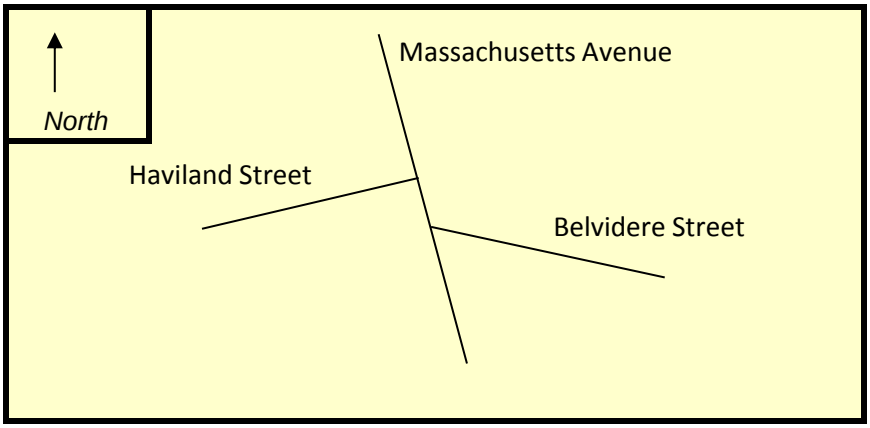
~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Belvidere Street

Haviland Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	600	665	0	145		

" K " FACTOR : 0.09 | APPROACH ADT : 15666.667 | **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 0 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.00

CRASH RATE CALCULATION : 0.00 | RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

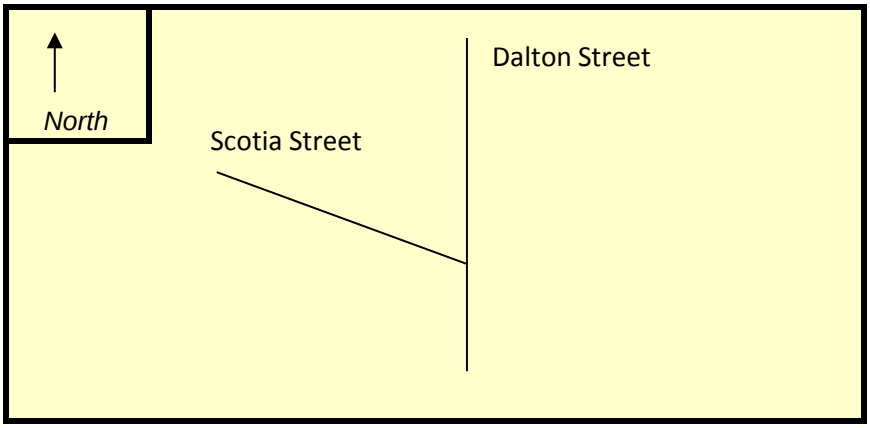
DISTRICT : 6 | UNSIGNALIZED : X | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Dalton Street

MINOR STREET(S) : Scotia Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	465	80	170	0		

" K " FACTOR : 0.09 | APPROACH ADT : 7944.4444 | **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 1 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.20

CRASH RATE CALCULATION : 0.07 | RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

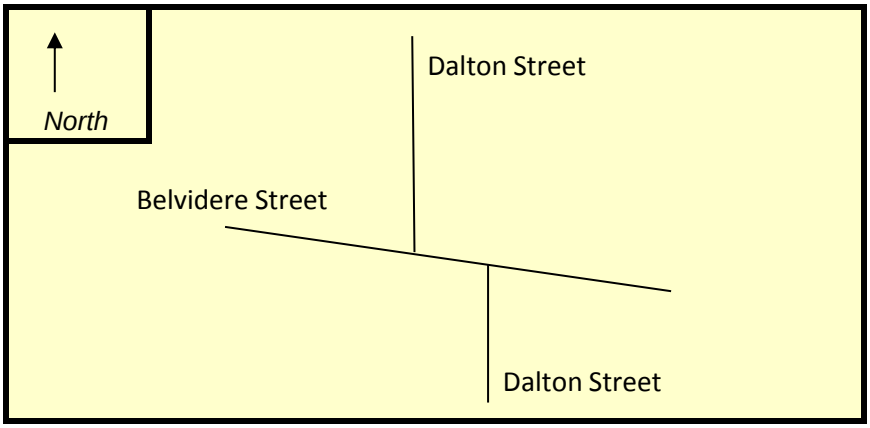
DISTRICT : 6 | UNSIGNALIZED : X | SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Dalton Street

MINOR STREET(S) : Belvidere Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	0	275	0	555		

" K " FACTOR : 0.09 | APPROACH ADT : 9222.2222 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 0 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.00

CRASH RATE CALCULATION : 0.00 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : March 2017

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

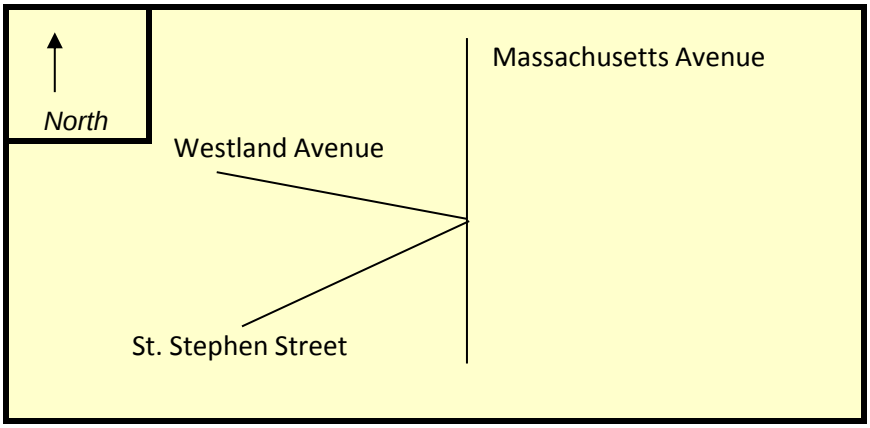
~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Westland Avenue

St. Stephen Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	870	675	370	55		

" K " FACTOR : 0.09 | APPROACH ADT : 21888.889 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 3 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.60

CRASH RATE CALCULATION : 0.08 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston

COUNT DATE : March 2017

DISTRICT : 6

UNSIGNALIZED :

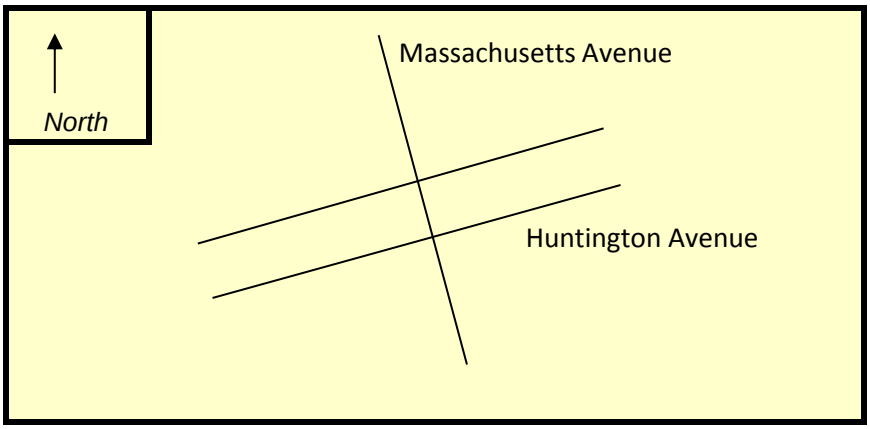
SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Massachusetts Avenue

MINOR STREET(S) : Huntington Avenue

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	860	960	175	235		

" K " FACTOR : 0.09

APPROACH ADT : 24777.778 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 4

OF YEARS : 5

AVERAGE # OF ACCIDENTS (**A**) : 0.80

CRASH RATE CALCULATION : 0.09

RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : March 2017

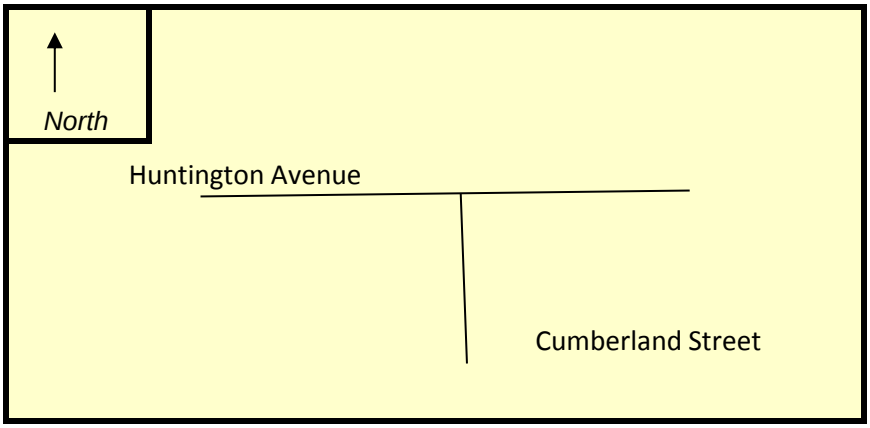
DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Huntington Avenue

MINOR STREET(S) : Cumberland Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	60	0	470	680		

" K " FACTOR : 0.09 | APPROACH ADT : 13444.444 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 0 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.00

CRASH RATE CALCULATION : 0.00 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

CRASH RATE WORKSHEET

CITY/TOWN : Boston | COUNT DATE : Feb 2017

DISTRICT : 6 | UNSIGNALIZED : | SIGNALIZED : X

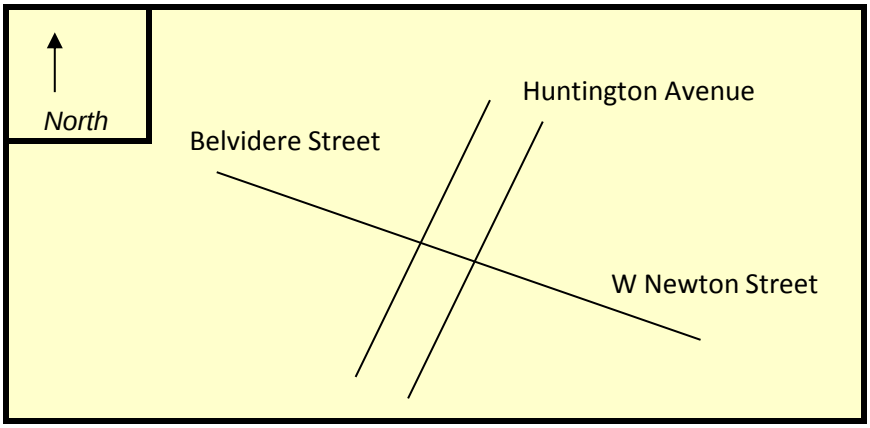
~ INTERSECTION DATA ~

MAJOR STREET : Huntington Avenue

MINOR STREET(S) : Belvidere Street

W Newton Street

INTERSECTION DIAGRAM
(Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	6
DIRECTION :	NB	SB	EB	WB		
VOLUMES (PM) :	290	275	485	1095		

" K " FACTOR : 0.09 | APPROACH ADT : 23833.333 **ADT** = TOTAL VOL/"K" FACT.

TOTAL # OF ACCIDENTS : 2 | # OF YEARS : 5 | AVERAGE # OF ACCIDENTS (**A**) : 0.40

CRASH RATE CALCULATION : 0.05 RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Source (optional): Volumes from Existing Condition PM Peak

Comments:

Trip Generation Spreadsheet

1000 Boylston Project
Trip Generation Estimate
VHB,Inc.

8/10/2017

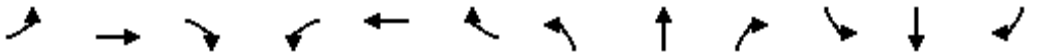
	Size	Trip Rate	Unadjusted Vehicle Trips	VOR	Number of People (person trips)	Transit Share	Walk/Other Share	Vehicle Share	Local VOR	Transit Trips	Walk/Other Trips	Vehicle Trips
Daily Restaurant		89.95	540		961					202	442	178
In	6	44.975	270	1.78	481	21%	46%	33%	1.78	101	221	89
Out	ksf	44.975	270	1.78	481	21%	46%	33%	1.78	101	221	89
Daily Retail		42.70	1,722		3066					644	1410	568
In	40.322	21.35	861	1.78	1533	21%	46%	33%	1.78	322	705	284
Out	ksf	21.35	861	1.78	1533	21%	46%	33%	1.78	322	705	284
Daily Condos		5.81	628		710					134	404	150
In	108	2.905	314	1.13	355	19%	57%	24%	1.13	67	202	75
Out	units	2.905	314	1.13	355	19%	57%	24%	1.13	67	202	75
Total Daily			2,890							980	2,256	896
In			1,445							490	1,128	448
Out			1,445							490	1,128	448
AM Restaurant		0.81	0		0					0	0	0
In	6	0.00	0	1.78	0	31%	36%	33%	1.78	0	0	0
Out	ksf	0.00	0	1.78	0	31%	36%	33%	1.78	0	0	0
AM Retail		0.96	39		69					21	25	13
In	40.3	0.60	24	1.78	43	31%	36%	33%	1.78	13	15	8
Out	ksf	0.36	15	1.78	27	31%	36%	33%	1.78	8	10	5
AM Condos		0.44	47		53					8	34	10
In	108	0.07	8	1.13	9	15%	64%	21%	1.13	1	6	2
Out	units	0.37	39	1.13	44	15%	64%	21%	1.13	7	28	8
Total AM Peak Hour			86							29	59	23
In			32							14	21	10
Out			54							15	38	13
PM Restaurant		7.49	45		80					25	29	15
In	6	5.02	30	1.78	53	31%	36%	33%	1.78	17	19	10
Out	ksf	2.47	15	1.78	27	31%	36%	33%	1.78	8	10	5
PM Retail		3.71	150		268					83	96	50
In	40.3	1.78	72	1.78	129	31%	36%	33%	1.78	40	46	24
Out	ksf	1.93	78	1.78	139	31%	36%	33%	1.78	43	50	26
PM Condos		0.52	57		64					9	41	12
In	108	0.35	38	1.13	43	15%	64%	21%	1.13	6	27	8
Out	units	0.17	19	1.13	21	15%	64%	21%	1.13	3	14	4
Total PM Peak Hour			252							117	166	77
In			140							63	92	42
Out			112							54	74	35

ITE 9th edition

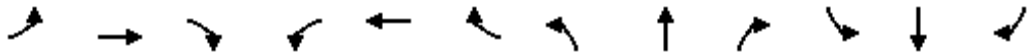
VOR-Vehicle Occupancy Rate

Notes:
LUC 931- Quality Restaurant
LUC 820 - Shopping Center
LUC 230 - Residential Condo/Townhouse
Mode Split: BTD Area 4

Synchro Analysis Results



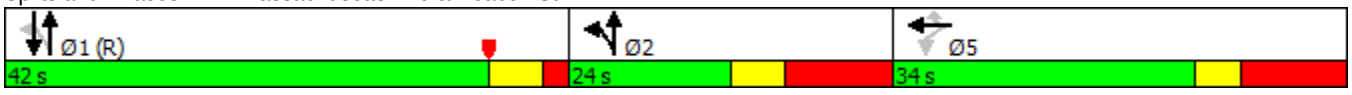
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	220	185	110	865	0	0	650	250
Future Volume (vph)	0	0	0	75	220	185	110	865	0	0	650	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97	0.90					0.95	
Frt						0.850					0.958	
Flt Protected					0.987			0.994				
Satd. Flow (prot)	0	0	0	0	2726	1285	0	2791	0	0	2598	0
Flt Permitted					0.987			0.543				
Satd. Flow (perm)	0	0	0	0	2655	1150	0	1524	0	0	2598	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	80	234	197	117	920	0	0	707	272
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	314	197	0	1037	0	0	979	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				32.5	32.5	32.5	24.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.5	22.5	22.5	12.0				36.0	
Yellow Time (s)				3.5	3.5	3.5	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					11.5	11.5					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes					
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				Max	Max	Max	None				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	11.0				10.0	
Pedestrian Calls (#/hr)				66	66	66	34				66	
Act Effct Green (s)					22.5	22.5		54.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.54			0.36	
v/c Ratio					0.53	0.76		0.99			1.00	
Control Delay					37.8	57.0		36.3			60.8	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					37.8	57.0		36.3			60.8	
LOS					D	E		D			E	
Approach Delay					45.2			36.3			60.8	
Approach LOS					D			D			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 30 (30%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 47.6		Intersection LOS: D	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



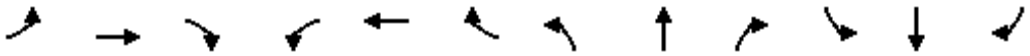


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	314	197	1037	979
v/c Ratio	0.53	0.76	0.99	1.00
Control Delay	37.8	57.0	36.3	60.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.8	57.0	36.3	60.8
Queue Length 50th (ft)	93	118	158	~311
Queue Length 95th (ft)	137	#230	#216	#458
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	597	258	1051	975
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.76	0.99	1.00

Intersection Summary

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

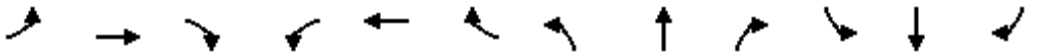
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	220	185	110	865	0	0	650	250
Future Volume (vph)	0	0	0	75	220	185	110	865	0	0	650	250
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					11.5	11.5		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.90		1.00			0.95	
Flpb, ped/bikes					0.97	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2656	1150		2792			2599	
Flt Permitted					0.99	1.00		0.54			1.00	
Satd. Flow (perm)					2656	1150		1523			2599	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	80	234	197	117	920	0	0	707	272
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	40	0
Lane Group Flow (vph)	0	0	0	0	314	197	0	1037	0	0	939	0
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					22.5	22.5		48.0			36.0	
Effective Green, g (s)					22.5	22.5		48.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.48			0.36	
Clearance Time (s)					11.5	11.5					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					597	258		883			935	
v/s Ratio Prot								c0.14			0.36	
v/s Ratio Perm					0.12	c0.17		c0.42				
v/c Ratio					0.53	0.76		1.17			1.00	
Uniform Delay, d1					34.1	36.3		26.0			32.0	
Progression Factor					1.00	1.00		0.53			1.00	
Incremental Delay, d2					3.3	19.1		88.1			30.4	
Delay (s)					37.4	55.4		101.9			62.4	
Level of Service					D	E		F			E	
Approach Delay (s)		0.0			44.3			101.9			62.4	
Approach LOS		A			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	74.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.5
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

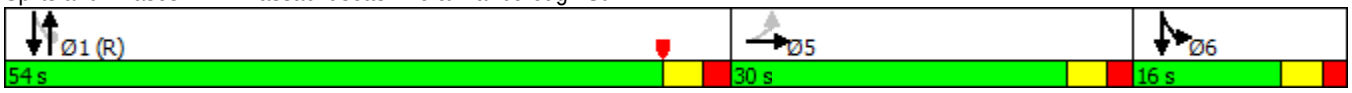


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	15	25	0	0	0	0	845	35	75	645	0
Future Volume (vph)	125	15	25	0	0	0	0	845	35	75	645	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.95						0.98				
Frt		0.979						0.994				
Flt Protected		0.964									0.995	
Satd. Flow (prot)	0	1579	0	0	0	0	0	2708	0	0	2776	0
Flt Permitted		0.964									0.744	
Satd. Flow (perm)	0	1516	0	0	0	0	0	2708	0	0	2076	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		9										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	154	19	31	0	0	0	0	899	37	80	686	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	204	0	0	0	0	0	936	0	0	766	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	30.0	30.0						54.0		16.0		
Total Split (%)	30.0%	30.0%						54.0%		16.0%		
Maximum Green (s)	25.0	25.0						49.0		11.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	18	18						78		78		
Act Effct Green (s)		17.4						54.6			67.6	
Actuated g/C Ratio		0.17						0.55			0.68	
v/c Ratio		0.76						0.63			0.51	
Control Delay		54.2						9.9			1.6	
Queue Delay		0.0						0.2			0.3	
Total Delay		54.2						10.1			1.9	
LOS		D						B			A	
Approach Delay		54.2						10.1			1.9	
Approach LOS		D						B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 47 (47%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 11.5		Intersection LOS: B	
Intersection Capacity Utilization 77.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Massachusetts Ave & Marlborough St

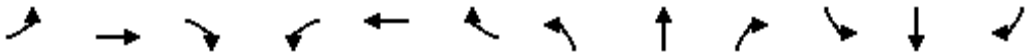




Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	204	936	766
v/c Ratio	0.76	0.63	0.51
Control Delay	54.2	9.9	1.6
Queue Delay	0.0	0.2	0.3
Total Delay	54.2	10.1	1.9
Queue Length 50th (ft)	120	61	8
Queue Length 95th (ft)	160	75	m23
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	385	1477	1504
Starvation Cap Reductn	0	0	226
Spillback Cap Reductn	0	83	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.53	0.67	0.60

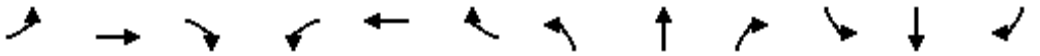
Intersection Summary

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



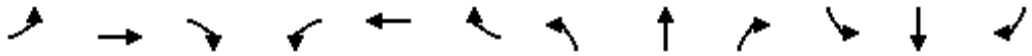
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	15	25	0	0	0	0	845	35	75	645	0
Future Volume (vph)	125	15	25	0	0	0	0	845	35	75	645	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.96						1.00			0.99	
Frt		0.98						0.99			1.00	
Flt Protected		0.96						1.00			0.99	
Satd. Flow (prot)		1516						2708			2759	
Flt Permitted		0.96						1.00			0.74	
Satd. Flow (perm)		1516						2708			2064	
Peak-hour factor, PHF	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	154	19	31	0	0	0	0	899	37	80	686	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	197	0	0	0	0	0	936	0	0	766	0
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.4						54.5			67.6	
Effective Green, g (s)		17.4						54.5			67.6	
Actuated g/C Ratio		0.17						0.54			0.68	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		263						1475			1486	
v/s Ratio Prot								c0.35			c0.07	
v/s Ratio Perm		0.13									0.28	
v/c Ratio		0.75						0.63			0.52	
Uniform Delay, d1		39.2						15.8			8.1	
Progression Factor		1.00						0.46			0.19	
Incremental Delay, d2		9.7						1.9			0.0	
Delay (s)		48.9						9.2			1.6	
Level of Service		D						A			A	
Approach Delay (s)		48.9			0.0			9.2			1.6	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	20	120	0	760	0	0	645	25
Future Volume (vph)	0	0	0	55	20	120	0	760	0	0	645	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.94	0.94						0.99	
Frt					0.872						0.994	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1540	1161	0	0	2855	0	0	2724	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1454	1161	0	0	2855	0	0	2724	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					141							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	65	24	141	0	792	0	0	672	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	65	165	0	0	792	0	0	698	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

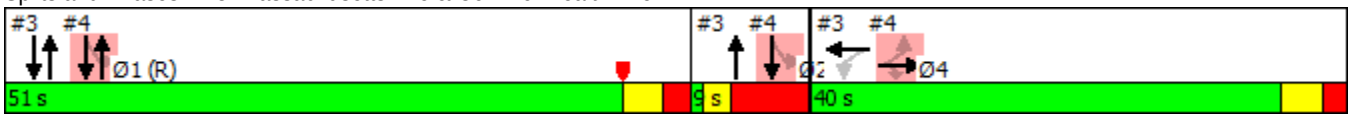
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				40.0	40.0						51.0	
Total Split (%)				40.0%	40.0%						51.0%	
Maximum Green (s)				35.0	35.0						46.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				105	105						48	
Act Effct Green (s)				35.0	35.0			55.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.55			0.46	
v/c Ratio				0.13	0.33			0.50			0.56	
Control Delay				23.1	7.7			9.9			7.2	
Queue Delay				0.0	0.0			0.4			0.6	
Total Delay				23.1	7.7			10.4			7.8	
LOS				C	A			B			A	
Approach Delay					12.1			10.4			7.8	
Approach LOS					B			B			A	

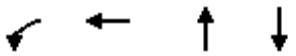
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 55.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



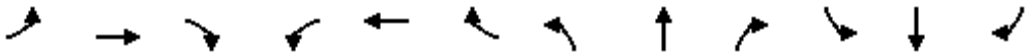
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



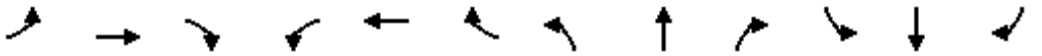
Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	65	165	792	698
v/c Ratio	0.13	0.33	0.50	0.56
Control Delay	23.1	7.7	9.9	7.2
Queue Delay	0.0	0.0	0.4	0.6
Total Delay	23.1	7.7	10.4	7.8
Queue Length 50th (ft)	28	10	73	47
Queue Length 95th (ft)	55	48	88	88
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	508	498	1570	1253
Starvation Cap Reductn	0	0	326	226
Spillback Cap Reductn	0	0	18	36
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.33	0.64	0.68

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	20	120	0	760	0	0	645	25
Future Volume (vph)	0	0	0	55	20	120	0	760	0	0	645	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.94			1.00			0.99	
Flpb, ped/bikes				0.94	1.00			1.00			1.00	
Frt				1.00	0.87			1.00			0.99	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1454	1161			2855			2725	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1454	1161			2855			2725	
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	65	24	141	0	792	0	0	672	26
RTOR Reduction (vph)	0	0	0	0	92	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	65	73	0	0	792	0	0	698	0
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				35.0	35.0			52.0			46.0	
Effective Green, g (s)				35.0	35.0			52.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.52			0.46	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				508	406			1484			1253	
v/s Ratio Prot					c0.06			c0.28			0.26	
v/s Ratio Perm				0.04								
v/c Ratio				0.13	0.18			0.53			0.56	
Uniform Delay, d1				22.1	22.6			15.9			19.6	
Progression Factor				1.00	1.00			0.63			0.28	
Incremental Delay, d2				0.5	1.0			1.2			1.6	
Delay (s)				22.6	23.5			11.2			7.1	
Level of Service				C	C			B			A	
Approach Delay (s)		0.0			23.3			11.2			7.1	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	25	185	0	0	0	0	570	35	115	585	0
Future Volume (vph)	190	25	185	0	0	0	0	570	35	115	585	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor			0.84					0.98			0.98	
Frt			0.850					0.991				
Flt Protected		0.958									0.992	
Satd. Flow (prot)	0	1441	1078	0	0	0	0	2689	0	0	2943	0
Flt Permitted		0.958									0.685	
Satd. Flow (perm)	0	1441	907	0	0	0	0	2689	0	0	1997	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			302			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	202	27	197	0	0	0	0	600	37	124	629	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	229	197	0	0	0	0	637	0	0	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)		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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

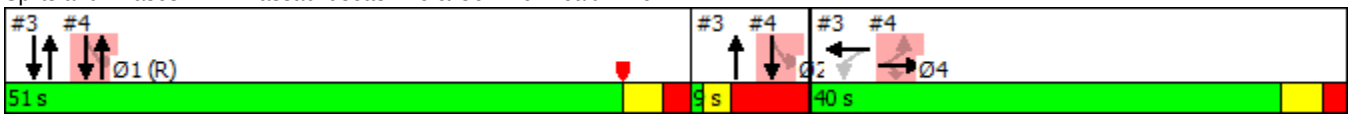
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	40.0	40.0	40.0					51.0				
Total Split (%)	40.0%	40.0%	40.0%					51.0%				
Maximum Green (s)	35.0	35.0	35.0					46.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	105	105	105					48				
Act Effct Green (s)		35.0	35.0					46.0			55.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.55	
v/c Ratio		0.45	0.62					0.52			0.69	
Control Delay		28.7	37.2					18.2			6.5	
Queue Delay		66.7	0.0					0.7			0.7	
Total Delay		95.4	37.2					18.9			7.2	
LOS		F	D					B			A	
Approach Delay		68.5						18.9			7.2	
Approach LOS		E						B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 25.7 Intersection LOS: C
Intersection Capacity Utilization 76.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



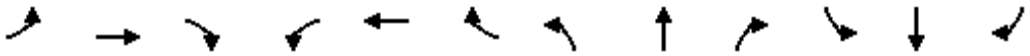
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



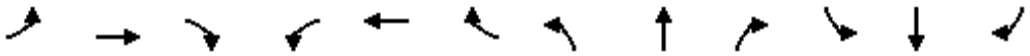
Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	229	197	637	753
v/c Ratio	0.45	0.62	0.52	0.69
Control Delay	28.7	37.2	18.2	6.5
Queue Delay	66.7	0.0	0.7	0.7
Total Delay	95.4	37.2	18.9	7.2
Queue Length 50th (ft)	112	103	157	26
Queue Length 95th (ft)	182	186	214	32
Internal Link Dist (ft)	536		222	69
Turn Bay Length (ft)				
Base Capacity (vph)	504	317	1236	1098
Starvation Cap Reductn	0	0	290	111
Spillback Cap Reductn	329	0	43	30
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.31	0.62	0.67	0.76

Intersection Summary

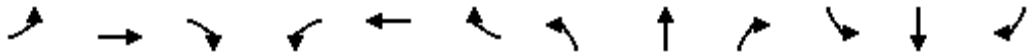


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	25	185	0	0	0	0	570	35	115	585	0
Future Volume (vph)	190	25	185	0	0	0	0	570	35	115	585	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.84					0.98			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			0.98	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.96	1.00					1.00			0.99	
Satd. Flow (prot)		1441	907					2690			2891	
Flt Permitted		0.96	1.00					1.00			0.68	
Satd. Flow (perm)		1441	907					2690			1996	
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	202	27	197	0	0	0	0	600	37	124	629	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	229	197	0	0	0	0	637	0	0	753	0
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		35.0	35.0					46.0			52.0	
Effective Green, g (s)		35.0	35.0					46.0			52.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.52	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		504	317					1237			1037	
v/s Ratio Prot								0.24				
v/s Ratio Perm		0.16	c0.22								c0.38	
v/c Ratio		0.45	0.62					0.51			0.73	
Uniform Delay, d1		25.1	27.0					19.1			18.5	
Progression Factor		1.00	1.00					0.87			0.21	
Incremental Delay, d2		2.9	8.9					1.3			3.9	
Delay (s)		28.1	35.9					17.9			7.7	
Level of Service		C	D					B			A	
Approach Delay (s)		31.7			0.0			17.9			7.7	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	440	30	80	80	0	0	0	0
Future Volume (vph)	0	0	0	0	440	30	80	80	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.94				
Frt					0.990							
Flt Protected								0.976				
Satd. Flow (prot)	0	0	0	0	2871	0	0	2976	0	0	0	0
Flt Permitted								0.976				
Satd. Flow (perm)	0	0	0	0	2871	0	0	2784	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					15			82				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	478	33	82	82	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	511	0	0	164	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					59.5		22.5	22.5				
Total Split (s)					60.0		30.0	30.0				
Total Split (%)					66.7%		33.3%	33.3%				
Maximum Green (s)					55.5		25.5	25.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					48.0		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					40		30	30				
Act Effct Green (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
v/c Ratio					0.29			0.19				
Control Delay					6.2			7.4				
Queue Delay					0.0			0.8				
Total Delay					6.2			8.2				
LOS					A			A				
Approach Delay					6.2			8.2				
Approach LOS					A			A				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 60.0%		ICU Level of Service B	
Analysis Period (min) 15			

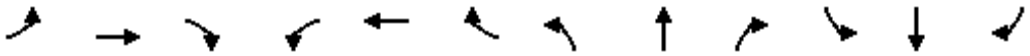
Splits and Phases: 5: Hereford St & Commonwealth Ave





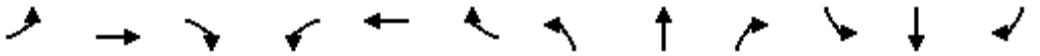
Lane Group	WBT	NBT
Lane Group Flow (vph)	511	164
v/c Ratio	0.29	0.19
Control Delay	6.2	7.4
Queue Delay	0.0	0.8
Total Delay	6.2	8.2
Queue Length 50th (ft)	41	7
Queue Length 95th (ft)	54	18
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1776	847
Starvation Cap Reductn	0	455
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.29	0.42

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	440	30	80	80	0	0	0	0
Future Volume (vph)	0	0	0	0	440	30	80	80	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.94				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2872			2783				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2872			2783				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	478	33	82	82	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	59	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	505	0	0	105	0	0	0	0
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					55.5			25.5				
Effective Green, g (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1771			788				
v/s Ratio Prot					c0.18							
v/s Ratio Perm								0.04				
v/c Ratio					0.29			0.13				
Uniform Delay, d1					8.0			24.0				
Progression Factor					0.74			0.54				
Incremental Delay, d2					0.4			0.3				
Delay (s)					6.3			13.2				
Level of Service					A			B				
Approach Delay (s)		0.0			6.3			13.2			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	850	0	0	0	0	0	110	75	0	0	0
Future Volume (vph)	50	850	0	0	0	0	0	110	75	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.96				
Frt								0.939				
Flt Protected		0.997										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2600	0	0	0	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	2920	0	0	0	0	0	2600	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						91				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			327			139	
Travel Time (s)		16.2			10.1			7.4			3.2	
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Adj. Flow (vph)	53	904	0	0	0	0	0	134	91	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	957	0	0	0	0	0	225	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	59.5	59.5						22.5				
Total Split (s)	60.0	60.0						30.0				
Total Split (%)	66.7%	66.7%						33.3%				
Maximum Green (s)	55.5	55.5						25.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	48.0	48.0						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	40	40						30				
Act Effct Green (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
v/c Ratio		0.53						0.28				
Control Delay		10.9						15.8				
Queue Delay		0.0						0.0				
Total Delay		10.9						15.8				
LOS		B						B				
Approach Delay		10.9						15.8				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 46.9%		ICU Level of Service A	
Analysis Period (min) 15			

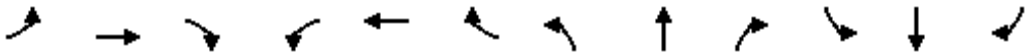
Splits and Phases: 6: Hereford St & Commonwealth Ave





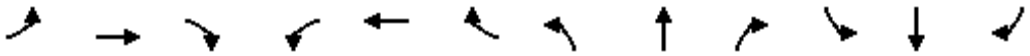
Lane Group	EBT	NBT
Lane Group Flow (vph)	957	225
v/c Ratio	0.53	0.28
Control Delay	10.9	15.8
Queue Delay	0.0	0.0
Total Delay	10.9	15.8
Queue Length 50th (ft)	145	30
Queue Length 95th (ft)	194	51
Internal Link Dist (ft)	633	247
Turn Bay Length (ft)		
Base Capacity (vph)	1807	801
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.53	0.28

Intersection Summary

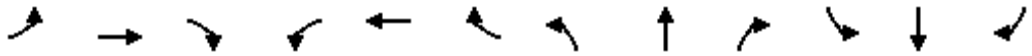


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	850	0	0	0	0	0	110	75	0	0	0
Future Volume (vph)	50	850	0	0	0	0	0	110	75	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.96				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2921						2601				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2921						2601				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	53	904	0	0	0	0	0	134	91	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	65	0	0	0	0
Lane Group Flow (vph)	0	950	0	0	0	0	0	160	0	0	0	0
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		55.5						25.5				
Effective Green, g (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1801						736				
v/s Ratio Prot								c0.06				
v/s Ratio Perm		0.33										
v/c Ratio		0.53						0.22				
Uniform Delay, d1		9.8						24.6				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.1						0.7				
Delay (s)		10.9						25.3				
Level of Service		B						C				
Approach Delay (s)		10.9			0.0			25.3			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	450	0	0	0	0	0	130	20
Future Volume (vph)	0	0	0	75	450	0	0	0	0	0	130	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00						0.99	
Frt											0.980	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2861	0	0	0	0	0	2933	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2852	0	0	0	0	0	2933	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					39						19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	78	469	0	0	0	0	0	159	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	547	0	0	0	0	0	183	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

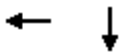


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				60.0	60.0						30.0	
Total Split (s)				60.0	60.0						30.0	
Total Split (%)				66.7%	66.7%						33.3%	
Maximum Green (s)				55.5	55.5						25.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				47.5	47.5						18.5	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				40	40						24	
Act Effct Green (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
v/c Ratio					0.31						0.22	
Control Delay					8.1						22.8	
Queue Delay					0.0						0.0	
Total Delay					8.1						22.8	
LOS					A						C	
Approach Delay					8.1						22.8	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 45.0%		ICU Level of Service A	
Analysis Period (min) 15			

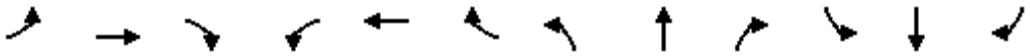
Splits and Phases: 7: Gloucester St & Commonwealth Ave





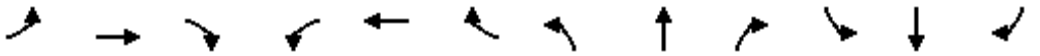
Lane Group	WBT	SBT
Lane Group Flow (vph)	547	183
v/c Ratio	0.31	0.22
Control Delay	8.1	22.8
Queue Delay	0.0	0.0
Total Delay	8.1	22.8
Queue Length 50th (ft)	64	37
Queue Length 95th (ft)	92	57
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1773	844
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.31	0.22

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	450	0	0	0	0	0	130	20
Future Volume (vph)	0	0	0	75	450	0	0	0	0	0	130	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.99	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.98	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2852						2933	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2852						2933	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	78	469	0	0	0	0	0	159	24
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	0	0	0	532	0	0	0	0	0	169	0
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					55.5						25.5	
Effective Green, g (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1758						831	
v/s Ratio Prot											c0.06	
v/s Ratio Perm					0.19							
v/c Ratio					0.30						0.20	
Uniform Delay, d1					8.1						24.5	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.4						0.6	
Delay (s)					8.6						25.1	
Level of Service					A						C	
Approach Delay (s)		0.0			8.6			0.0			25.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	785	140	0	0	0	0	0	0	70	135	0
Future Volume (vph)	0	785	140	0	0	0	0	0	0	70	135	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.99									0.98	
Frt		0.977										
Flt Protected											0.983	
Satd. Flow (prot)	0	2829	0	0	0	0	0	0	0	0	3527	0
Flt Permitted											0.983	
Satd. Flow (perm)	0	2829	0	0	0	0	0	0	0	0	3467	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											80	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	818	146	0	0	0	0	0	0	80	153	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	964	0	0	0	0	0	0	0	0	233	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		60.0								30.0	30.0	
Total Split (s)		60.0								30.0	30.0	
Total Split (%)		66.7%								33.3%	33.3%	
Maximum Green (s)		55.5								25.5	25.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		47.5								18.5	18.5	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		40								24	24	
Act Effct Green (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
v/c Ratio		0.55									0.22	
Control Delay		3.9									8.1	
Queue Delay		0.0									0.7	
Total Delay		3.9									8.8	
LOS		A									A	
Approach Delay		3.9									8.8	
Approach LOS		A									A	

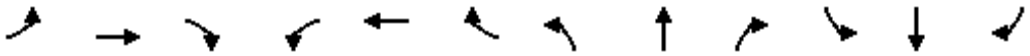
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 4.9		Intersection LOS: A	
Intersection Capacity Utilization 60.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



Lane Group	EBT	SBT
Lane Group Flow (vph)	964	233
v/c Ratio	0.55	0.22
Control Delay	3.9	8.1
Queue Delay	0.0	0.7
Total Delay	3.9	8.8
Queue Length 50th (ft)	26	11
Queue Length 95th (ft)	35	23
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1744	1039
Starvation Cap Reductn	30	517
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.56	0.45

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	785	140	0	0	0	0	0	0	70	135	0
Future Volume (vph)	0	785	140	0	0	0	0	0	0	70	135	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.98	
Frt		0.98									1.00	
Flt Protected		1.00									0.98	
Satd. Flow (prot)		2830									3467	
Flt Permitted		1.00									0.98	
Satd. Flow (perm)		2830									3467	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	818	146	0	0	0	0	0	0	80	153	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	57	0
Lane Group Flow (vph)	0	964	0	0	0	0	0	0	0	0	176	0
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		55.5									25.5	
Effective Green, g (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1745									982	
v/s Ratio Prot		c0.34										
v/s Ratio Perm											0.05	
v/c Ratio		0.55									0.18	
Uniform Delay, d1		10.0									24.3	
Progression Factor		0.27									0.47	
Incremental Delay, d2		1.1									0.4	
Delay (s)		3.8									11.9	
Level of Service		A									B	
Approach Delay (s)		3.8			0.0			0.0			11.9	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	5.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

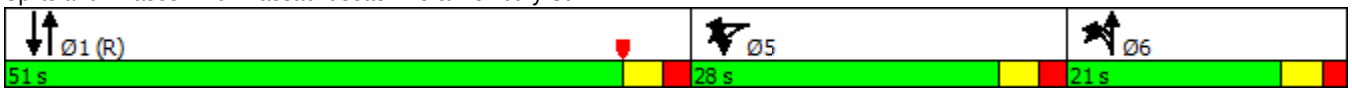


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	70	75	45	45	180	15	560	560	170	40
Future Volume (vph)	70	75	45	45	180	15	560	560	170	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor			0.99					0.96		
Frt			0.925					0.959		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1320	1240	0	0	1483	1489	2652	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1320	1240	0	0	1483	1489	2652	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			47					7		
Link Speed (mph)			30				30	30		
Link Distance (ft)			722				308	302		
Travel Time (s)			16.4				7.0	6.9		
Confl. Bikes (#/hr)				2					85	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Adj. Flow (vph)	78	83	50	50	186	15	577	609	185	43
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	161	100	0	0	201	577	837	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		

Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0		6.0	6.0		8.0		
Minimum Split (s)	28.0	28.0	28.0		11.0	11.0		28.0		
Total Split (s)	28.0	28.0	28.0		21.0	21.0		51.0		
Total Split (%)	28.0%	28.0%	28.0%		21.0%	21.0%		51.0%		
Maximum Green (s)	23.0	23.0	23.0		16.0	16.0		46.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	45	45	45					123		
Act Effct Green (s)		18.7	18.7			20.3	71.3	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
v/c Ratio		0.65	0.37			0.67	0.54	0.68		
Control Delay		49.4	22.8			50.8	17.9	17.5		
Queue Delay		0.0	0.0			0.0	2.2	2.0		
Total Delay		49.4	22.8			50.8	20.1	19.5		
LOS		D	C			D	C	B		
Approach Delay			39.2				28.0	19.5		
Approach LOS			D				C	B		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 42 (42%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 25.8		Intersection LOS: C	
Intersection Capacity Utilization 58.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	161	100	201	577	837
v/c Ratio	0.65	0.37	0.67	0.54	0.68
Control Delay	49.4	22.8	50.8	17.9	17.5
Queue Delay	0.0	0.0	0.0	2.2	2.0
Total Delay	49.4	22.8	50.8	20.1	19.5
Queue Length 50th (ft)	90	27	139	191	127
Queue Length 95th (ft)	158	74	m#188	m280	166
Internal Link Dist (ft)		642		228	222
Turn Bay Length (ft)					
Base Capacity (vph)	303	321	301	1061	1223
Starvation Cap Reductn	0	0	0	335	238
Spillback Cap Reductn	0	1	0	39	127
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.53	0.31	0.67	0.79	0.85

Intersection Summary

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

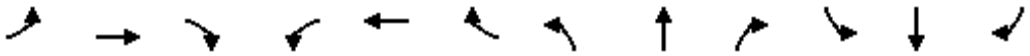
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	70	75	45	45	180	15	560	560	170	40
Future Volume (vph)	70	75	45	45	180	15	560	560	170	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	0.99			1.00	1.00	0.96		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.93			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1320	1239			1483	1489	2653		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1320	1239			1483	1489	2653		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	78	83	50	50	186	15	577	609	185	43
RTOR Reduction (vph)	0	0	38	0	0	0	0	4	0	0
Lane Group Flow (vph)	0	161	62	0	0	201	577	833	0	0
Confl. Bikes (#/hr)				2					85	85
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		18.7	18.7			20.3	71.3	46.0		
Effective Green, g (s)		18.7	18.7			20.3	71.3	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		246	231			301	1061	1220		
v/s Ratio Prot		c0.12	0.05			c0.14	0.39	c0.31		
v/s Ratio Perm										
v/c Ratio		0.65	0.27			0.67	0.54	0.68		
Uniform Delay, d1		37.7	34.8			36.7	6.7	21.3		
Progression Factor		1.00	1.00			1.08	2.05	0.70		
Incremental Delay, d2		6.1	0.6			7.7	1.4	2.3		
Delay (s)		43.8	35.4			47.4	15.2	17.3		
Level of Service		D	D			D	B	B		
Approach Delay (s)			40.6				23.5	17.3		
Approach LOS			D				C	B		

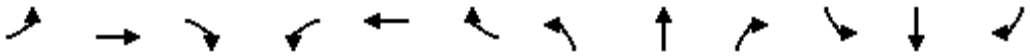
Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	180	65	55	110	0	0	0	0
Future Volume (vph)	0	0	0	0	180	65	55	110	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.960							
Flt Protected								0.984				
Satd. Flow (prot)	0	0	0	0	2640	0	0	2730	0	0	0	0
Flt Permitted								0.984				
Satd. Flow (perm)	0	0	0	0	2640	0	0	2730	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		722			270			281			327	
Travel Time (s)		16.4			6.1			6.4			7.4	
Confl. Peds. (#/hr)						118			98			
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	9%	5%	11%	5%	2%	2%	2%	2%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	188	68	71	143	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	256	0	0	214	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

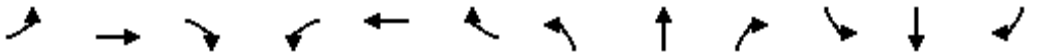
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	180	65	55	110	0	0	0	0
Future Volume (vph)	0	0	0	0	180	65	55	110	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	188	68	71	143	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	125	131	119	95
Volume Left (vph)	0	0	71	0
Volume Right (vph)	0	68	0	0
Hadj (s)	0.15	-0.25	0.45	0.09
Departure Headway (s)	5.2	4.8	5.6	5.2
Degree Utilization, x	0.18	0.18	0.18	0.14
Capacity (veh/h)	659	717	621	661
Control Delay (s)	8.2	7.7	8.6	7.9
Approach Delay (s)	7.9		8.3	
Approach LOS	A		A	

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	32.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	475	120	0	90	155	0	585	50	175	430	30
Future Volume (vph)	0	475	120	0	90	155	0	585	50	175	430	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.93				0.66		0.97		0.87	0.98	
Frt		0.970				0.850		0.988			0.990	
Flt Protected										0.950		
Satd. Flow (prot)	0	2733	0	0	1476	1384	0	2701	0	1450	1470	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2733	0	0	1476	908	0	2701	0	1267	1470	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		31				73						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			308	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Adj. Flow (vph)	0	511	129	0	106	182	0	616	53	182	448	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	640	0	0	106	182	0	669	0	182	479	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		34.0			34.0	24.0		33.0		24.0		
Total Split (s)		34.0			34.0	29.0		33.0		29.0		
Total Split (%)		34.0%			34.0%	29.0%		33.0%		29.0%		
Maximum Green (s)		29.0			29.0	23.0		28.0		23.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			13.0				
Pedestrian Calls (#/hr)		197			197			262				
Act Effct Green (s)		27.7			27.7	49.7		29.3		23.0	58.3	
Actuated g/C Ratio		0.28			0.28	0.50		0.29		0.23	0.58	
v/c Ratio		0.82			0.26	0.30		0.84		0.55	0.56	
Control Delay		42.0			29.7	6.9		19.9		36.5	11.4	
Queue Delay		0.0			0.0	0.1		0.7		0.0	4.8	
Total Delay		42.0			29.7	7.1		20.6		36.5	16.1	
LOS		D			C	A		C		D	B	
Approach Delay		42.0			15.4			20.6			21.7	
Approach LOS		D			B			C			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 46 (46%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 26.3		Intersection LOS: C	
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	197
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

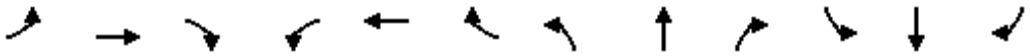


Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	640	106	182	669	182	479
v/c Ratio	0.82	0.26	0.30	0.84	0.55	0.56
Control Delay	42.0	29.7	6.9	19.9	36.5	11.4
Queue Delay	0.0	0.0	0.1	0.7	0.0	4.8
Total Delay	42.0	29.7	7.1	20.6	36.5	16.1
Queue Length 50th (ft)	187	52	27	143	115	241
Queue Length 95th (ft)	257	91	52	#299	m175	386
Internal Link Dist (ft)	713	526		236		228
Turn Bay Length (ft)						
Base Capacity (vph)	814	428	597	792	333	857
Starvation Cap Reductn	0	0	0	19	0	301
Spillback Cap Reductn	0	0	63	4	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.25	0.34	0.87	0.55	0.86

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	475	120	0	90	155	0	585	50	175	430	30
Future Volume (vph)	0	475	120	0	90	155	0	585	50	175	430	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.93			1.00	0.81		0.97		1.00	0.98	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.97			1.00	0.85		0.99		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2732			1476	1124		2702		1450	1471	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2732			1476	1124		2702		1450	1471	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	0	511	129	0	106	182	0	616	53	182	448	31
RTOR Reduction (vph)	0	22	0	0	0	36	0	0	0	0	0	0
Lane Group Flow (vph)	0	618	0	0	106	146	0	669	0	182	479	0
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		27.7			27.7	50.7		29.3		23.0	57.3	
Effective Green, g (s)		27.7			27.7	50.7		29.3		23.0	57.3	
Actuated g/C Ratio		0.28			0.28	0.51		0.29		0.23	0.57	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		756			408	569		791		333	842	
v/s Ratio Prot		c0.23			0.07	0.06		c0.25		0.13	c0.33	
v/s Ratio Perm						0.07						
v/c Ratio		0.82			0.26	0.26		0.85		0.55	0.57	
Uniform Delay, d1		33.8			28.2	14.0		33.2		33.9	13.5	
Progression Factor		1.00			1.00	1.00		0.25		0.92	0.68	
Incremental Delay, d2		6.8			0.3	0.2		9.9		4.7	2.1	
Delay (s)		40.6			28.5	14.2		18.1		35.8	11.3	
Level of Service		D			C	B		B		D	B	
Approach Delay (s)		40.6			19.5			18.1			18.0	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	335	145	0	0	215	255	
Future Volume (vph)	335	145	0	0	215	255	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor							
Frt	0.955					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2570	0	0	0	1441	1094	
Flt Permitted					0.950		
Satd. Flow (perm)	2570	0	0	0	1441	1094	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)						1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%	
Parking (#/hr)	2						
Adj. Flow (vph)	368	159	0	0	239	283	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	527	0	0	0	239	283	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	35.0				29.0	29.0	26.0
Total Split (%)	38.9%				32.2%	32.2%	29%
Maximum Green (s)	25.5				23.0	23.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							154
Act Effct Green (s)	25.5				23.0	23.0	
Actuated g/C Ratio	0.28				0.26	0.26	
v/c Ratio	0.72				0.65	1.01	
Control Delay	35.8				39.4	93.6	
Queue Delay	0.0				0.0	0.0	
Total Delay	35.8				39.4	93.6	
LOS	D				D	F	
Approach Delay	35.8				68.8		
Approach LOS	D				E		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 37 (41%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.01			
Intersection Signal Delay: 52.2		Intersection LOS: D	
Intersection Capacity Utilization 45.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	527	239	283
v/c Ratio	0.72	0.65	1.01
Control Delay	35.8	39.4	93.6
Queue Delay	0.0	0.0	0.0
Total Delay	35.8	39.4	93.6
Queue Length 50th (ft)	142	121	~164
Queue Length 95th (ft)	201	203	#325
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	728	368	279
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.72	0.65	1.01

Intersection Summary

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

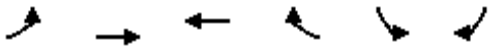
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	335	145	0	0	215	255
Future Volume (vph)	335	145	0	0	215	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	1.00				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.95				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2570				1441	1094
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2570				1441	1094
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	368	159	0	0	239	283
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	527	0	0	0	239	283
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	25.5				23.0	23.0
Effective Green, g (s)	25.5				23.0	23.0
Actuated g/C Ratio	0.28				0.26	0.26
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	728				368	279
v/s Ratio Prot	c0.21				0.17	c0.26
v/s Ratio Perm						
v/c Ratio	0.72				0.65	1.01
Uniform Delay, d1	29.1				29.9	33.5
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	6.2				8.6	57.6
Delay (s)	35.3				38.5	91.1
Level of Service	D				D	F
Approach Delay (s)	35.3			0.0	67.0	
Approach LOS	D			A	E	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

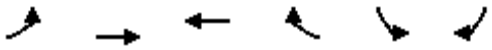
c Critical Lane Group



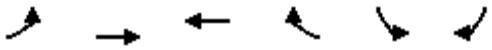
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	165	425	0	0	0	0
Future Volume (vph)	165	425	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.986				
Satd. Flow (prot)	0	2693	0	0	0	0
Flt Permitted		0.986				
Satd. Flow (perm)	0	2693	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		281	
Travel Time (s)		2.3	10.0		6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	24%	0%	0%	0%	0%
Adj. Flow (vph)	179	462	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	641	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



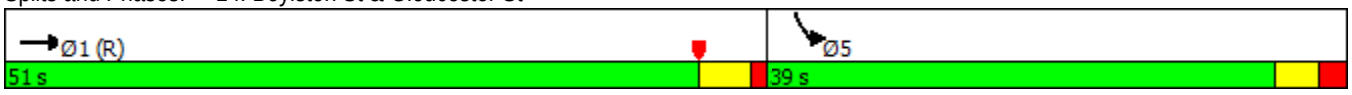
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	425	0	0	235	0
Future Volume (vph)	0	425	0	0	235	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3811	0	0	2810	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3811	0	0	2810	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					665	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	462	0	0	255	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	462	0	0	255	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		49.5			28.0	
Total Split (s)		51.0			39.0	
Total Split (%)		56.7%			43.3%	
Maximum Green (s)		46.5			34.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		34.0			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		47			26	
Act Effct Green (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
v/c Ratio		0.23			0.17	
Control Delay		16.7			1.2	
Queue Delay		0.0			0.0	
Total Delay		16.7			1.2	
LOS		B			A	
Approach Delay		16.7			1.2	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 28 (31%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.23			
Intersection Signal Delay: 11.2		Intersection LOS: B	
Intersection Capacity Utilization 24.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

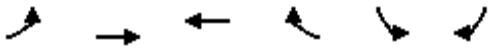




Lane Group	EBT	SBL
Lane Group Flow (vph)	462	255
v/c Ratio	0.23	0.17
Control Delay	16.7	1.2
Queue Delay	0.0	0.0
Total Delay	16.7	1.2
Queue Length 50th (ft)	46	0
Queue Length 95th (ft)	m58	3
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1969	1475
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.23	0.17

Intersection Summary

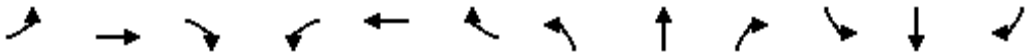
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	425	0	0	235	0
Future Volume (vph)	0	425	0	0	235	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		3811			2810	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		3811			2810	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	462	0	0	255	0
RTOR Reduction (vph)	0	0	0	0	159	0
Lane Group Flow (vph)	0	462	0	0	96	0
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		46.5			34.0	
Effective Green, g (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1969			1061	
v/s Ratio Prot		c0.12			c0.03	
v/s Ratio Perm						
v/c Ratio		0.23			0.09	
Uniform Delay, d1		12.0			18.0	
Progression Factor		1.37			1.00	
Incremental Delay, d2		0.1			0.2	
Delay (s)		16.5			18.2	
Level of Service		B			B	
Approach Delay (s)		16.5	0.0		18.2	
Approach LOS		B	A		B	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	24.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



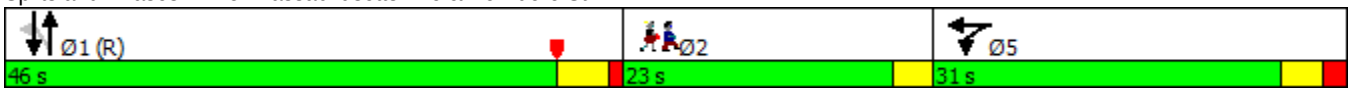
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	20	25	45	35	575	0	0	535	30
Future Volume (vph)	0	0	0	20	25	45	35	575	0	0	535	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.932						0.992	
Flt Protected					0.989			0.997				
Satd. Flow (prot)	0	0	0	0	1534	0	0	2807	0	0	2878	0
Flt Permitted					0.989			0.888				
Satd. Flow (perm)	0	0	0	0	1534	0	0	2500	0	0	2878	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)												39
Peak Hour Factor	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	26	32	58	37	612	0	0	594	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	116	0	0	649	0	0	627	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				5	5			1			1	
Permitted Phases							1					
Detector Phase				5	5		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				13.0	13.0		24.0	24.0			24.0	
Total Split (s)				31.0	31.0		46.0	46.0			46.0	
Total Split (%)				31.0%	31.0%		46.0%	46.0%			46.0%	
Maximum Green (s)				26.0	26.0		41.0	41.0			41.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							173	173			173	
Act Effct Green (s)					12.3			55.7			55.7	
Actuated g/C Ratio					0.12			0.56			0.56	
v/c Ratio					0.62			0.47			0.39	
Control Delay					55.3			11.7			7.0	
Queue Delay					0.0			0.1			0.4	
Total Delay					55.3			11.8			7.4	
LOS					E			B			A	
Approach Delay					55.3			11.8			7.4	
Approach LOS					E			B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 59 (59%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



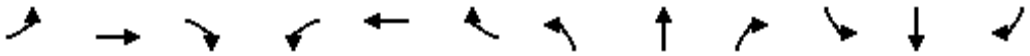
Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	23%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	264
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	116	649	627
v/c Ratio	0.62	0.47	0.39
Control Delay	55.3	11.7	7.0
Queue Delay	0.0	0.1	0.4
Total Delay	55.3	11.8	7.4
Queue Length 50th (ft)	71	47	46
Queue Length 95th (ft)	102	292	100
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	398	1393	1607
Starvation Cap Reductn	0	0	461
Spillback Cap Reductn	0	111	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.29	0.51	0.55

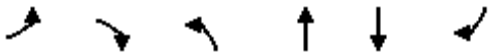
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	20	25	45	35	575	0	0	535	30
Future Volume (vph)	0	0	0	20	25	45	35	575	0	0	535	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1535			2807			2880	
Flt Permitted					0.99			0.89			1.00	
Satd. Flow (perm)					1535			2499			2880	
Peak-hour factor, PHF	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	26	32	58	37	612	0	0	594	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	116	0	0	649	0	0	624	0
Confl. Bikes (#/hr)												39
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				5	5			1			1	
Permitted Phases							1					
Actuated Green, G (s)					12.3			55.7			55.7	
Effective Green, g (s)					12.3			55.7			55.7	
Actuated g/C Ratio					0.12			0.56			0.56	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					188			1391			1604	
v/s Ratio Prot					c0.08						0.22	
v/s Ratio Perm								c0.26				
v/c Ratio					0.62			0.47			0.39	
Uniform Delay, d1					41.6			13.3			12.5	
Progression Factor					1.00			0.75			0.49	
Incremental Delay, d2					4.2			1.1			0.6	
Delay (s)					45.8			11.0			6.7	
Level of Service					D			B			A	
Approach Delay (s)		0.0			45.8			11.0			6.7	
Approach LOS		A			D			B			A	

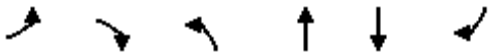
Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	145	0	440	75	0
Future Volume (vph)	10	145	0	440	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.874					
Flt Protected	0.997					
Satd. Flow (prot)	1489	0	0	1495	1746	0
Flt Permitted	0.997					
Satd. Flow (perm)	1489	0	0	1495	1746	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			247	419	
Travel Time (s)	7.2			5.6	9.5	
Confl. Peds. (#/hr)		151				
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Heavy Vehicles (%)	0%	1%	0%	16%	11%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	12	171	0	484	100	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	183	0	0	484	100	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

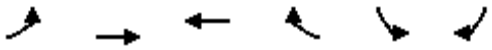
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	145	0	440	75	0
Future Volume (Veh/h)	10	145	0	440	75	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Hourly flow rate (vph)	12	171	0	484	100	0
Pedestrians				151		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	584	251	100			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	584	251	100			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	73	100			
cM capacity (veh/h)	477	639	1505			

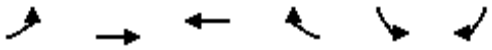
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	183	484	100
Volume Left	12	0	0
Volume Right	171	0	0
cSH	625	1700	1700
Volume to Capacity	0.29	0.28	0.06
Queue Length 95th (ft)	30	0	0
Control Delay (s)	13.1	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.1	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	100	470	245	20
Future Volume (vph)	0	0	100	470	245	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.990	
Flt Protected					0.956	
Satd. Flow (prot)	0	0	1598	1264	1607	0
Flt Permitted					0.956	
Satd. Flow (perm)	0	0	1598	1264	1607	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				111	76	10
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Heavy Vehicles (%)	2%	2%	7%	15%	4%	5%
Adj. Flow (vph)	0	0	111	522	247	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	111	522	267	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	100	470	245	20
Future Volume (Veh/h)	0	0	100	470	245	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Hourly flow rate (vph)	0	0	111	522	247	20
Pedestrians		10	76		111	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	7		11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	744				298	232
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	744				298	232
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				56	97
cM capacity (veh/h)	765				566	708

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	111	522	267
Volume Left	0	0	247
Volume Right	0	522	20
cSH	1700	1700	575
Volume to Capacity	0.07	0.31	0.46
Queue Length 95th (ft)	0	0	61
Control Delay (s)	0.0	0.0	16.6
Lane LOS			C
Approach Delay (s)	0.0		16.6
Approach LOS			C

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

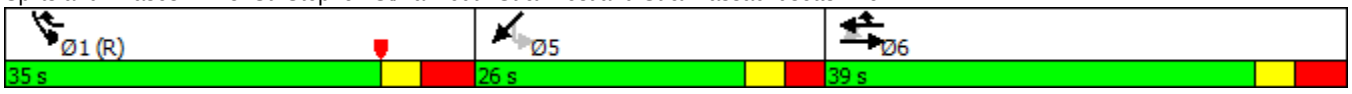


Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	345	15	10	230	595	30	495	25	25	0	10	10
Future Volume (vph)	345	15	10	230	595	30	495	25	25	0	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	10	12	12	16	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.97						0.92			0.63		
Frt	0.994				0.850		0.986			0.865		
Flt Protected				0.998			0.957					
Satd. Flow (prot)	3131	0	0	1529	2219	0	2493	0	0	1060	0	0
Flt Permitted				0.971			0.957					
Satd. Flow (perm)	3131	0	0	1488	2219	0	2493	0	0	1060	0	0
Right Turn on Red		No				Yes			No			Yes
Satd. Flow (RTOR)					33					120		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	883			293			1231			255		
Travel Time (s)	20.1			6.7			28.0			5.8		
Confl. Peds. (#/hr)		407				110		407	295		295	95
Confl. Bikes (#/hr)		6			2	2		21	21			
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.75	0.75	0.75
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	7%	4%	20%	0%	0%	0%
Adj. Flow (vph)	401	17	11	250	647	33	556	28	28	0	13	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	418	0	0	261	680	0	612	0	0	26	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Right	Right	Left	Right	Right
Median Width(ft)	0			0			20			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.25	1.14	1.14	0.97	1.14	1.14
Turning Speed (mph)		9	15		9	9	15	9	9		9	9
Number of Detectors	2		1	2	1		1			2		
Detector Template	Thru		Left	Thru	Right		Left			Thru		
Leading Detector (ft)	100		20	100	20		20			100		
Trailing Detector (ft)	0		0	0	0		0			0		
Detector 1 Position(ft)	0		0	0	0		0			0		
Detector 1 Size(ft)	6		20	6	20		20			6		
Detector 1 Type	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		
Detector 1 Queue (s)	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		
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	NA	pt+ov		Prot			NA		

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Protected Phases	6			6	1 6		1			5		
Permitted Phases			6									
Detector Phase	6		6	6	1 6		1			5		
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0			10.0			10.0		
Minimum Split (s)	18.0		18.0	18.0			20.0			25.0		
Total Split (s)	39.0		39.0	39.0			35.0			26.0		
Total Split (%)	39.0%		39.0%	39.0%			35.0%			26.0%		
Maximum Green (s)	32.0		32.0	32.0			28.0			20.0		
Yellow Time (s)	3.0		3.0	3.0			3.0			3.0		
All-Red Time (s)	4.0		4.0	4.0			4.0			3.0		
Lost Time Adjust (s)	0.0			0.0			0.0			0.0		
Total Lost Time (s)	7.0			7.0			7.0			6.0		
Lead/Lag	Lag		Lag	Lag						Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0			0.2			2.0		
Recall Mode	None		None	None			C-Max			None		
Walk Time (s)	7.0		7.0	7.0			7.0			7.0		
Flash Dont Walk (s)	4.0		4.0	4.0			6.0			12.0		
Pedestrian Calls (#/hr)	101		101	101			101			45		
Act Effct Green (s)	25.2			25.2	76.2		42.6			15.4		
Actuated g/C Ratio	0.25			0.25	0.76		0.43			0.15		
v/c Ratio	0.53			0.70	0.40		0.58			0.10		
Control Delay	33.9			49.7	3.1		28.2			0.8		
Queue Delay	0.3			2.0	0.3		0.9			0.0		
Total Delay	34.2			51.7	3.4		29.1			0.8		
LOS	C			D	A		C			A		
Approach Delay	34.2			16.8			29.1			0.8		
Approach LOS	C			B			C			A		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 6 (6%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	418	261	680	612	26
v/c Ratio	0.53	0.70	0.40	0.58	0.10
Control Delay	33.9	49.7	3.1	28.2	0.8
Queue Delay	0.3	2.0	0.3	0.9	0.0
Total Delay	34.2	51.7	3.4	29.1	0.8
Queue Length 50th (ft)	120	177	19	219	0
Queue Length 95th (ft)	145	259	40	#287	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	1001	476	1670	1061	308
Starvation Cap Reductn	0	104	390	0	0
Spillback Cap Reductn	179	0	0	213	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.70	0.53	0.72	0.08

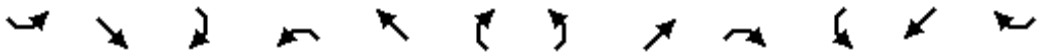
Intersection Summary

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

Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	345	15	10	230	595	30	495	25	25	0	10	10
Future Volume (vph)	345	15	10	230	595	30	495	25	25	0	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	10	12	12	16	12	12
Total Lost time (s)	7.0			7.0	7.0		7.0			6.0		
Lane Util. Factor	0.95			1.00	0.88		0.97			1.00		
Frpb, ped/bikes	0.97			1.00	1.00		0.92			0.63		
Flpb, ped/bikes	1.00			1.00	1.00		1.00			1.00		
Frt	0.99			1.00	0.85		0.99			0.86		
Flt Protected	1.00			1.00	1.00		0.96			1.00		
Satd. Flow (prot)	3131			1529	2219		2493			1060		
Flt Permitted	1.00			0.97	1.00		0.96			1.00		
Satd. Flow (perm)	3131			1488	2219		2493			1060		
Peak-hour factor, PHF	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.75	0.75	0.75
Adj. Flow (vph)	401	17	11	250	647	33	556	28	28	0	13	13
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	23	0	0
Lane Group Flow (vph)	418	0	0	261	671	0	612	0	0	3	0	0
Confl. Peds. (#/hr)		407				110		407	295		295	95
Confl. Bikes (#/hr)		6			2	2		21	21			
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	7%	4%	20%	0%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		Prot			NA		
Protected Phases	6			6	1 6		1			5		
Permitted Phases			6									
Actuated Green, G (s)	25.2			25.2	73.6		41.4			13.4		
Effective Green, g (s)	25.2			25.2	73.6		41.4			13.4		
Actuated g/C Ratio	0.25			0.25	0.74		0.41			0.13		
Clearance Time (s)	7.0			7.0			7.0			6.0		
Vehicle Extension (s)	2.0			2.0			0.2			2.0		
Lane Grp Cap (vph)	789			374	1633		1032			142		
v/s Ratio Prot	0.13				0.30		c0.25			c0.00		
v/s Ratio Perm				c0.18								
v/c Ratio	0.53			0.70	0.41		0.59			0.02		
Uniform Delay, d1	32.3			33.9	5.0		22.8			37.6		
Progression Factor	1.00			1.26	0.45		0.97			1.00		
Incremental Delay, d2	0.3			3.6	0.0		2.4			0.0		
Delay (s)	32.6			46.4	2.3		24.4			37.6		
Level of Service	C			D	A		C			D		
Approach Delay (s)	32.6			14.5			24.4			37.6		
Approach LOS	C			B			C			D		

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



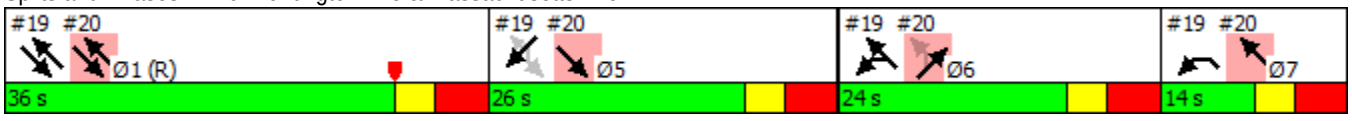
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	760	80	15	815	0	0	0	0	90	20	50
Future Volume (vph)	0	760	80	15	815	0	0	0	0	90	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.93		0.79								0.70
Frt		0.986										0.850
Flt Protected				0.950							0.961	
Satd. Flow (prot)	0	2642	0	1425	2861	0	0	0	0	0	1442	1301
Flt Permitted				0.950							0.961	
Satd. Flow (perm)	0	2642	0	1129	2861	0	0	0	0	0	1442	916
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Adj. Flow (vph)	0	844	89	16	876	0	0	0	0	106	24	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	933	0	16	876	0	0	0	0	0	130	59
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		169								169	169	169
Act Effct Green (s)		30.0		30.6	46.6						18.4	18.4
Actuated g/C Ratio		0.30		0.31	0.47						0.18	0.18
v/c Ratio		1.16		0.04	0.66						0.49	0.18
Control Delay		113.7		41.5	16.4						43.6	1.2
Queue Delay		0.3		0.0	0.1						0.0	0.0
Total Delay		114.0		41.5	16.5						43.6	1.2
LOS		F		D	B						D	A
Approach Delay		114.0			16.9						30.4	
Approach LOS		F			B						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 63.2		Intersection LOS: E	
Intersection Capacity Utilization 95.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	42	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary



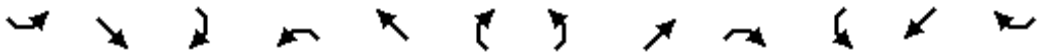
Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	933	16	876	130	59
v/c Ratio	1.16	0.04	0.66	0.49	0.18
Control Delay	113.7	41.5	16.4	43.6	1.2
Queue Delay	0.3	0.0	0.1	0.0	0.0
Total Delay	114.0	41.5	16.5	43.6	1.2
Queue Length 50th (ft)	~370	8	252	75	0
Queue Length 95th (ft)	#494	m17	332	126	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	801	421	1345	273	332
Starvation Cap Reductn	40	0	0	0	0
Spillback Cap Reductn	10	0	43	0	3
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.23	0.04	0.67	0.48	0.18

Intersection Summary

~ 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.

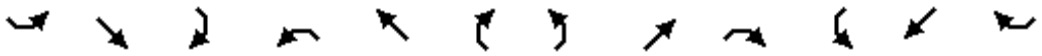
m Volume for 95th percentile queue is metered by upstream signal.



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	760	80	15	815	0	0	0	0	90	20	50
Future Volume (vph)	0	760	80	15	815	0	0	0	0	90	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.93		1.00	1.00						1.00	0.70
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2641		1425	2861						1441	916
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2641		1425	2861						1441	916
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	844	89	16	876	0	0	0	0	106	24	59
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	48
Lane Group Flow (vph)	0	925	0	16	876	0	0	0	0	0	130	11
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		30.0		30.6	46.6						18.4	18.4
Effective Green, g (s)		30.0		30.6	46.6						18.4	18.4
Actuated g/C Ratio		0.30		0.31	0.47						0.18	0.18
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		792		436	1333						265	168
v/s Ratio Prot		c0.35		c0.01	c0.31							
v/s Ratio Perm											0.09	0.01
v/c Ratio		1.17		0.04	0.66						0.49	0.06
Uniform Delay, d1		35.0		24.4	20.6						36.6	33.7
Progression Factor		0.77		1.70	1.23						1.00	1.00
Incremental Delay, d2		87.6		0.0	0.8						0.5	0.1
Delay (s)		114.4		41.4	26.0						37.1	33.8
Level of Service		F		D	C						D	C
Approach Delay (s)		114.4			26.3			0.0			36.1	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	68.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



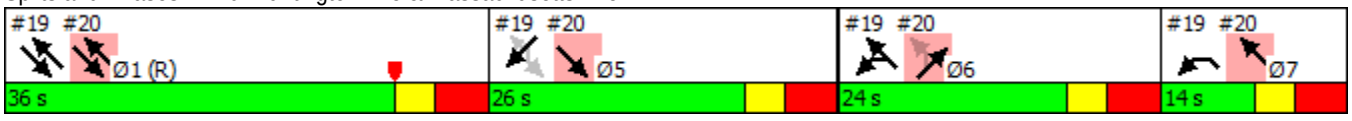
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	850	0	0	745	90	70	20	65	0	0	0
Future Volume (vph)	0	850	0	0	745	90	70	20	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.96			0.94				
Frt					0.984			0.937				
Flt Protected								0.978				
Satd. Flow (prot)	0	3185	0	0	4054	0	0	2327	0	0	0	0
Flt Permitted								0.978				
Satd. Flow (perm)	0	3185	0	0	4054	0	0	2327	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			76				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Adj. Flow (vph)	0	944	0	0	801	97	82	24	76	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	944	0	0	898	0	0	182	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							42	42				
Act Effct Green (s)		55.4			44.0			16.6				
Actuated g/C Ratio		0.55			0.44			0.17				
v/c Ratio		0.53			0.50			0.41				
Control Delay		0.7			20.8			24.3				
Queue Delay		0.0			0.3			0.1				
Total Delay		0.7			21.1			24.3				
LOS		A			C			C				
Approach Delay		0.7			21.1			24.3				
Approach LOS		A			C			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 95.0%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



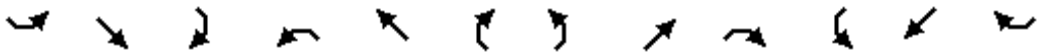
Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	169	169	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Lane Group	SET	NWT	NET
Lane Group Flow (vph)	944	898	182
v/c Ratio	0.53	0.50	0.41
Control Delay	0.7	20.8	24.3
Queue Delay	0.0	0.3	0.1
Total Delay	0.7	21.1	24.3
Queue Length 50th (ft)	2	142	31
Queue Length 95th (ft)	m2	184	58
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1784	1800	458
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	368	13
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.53	0.63	0.41

Intersection Summary

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



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	850	0	0	745	90	70	20	65	0	0	0
Future Volume (vph)	0	850	0	0	745	90	70	20	65	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.96			0.94				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.94				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		3185			4054			2328				
Flt Permitted		1.00			1.00			0.98				
Satd. Flow (perm)		3185			4054			2328				
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Adj. Flow (vph)	0	944	0	0	801	97	82	24	76	0	0	0
RTOR Reduction (vph)	0	0	0	0	15	0	0	63	0	0	0	0
Lane Group Flow (vph)	0	944	0	0	883	0	0	119	0	0	0	0
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.4			44.0			16.6				
Effective Green, g (s)		55.4			44.0			16.6				
Actuated g/C Ratio		0.55			0.44			0.17				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1764			1783			386				
v/s Ratio Prot		c0.30			c0.22							
v/s Ratio Perm								0.05				
v/c Ratio		0.54			0.50			0.31				
Uniform Delay, d1		14.1			20.1			36.6				
Progression Factor		0.04			1.00			1.00				
Incremental Delay, d2		0.0			0.1			0.2				
Delay (s)		0.6			20.1			36.8				
Level of Service		A			C			D				
Approach Delay (s)		0.6			20.1			36.8			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	50	520	45	0	620
Future Volume (vph)	0	50	520	45	0	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.99			
Frt		0.865	0.988			
Flt Protected						
Satd. Flow (prot)	0	1205	3087	0	0	3474
Flt Permitted						
Satd. Flow (perm)	0	1205	3087	0	0	3474
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		250	16			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Peak Hour Factor	0.72	0.72	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	69	553	48	0	646
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	69	601	0	0	646
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Detector Phase		3	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		27.0	12.0			12.0
Total Split (s)		37.0	73.0			73.0
Total Split (%)		33.6%	66.4%			66.4%
Maximum Green (s)		33.0	69.0			69.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		18				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.19	0.23			0.22
Control Delay		1.1	3.4			1.0
Queue Delay		0.0	0.0			0.0
Total Delay		1.1	3.4			1.0
LOS		A	A			A
Approach Delay	1.1		3.4			1.0
Approach LOS	A		A			A

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 57 (52%), Referenced to phase 1:NESW, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.23			
Intersection Signal Delay: 2.1		Intersection LOS: A	
Intersection Capacity Utilization 42.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	69	601	646
v/c Ratio	0.19	0.23	0.22
Control Delay	1.1	3.4	1.0
Queue Delay	0.0	0.0	0.0
Total Delay	1.1	3.4	1.0
Queue Length 50th (ft)	0	26	10
Queue Length 95th (ft)	0	87	22
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	536	2562	2880
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.13	0.23	0.22

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	50	520	45	0	620
Future Volume (vph)	0	50	520	45	0	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1205	3090			3474
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1205	3090			3474
Peak-hour factor, PHF	0.72	0.72	0.94	0.94	0.96	0.96
Adj. Flow (vph)	0	69	553	48	0	646
RTOR Reduction (vph)	0	61	3	0	0	0
Lane Group Flow (vph)	0	8	598	0	0	646
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		135	2516			2829
v/s Ratio Prot		c0.01	c0.19			0.19
v/s Ratio Perm						
v/c Ratio		0.06	0.24			0.23
Uniform Delay, d1		43.6	2.3			2.3
Progression Factor		1.00	1.00			0.26
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.6	2.6			0.8
Level of Service		D	A			A
Approach Delay (s)	43.6		2.6			0.8
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

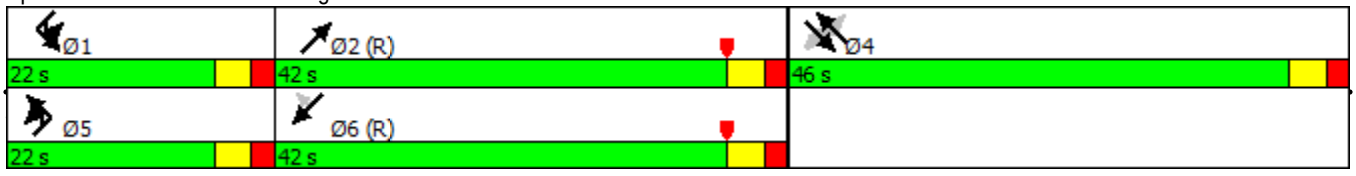
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	90	80	45	60	225	65	10	130	395	30	75	150
Future Volume (vph)	90	80	45	60	225	65	10	130	395	30	75	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.86		0.87		0.92			0.86	0.97			0.79
Frt			0.850		0.975				0.989			
Flt Protected	0.950				0.991			0.950				0.950
Satd. Flow (prot)	1417	1629	1357	0	1703	0	0	1299	2954	0	0	1435
Flt Permitted	0.366				0.928			0.950				0.950
Satd. Flow (perm)	472	1629	1185	0	1566	0	0	1122	2954	0	0	1140
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		12				8			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Adj. Flow (vph)	99	88	49	67	250	72	11	146	444	34	91	183
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	88	49	0	389	0	0	157	478	0	0	274
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	505	315
Future Volume (vph)	505	315
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.67
Frt		0.850
Flt Protected		
Satd. Flow (prot)	2963	1201
Flt Permitted		
Satd. Flow (perm)	2963	809
Right Turn on Red		Yes
Satd. Flow (RTOR)		123
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.82	0.82
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Adj. Flow (vph)	616	384
Shared Lane Traffic (%)		
Lane Group Flow (vph)	616	384
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	46.0	46.0	46.0	46.0	46.0		22.0	22.0	42.0		22.0	22.0
Total Split (%)	41.8%	41.8%	41.8%	41.8%	41.8%		20.0%	20.0%	38.2%		20.0%	20.0%
Maximum Green (s)	41.0	41.0	41.0	41.0	41.0		17.0	17.0	37.0		17.0	17.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Recall Mode	None	None	None	None	None		None	None	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	106	106	106	106	106				111			
Act Effct Green (s)	33.1	33.1	33.1		33.1			16.8	37.0			24.9
Actuated g/C Ratio	0.30	0.30	0.30		0.30			0.15	0.34			0.23
v/c Ratio	0.70	0.18	0.12		0.81			0.79	0.48			0.85
Control Delay	59.3	27.8	3.5		47.9			82.7	27.5			66.1
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	59.3	27.8	3.5		47.9			82.7	27.5			66.1
LOS	E	C	A		D			F	C			E
Approach Delay		36.0			47.9				41.2			
Approach LOS		D			D				D			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 25 (23%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 43.8		Intersection LOS: D	
Intersection Capacity Utilization 90.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	42.0	42.0
Total Split (%)	38.2%	38.2%
Maximum Green (s)	37.0	37.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	111	111
Act Effct Green (s)	45.1	45.1
Actuated g/C Ratio	0.41	0.41
v/c Ratio	0.51	0.95
Control Delay	27.7	58.8
Queue Delay	0.0	0.0
Total Delay	27.7	58.8
LOS	C	E
Approach Delay	45.3	
Approach LOS	D	

Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	99	88	49	389	157	478	274	616	384
v/c Ratio	0.70	0.18	0.12	0.81	0.79	0.48	0.85	0.51	0.95
Control Delay	59.3	27.8	3.5	47.9	82.7	27.5	66.1	27.7	58.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	27.8	3.5	47.9	82.7	27.5	66.1	27.7	58.8
Queue Length 50th (ft)	62	46	0	249	114	137	184	170	197
Queue Length 95th (ft)	121	77	16	330	#220	156	#357	223	#367
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	175	607	484	591	215	998	324	1214	404
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.14	0.10	0.66	0.73	0.48	0.85	0.51	0.95

Intersection Summary

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

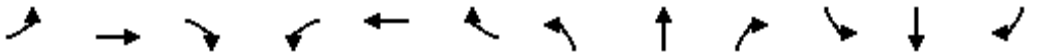
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	90	80	45	60	225	65	10	130	395	30	75	150
Future Volume (vph)	90	80	45	60	225	65	10	130	395	30	75	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.94			1.00	0.97			1.00
Flpb, ped/bikes	0.87	1.00	1.00		0.98			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.98			1.00	0.99			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1236	1629	1184		1673			1299	2955			1435
Flt Permitted	0.37	1.00	1.00		0.93			0.95	1.00			0.95
Satd. Flow (perm)	476	1629	1184		1566			1299	2955			1435
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Adj. Flow (vph)	99	88	49	67	250	72	11	146	444	34	91	183
RTOR Reduction (vph)	0	0	34	0	8	0	0	0	5	0	0	0
Lane Group Flow (vph)	99	88	15	0	381	0	0	157	473	0	0	274
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	33.1	33.1	33.1		33.1			16.8	37.0			24.9
Effective Green, g (s)	33.1	33.1	33.1		33.1			16.8	37.0			24.9
Actuated g/C Ratio	0.30	0.30	0.30		0.30			0.15	0.34			0.23
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0	2.0			2.0
Lane Grp Cap (vph)	143	490	356		471			198	993			324
v/s Ratio Prot		0.05						0.12	0.16			c0.19
v/s Ratio Perm	0.21		0.01		c0.24							
v/c Ratio	0.69	0.18	0.04		0.81			0.79	0.48			0.85
Uniform Delay, d1	34.0	28.4	27.2		35.5			44.9	28.8			40.7
Progression Factor	1.00	1.00	1.00		1.00			1.26	0.90			1.00
Incremental Delay, d2	11.1	0.1	0.0		9.3			17.9	1.6			17.3
Delay (s)	45.0	28.5	27.2		44.8			74.4	27.7			58.1
Level of Service	D	C	C		D			E	C			E
Approach Delay (s)		35.2			44.8				39.2			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	42.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

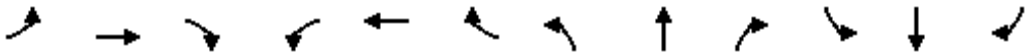


Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	505	315
Future Volume (vph)	505	315
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.67
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	2963	809
Flt Permitted	1.00	1.00
Satd. Flow (perm)	2963	809
Peak-hour factor, PHF	0.82	0.82
Adj. Flow (vph)	616	384
RTOR Reduction (vph)	0	73
Lane Group Flow (vph)	616	311
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	45.1	45.1
Effective Green, g (s)	45.1	45.1
Actuated g/C Ratio	0.41	0.41
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	2.0	2.0
Lane Grp Cap (vph)	1214	331
v/s Ratio Prot	0.21	
v/s Ratio Perm		c0.38
v/c Ratio	0.51	0.94
Uniform Delay, d1	24.2	31.2
Progression Factor	1.00	1.00
Incremental Delay, d2	1.5	36.5
Delay (s)	25.7	67.7
Level of Service	C	E
Approach Delay (s)	45.3	
Approach LOS	D	

Intersection Summary



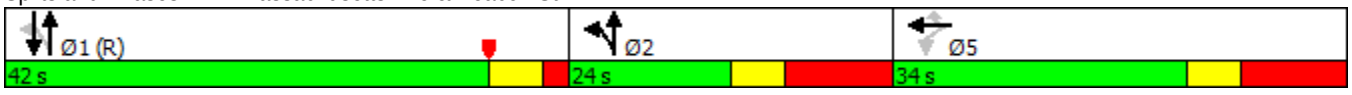
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	45	295	155	155	785	0	0	695	290
Future Volume (vph)	0	0	0	45	295	155	155	785	0	0	695	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.98	0.79					0.90	
Frt						0.850					0.956	
Flt Protected					0.993			0.992				
Satd. Flow (prot)	0	0	0	0	2903	1311	0	2888	0	0	2523	0
Flt Permitted					0.993			0.511				
Satd. Flow (perm)	0	0	0	0	2848	1033	0	1488	0	0	2523	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	52	339	178	167	844	0	0	739	309
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	391	178	0	1011	0	0	1048	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				33.0	33.0	33.0	23.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.0	22.0	22.0	12.0				36.0	
Yellow Time (s)				4.0	4.0	4.0	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					12.0	12.0					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				None	None	None	Max				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	10.0				10.0	
Pedestrian Calls (#/hr)				58	58	58	0				174	
Act Effct Green (s)					20.0	20.0		56.0			38.0	
Actuated g/C Ratio					0.20	0.20		0.56			0.38	
v/c Ratio					0.69	0.86		0.93			1.05	
Control Delay					43.4	74.3		31.5			71.2	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					43.4	74.3		31.5			71.2	
LOS					D	E		C			E	
Approach Delay					53.1			31.5			71.2	
Approach LOS					D			C			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 52 (52%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 52.0		Intersection LOS: D	
Intersection Capacity Utilization 100.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



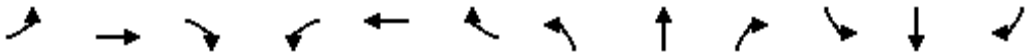


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	391	178	1011	1048
v/c Ratio	0.69	0.86	0.93	1.05
Control Delay	43.4	74.3	31.5	71.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.4	74.3	31.5	71.2
Queue Length 50th (ft)	119	108	167	~385
Queue Length 95th (ft)	163	#209	#323	#516
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	626	227	1084	1002
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.62	0.78	0.93	1.05

Intersection Summary

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

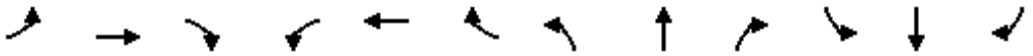
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	45	295	155	155	785	0	0	695	290
Future Volume (vph)	0	0	0	45	295	155	155	785	0	0	695	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					12.0	12.0		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.79		1.00			0.90	
Flpb, ped/bikes					0.98	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2849	1031		2887			2524	
Flt Permitted					0.99	1.00		0.51			1.00	
Satd. Flow (perm)					2849	1031		1489			2524	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	52	339	178	167	844	0	0	739	309
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	45	0
Lane Group Flow (vph)	0	0	0	0	391	178	0	1011	0	0	1003	0
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					20.0	20.0		50.0			38.0	
Effective Green, g (s)					20.0	20.0		50.0			38.0	
Actuated g/C Ratio					0.20	0.20		0.50			0.38	
Clearance Time (s)					12.0	12.0					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					569	206		912			959	
v/s Ratio Prot								c0.13			0.40	
v/s Ratio Perm					0.14	c0.17		c0.42				
v/c Ratio					0.69	0.86		1.11			1.05	
Uniform Delay, d1					37.1	38.7		25.0			31.0	
Progression Factor					1.00	1.00		0.76			1.00	
Incremental Delay, d2					2.8	28.4		62.1			41.9	
Delay (s)					39.9	67.1		81.1			72.9	
Level of Service					D	E		F			E	
Approach Delay (s)		0.0			48.4			81.1			72.9	
Approach LOS		A			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	70.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	30.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	35	10	0	0	0	0	830	25	80	665	0
Future Volume (vph)	110	35	10	0	0	0	0	830	25	80	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.93						0.98			0.99	
Frt		0.991						0.996				
Flt Protected		0.966									0.995	
Satd. Flow (prot)	0	1642	0	0	0	0	0	2839	0	0	2873	0
Flt Permitted		0.966									0.727	
Satd. Flow (perm)	0	1542	0	0	0	0	0	2839	0	0	2073	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	121	38	11	0	0	0	0	912	27	89	739	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	170	0	0	0	0	0	939	0	0	828	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	27.0	27.0						61.0		12.0		
Total Split (%)	27.0%	27.0%						61.0%		12.0%		
Maximum Green (s)	22.0	22.0						56.0		7.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lag	Lag						Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	27	27						180		180		
Act Effct Green (s)		17.0						58.6			68.0	
Actuated g/C Ratio		0.17						0.59			0.68	
v/c Ratio		0.65						0.56			0.56	
Control Delay		48.6						6.6			2.9	
Queue Delay		0.3						0.1			0.1	
Total Delay		48.9						6.7			3.1	
LOS		D						A			A	
Approach Delay		48.9						6.7			3.1	
Approach LOS		D						A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 62 (62%), Referenced to phase 1:NBSB, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 8.9 Intersection LOS: A
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Ave & Marlborough St

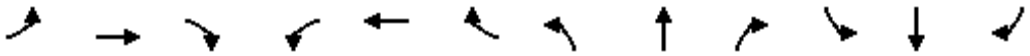




Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	170	939	828
v/c Ratio	0.65	0.56	0.56
Control Delay	48.6	6.6	2.9
Queue Delay	0.3	0.1	0.1
Total Delay	48.9	6.7	3.1
Queue Length 50th (ft)	95	53	8
Queue Length 95th (ft)	162	52	m8
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	341	1663	1485
Starvation Cap Reductn	0	41	112
Spillback Cap Reductn	20	93	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.53	0.60	0.60

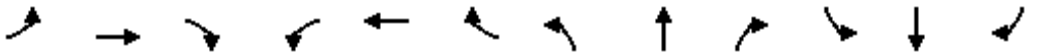
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	35	10	0	0	0	0	830	25	80	665	0
Future Volume (vph)	110	35	10	0	0	0	0	830	25	80	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.94						1.00			0.99	
Frt		0.99						1.00			1.00	
Flt Protected		0.97						1.00			0.99	
Satd. Flow (prot)		1542						2838			2845	
Flt Permitted		0.97						1.00			0.73	
Satd. Flow (perm)		1542						2838			2079	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	121	38	11	0	0	0	0	912	27	89	739	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	168	0	0	0	0	0	939	0	0	828	0
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.0						58.6			68.0	
Effective Green, g (s)		17.0						58.6			68.0	
Actuated g/C Ratio		0.17						0.59			0.68	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		262						1663			1485	
v/s Ratio Prot								c0.33			c0.05	
v/s Ratio Perm		0.11									0.33	
v/c Ratio		0.64						0.56			0.56	
Uniform Delay, d1		38.6						12.8			8.2	
Progression Factor		1.00						0.39			0.35	
Incremental Delay, d2		3.7						1.3			0.1	
Delay (s)		42.4						6.3			2.9	
Level of Service		D						A			A	
Approach Delay (s)		42.4			0.0			6.3			2.9	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



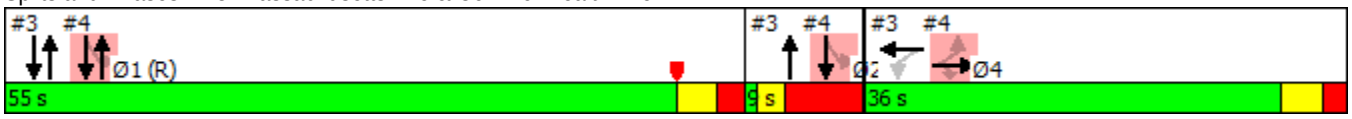
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	35	130	0	725	0	0	655	20
Future Volume (vph)	0	0	0	50	35	130	0	725	0	0	655	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.86	0.73						0.98	
Frt					0.882						0.996	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1570	948	0	0	2963	0	0	2824	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1347	948	0	0	2963	0	0	2824	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					155							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	60	42	155	0	771	0	0	720	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	60	197	0	0	771	0	0	742	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				36.0	36.0						55.0	
Total Split (%)				36.0%	36.0%						55.0%	
Maximum Green (s)				31.0	31.0						50.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				94	94						181	
Act Effct Green (s)				31.0	31.0			59.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.59			0.50	
v/c Ratio				0.14	0.49			0.44			0.53	
Control Delay				26.2	12.2			7.1			10.4	
Queue Delay				0.0	0.0			0.4			0.5	
Total Delay				26.2	12.2			7.5			10.9	
LOS				C	B			A			B	
Approach Delay					15.4			7.5			10.9	
Approach LOS					B			A			B	

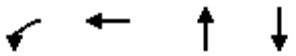
Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



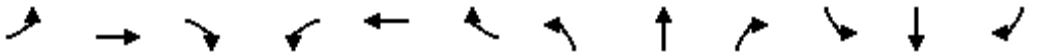
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



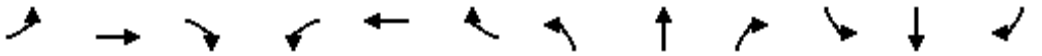
Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	60	197	771	742
v/c Ratio	0.14	0.49	0.44	0.53
Control Delay	26.2	12.2	7.1	10.4
Queue Delay	0.0	0.0	0.4	0.5
Total Delay	26.2	12.2	7.5	10.9
Queue Length 50th (ft)	28	19	64	68
Queue Length 95th (ft)	55	70	77	131
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	417	400	1748	1412
Starvation Cap Reductn	0	0	451	291
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.14	0.49	0.59	0.66

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	35	130	0	725	0	0	655	20
Future Volume (vph)	0	0	0	50	35	130	0	725	0	0	655	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.73			1.00			0.98	
Flpb, ped/bikes				0.86	1.00			1.00			1.00	
Frt				1.00	0.88			1.00			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1347	948			2963			2823	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1347	948			2963			2823	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Adj. Flow (vph)	0	0	0	60	42	155	0	771	0	0	720	22
RTOR Reduction (vph)	0	0	0	0	107	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	60	90	0	0	771	0	0	742	0
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				31.0	31.0			56.0			50.0	
Effective Green, g (s)				31.0	31.0			56.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.56			0.50	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				417	293			1659			1411	
v/s Ratio Prot					c0.10			c0.26			c0.26	
v/s Ratio Perm				0.04								
v/c Ratio				0.14	0.31			0.46			0.53	
Uniform Delay, d1				24.9	26.3			13.1			17.0	
Progression Factor				1.00	1.00			0.56			0.54	
Incremental Delay, d2				0.7	2.7			0.8			1.2	
Delay (s)				25.6	29.0			8.1			10.3	
Level of Service				C	C			A			B	
Approach Delay (s)		0.0			28.2			8.1			10.3	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	65	220	0	0	0	0	565	55	80	625	0
Future Volume (vph)	160	65	220	0	0	0	0	565	55	80	625	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.90	0.73					0.96			0.99	
Frt			0.850					0.987				
Flt Protected		0.966									0.994	
Satd. Flow (prot)	0	1513	1172	0	0	0	0	2757	0	0	3041	0
Flt Permitted		0.966									0.773	
Satd. Flow (perm)	0	1359	860	0	0	0	0	2757	0	0	2331	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			303			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	176	71	242	0	0	0	0	601	59	89	694	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	242	0	0	0	0	660	0	0	783	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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

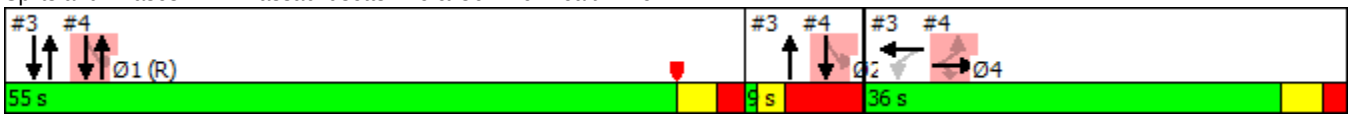
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	36.0	36.0	36.0					55.0				
Total Split (%)	36.0%	36.0%	36.0%					55.0%				
Maximum Green (s)	31.0	31.0	31.0					50.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	94	94	94					181				
Act Effct Green (s)		31.0	31.0					50.0			59.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.59	
v/c Ratio		0.59	0.91					0.48			0.57	
Control Delay		35.9	71.6					20.2			3.7	
Queue Delay		62.5	0.0					0.5			0.2	
Total Delay		98.4	71.6					20.7			3.9	
LOS		F	E					C			A	
Approach Delay		85.1						20.7			3.9	
Approach LOS		F						C			A	

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 77.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

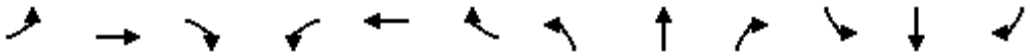
Intersection Summary



Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	247	242	660	783
v/c Ratio	0.59	0.91	0.48	0.57
Control Delay	35.9	71.6	20.2	3.7
Queue Delay	62.5	0.0	0.5	0.2
Total Delay	98.4	71.6	20.7	3.9
Queue Length 50th (ft)	132	148	192	22
Queue Length 95th (ft)	216	#297	180	26
Internal Link Dist (ft)	536		223	69
Turn Bay Length (ft)				
Base Capacity (vph)	421	266	1378	1375
Starvation Cap Reductn	0	0	337	130
Spillback Cap Reductn	206	0	41	14
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.15	0.91	0.63	0.63

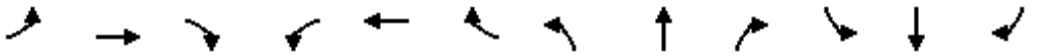
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	65	220	0	0	0	0	565	55	80	625	0
Future Volume (vph)	160	65	220	0	0	0	0	565	55	80	625	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.73					0.96			1.00	
Flpb, ped/bikes		0.90	1.00					1.00			0.99	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.97	1.00					1.00			0.99	
Satd. Flow (prot)		1358	860					2756			2999	
Flt Permitted		0.97	1.00					1.00			0.77	
Satd. Flow (perm)		1358	860					2756			2332	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	176	71	242	0	0	0	0	601	59	89	694	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	247	242	0	0	0	0	660	0	0	783	0
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		31.0	31.0					50.0			56.0	
Effective Green, g (s)		31.0	31.0					50.0			56.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.56	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		420	266					1378			1305	
v/s Ratio Prot								0.24				
v/s Ratio Perm		0.18	c0.28								c0.34	
v/c Ratio		0.59	0.91					0.48			0.60	
Uniform Delay, d1		29.1	33.2					16.4			14.6	
Progression Factor		1.00	1.00					1.15			0.17	
Incremental Delay, d2		5.9	36.1					1.0			1.8	
Delay (s)		35.0	69.3					19.9			4.3	
Level of Service		D	E					B			A	
Approach Delay (s)		52.0			0.0			19.9			4.3	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	570	40	100	115	0	0	0	0
Future Volume (vph)	0	0	0	0	570	40	100	115	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.90				
Frt					0.990							
Flt Protected								0.977				
Satd. Flow (prot)	0	0	0	0	2921	0	0	3052	0	0	0	0
Flt Permitted								0.977				
Satd. Flow (perm)	0	0	0	0	2921	0	0	2757	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					14			111				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	704	49	111	128	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	753	0	0	239	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					58.0		22.5	22.5				
Total Split (s)					58.0		32.0	32.0				
Total Split (%)					64.4%		35.6%	35.6%				
Maximum Green (s)					53.5		27.5	27.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					46.5		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					63		52	52				
Act Effct Green (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
v/c Ratio					0.43			0.26				
Control Delay					5.3			8.1				
Queue Delay					0.0			0.9				
Total Delay					5.3			9.0				
LOS					A			A				
Approach Delay					5.3			9.0				
Approach LOS					A			A				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 58.8%	ICU Level of Service B
Analysis Period (min) 15	

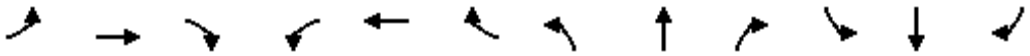
Splits and Phases: 5: Hereford St & Commonwealth Ave





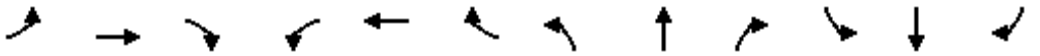
Lane Group	WBT	NBT
Lane Group Flow (vph)	753	239
v/c Ratio	0.43	0.26
Control Delay	5.3	8.1
Queue Delay	0.0	0.9
Total Delay	5.3	9.0
Queue Length 50th (ft)	36	13
Queue Length 95th (ft)	41	26
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1742	919
Starvation Cap Reductn	0	438
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.43	0.50

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	570	40	100	115	0	0	0	0
Future Volume (vph)	0	0	0	0	570	40	100	115	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.90				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2921			2758				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2921			2758				
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	704	49	111	128	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	77	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	747	0	0	162	0	0	0	0
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					53.5			27.5				
Effective Green, g (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1736			842				
v/s Ratio Prot					c0.26							
v/s Ratio Perm								0.06				
v/c Ratio					0.43			0.19				
Uniform Delay, d1					9.9			23.1				
Progression Factor					0.46			0.60				
Incremental Delay, d2					0.7			0.5				
Delay (s)					5.3			14.3				
Level of Service					A			B				
Approach Delay (s)		0.0			5.3			14.3			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	790	0	0	0	0	0	155	100	0	0	0
Future Volume (vph)	60	790	0	0	0	0	0	155	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.93				
Frt								0.941				
Flt Protected		0.996										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2582	0	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	2915	0	0	0	0	0	2582	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						106				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			314			139	
Travel Time (s)		16.2			10.1			7.1			3.2	
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Adj. Flow (vph)	67	878	0	0	0	0	0	165	106	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	945	0	0	0	0	0	271	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	58.0	58.0						22.5				
Total Split (s)	58.0	58.0						32.0				
Total Split (%)	64.4%	64.4%						35.6%				
Maximum Green (s)	53.5	53.5						27.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	46.5	46.5						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	63	63						52				
Act Effct Green (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
v/c Ratio		0.54						0.31				
Control Delay		12.1						15.4				
Queue Delay		0.0						0.0				
Total Delay		12.1						15.4				
LOS		B						B				
Approach Delay		12.1						15.4				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.9		Intersection LOS: B	
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

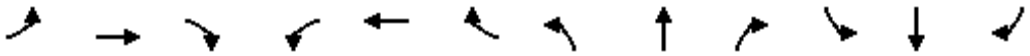
Splits and Phases: 6: Hereford St & Commonwealth Ave





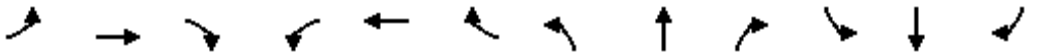
Lane Group	EBT	NBT
Lane Group Flow (vph)	945	271
v/c Ratio	0.54	0.31
Control Delay	12.1	15.4
Queue Delay	0.0	0.0
Total Delay	12.1	15.4
Queue Length 50th (ft)	152	36
Queue Length 95th (ft)	204	68
Internal Link Dist (ft)	633	234
Turn Bay Length (ft)		
Base Capacity (vph)	1740	862
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.31

Intersection Summary

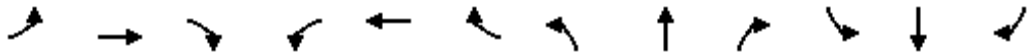


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	790	0	0	0	0	0	155	100	0	0	0
Future Volume (vph)	60	790	0	0	0	0	0	155	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.93				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2916						2583				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2916						2583				
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	67	878	0	0	0	0	0	165	106	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	74	0	0	0	0
Lane Group Flow (vph)	0	938	0	0	0	0	0	197	0	0	0	0
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		53.5						27.5				
Effective Green, g (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1733						789				
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.32										
v/c Ratio		0.54						0.25				
Uniform Delay, d1		10.9						23.5				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.2						0.8				
Delay (s)		12.1						24.3				
Level of Service		B						C				
Approach Delay (s)		12.1			0.0			24.3			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	100	580	0	0	0	0	0	110	30
Future Volume (vph)	0	0	0	100	580	0	0	0	0	0	110	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.97	
Frt											0.968	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2943	0	0	0	0	0	2812	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2926	0	0	0	0	0	2812	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					47						34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	122	707	0	0	0	0	0	125	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	829	0	0	0	0	0	159	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

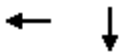


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				58.5	58.5						18.5	
Total Split (s)				65.0	65.0						25.0	
Total Split (%)				72.2%	72.2%						27.8%	
Maximum Green (s)				60.5	60.5						20.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				46.0	46.0						7.0	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				58	58						37	
Act Effct Green (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
v/c Ratio					0.42						0.24	
Control Delay					7.0						23.3	
Queue Delay					0.0						0.0	
Total Delay					7.0						23.3	
LOS					A						C	
Approach Delay					7.0						23.3	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 40.2%		ICU Level of Service A	
Analysis Period (min) 15			

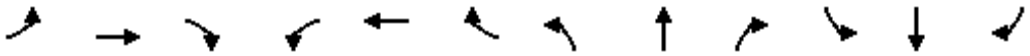
Splits and Phases: 7: Gloucester St & Commonwealth Ave





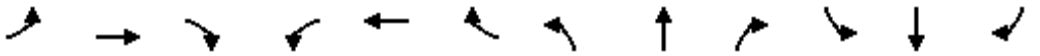
Lane Group	WBT	SBT
Lane Group Flow (vph)	829	159
v/c Ratio	0.42	0.24
Control Delay	7.0	23.3
Queue Delay	0.0	0.0
Total Delay	7.0	23.3
Queue Length 50th (ft)	92	30
Queue Length 95th (ft)	108	55
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1982	666
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.42	0.24

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	100	580	0	0	0	0	0	110	30
Future Volume (vph)	0	0	0	100	580	0	0	0	0	0	110	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.97	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2925						2812	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2925						2812	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	122	707	0	0	0	0	0	125	34
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	0	0	0	814	0	0	0	0	0	133	0
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					60.5						20.5	
Effective Green, g (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1966						640	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.28							
v/c Ratio					0.41						0.21	
Uniform Delay, d1					6.7						28.2	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.6						0.7	
Delay (s)					7.3						28.9	
Level of Service					A						C	
Approach Delay (s)		0.0			7.3			0.0			28.9	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	730	160	0	0	0	0	0	0	45	165	0
Future Volume (vph)	0	730	160	0	0	0	0	0	0	45	165	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.98									0.97	
Frt		0.973										
Flt Protected											0.989	
Satd. Flow (prot)	0	2811	0	0	0	0	0	0	0	0	3570	0
Flt Permitted											0.989	
Satd. Flow (perm)	0	2811	0	0	0	0	0	0	0	0	3459	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											36	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	802	176	0	0	0	0	0	0	49	179	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	978	0	0	0	0	0	0	0	0	228	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		58.5								18.5	18.5	
Total Split (s)		65.0								25.0	25.0	
Total Split (%)		72.2%								27.8%	27.8%	
Maximum Green (s)		60.5								20.5	20.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		46.0								7.0	7.0	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		58								37	37	
Act Effct Green (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
v/c Ratio		0.52									0.28	
Control Delay		4.9									20.5	
Queue Delay		0.0									1.3	
Total Delay		4.9									21.8	
LOS		A									C	
Approach Delay		4.9									21.8	
Approach LOS		A									C	

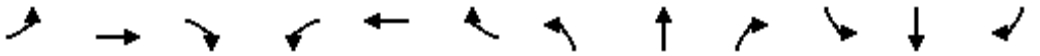
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 59.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



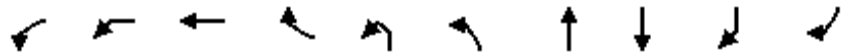
Lane Group	EBT	SBT
Lane Group Flow (vph)	978	228
v/c Ratio	0.52	0.28
Control Delay	4.9	20.5
Queue Delay	0.0	1.3
Total Delay	4.9	21.8
Queue Length 50th (ft)	58	33
Queue Length 95th (ft)	73	53
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1889	815
Starvation Cap Reductn	27	398
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.53	0.55

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	730	160	0	0	0	0	0	0	45	165	0
Future Volume (vph)	0	730	160	0	0	0	0	0	0	45	165	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		2811									3461	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		2811									3461	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	802	176	0	0	0	0	0	0	49	179	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	978	0	0	0	0	0	0	0	0	200	0
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		60.5									20.5	
Effective Green, g (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1889									788	
v/s Ratio Prot		c0.35										
v/s Ratio Perm											0.06	
v/c Ratio		0.52									0.25	
Uniform Delay, d1		7.4									28.5	
Progression Factor		0.53									0.81	
Incremental Delay, d2		0.9									0.7	
Delay (s)		4.8									23.9	
Level of Service		A									C	
Approach Delay (s)		4.8			0.0			0.0			23.9	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



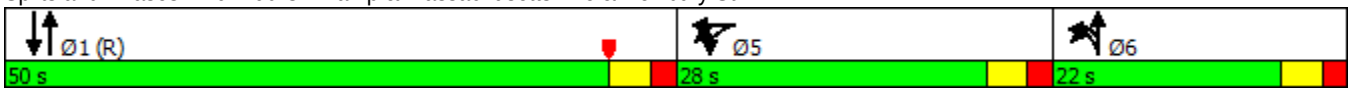
Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	110	100	30	80	235	50	540	615	195	35
Future Volume (vph)	110	100	30	80	235	50	540	615	195	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor								0.97		
Frt			0.891					0.959		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1417	1274	0	0	1499	1589	2826	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1417	1274	0	0	1499	1589	2826	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			88					6		
Link Speed (mph)			30				30	30		
Link Distance (ft)			702				307	303		
Travel Time (s)			16.0				7.0	6.9		
Confl. Bikes (#/hr)									50	50
Peak Hour Factor	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Adj. Flow (vph)	121	110	33	88	253	54	581	634	201	36
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	231	121	0	0	307	581	871	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0		
Minimum Split (s)	28.0	28.0	28.0		14.0	14.0		49.0		
Total Split (s)	28.0	28.0	28.0		22.0	22.0		50.0		
Total Split (%)	28.0%	28.0%	28.0%		22.0%	22.0%		50.0%		
Maximum Green (s)	23.0	23.0	23.0		17.0	17.0		45.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	72	72	72					180		
Act Effct Green (s)		21.1	21.1			18.9	68.9	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
v/c Ratio		0.77	0.36			1.09	0.53	0.68		
Control Delay		54.9	14.6			113.6	17.4	17.5		
Queue Delay		0.0	0.0			0.0	2.8	1.9		
Total Delay		54.9	14.6			113.6	20.2	19.3		
LOS		D	B			F	C	B		
Approach Delay			41.0				52.5	19.3		
Approach LOS			D				D	B		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 65 (65%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 36.9		Intersection LOS: D	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: I-90 On-Ramp & Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	231	121	307	581	871
v/c Ratio	0.77	0.36	1.09	0.53	0.68
Control Delay	54.9	14.6	113.6	17.4	17.5
Queue Delay	0.0	0.0	0.0	2.8	1.9
Total Delay	54.9	14.6	113.6	20.2	19.3
Queue Length 50th (ft)	136	17	~249	187	108
Queue Length 95th (ft)	#240	66	m#382	364	m138
Internal Link Dist (ft)		622		227	223
Turn Bay Length (ft)					
Base Capacity (vph)	325	360	282	1094	1275
Starvation Cap Reductn	0	0	0	385	224
Spillback Cap Reductn	0	1	0	27	246
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.34	1.09	0.82	0.85

Intersection Summary

~ 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.

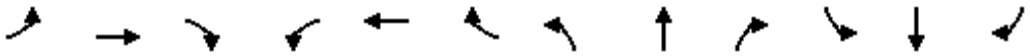
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	110	100	30	80	235	50	540	615	195	35
Future Volume (vph)	110	100	30	80	235	50	540	615	195	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.97		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.89			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1417	1274			1499	1589	2827		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1417	1274			1499	1589	2827		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	121	110	33	88	253	54	581	634	201	36
RTOR Reduction (vph)	0	0	69	0	0	0	0	3	0	0
Lane Group Flow (vph)	0	231	52	0	0	307	581	868	0	0
Confl. Bikes (#/hr)									50	50
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		21.1	21.1			18.9	68.9	45.0		
Effective Green, g (s)		21.1	21.1			18.9	68.9	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		298	268			283	1094	1272		
v/s Ratio Prot		c0.16	0.04			c0.20	0.37	c0.31		
v/s Ratio Perm										
v/c Ratio		0.78	0.19			1.08	0.53	0.68		
Uniform Delay, d1		37.2	32.4			40.5	7.6	21.8		
Progression Factor		1.00	1.00			1.05	1.90	0.69		
Incremental Delay, d2		11.9	0.4			70.1	1.3	2.2		
Delay (s)		49.1	32.8			112.5	15.8	17.3		
Level of Service		D	C			F	B	B		
Approach Delay (s)			43.5				49.2	17.3		
Approach LOS			D				D	B		

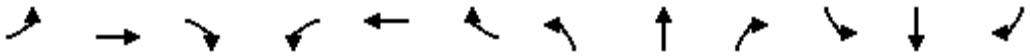
Intersection Summary			
HCM 2000 Control Delay	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	215	80	105	175	0	0	0	0
Future Volume (vph)	0	0	0	0	215	80	105	175	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.959							
Flt Protected								0.982				
Satd. Flow (prot)	0	0	0	0	2778	0	0	2915	0	0	0	0
Flt Permitted								0.982				
Satd. Flow (perm)	0	0	0	0	2778	0	0	2915	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		702			270			293			314	
Travel Time (s)		16.0			6.1			6.7			7.1	
Confl. Peds. (#/hr)						348	198					
Confl. Bikes (#/hr)						9						
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	3%	1%	0%	0%	0%	0%	0%	0%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	229	85	115	192	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	314	0	0	307	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

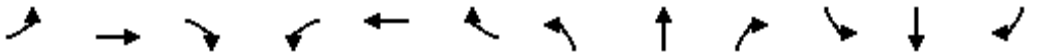
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	215	80	105	175	0	0	0	0
Future Volume (vph)	0	0	0	0	215	80	105	175	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	229	85	115	192	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	153	161	179	128
Volume Left (vph)	0	0	115	0
Volume Right (vph)	0	85	0	0
Hadj (s)	0.05	-0.34	0.32	0.00
Departure Headway (s)	5.4	5.0	5.6	5.3
Degree Utilization, x	0.23	0.22	0.28	0.19
Capacity (veh/h)	639	691	618	651
Control Delay (s)	8.7	8.2	9.6	8.3
Approach Delay (s)	8.5		9.0	
Approach LOS	A		A	

Intersection Summary				
Delay	8.8			
Level of Service	A			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	435	150	0	100	240	0	595	55	195	505	25
Future Volume (vph)	0	435	150	0	100	240	0	595	55	195	505	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.90				0.65		0.97		0.85	0.97	
Frt		0.962				0.850		0.987			0.993	
Flt Protected										0.950		
Satd. Flow (prot)	0	2653	0	0	1574	1425	0	2884	0	1562	1521	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2653	0	0	1574	925	0	2884	0	1330	1521	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		53				81						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			307	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Adj. Flow (vph)	0	478	165	0	109	261	0	626	58	201	521	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	643	0	0	109	261	0	684	0	201	547	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		30.0			30.0	24.0		30.0		24.0		
Total Split (s)		40.0			40.0	26.0		30.0		26.0		
Total Split (%)		40.0%			40.0%	26.0%		30.0%		26.0%		
Maximum Green (s)		35.0			35.0	20.0		25.0		20.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			10.0				
Pedestrian Calls (#/hr)		270			270			275				
Act Effct Green (s)		29.8			29.8	48.8		30.2		20.0	56.2	
Actuated g/C Ratio		0.30			0.30	0.49		0.30		0.20	0.56	
v/c Ratio		0.78			0.23	0.44		0.79		0.64	0.64	
Control Delay		36.1			26.7	9.3		40.8		42.3	16.3	
Queue Delay		0.0			0.0	0.2		5.4		0.0	15.6	
Total Delay		36.1			26.7	9.5		46.2		42.3	31.9	
LOS		D			C	A		D		D	C	
Approach Delay		36.1			14.6			46.2			34.7	
Approach LOS		D			B			D			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 73 (73%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 35.2		Intersection LOS: D	
Intersection Capacity Utilization 67.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	270
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

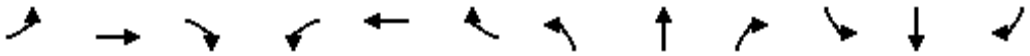
Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	643	109	261	684	201	547
v/c Ratio	0.78	0.23	0.44	0.79	0.64	0.64
Control Delay	36.1	26.7	9.3	40.8	42.3	16.3
Queue Delay	0.0	0.0	0.2	5.4	0.0	15.6
Total Delay	36.1	26.7	9.5	46.2	42.3	31.9
Queue Length 50th (ft)	182	52	51	208	127	305
Queue Length 95th (ft)	231	89	80	#342	m191	431
Internal Link Dist (ft)	713	526		236		227
Turn Bay Length (ft)						
Base Capacity (vph)	963	550	592	871	312	855
Starvation Cap Reductn	0	0	0	134	0	297
Spillback Cap Reductn	0	0	54	14	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.20	0.49	0.93	0.64	0.98

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	435	150	0	100	240	0	595	55	195	505	25
Future Volume (vph)	0	435	150	0	100	240	0	595	55	195	505	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.90			1.00	0.79		0.97		1.00	0.97	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.96			1.00	0.85		0.99		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2652			1574	1126		2886		1562	1520	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2652			1574	1126		2886		1562	1520	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Adj. Flow (vph)	0	478	165	0	109	261	0	626	58	201	521	26
RTOR Reduction (vph)	0	37	0	0	0	41	0	0	0	0	0	0
Lane Group Flow (vph)	0	606	0	0	109	220	0	684	0	201	547	0
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		29.8			29.8	49.8		30.2		20.0	55.2	
Effective Green, g (s)		29.8			29.8	49.8		30.2		20.0	55.2	
Actuated g/C Ratio		0.30			0.30	0.50		0.30		0.20	0.55	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		790			469	560		871		312	839	
v/s Ratio Prot		c0.23			0.07	0.08		c0.24		0.13	c0.36	
v/s Ratio Perm						0.12						
v/c Ratio		0.77			0.23	0.39		0.79		0.64	0.65	
Uniform Delay, d1		31.9			26.5	15.7		31.9		36.7	15.7	
Progression Factor		1.00			1.00	1.00		1.00		0.94	0.82	
Incremental Delay, d2		4.5			0.3	0.5		7.0		7.2	2.8	
Delay (s)		36.4			26.7	16.1		39.0		41.5	15.7	
Level of Service		D			C	B		D		D	B	
Approach Delay (s)		36.4			19.3			39.0			22.6	
Approach LOS		D			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	455	65	0	0	280	390	
Future Volume (vph)	455	65	0	0	280	390	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor	1.00						
Frt	0.981					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2887	0	0	0	1510	1245	
Flt Permitted					0.950		
Satd. Flow (perm)	2887	0	0	0	1510	1245	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)		10					
Peak Hour Factor	0.97	0.97	0.92	0.92	0.94	0.94	
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%	
Parking (#/hr)	2						
Adj. Flow (vph)	469	67	0	0	298	415	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	536	0	0	0	298	415	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	32.0				32.0	32.0	26.0
Total Split (%)	35.6%				35.6%	35.6%	29%
Maximum Green (s)	22.5				26.0	26.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							362
Act Effct Green (s)	22.5				26.0	26.0	
Actuated g/C Ratio	0.25				0.29	0.29	
v/c Ratio	0.74				0.68	1.16	
Control Delay	38.4				37.7	129.0	
Queue Delay	0.0				0.0	0.0	
Total Delay	38.4				37.7	129.0	
LOS	D				D	F	
Approach Delay	38.4				90.8		
Approach LOS	D				F		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 45 (50%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 68.3		Intersection LOS: E	
Intersection Capacity Utilization 56.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	536	298	415
v/c Ratio	0.74	0.68	1.16
Control Delay	38.4	37.7	129.0
Queue Delay	0.0	0.0	0.0
Total Delay	38.4	37.7	129.0
Queue Length 50th (ft)	147	150	~281
Queue Length 95th (ft)	207	242	#459
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	721	436	359
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.74	0.68	1.16

Intersection Summary

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

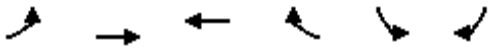
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	455	65	0	0	280	390
Future Volume (vph)	455	65	0	0	280	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	1.00				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.98				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2888				1510	1245
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2888				1510	1245
Peak-hour factor, PHF	0.97	0.97	0.92	0.92	0.94	0.94
Adj. Flow (vph)	469	67	0	0	298	415
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	536	0	0	0	298	415
Confl. Bikes (#/hr)		10				
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	22.5				26.0	26.0
Effective Green, g (s)	22.5				26.0	26.0
Actuated g/C Ratio	0.25				0.29	0.29
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	722				436	359
v/s Ratio Prot	c0.19				0.20	c0.33
v/s Ratio Perm						
v/c Ratio	0.74				0.68	1.16
Uniform Delay, d1	31.1				28.4	32.0
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	6.8				8.4	97.1
Delay (s)	37.9				36.8	129.1
Level of Service	D				D	F
Approach Delay (s)	37.9			0.0	90.5	
Approach LOS	D			A	F	

Intersection Summary			
HCM 2000 Control Delay	67.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

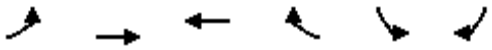
c Critical Lane Group



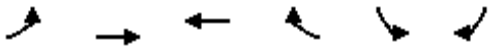
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	280	565	0	0	0	0
Future Volume (vph)	280	565	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.984				
Satd. Flow (prot)	0	3104	0	0	0	0
Flt Permitted		0.984				
Satd. Flow (perm)	0	3104	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		293	
Travel Time (s)		2.3	10.0		6.7	
Peak Hour Factor	0.97	0.97	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	0%	0%	0%	0%
Adj. Flow (vph)	289	582	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	871	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



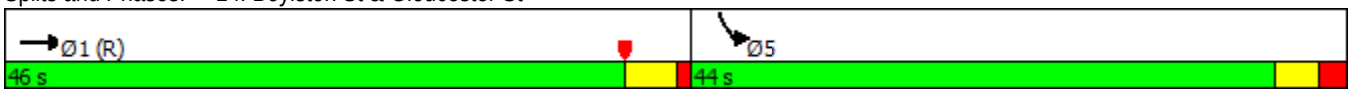
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	565	0	0	365	0
Future Volume (vph)	0	565	0	0	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	4243	0	0	2920	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	4243	0	0	2920	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					355	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.87	0.87
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	628	0	0	420	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	628	0	0	420	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		46.0			28.0	
Total Split (s)		46.0			44.0	
Total Split (%)		51.1%			48.9%	
Maximum Green (s)		41.5			39.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		30.5			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		162			113	
Act Effct Green (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
v/c Ratio		0.32			0.29	
Control Delay		18.8			8.3	
Queue Delay		0.0			0.0	
Total Delay		18.8			8.3	
LOS		B			A	
Approach Delay		18.8			8.3	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 38 (42%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.32			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 31.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

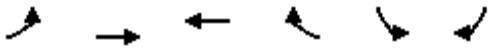




Lane Group	EBT	SBL
Lane Group Flow (vph)	628	420
v/c Ratio	0.32	0.29
Control Delay	18.8	8.3
Queue Delay	0.0	0.0
Total Delay	18.8	8.3
Queue Length 50th (ft)	63	1
Queue Length 95th (ft)	m72	51
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1956	1466
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.32	0.29

Intersection Summary

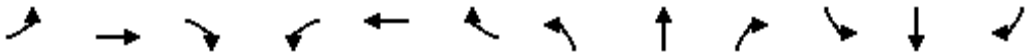
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	565	0	0	365	0
Future Volume (vph)	0	565	0	0	365	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		4243			2920	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		4243			2920	
Peak-hour factor, PHF	0.90	0.90	0.92	0.92	0.87	0.87
Adj. Flow (vph)	0	628	0	0	420	0
RTOR Reduction (vph)	0	0	0	0	201	0
Lane Group Flow (vph)	0	628	0	0	219	0
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		41.5			39.0	
Effective Green, g (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1956			1265	
v/s Ratio Prot		c0.15			c0.07	
v/s Ratio Perm						
v/c Ratio		0.32			0.17	
Uniform Delay, d1		15.3			15.6	
Progression Factor		1.20			2.47	
Incremental Delay, d2		0.2			0.3	
Delay (s)		18.6			38.8	
Level of Service		B			D	
Approach Delay (s)		18.6	0.0		38.8	
Approach LOS		B	A		D	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	31.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



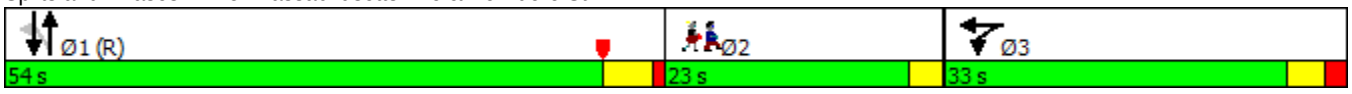
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	40	35	70	40	560	0	0	635	30
Future Volume (vph)	0	0	0	40	35	70	40	560	0	0	635	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.935						0.993	
Flt Protected					0.986			0.997				
Satd. Flow (prot)	0	0	0	0	1581	0	0	2885	0	0	3023	0
Flt Permitted					0.986			0.851				
Satd. Flow (perm)	0	0	0	0	1581	0	0	2462	0	0	3023	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)									56			50
Peak Hour Factor	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	51	45	90	43	602	0	0	738	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	186	0	0	645	0	0	773	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				3	3			1			1	
Permitted Phases							1					
Detector Phase				3	3		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				23.0	23.0		46.0	46.0			46.0	
Total Split (s)				33.0	33.0		54.0	54.0			54.0	
Total Split (%)				30.0%	30.0%		49.1%	49.1%			49.1%	
Maximum Green (s)				28.0	28.0		49.0	49.0			49.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							325	325			325	
Act Effct Green (s)					17.3			60.7			60.7	
Actuated g/C Ratio					0.16			0.55			0.55	
v/c Ratio					0.75			0.48			0.46	
Control Delay					62.6			17.4			16.7	
Queue Delay					0.0			0.0			2.4	
Total Delay					62.6			17.4			19.1	
LOS					E			B			B	
Approach Delay					62.6			17.4			19.1	
Approach LOS					E			B			B	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 28 (25%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 23.5		Intersection LOS: C	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



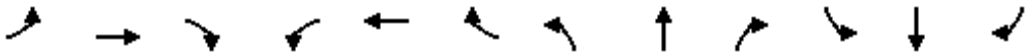
Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	476
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	186	645	773
v/c Ratio	0.75	0.48	0.46
Control Delay	62.6	17.4	16.7
Queue Delay	0.0	0.0	2.4
Total Delay	62.6	17.4	19.1
Queue Length 50th (ft)	131	138	163
Queue Length 95th (ft)	163	215	229
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	402	1357	1669
Starvation Cap Reductn	0	0	735
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.46	0.48	0.83

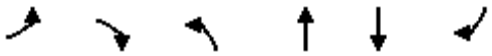
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	40	35	70	40	560	0	0	635	30
Future Volume (vph)	0	0	0	40	35	70	40	560	0	0	635	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1582			2884			3025	
Flt Permitted					0.99			0.85			1.00	
Satd. Flow (perm)					1582			2462			3025	
Peak-hour factor, PHF	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	51	45	90	43	602	0	0	738	35
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	186	0	0	645	0	0	770	0
Confl. Bikes (#/hr)									56			50
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				3	3			1			1	
Permitted Phases							1					
Actuated Green, G (s)					17.3			60.7			60.7	
Effective Green, g (s)					17.3			60.7			60.7	
Actuated g/C Ratio					0.16			0.55			0.55	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					248			1358			1669	
v/s Ratio Prot					c0.12						0.25	
v/s Ratio Perm								c0.26				
v/c Ratio					0.75			0.47			0.46	
Uniform Delay, d1					44.3			15.0			14.8	
Progression Factor					1.03			1.00			1.00	
Incremental Delay, d2					10.4			1.2			0.9	
Delay (s)					56.1			16.2			15.7	
Level of Service					E			B			B	
Approach Delay (s)		0.0			56.1			16.2			15.7	
Approach LOS		A			E			B			B	

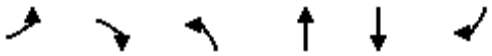
Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	150	0	460	75	0
Future Volume (vph)	15	150	0	460	75	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.877					
Flt Protected	0.995					
Satd. Flow (prot)	1465	0	0	1636	1863	0
Flt Permitted	0.995					
Satd. Flow (perm)	1465	0	0	1636	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			247	419	
Travel Time (s)	7.2			5.6	9.5	
Confl. Peds. (#/hr)		153				
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Heavy Vehicles (%)	0%	3%	0%	6%	4%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	20	200	0	474	117	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	220	0	0	474	117	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

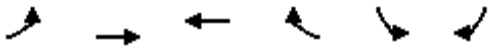
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	150	0	460	75	0
Future Volume (Veh/h)	15	150	0	460	75	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Hourly flow rate (vph)	20	200	0	474	117	0
Pedestrians				153		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	591	270	117			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	591	270	117			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	68	100			
cM capacity (veh/h)	473	617	1484			

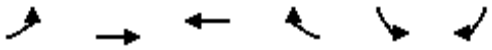
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	220	474	117
Volume Left	20	0	0
Volume Right	200	0	0
cSH	601	1700	1700
Volume to Capacity	0.37	0.28	0.07
Queue Length 95th (ft)	42	0	0
Control Delay (s)	14.4	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.4	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	90	465	245	30
Future Volume (vph)	0	0	90	465	245	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.985	
Flt Protected					0.957	
Satd. Flow (prot)	0	0	1693	1371	1637	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	0	1693	1371	1637	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				185	97	25
Confl. Bikes (#/hr)				4		
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Heavy Vehicles (%)	2%	2%	1%	6%	2%	0%
Adj. Flow (vph)	0	0	94	484	266	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	94	484	299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	90	465	245	30
Future Volume (Veh/h)	0	0	90	465	245	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Hourly flow rate (vph)	0	0	94	484	266	33
Pedestrians		25	97		185	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	9		19	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	763				376	304
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	763				376	304
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				42	94
cM capacity (veh/h)	687				459	599

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	94	484	299
Volume Left	0	0	266
Volume Right	0	484	33
cSH	1700	1700	471
Volume to Capacity	0.06	0.28	0.63
Queue Length 95th (ft)	0	0	108
Control Delay (s)	0.0	0.0	25.0
Lane LOS			C
Approach Delay (s)	0.0		25.0
Approach LOS			C

Intersection Summary			
Average Delay	8.5		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

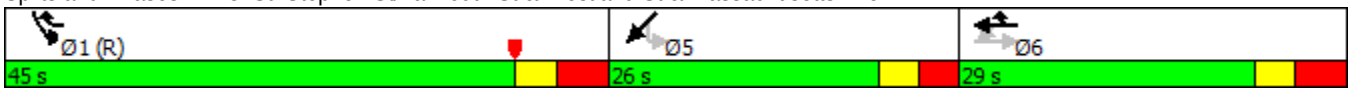


Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	360	10	10	295	555	10	590	35	50	0	20	25
Future Volume (vph)	360	10	10	295	555	10	590	35	50	0	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	10	12	12	16	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.98						0.89			0.50		
Frt	0.996				0.850		0.981			0.865		
Flt Protected				0.998			0.958					
Satd. Flow (prot)	3233	0	0	1563	2276	0	2489	0	0	845	0	0
Flt Permitted				0.977			0.958					
Satd. Flow (perm)	3233	0	0	1530	2276	0	2489	0	0	845	0	0
Right Turn on Red		No				Yes			No			Yes
Satd. Flow (RTOR)					33					120		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	883			293			1231			255		
Travel Time (s)	20.1			6.7			28.0			5.8		
Confl. Peds. (#/hr)		734				250		734	621		621	180
Confl. Bikes (#/hr)		7				41		34	34		1	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	391	11	11	321	603	11	608	36	52	0	28	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	402	0	0	332	614	0	696	0	0	63	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Right	Right	Left	Right	Right
Median Width(ft)	0			0			20			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.25	1.14	1.14	0.97	1.14	1.14
Turning Speed (mph)		9	15		9	9	15	9	9		9	9
Number of Detectors	2		1	2	1		1			2		
Detector Template	Thru		Left	Thru	Right		Left			Thru		
Leading Detector (ft)	100		20	100	20		20			100		
Trailing Detector (ft)	0		0	0	0		0			0		
Detector 1 Position(ft)	0		0	0	0		0			0		
Detector 1 Size(ft)	6		20	6	20		20			6		
Detector 1 Type	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		
Detector 1 Queue (s)	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		
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	NA	pt+ov		Prot			NA		

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Protected Phases				6	1 6		1			5		
Permitted Phases	6		6									
Detector Phase	6		6	6	1 6		1			5		
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0			10.0			10.0		
Minimum Split (s)	23.0		23.0	23.0			27.0			25.0		
Total Split (s)	29.0		29.0	29.0			45.0			26.0		
Total Split (%)	29.0%		29.0%	29.0%			45.0%			26.0%		
Maximum Green (s)	22.0		22.0	22.0			38.0			20.0		
Yellow Time (s)	3.0		3.0	3.0			3.0			3.0		
All-Red Time (s)	4.0		4.0	4.0			4.0			3.0		
Lost Time Adjust (s)	0.0			0.0			0.0			0.0		
Total Lost Time (s)	7.0			7.0			7.0			6.0		
Lead/Lag	Lag		Lag	Lag						Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0			0.2			2.0		
Recall Mode	None		None	None			C-Max			None		
Walk Time (s)	7.0		7.0	7.0			7.0			7.0		
Flash Dont Walk (s)	9.0		9.0	9.0			13.0			12.0		
Pedestrian Calls (#/hr)	246		246	246			246			76		
Act Effct Green (s)	23.7			23.7	74.4		42.3			17.2		
Actuated g/C Ratio	0.24			0.24	0.74		0.42			0.17		
v/c Ratio	0.52			0.92	0.36		0.66			0.26		
Control Delay	36.4			77.5	0.9		28.6			3.0		
Queue Delay	0.5			47.5	0.2		5.0			0.0		
Total Delay	36.9			125.0	1.1		33.5			3.0		
LOS	D			F	A		C			A		
Approach Delay	36.9			44.5			33.5			3.0		
Approach LOS	D			D			C			A		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 11 (11%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 81.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	402	332	614	696	63
v/c Ratio	0.52	0.92	0.36	0.66	0.26
Control Delay	36.4	77.5	0.9	28.6	3.0
Queue Delay	0.5	47.5	0.2	5.0	0.0
Total Delay	36.9	125.0	1.1	33.5	3.0
Queue Length 50th (ft)	119	228	5	193	0
Queue Length 95th (ft)	168	#395	6	263	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	766	362	1702	1052	265
Starvation Cap Reductn	0	62	385	0	0
Spillback Cap Reductn	103	0	0	284	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	1.11	0.47	0.91	0.24

Intersection Summary

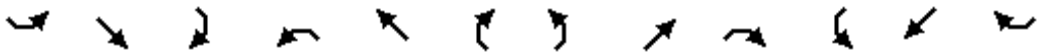
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	360	10	10	295	555	10	590	35	50	0	20	25
Future Volume (vph)	360	10	10	295	555	10	590	35	50	0	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	10	12	12	16	12	12
Total Lost time (s)	7.0			7.0	7.0		7.0			6.0		
Lane Util. Factor	0.95			1.00	0.88		0.97			1.00		
Frpb, ped/bikes	0.98			1.00	1.00		0.89			0.50		
Flpb, ped/bikes	1.00			1.00	1.00		1.00			1.00		
Frt	1.00			1.00	0.85		0.98			0.86		
Flt Protected	1.00			1.00	1.00		0.96			1.00		
Satd. Flow (prot)	3233			1563	2276		2489			844		
Flt Permitted	1.00			0.98	1.00		0.96			1.00		
Satd. Flow (perm)	3233			1530	2276		2489			844		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Adj. Flow (vph)	391	11	11	321	603	11	608	36	52	0	28	35
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	53	0	0
Lane Group Flow (vph)	402	0	0	332	605	0	696	0	0	10	0	0
Confl. Peds. (#/hr)		734				250		734	621		621	180
Confl. Bikes (#/hr)		7				41		34	34		1	4
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		Prot			NA		
Protected Phases				6	1 6		1			5		
Permitted Phases	6		6									
Actuated Green, G (s)	23.7			23.7	71.8		41.1			15.2		
Effective Green, g (s)	23.7			23.7	71.8		41.1			15.2		
Actuated g/C Ratio	0.24			0.24	0.72		0.41			0.15		
Clearance Time (s)	7.0			7.0			7.0			6.0		
Vehicle Extension (s)	2.0			2.0			0.2			2.0		
Lane Grp Cap (vph)	766			362	1634		1022			128		
v/s Ratio Prot					0.27		c0.28			c0.01		
v/s Ratio Perm	0.12			c0.22								
v/c Ratio	0.52			0.92	0.37		0.68			0.07		
Uniform Delay, d1	33.2			37.2	5.4		24.1			36.4		
Progression Factor	1.00			1.33	0.06		1.00			1.00		
Incremental Delay, d2	0.3			24.0	0.0		3.7			0.1		
Delay (s)	33.5			73.5	0.4		27.8			36.5		
Level of Service	C			E	A		C			D		
Approach Delay (s)	33.5			26.0			27.8			36.5		
Approach LOS	C			C			C			D		

Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



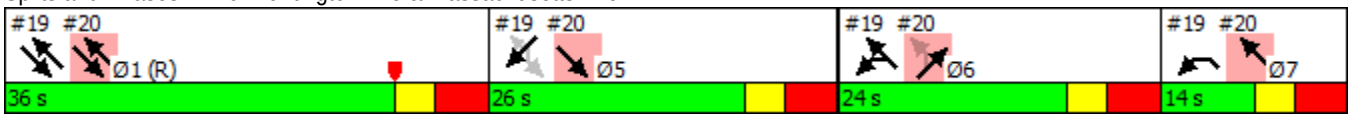
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	865	95	25	800	0	0	0	0	140	25	70
Future Volume (vph)	0	865	95	25	800	0	0	0	0	140	25	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.91										0.67
Frt		0.985										0.850
Flt Protected				0.950							0.959	
Satd. Flow (prot)	0	2648	0	1593	2888	0	0	0	0	0	1528	1326
Flt Permitted				0.950							0.959	
Satd. Flow (perm)	0	2648	0	1593	2888	0	0	0	0	0	1528	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Adj. Flow (vph)	0	901	99	26	825	0	0	0	0	161	29	80
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1000	0	26	825	0	0	0	0	0	190	80
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		175								76	76	76
Act Effct Green (s)		31.6		30.1	47.6						17.4	17.4
Actuated g/C Ratio		0.32		0.30	0.48						0.17	0.17
v/c Ratio		1.19		0.05	0.60						0.72	0.25
Control Delay		119.1		41.5	14.8						54.4	1.9
Queue Delay		0.3		0.0	0.4						0.0	0.4
Total Delay		119.3		41.5	15.2						54.4	2.3
LOS		F		D	B						D	A
Approach Delay		119.3			16.0						39.0	
Approach LOS		F			B						D	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 67.7		Intersection LOS: E	
Intersection Capacity Utilization 98.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	76	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary



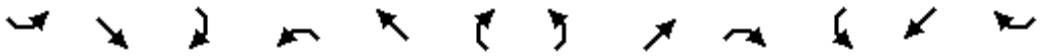
Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	1000	26	825	190	80
v/c Ratio	1.19	0.05	0.60	0.72	0.25
Control Delay	119.1	41.5	14.8	54.4	1.9
Queue Delay	0.3	0.0	0.4	0.0	0.4
Total Delay	119.3	41.5	15.2	54.4	2.3
Queue Length 50th (ft)	~415	13	237	113	0
Queue Length 95th (ft)	#547	m29	310	182	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	843	471	1402	290	327
Starvation Cap Reductn	40	0	0	0	0
Spillback Cap Reductn	24	0	181	0	64
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.25	0.06	0.68	0.66	0.30

Intersection Summary

~ 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.

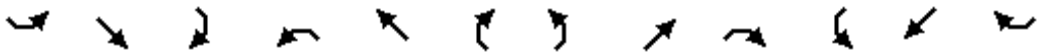
m Volume for 95th percentile queue is metered by upstream signal.



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	865	95	25	800	0	0	0	0	140	25	70
Future Volume (vph)	0	865	95	25	800	0	0	0	0	140	25	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.91		1.00	1.00						1.00	0.67
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2648		1593	2888						1528	886
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2648		1593	2888						1528	886
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	0	901	99	26	825	0	0	0	0	161	29	80
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	66
Lane Group Flow (vph)	0	992	0	26	825	0	0	0	0	0	190	14
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		31.5		30.1	47.6						17.4	17.4
Effective Green, g (s)		31.5		30.1	47.6						17.4	17.4
Actuated g/C Ratio		0.32		0.30	0.48						0.17	0.17
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		834		479	1374						265	154
v/s Ratio Prot		c0.37		c0.02	c0.29							
v/s Ratio Perm											0.12	0.02
v/c Ratio		1.19		0.05	0.60						0.72	0.09
Uniform Delay, d1		34.2		24.8	19.2						39.0	34.7
Progression Factor		0.68		1.68	1.22						1.00	1.00
Incremental Delay, d2		94.8		0.0	0.5						7.5	0.1
Delay (s)		118.0		41.8	24.0						46.5	34.8
Level of Service		F		D	C						D	C
Approach Delay (s)		118.0			24.5			0.0			43.0	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	71.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



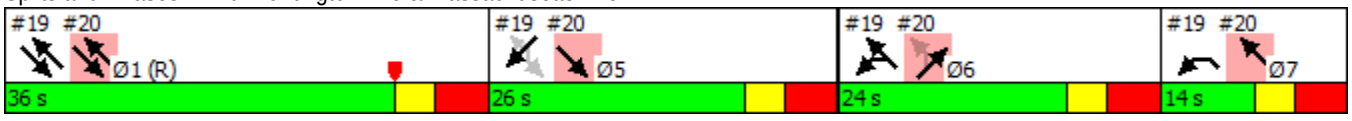
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1005	0	0	745	90	55	20	100	0	0	0
Future Volume (vph)	0	1005	0	0	745	90	55	20	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.99			0.80				
Frt					0.984			0.914				
Flt Protected								0.985				
Satd. Flow (prot)	0	3154	0	0	4082	0	0	2121	0	0	0	0
Flt Permitted								0.985				
Satd. Flow (perm)	0	3154	0	0	4082	0	0	2121	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			115				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Adj. Flow (vph)	0	1047	0	0	768	93	63	23	115	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1047	0	0	861	0	0	201	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							76	76				
Act Effct Green (s)		55.9			45.6			16.1				
Actuated g/C Ratio		0.56			0.46			0.16				
v/c Ratio		0.59			0.46			0.46				
Control Delay		1.2			19.7			20.2				
Queue Delay		0.0			0.2			0.1				
Total Delay		1.2			20.0			20.3				
LOS		A			B			C				
Approach Delay		1.2			20.0			20.3				
Approach LOS		A			B			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.19			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 98.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	175	76	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

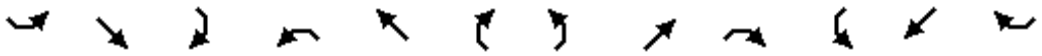
Intersection Summary



Lane Group	SET	NWT	NET
Lane Group Flow (vph)	1047	861	201
v/c Ratio	0.59	0.46	0.46
Control Delay	1.2	19.7	20.2
Queue Delay	0.0	0.2	0.1
Total Delay	1.2	20.0	20.3
Queue Length 50th (ft)	2	136	25
Queue Length 95th (ft)	m5	175	56
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1815	1874	456
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	368	17
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.58	0.57	0.46

Intersection Summary

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



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1005	0	0	745	90	55	20	100	0	0	0
Future Volume (vph)	0	1005	0	0	745	90	55	20	100	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.99			0.80				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.91				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		3154			4082			2120				
Flt Permitted		1.00			1.00			0.98				
Satd. Flow (perm)		3154			4082			2120				
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	0	1047	0	0	768	93	63	23	115	0	0	0
RTOR Reduction (vph)	0	0	0	0	14	0	0	96	0	0	0	0
Lane Group Flow (vph)	0	1047	0	0	847	0	0	105	0	0	0	0
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.9			45.5			16.1				
Effective Green, g (s)		55.9			45.5			16.1				
Actuated g/C Ratio		0.56			0.46			0.16				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1763			1857			341				
v/s Ratio Prot		c0.33			c0.21							
v/s Ratio Perm								0.05				
v/c Ratio		0.59			0.46			0.31				
Uniform Delay, d1		14.6			18.7			37.0				
Progression Factor		0.07			1.00			1.00				
Incremental Delay, d2		0.0			0.1			0.2				
Delay (s)		1.0			18.8			37.2				
Level of Service		A			B			D				
Approach Delay (s)		1.0			18.8			37.2			0.0	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	60	425	45	0	680
Future Volume (vph)	0	60	425	45	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.98			
Frt		0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1229	3163	0	0	3575
Flt Permitted						
Satd. Flow (perm)	0	1229	3163	0	0	3575
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		183	19			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Peak Hour Factor	0.70	0.70	0.89	0.89	0.87	0.87
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	86	478	51	0	782
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	86	529	0	0	782
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Detector Phase		2	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		30.0	22.5			22.5
Total Split (s)		39.0	71.0			71.0
Total Split (%)		35.5%	64.5%			64.5%
Maximum Green (s)		35.0	67.0			67.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag		Lag	Lead			Lead
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		21				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.27	0.20			0.26
Control Delay		2.1	3.3			1.3
Queue Delay		0.0	0.0			0.0
Total Delay		2.1	3.3			1.3
LOS		A	A			A
Approach Delay	2.1		3.3			1.3
Approach LOS	A		A			A

Intersection Summary	
Area Type:	CBD
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 67 (61%), Referenced to phase 1:NESW, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.27	
Intersection Signal Delay: 2.1	Intersection LOS: A
Intersection Capacity Utilization 28.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	86	529	782
v/c Ratio	0.27	0.20	0.26
Control Delay	2.1	3.3	1.3
Queue Delay	0.0	0.0	0.0
Total Delay	2.1	3.3	1.3
Queue Length 50th (ft)	0	22	10
Queue Length 95th (ft)	0	73	40
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	515	2625	2964
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.20	0.26

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	60	425	45	0	680
Future Volume (vph)	0	60	425	45	0	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1229	3173			3575
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1229	3173			3575
Peak-hour factor, PHF	0.70	0.70	0.89	0.89	0.87	0.87
Adj. Flow (vph)	0	86	478	51	0	782
RTOR Reduction (vph)	0	76	4	0	0	0
Lane Group Flow (vph)	0	10	525	0	0	782
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		138	2584			2912
v/s Ratio Prot		c0.01	0.17			c0.22
v/s Ratio Perm						
v/c Ratio		0.07	0.20			0.27
Uniform Delay, d1		43.6	2.3			2.4
Progression Factor		1.00	1.00			0.34
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.7	2.4			1.0
Level of Service		D	A			A
Approach Delay (s)	43.7		2.4			1.0
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	4.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	28.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	85	140	50	55	175	60	10	120	300	55	80	240
Future Volume (vph)	85	140	50	55	175	60	10	120	300	55	80	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.85		0.87		0.91			0.83	0.92			0.70
Frt			0.850		0.972				0.977			
Flt Protected	0.950				0.991			0.950				0.950
Satd. Flow (prot)	1472	1660	1330	0	1693	0	0	1388	2804	0	0	1494
Flt Permitted	0.387				0.889			0.950				0.950
Satd. Flow (perm)	507	1660	1159	0	1495	0	0	1152	2804	0	0	1047
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		13				19			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Peak Hour Factor	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Adj. Flow (vph)	108	177	63	67	213	73	11	126	316	58	87	261
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	177	63	0	353	0	0	137	374	0	0	348
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	565	290
Future Volume (vph)	565	290
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.60
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3079	1292
Flt Permitted		
Satd. Flow (perm)	3079	770
Right Turn on Red		Yes
Satd. Flow (RTOR)		273
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Adj. Flow (vph)	614	315
Shared Lane Traffic (%)		
Lane Group Flow (vph)	614	315
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0		34.0	34.0	36.0		34.0	34.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	36.4%		30.9%	30.9%	32.7%		30.9%	30.9%
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		29.0	29.0	31.0		29.0	29.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	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	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	136	136	136	136	136				192			
Act Effct Green (s)	31.5	31.5	31.5		31.5			16.2	35.0			28.5
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.15	0.32			0.26
v/c Ratio	0.74	0.37	0.17		0.81			0.67	0.41			0.90
Control Delay	65.9	33.2	6.9		50.0			57.3	28.1			66.3
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	65.9	33.2	6.9		50.0			57.3	28.1			66.3
LOS	E	C	A		D			E	C			E
Approach Delay		38.6			50.0				35.9			
Approach LOS		D			D				D			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 54 (49%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 37.0		Intersection LOS: D	
Intersection Capacity Utilization 101.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	36.0	36.0
Total Split (%)	32.7%	32.7%
Maximum Green (s)	31.0	31.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	192	192
Act Effct Green (s)	47.3	47.3
Actuated g/C Ratio	0.43	0.43
v/c Ratio	0.46	0.65
Control Delay	25.4	12.7
Queue Delay	0.0	0.0
Total Delay	25.4	12.7
LOS	C	B
Approach Delay	33.4	
Approach LOS	C	

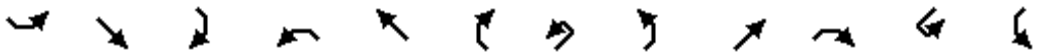
Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	108	177	63	353	137	374	348	614	315
v/c Ratio	0.74	0.37	0.17	0.81	0.67	0.41	0.90	0.46	0.65
Control Delay	65.9	33.2	6.9	50.0	57.3	28.1	66.3	25.4	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.9	33.2	6.9	50.0	57.3	28.1	66.3	25.4	12.7
Queue Length 50th (ft)	69	100	0	223	93	108	225	158	17
Queue Length 95th (ft)	#117	134	20	285	111	155	#405	247	146
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	161	528	415	484	365	903	403	1325	486
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.34	0.15	0.73	0.38	0.41	0.86	0.46	0.65

Intersection Summary

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



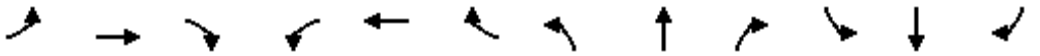
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	85	140	50	55	175	60	10	120	300	55	80	240
Future Volume (vph)	85	140	50	55	175	60	10	120	300	55	80	240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.93			1.00	0.92			1.00
Flpb, ped/bikes	0.85	1.00	1.00		0.98			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1250	1660	1158		1666			1388	2803			1494
Flt Permitted	0.39	1.00	1.00		0.89			0.95	1.00			0.95
Satd. Flow (perm)	509	1660	1158		1495			1388	2803			1494
Peak-hour factor, PHF	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Adj. Flow (vph)	108	177	63	67	213	73	11	126	316	58	87	261
RTOR Reduction (vph)	0	0	45	0	9	0	0	0	13	0	0	0
Lane Group Flow (vph)	108	177	18	0	344	0	0	137	361	0	0	348
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	31.5	31.5	31.5		31.5			16.2	35.0			28.5
Effective Green, g (s)	31.5	31.5	31.5		31.5			16.2	35.0			28.5
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.15	0.32			0.26
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	145	475	331		428			204	891			387
v/s Ratio Prot		0.11						0.10	0.13			c0.23
v/s Ratio Perm	0.21		0.02		c0.23							
v/c Ratio	0.74	0.37	0.05		0.80			0.67	0.41			0.90
Uniform Delay, d1	35.6	31.4	28.5		36.4			44.4	29.4			39.4
Progression Factor	1.00	1.00	1.00		1.00			0.94	0.91			1.00
Incremental Delay, d2	18.6	0.5	0.1		10.4			8.3	1.4			22.8
Delay (s)	54.2	31.9	28.5		46.8			50.2	28.0			62.1
Level of Service	D	C	C		D			D	C			E
Approach Delay (s)		38.2			46.8				34.0			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

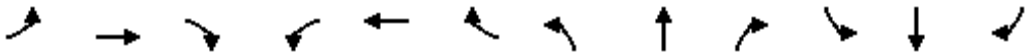


Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	565	290
Future Volume (vph)	565	290
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.60
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3079	770
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3079	770
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	614	315
RTOR Reduction (vph)	0	156
Lane Group Flow (vph)	614	159
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	47.3	47.3
Effective Green, g (s)	47.3	47.3
Actuated g/C Ratio	0.43	0.43
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1323	331
v/s Ratio Prot	0.20	
v/s Ratio Perm		c0.21
v/c Ratio	0.46	0.48
Uniform Delay, d1	22.3	22.5
Progression Factor	1.00	1.00
Incremental Delay, d2	1.2	4.9
Delay (s)	23.5	27.5
Level of Service	C	C
Approach Delay (s)	35.0	
Approach LOS	D	

Intersection Summary



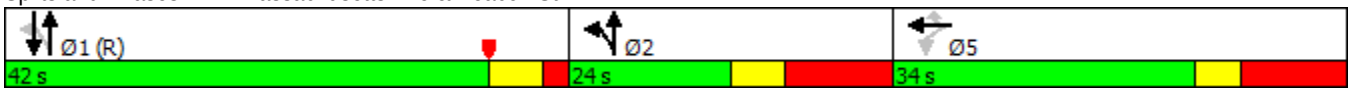
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	224	188	112	890	0	0	676	254
Future Volume (vph)	0	0	0	76	224	188	112	890	0	0	676	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97	0.90					0.95	
Frt						0.850					0.959	
Flt Protected					0.987			0.994				
Satd. Flow (prot)	0	0	0	0	2726	1285	0	2791	0	0	2603	0
Flt Permitted					0.987			0.530				
Satd. Flow (perm)	0	0	0	0	2655	1150	0	1488	0	0	2603	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											61	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	81	238	200	119	947	0	0	735	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	319	200	0	1066	0	0	1011	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				32.5	32.5	32.5	24.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.5	22.5	22.5	12.0				36.0	
Yellow Time (s)				3.5	3.5	3.5	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					11.5	11.5					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes					
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				Max	Max	Max	None				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	11.0				10.0	
Pedestrian Calls (#/hr)				66	66	66	34				66	
Act Effct Green (s)					22.5	22.5		54.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.54			0.36	
v/c Ratio					0.53	0.78		1.03			1.04	
Control Delay					38.0	58.1		46.8			69.2	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					38.0	58.1		46.8			69.2	
LOS					D	E		D			E	
Approach Delay					45.7			46.8			69.2	
Approach LOS					D			D			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 30 (30%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 55.3		Intersection LOS: E	
Intersection Capacity Utilization 99.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



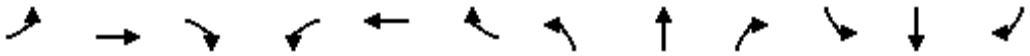


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	319	200	1066	1011
v/c Ratio	0.53	0.78	1.03	1.04
Control Delay	38.0	58.1	46.8	69.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	38.0	58.1	46.8	69.2
Queue Length 50th (ft)	94	120	~194	~353
Queue Length 95th (ft)	140	#236	#248	#483
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	597	258	1038	976
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.78	1.03	1.04

Intersection Summary

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

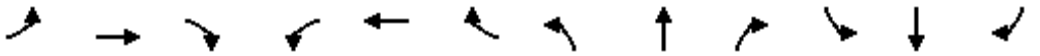
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	224	188	112	890	0	0	676	254
Future Volume (vph)	0	0	0	76	224	188	112	890	0	0	676	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					11.5	11.5		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.90		1.00			0.95	
Flpb, ped/bikes					0.97	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2657	1150		2792			2603	
Flt Permitted					0.99	1.00		0.53			1.00	
Satd. Flow (perm)					2657	1150		1488			2603	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	81	238	200	119	947	0	0	735	276
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	39	0
Lane Group Flow (vph)	0	0	0	0	319	200	0	1066	0	0	972	0
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					22.5	22.5		48.0			36.0	
Effective Green, g (s)					22.5	22.5		48.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.48			0.36	
Clearance Time (s)					11.5	11.5					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					597	258		870			937	
v/s Ratio Prot								c0.15			0.37	
v/s Ratio Perm					0.12	c0.17		c0.44				
v/c Ratio					0.53	0.78		1.23			1.04	
Uniform Delay, d1					34.1	36.4		26.0			32.0	
Progression Factor					1.00	1.00		0.52			1.00	
Incremental Delay, d2					3.4	20.1		109.3			39.5	
Delay (s)					37.5	56.5		122.8			71.5	
Level of Service					D	E		F			E	
Approach Delay (s)		0.0			44.8			122.8			71.5	
Approach LOS		A			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	87.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.5
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



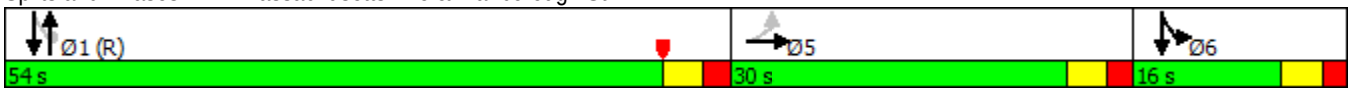
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	15	25	0	0	0	0	870	36	76	671	0
Future Volume (vph)	127	15	25	0	0	0	0	870	36	76	671	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.95						0.98				
Frt		0.980						0.994				
Flt Protected		0.963									0.995	
Satd. Flow (prot)	0	1579	0	0	0	0	0	2708	0	0	2776	0
Flt Permitted		0.963									0.734	
Satd. Flow (perm)	0	1516	0	0	0	0	0	2708	0	0	2048	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		8										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	157	19	31	0	0	0	0	926	38	81	714	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	0	0	0	964	0	0	795	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	30.0	30.0						54.0		16.0		
Total Split (%)	30.0%	30.0%						54.0%		16.0%		
Maximum Green (s)	25.0	25.0						49.0		11.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	18	18						78		78		
Act Effct Green (s)		17.6						53.7			67.4	
Actuated g/C Ratio		0.18						0.54			0.67	
v/c Ratio		0.76						0.66			0.54	
Control Delay		54.5						10.6			2.0	
Queue Delay		0.0						0.2			0.3	
Total Delay		54.5						10.8			2.2	
LOS		D						B			A	
Approach Delay		54.5						10.8			2.2	
Approach LOS		D						B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 47 (47%), Referenced to phase 1:NBSB, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 79.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Ave & Marlborough St

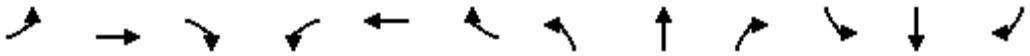




Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	207	964	795
v/c Ratio	0.76	0.66	0.54
Control Delay	54.5	10.6	2.0
Queue Delay	0.0	0.2	0.3
Total Delay	54.5	10.8	2.2
Queue Length 50th (ft)	122	64	10
Queue Length 95th (ft)	163	78	m23
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	385	1454	1481
Starvation Cap Reductn	0	0	215
Spillback Cap Reductn	0	88	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.54	0.71	0.63

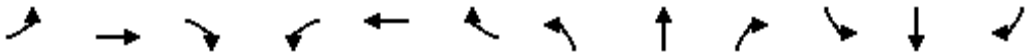
Intersection Summary

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



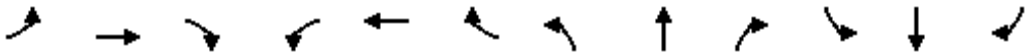
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	15	25	0	0	0	0	870	36	76	671	0
Future Volume (vph)	127	15	25	0	0	0	0	870	36	76	671	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.96						1.00			1.00	
Frt		0.98						0.99			1.00	
Flt Protected		0.96						1.00			0.99	
Satd. Flow (prot)		1516						2708			2776	
Flt Permitted		0.96						1.00			0.73	
Satd. Flow (perm)		1516						2708			2049	
Peak-hour factor, PHF	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	157	19	31	0	0	0	0	926	38	81	714	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	200	0	0	0	0	0	964	0	0	795	0
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.6						53.7			67.4	
Effective Green, g (s)		17.6						53.7			67.4	
Actuated g/C Ratio		0.18						0.54			0.67	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		266						1454			1480	
v/s Ratio Prot								c0.36			c0.07	
v/s Ratio Perm		0.13									0.29	
v/c Ratio		0.75						0.66			0.54	
Uniform Delay, d1		39.1						16.6			8.3	
Progression Factor		1.00						0.46			0.23	
Incremental Delay, d2		10.2						2.1			0.0	
Delay (s)		49.4						9.8			2.0	
Level of Service		D						A			A	
Approach Delay (s)		49.4			0.0			9.8			2.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	64	20	122	0	773	0	0	671	25
Future Volume (vph)	0	0	0	64	20	122	0	773	0	0	671	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.94	0.94						0.99	
Frt					0.871						0.995	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1540	1160	0	0	2855	0	0	2728	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1454	1160	0	0	2855	0	0	2728	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					144							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	75	24	144	0	805	0	0	699	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	75	168	0	0	805	0	0	725	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

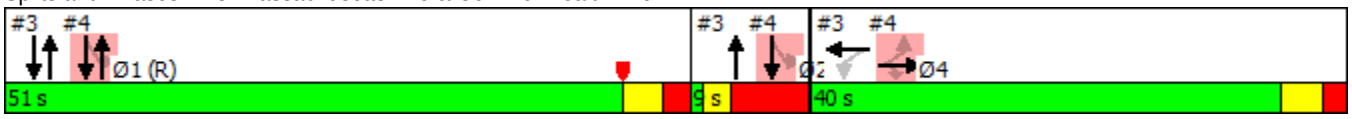
Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				40.0	40.0						51.0	
Total Split (%)				40.0%	40.0%						51.0%	
Maximum Green (s)				35.0	35.0						46.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				105	105						48	
Act Effct Green (s)				35.0	35.0			55.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.55			0.46	
v/c Ratio				0.15	0.34			0.51			0.58	
Control Delay				23.4	7.7			9.8			8.1	
Queue Delay				0.0	0.0			0.5			0.7	
Total Delay				23.4	7.7			10.3			8.8	
LOS				C	A			B			A	
Approach Delay					12.6			10.3			8.8	
Approach LOS					B			B			A	

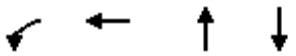
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



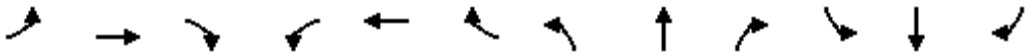
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



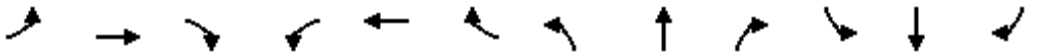
Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	75	168	805	725
v/c Ratio	0.15	0.34	0.51	0.58
Control Delay	23.4	7.7	9.8	8.1
Queue Delay	0.0	0.0	0.5	0.7
Total Delay	23.4	7.7	10.3	8.8
Queue Length 50th (ft)	32	10	73	47
Queue Length 95th (ft)	62	49	88	101
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	508	499	1570	1254
Starvation Cap Reductn	0	0	339	232
Spillback Cap Reductn	0	1	22	51
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.34	0.65	0.71

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	64	20	122	0	773	0	0	671	25
Future Volume (vph)	0	0	0	64	20	122	0	773	0	0	671	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.94			1.00			0.99	
Flpb, ped/bikes				0.94	1.00			1.00			1.00	
Frt				1.00	0.87			1.00			0.99	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1454	1161			2855			2727	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1454	1161			2855			2727	
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	75	24	144	0	805	0	0	699	26
RTOR Reduction (vph)	0	0	0	0	94	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	75	74	0	0	805	0	0	725	0
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				35.0	35.0			52.0			46.0	
Effective Green, g (s)				35.0	35.0			52.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.52			0.46	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				508	406			1484			1254	
v/s Ratio Prot					c0.06			c0.28			c0.27	
v/s Ratio Perm				0.05								
v/c Ratio				0.15	0.18			0.54			0.58	
Uniform Delay, d1				22.3	22.6			16.0			19.9	
Progression Factor				1.00	1.00			0.61			0.32	
Incremental Delay, d2				0.6	1.0			1.2			1.7	
Delay (s)				22.9	23.6			11.0			8.0	
Level of Service				C	C			B			A	
Approach Delay (s)		0.0			23.4			11.0			8.0	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



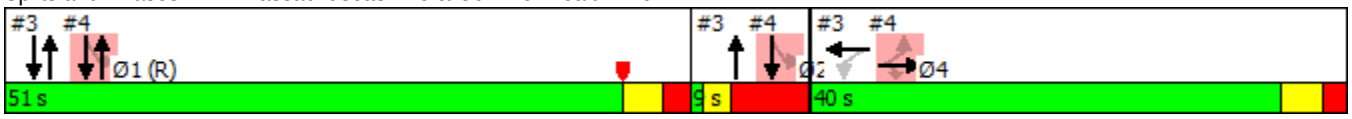
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	25	204	0	0	0	0	590	36	117	618	0
Future Volume (vph)	193	25	204	0	0	0	0	590	36	117	618	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor			0.84					0.98			0.98	
Frt			0.850					0.991				
Flt Protected		0.958									0.992	
Satd. Flow (prot)	0	1441	1078	0	0	0	0	2689	0	0	2942	0
Flt Permitted		0.958									0.678	
Satd. Flow (perm)	0	1441	907	0	0	0	0	2689	0	0	1978	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			302			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	205	27	217	0	0	0	0	621	38	126	665	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	232	217	0	0	0	0	659	0	0	791	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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	40.0	40.0	40.0					51.0				
Total Split (%)	40.0%	40.0%	40.0%					51.0%				
Maximum Green (s)	35.0	35.0	35.0					46.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	105	105	105					48				
Act Effct Green (s)		35.0	35.0					46.0			55.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.55	
v/c Ratio		0.46	0.68					0.53			0.73	
Control Delay		28.9	40.8					18.6			7.9	
Queue Delay		66.4	0.0					0.8			1.0	
Total Delay		95.3	40.8					19.4			8.9	
LOS		F	D					B			A	
Approach Delay		68.9						19.4			8.9	
Approach LOS		E						B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

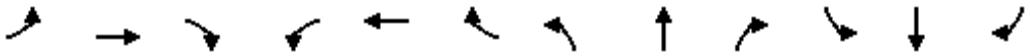
Intersection Summary



Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	232	217	659	791
v/c Ratio	0.46	0.68	0.53	0.73
Control Delay	28.9	40.8	18.6	7.9
Queue Delay	66.4	0.0	0.8	1.0
Total Delay	95.3	40.8	19.4	8.9
Queue Length 50th (ft)	113	117	166	30
Queue Length 95th (ft)	185	#223	214	36
Internal Link Dist (ft)	536		222	69
Turn Bay Length (ft)				
Base Capacity (vph)	504	317	1236	1087
Starvation Cap Reductn	0	0	290	110
Spillback Cap Reductn	326	0	43	56
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.30	0.68	0.70	0.81

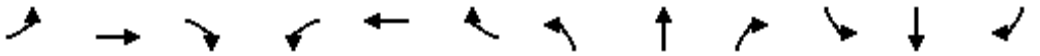
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	25	204	0	0	0	0	590	36	117	618	0
Future Volume (vph)	193	25	204	0	0	0	0	590	36	117	618	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.84					0.98			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			0.98	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.96	1.00					1.00			0.99	
Satd. Flow (prot)		1441	907					2690			2895	
Flt Permitted		0.96	1.00					1.00			0.68	
Satd. Flow (perm)		1441	907					2690			1979	
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	205	27	217	0	0	0	0	621	38	126	665	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	232	217	0	0	0	0	659	0	0	791	0
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		35.0	35.0					46.0			52.0	
Effective Green, g (s)		35.0	35.0					46.0			52.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.52	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		504	317					1237			1029	
v/s Ratio Prot								0.24				
v/s Ratio Perm		0.16	c0.24								c0.40	
v/c Ratio		0.46	0.68					0.53			0.77	
Uniform Delay, d1		25.2	27.8					19.3			19.2	
Progression Factor		1.00	1.00					0.87			0.24	
Incremental Delay, d2		3.0	11.4					1.4			4.8	
Delay (s)		28.2	39.2					18.3			9.4	
Level of Service		C	D					B			A	
Approach Delay (s)		33.5			0.0			18.3			9.4	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	456	31	81	81	0	0	0	0
Future Volume (vph)	0	0	0	0	456	31	81	81	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.94				
Frt					0.990							
Flt Protected								0.976				
Satd. Flow (prot)	0	0	0	0	2871	0	0	2976	0	0	0	0
Flt Permitted								0.976				
Satd. Flow (perm)	0	0	0	0	2871	0	0	2784	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					14			84				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	496	34	84	84	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	530	0	0	168	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					59.5		22.5	22.5				
Total Split (s)					60.0		30.0	30.0				
Total Split (%)					66.7%		33.3%	33.3%				
Maximum Green (s)					55.5		25.5	25.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					48.0		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					40		30	30				
Act Effct Green (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
v/c Ratio					0.30			0.20				
Control Delay					6.3			7.1				
Queue Delay					0.0			0.8				
Total Delay					6.3			8.0				
LOS					A			A				
Approach Delay					6.3			8.0				
Approach LOS					A			A				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.7	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

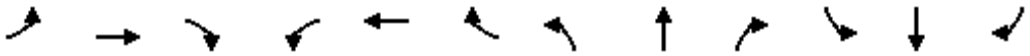
Splits and Phases: 5: Hereford St & Commonwealth Ave





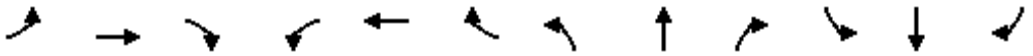
Lane Group	WBT	NBT
Lane Group Flow (vph)	530	168
v/c Ratio	0.30	0.20
Control Delay	6.3	7.1
Queue Delay	0.0	0.8
Total Delay	6.3	8.0
Queue Length 50th (ft)	42	7
Queue Length 95th (ft)	55	18
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1775	849
Starvation Cap Reductn	0	451
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.30	0.42

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	456	31	81	81	0	0	0	0
Future Volume (vph)	0	0	0	0	456	31	81	81	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.94				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2872			2783				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2872			2783				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	496	34	84	84	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	60	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	525	0	0	108	0	0	0	0
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					55.5			25.5				
Effective Green, g (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1771			788				
v/s Ratio Prot					c0.18							
v/s Ratio Perm								0.04				
v/c Ratio					0.30			0.14				
Uniform Delay, d1					8.1			24.0				
Progression Factor					0.73			0.52				
Incremental Delay, d2					0.4			0.3				
Delay (s)					6.4			12.8				
Level of Service					A			B				
Approach Delay (s)		0.0			6.4			12.8			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	865	0	0	0	0	0	115	76	0	0	0
Future Volume (vph)	51	865	0	0	0	0	0	115	76	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.96				
Frt								0.940				
Flt Protected		0.997										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2604	0	0	0	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	2920	0	0	0	0	0	2604	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						93				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			327			139	
Travel Time (s)		16.2			10.1			7.4			3.2	
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Adj. Flow (vph)	54	920	0	0	0	0	0	140	93	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	974	0	0	0	0	0	233	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	59.5	59.5						22.5				
Total Split (s)	60.0	60.0						30.0				
Total Split (%)	66.7%	66.7%						33.3%				
Maximum Green (s)	55.5	55.5						25.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	48.0	48.0						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	40	40						30				
Act Effct Green (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
v/c Ratio		0.54						0.29				
Control Delay		11.1						15.9				
Queue Delay		0.0						0.0				
Total Delay		11.1						15.9				
LOS		B						B				
Approach Delay		11.1						15.9				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

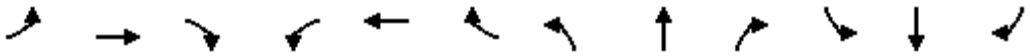
Splits and Phases: 6: Hereford St & Commonwealth Ave





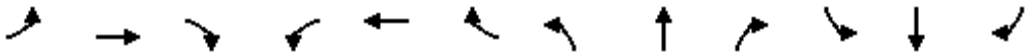
Lane Group	EBT	NBT
Lane Group Flow (vph)	974	233
v/c Ratio	0.54	0.29
Control Delay	11.1	15.9
Queue Delay	0.0	0.0
Total Delay	11.1	15.9
Queue Length 50th (ft)	148	31
Queue Length 95th (ft)	198	53
Internal Link Dist (ft)	633	247
Turn Bay Length (ft)		
Base Capacity (vph)	1807	804
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.29

Intersection Summary

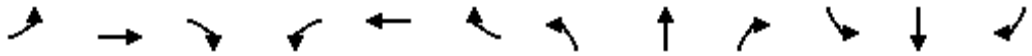


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	865	0	0	0	0	0	115	76	0	0	0
Future Volume (vph)	51	865	0	0	0	0	0	115	76	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.96				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2921						2604				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2921						2604				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	54	920	0	0	0	0	0	140	93	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	67	0	0	0	0
Lane Group Flow (vph)	0	967	0	0	0	0	0	166	0	0	0	0
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		55.5						25.5				
Effective Green, g (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1801						737				
v/s Ratio Prot								c0.06				
v/s Ratio Perm		0.33										
v/c Ratio		0.54						0.23				
Uniform Delay, d1		9.9						24.7				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.2						0.7				
Delay (s)		11.0						25.4				
Level of Service		B						C				
Approach Delay (s)		11.0			0.0			25.4			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Future Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00						0.99	
Frt											0.986	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2861	0	0	0	0	0	2955	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2852	0	0	0	0	0	2955	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					38						12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	79	485	0	0	0	0	0	227	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	564	0	0	0	0	0	251	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

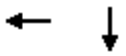


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				60.0	60.0						30.0	
Total Split (s)				60.0	60.0						30.0	
Total Split (%)				66.7%	66.7%						33.3%	
Maximum Green (s)				55.5	55.5						25.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				47.5	47.5						18.5	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				40	40						24	
Act Effct Green (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
v/c Ratio					0.32						0.30	
Control Delay					8.2						25.1	
Queue Delay					0.0						0.0	
Total Delay					8.2						25.1	
LOS					A						C	
Approach Delay					8.2						25.1	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

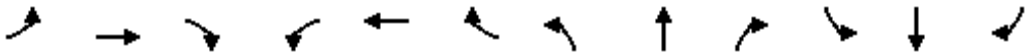
Splits and Phases: 7: Gloucester St & Commonwealth Ave





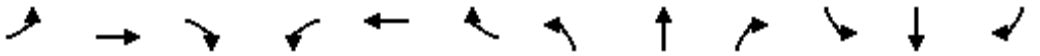
Lane Group	WBT	SBT
Lane Group Flow (vph)	564	251
v/c Ratio	0.32	0.30
Control Delay	8.2	25.1
Queue Delay	0.0	0.0
Total Delay	8.2	25.1
Queue Length 50th (ft)	67	55
Queue Length 95th (ft)	95	79
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1773	845
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.32	0.30

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Future Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.99	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.99	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2852						2954	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2852						2954	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	79	485	0	0	0	0	0	227	24
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	0	549	0	0	0	0	0	242	0
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					55.5						25.5	
Effective Green, g (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1758						836	
v/s Ratio Prot											c0.08	
v/s Ratio Perm					0.19							
v/c Ratio					0.31						0.29	
Uniform Delay, d1					8.2						25.2	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.5						0.9	
Delay (s)					8.7						26.1	
Level of Service					A						C	
Approach Delay (s)		0.0			8.7			0.0			26.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Future Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.99									0.99	
Frt		0.977										
Flt Protected											0.987	
Satd. Flow (prot)	0	2829	0	0	0	0	0	0	0	0	3531	0
Flt Permitted											0.987	
Satd. Flow (perm)	0	2829	0	0	0	0	0	0	0	0	3484	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	832	148	0	0	0	0	0	0	81	217	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	980	0	0	0	0	0	0	0	0	298	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		60.0								30.0	30.0	
Total Split (s)		60.0								30.0	30.0	
Total Split (%)		66.7%								33.3%	33.3%	
Maximum Green (s)		55.5								25.5	25.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		47.5								18.5	18.5	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		40								24	24	
Act Effct Green (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
v/c Ratio		0.56									0.29	
Control Delay		3.9									8.3	
Queue Delay		0.0									0.6	
Total Delay		4.0									9.0	
LOS		A									A	
Approach Delay		4.0									9.0	
Approach LOS		A									A	

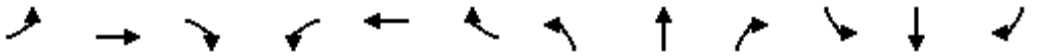
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



Lane Group	EBT	SBT
Lane Group Flow (vph)	980	298
v/c Ratio	0.56	0.29
Control Delay	3.9	8.3
Queue Delay	0.0	0.6
Total Delay	4.0	9.0
Queue Length 50th (ft)	27	15
Queue Length 95th (ft)	35	26
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1744	1029
Starvation Cap Reductn	31	421
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.57	0.49

Intersection Summary

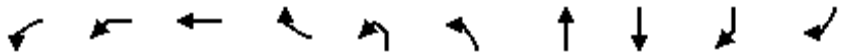


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Future Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		2830									3482	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		2830									3482	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	832	148	0	0	0	0	0	0	81	217	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	0	980	0	0	0	0	0	0	0	0	256	0
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		55.5									25.5	
Effective Green, g (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1745									986	
v/s Ratio Prot		c0.35										
v/s Ratio Perm											0.07	
v/c Ratio		0.56									0.26	
Uniform Delay, d1		10.1									24.9	
Progression Factor		0.27									0.38	
Incremental Delay, d2		1.1									0.6	
Delay (s)		3.9									10.1	
Level of Service		A									B	
Approach Delay (s)		3.9			0.0			0.0			10.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



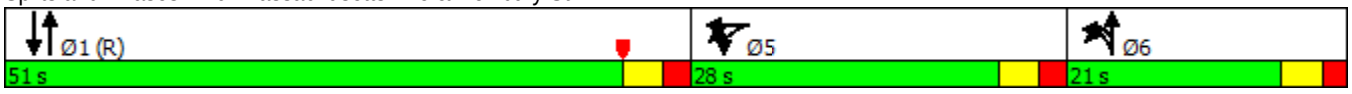
Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	71	78	47	46	198	15	580	609	173	41
Future Volume (vph)	71	78	47	46	198	15	580	609	173	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor			0.99					0.96		
Frt			0.926					0.961		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1320	1241	0	0	1483	1489	2662	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1320	1241	0	0	1483	1489	2662	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			46					7		
Link Speed (mph)			30				30	30		
Link Distance (ft)			722				308	302		
Travel Time (s)			16.4				7.0	6.9		
Confl. Bikes (#/hr)				2					85	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Adj. Flow (vph)	79	87	52	51	204	15	598	662	188	45
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	166	103	0	0	219	598	895	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0		6.0	6.0		8.0		
Minimum Split (s)	28.0	28.0	28.0		11.0	11.0		28.0		
Total Split (s)	28.0	28.0	28.0		21.0	21.0		51.0		
Total Split (%)	28.0%	28.0%	28.0%		21.0%	21.0%		51.0%		
Maximum Green (s)	23.0	23.0	23.0		16.0	16.0		46.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	45	45	45					123		
Act Effct Green (s)		18.8	18.8			20.2	71.2	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
v/c Ratio		0.67	0.38			0.73	0.56	0.73		
Control Delay		50.3	23.6			51.5	18.6	18.9		
Queue Delay		0.4	0.0			0.0	2.7	3.7		
Total Delay		50.8	23.6			51.5	21.3	22.6		
LOS		D	C			D	C	C		
Approach Delay			40.4				29.4	22.6		
Approach LOS			D				C	C		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 42 (42%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 27.8		Intersection LOS: C	
Intersection Capacity Utilization 61.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	166	103	219	598	895
v/c Ratio	0.67	0.38	0.73	0.56	0.73
Control Delay	50.3	23.6	51.5	18.6	18.9
Queue Delay	0.4	0.0	0.0	2.7	3.7
Total Delay	50.8	23.6	51.5	21.3	22.6
Queue Length 50th (ft)	94	30	151	205	144
Queue Length 95th (ft)	163	77	m#182	m244	223
Internal Link Dist (ft)		642		228	222
Turn Bay Length (ft)					
Base Capacity (vph)	303	320	299	1059	1228
Starvation Cap Reductn	0	0	0	333	242
Spillback Cap Reductn	17	1	0	39	130
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.32	0.73	0.82	0.91

Intersection Summary

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

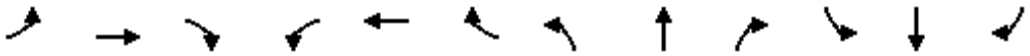
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	71	78	47	46	198	15	580	609	173	41
Future Volume (vph)	71	78	47	46	198	15	580	609	173	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	0.99			1.00	1.00	0.96		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.93			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1320	1240			1483	1489	2662		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1320	1240			1483	1489	2662		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	79	87	52	51	204	15	598	662	188	45
RTOR Reduction (vph)	0	0	37	0	0	0	0	4	0	0
Lane Group Flow (vph)	0	166	66	0	0	219	598	891	0	0
Confl. Bikes (#/hr)				2					85	85
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		18.8	18.8			20.2	71.2	46.0		
Effective Green, g (s)		18.8	18.8			20.2	71.2	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		248	233			299	1060	1224		
v/s Ratio Prot		c0.13	0.05			c0.15	0.40	c0.33		
v/s Ratio Perm										
v/c Ratio		0.67	0.28			0.73	0.56	0.73		
Uniform Delay, d1		37.7	34.8			37.4	6.9	21.9		
Progression Factor		1.00	1.00			1.06	2.10	0.73		
Incremental Delay, d2		6.7	0.7			8.5	1.2	2.7		
Delay (s)		44.4	35.5			48.0	15.7	18.7		
Level of Service		D	D			D	B	B		
Approach Delay (s)			41.0				24.4	18.7		
Approach LOS			D				C	B		

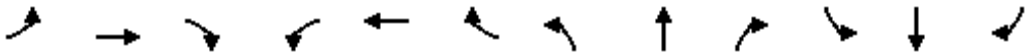
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	183	66	59	115	0	0	0	0
Future Volume (vph)	0	0	0	0	183	66	59	115	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.960							
Flt Protected								0.983				
Satd. Flow (prot)	0	0	0	0	2640	0	0	2726	0	0	0	0
Flt Permitted								0.983				
Satd. Flow (perm)	0	0	0	0	2640	0	0	2726	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		722			270			281			327	
Travel Time (s)		16.4			6.1			6.4			7.4	
Confl. Peds. (#/hr)						118			98			
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	9%	5%	11%	5%	2%	2%	2%	2%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	191	69	77	149	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	260	0	0	226	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

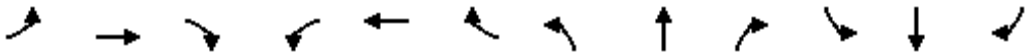
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	183	66	59	115	0	0	0	0
Future Volume (vph)	0	0	0	0	183	66	59	115	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	191	69	77	149	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	127	133	127	99
Volume Left (vph)	0	0	77	0
Volume Right (vph)	0	69	0	0
Hadj (s)	0.15	-0.25	0.45	0.09
Departure Headway (s)	5.3	4.9	5.6	5.2
Degree Utilization, x	0.19	0.18	0.20	0.14
Capacity (veh/h)	655	711	619	660
Control Delay (s)	8.3	7.7	8.8	7.9
Approach Delay (s)	8.0		8.4	
Approach LOS	A		A	

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	33.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	538	126	0	93	159	0	609	83	214	438	37
Future Volume (vph)	0	538	126	0	93	159	0	609	83	214	438	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.94				0.66		0.95		0.88	0.98	
Frt		0.972				0.850		0.982			0.988	
Flt Protected										0.950		
Satd. Flow (prot)	0	2751	0	0	1476	1384	0	2626	0	1450	1463	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2751	0	0	1476	908	0	2626	0	1281	1463	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		29				73						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			308	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Adj. Flow (vph)	0	578	135	0	109	187	0	641	87	223	456	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	713	0	0	109	187	0	728	0	223	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)		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	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		34.0			34.0	24.0		33.0		24.0		
Total Split (s)		34.0			34.0	29.0		33.0		29.0		
Total Split (%)		34.0%			34.0%	29.0%		33.0%		29.0%		
Maximum Green (s)		29.0			29.0	23.0		28.0		23.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			13.0				
Pedestrian Calls (#/hr)		197			197			262				
Act Effct Green (s)		28.2			28.2	50.2		28.8		23.0	57.8	
Actuated g/C Ratio		0.28			0.28	0.50		0.29		0.23	0.58	
v/c Ratio		0.90			0.26	0.31		0.96		0.67	0.59	
Control Delay		48.3			29.5	7.0		36.7		40.4	12.1	
Queue Delay		0.0			0.0	0.1		1.8		0.4	8.1	
Total Delay		48.3			29.5	7.2		38.6		40.8	20.2	
LOS		D			C	A		D		D	C	
Approach Delay		48.3			15.4			38.6			26.6	
Approach LOS		D			B			D			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 46 (46%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 35.1		Intersection LOS: D	
Intersection Capacity Utilization 72.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	197
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

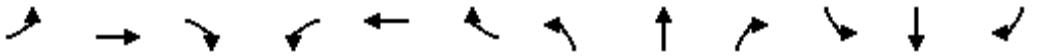


Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	713	109	187	728	223	495
v/c Ratio	0.90	0.26	0.31	0.96	0.67	0.59
Control Delay	48.3	29.5	7.0	36.7	40.4	12.1
Queue Delay	0.0	0.0	0.1	1.8	0.4	8.1
Total Delay	48.3	29.5	7.2	38.6	40.8	20.2
Queue Length 50th (ft)	218	53	29	224	146	245
Queue Length 95th (ft)	#323	93	54	#353	m205	400
Internal Link Dist (ft)	713	526		236		228
Turn Bay Length (ft)						
Base Capacity (vph)	818	428	601	756	333	845
Starvation Cap Reductn	0	0	0	9	9	306
Spillback Cap Reductn	0	0	63	8	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.25	0.35	0.97	0.69	0.92

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	538	126	0	93	159	0	609	83	214	438	37
Future Volume (vph)	0	538	126	0	93	159	0	609	83	214	438	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.94			1.00	0.81		0.95		1.00	0.98	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.97			1.00	0.85		0.98		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2750			1476	1122		2626		1450	1464	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2750			1476	1122		2626		1450	1464	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	0	578	135	0	109	187	0	641	87	223	456	39
RTOR Reduction (vph)	0	21	0	0	0	36	0	0	0	0	0	0
Lane Group Flow (vph)	0	692	0	0	109	151	0	728	0	223	495	0
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		28.2			28.2	51.2		28.8		23.0	56.8	
Effective Green, g (s)		28.2			28.2	51.2		28.8		23.0	56.8	
Actuated g/C Ratio		0.28			0.28	0.51		0.29		0.23	0.57	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		775			416	574		756		333	831	
v/s Ratio Prot		c0.25			0.07	0.06		c0.28		c0.15	0.34	
v/s Ratio Perm						0.07						
v/c Ratio		0.89			0.26	0.26		0.96		0.67	0.60	
Uniform Delay, d1		34.5			27.8	13.8		35.1		35.0	14.1	
Progression Factor		1.00			1.00	1.00		0.29		0.92	0.70	
Incremental Delay, d2		12.7			0.3	0.2		23.0		7.2	2.2	
Delay (s)		47.1			28.2	14.0		33.0		39.5	12.1	
Level of Service		D			C	B		C		D	B	
Approach Delay (s)		47.1			19.2			33.0			20.6	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	31.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	449	163	0	0	241	294	
Future Volume (vph)	449	163	0	0	241	294	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor							
Frt	0.960					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2573	0	0	0	1441	1094	
Flt Permitted					0.950		
Satd. Flow (perm)	2573	0	0	0	1441	1094	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)						1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%	
Parking (#/hr)	2						
Adj. Flow (vph)	493	179	0	0	268	327	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	672	0	0	0	268	327	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	35.0				29.0	29.0	26.0
Total Split (%)	38.9%				32.2%	32.2%	29%
Maximum Green (s)	25.5				23.0	23.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							154
Act Effct Green (s)	25.5				23.0	23.0	
Actuated g/C Ratio	0.28				0.26	0.26	
v/c Ratio	0.92				0.73	1.17	
Control Delay	51.5				43.9	141.7	
Queue Delay	0.0				0.0	0.0	
Total Delay	51.5				43.9	141.7	
LOS	D				D	F	
Approach Delay	51.5				97.7		
Approach LOS	D				F		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 37 (41%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 73.2		Intersection LOS: E	
Intersection Capacity Utilization 52.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	672	268	327
v/c Ratio	0.92	0.73	1.17
Control Delay	51.5	43.9	141.7
Queue Delay	0.0	0.0	0.0
Total Delay	51.5	43.9	141.7
Queue Length 50th (ft)	194	140	~224
Queue Length 95th (ft)	#304	#251	#387
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	729	368	279
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.92	0.73	1.17

Intersection Summary

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

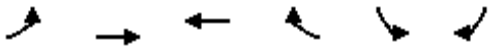
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	449	163	0	0	241	294
Future Volume (vph)	449	163	0	0	241	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	1.00				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.96				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2574				1441	1094
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2574				1441	1094
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	493	179	0	0	268	327
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	672	0	0	0	268	327
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	25.5				23.0	23.0
Effective Green, g (s)	25.5				23.0	23.0
Actuated g/C Ratio	0.28				0.26	0.26
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	729				368	279
v/s Ratio Prot	c0.26				0.19	c0.30
v/s Ratio Perm						
v/c Ratio	0.92				0.73	1.17
Uniform Delay, d1	31.3				30.6	33.5
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	18.9				11.9	108.7
Delay (s)	50.2				42.6	142.2
Level of Service	D				D	F
Approach Delay (s)	50.2			0.0	97.3	
Approach LOS	D			A	F	

Intersection Summary			
HCM 2000 Control Delay	72.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

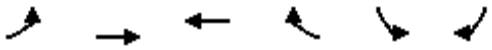
c Critical Lane Group



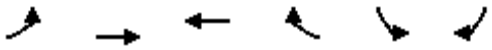
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	174	569	0	0	0	0
Future Volume (vph)	174	569	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.988				
Satd. Flow (prot)	0	2680	0	0	0	0
Flt Permitted		0.988				
Satd. Flow (perm)	0	2680	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		281	
Travel Time (s)		2.3	10.0		6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	24%	0%	0%	0%	0%
Adj. Flow (vph)	189	618	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	807	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



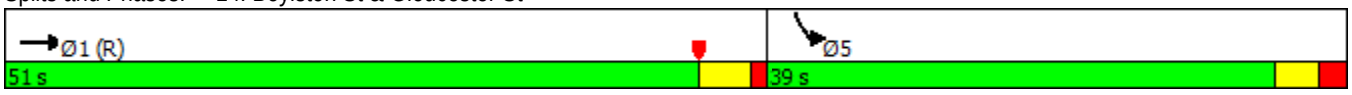
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	569	0	0	293	0
Future Volume (vph)	0	569	0	0	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3811	0	0	2810	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3811	0	0	2810	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					444	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	618	0	0	318	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	618	0	0	318	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		49.5			28.0	
Total Split (s)		51.0			39.0	
Total Split (%)		56.7%			43.3%	
Maximum Green (s)		46.5			34.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		34.0			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		47			26	
Act Effct Green (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
v/c Ratio		0.31			0.24	
Control Delay		18.5			3.8	
Queue Delay		0.0			0.0	
Total Delay		18.5			3.8	
LOS		B			A	
Approach Delay		18.5			3.8	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 28 (31%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

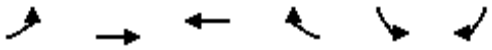




Lane Group	EBT	SBL
Lane Group Flow (vph)	618	318
v/c Ratio	0.31	0.24
Control Delay	18.5	3.8
Queue Delay	0.0	0.0
Total Delay	18.5	3.8
Queue Length 50th (ft)	69	0
Queue Length 95th (ft)	m70	36
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1969	1337
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.31	0.24

Intersection Summary

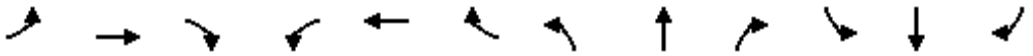
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	569	0	0	293	0
Future Volume (vph)	0	569	0	0	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		3811			2810	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		3811			2810	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	618	0	0	318	0
RTOR Reduction (vph)	0	0	0	0	198	0
Lane Group Flow (vph)	0	618	0	0	120	0
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		46.5			34.0	
Effective Green, g (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1969			1061	
v/s Ratio Prot		c0.16			c0.04	
v/s Ratio Perm						
v/c Ratio		0.31			0.11	
Uniform Delay, d1		12.5			18.2	
Progression Factor		1.45			16.48	
Incremental Delay, d2		0.0			0.2	
Delay (s)		18.3			300.1	
Level of Service		B			F	
Approach Delay (s)		18.3	0.0		300.1	
Approach LOS		B	A		F	

Intersection Summary			
HCM 2000 Control Delay	114.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	29.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



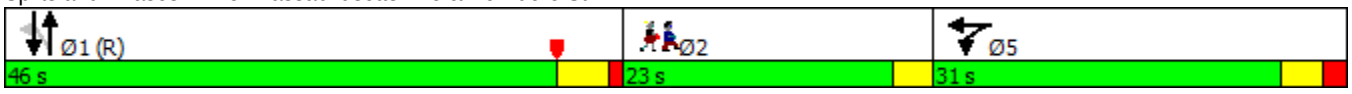
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	21	25	47	36	629	0	0	552	31
Future Volume (vph)	0	0	0	21	25	47	36	629	0	0	552	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.931						0.992	
Flt Protected					0.989			0.997				
Satd. Flow (prot)	0	0	0	0	1532	0	0	2806	0	0	2878	0
Flt Permitted					0.989			0.888				
Satd. Flow (perm)	0	0	0	0	1532	0	0	2500	0	0	2878	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)												39
Peak Hour Factor	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	27	32	61	38	669	0	0	613	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	120	0	0	707	0	0	647	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				5	5			1			1	
Permitted Phases							1					
Detector Phase				5	5		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				13.0	13.0		24.0	24.0			24.0	
Total Split (s)				31.0	31.0		46.0	46.0			46.0	
Total Split (%)				31.0%	31.0%		46.0%	46.0%			46.0%	
Maximum Green (s)				26.0	26.0		41.0	41.0			41.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							173	173			173	
Act Effct Green (s)					12.5			55.5			55.5	
Actuated g/C Ratio					0.12			0.56			0.56	
v/c Ratio					0.63			0.51			0.40	
Control Delay					55.6			13.7			7.3	
Queue Delay					0.0			0.3			0.4	
Total Delay					55.6			14.0			7.7	
LOS					E			B			A	
Approach Delay					55.6			14.0			7.7	
Approach LOS					E			B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 59 (59%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	23%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	264
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

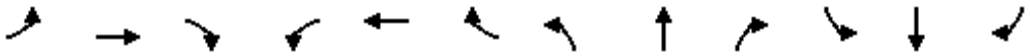
Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	120	707	647
v/c Ratio	0.63	0.51	0.40
Control Delay	55.6	13.7	7.3
Queue Delay	0.0	0.3	0.4
Total Delay	55.6	14.0	7.7
Queue Length 50th (ft)	74	68	45
Queue Length 95th (ft)	105	314	m111
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	398	1388	1601
Starvation Cap Reductn	0	0	464
Spillback Cap Reductn	0	205	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.30	0.60	0.57

Intersection Summary

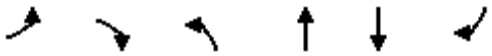
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	21	25	47	36	629	0	0	552	31
Future Volume (vph)	0	0	0	21	25	47	36	629	0	0	552	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1532			2807			2880	
Flt Permitted					0.99			0.89			1.00	
Satd. Flow (perm)					1532			2499			2880	
Peak-hour factor, PHF	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	27	32	61	38	669	0	0	613	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	120	0	0	707	0	0	644	0
Confl. Bikes (#/hr)												39
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				5	5			1			1	
Permitted Phases							1					
Actuated Green, G (s)					12.5			55.5			55.5	
Effective Green, g (s)					12.5			55.5			55.5	
Actuated g/C Ratio					0.12			0.56			0.56	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					191			1386			1598	
v/s Ratio Prot					c0.08						0.22	
v/s Ratio Perm								c0.28				
v/c Ratio					0.63			0.51			0.40	
Uniform Delay, d1					41.5			13.8			12.8	
Progression Factor					1.00			0.85			0.50	
Incremental Delay, d2					4.6			1.2			0.6	
Delay (s)					46.1			12.9			7.0	
Level of Service					D			B			A	
Approach Delay (s)		0.0			46.1			12.9			7.0	
Approach LOS		A			D			B			A	

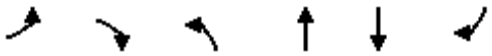
Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	148	0	504	91	0
Future Volume (vph)	10	148	0	504	91	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.874					
Flt Protected	0.997					
Satd. Flow (prot)	1489	0	0	1495	1746	0
Flt Permitted	0.997					
Satd. Flow (perm)	1489	0	0	1495	1746	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			247	419	
Travel Time (s)	7.2			5.6	9.5	
Confl. Peds. (#/hr)		151				
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Heavy Vehicles (%)	0%	1%	0%	16%	11%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	12	174	0	554	121	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	186	0	0	554	121	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

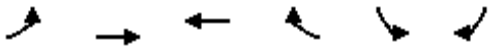
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	148	0	504	91	0
Future Volume (Veh/h)	10	148	0	504	91	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Hourly flow rate (vph)	12	174	0	554	121	0
Pedestrians				151		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	675	272	121			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	675	272	121			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	72	100			
cM capacity (veh/h)	422	622	1479			

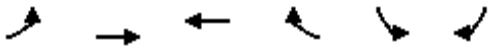
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	186	554	121
Volume Left	12	0	0
Volume Right	174	0	0
cSH	603	1700	1700
Volume to Capacity	0.31	0.33	0.07
Queue Length 95th (ft)	33	0	0
Control Delay (s)	13.6	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.6	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	102	534	264	20
Future Volume (vph)	0	0	102	534	264	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.991	
Flt Protected					0.956	
Satd. Flow (prot)	0	0	1598	1264	1609	0
Flt Permitted					0.956	
Satd. Flow (perm)	0	0	1598	1264	1609	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				111	76	10
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Heavy Vehicles (%)	2%	2%	7%	15%	4%	5%
Adj. Flow (vph)	0	0	113	593	267	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	113	593	287	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	102	534	264	20
Future Volume (Veh/h)	0	0	102	534	264	20
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Hourly flow rate (vph)	0	0	113	593	267	20
Pedestrians		10	76		111	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	7		11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	817				300	234
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	817				300	234
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				53	97
cM capacity (veh/h)	718				565	706

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	113	593	287
Volume Left	0	0	267
Volume Right	0	593	20
cSH	1700	1700	573
Volume to Capacity	0.07	0.35	0.50
Queue Length 95th (ft)	0	0	70
Control Delay (s)	0.0	0.0	17.4
Lane LOS			C
Approach Delay (s)	0.0		17.4
Approach LOS			C

Intersection Summary			
Average Delay		5.0	
Intersection Capacity Utilization		46.4%	ICU Level of Service A
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	351	15	10	234	638	31	10	513	25	25	0	10
Future Volume (vph)	351	15	10	234	638	31	10	513	25	25	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	12	10	12	12	16	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.95	0.97	0.95	0.95	1.00	1.00
Ped Bike Factor	0.97							0.57			0.63	
Frt	0.994				0.850			0.987			0.865	
Flt Protected				0.998				0.956				
Satd. Flow (prot)	3133	0	0	1529	2218	0	0	2507	0	0	1060	0
Flt Permitted				0.972				0.956				
Satd. Flow (perm)	3133	0	0	1489	2218	0	0	1539	0	0	1060	0
Right Turn on Red		No				Yes				No		
Satd. Flow (RTOR)					33						120	
Link Speed (mph)	30			30				30			30	
Link Distance (ft)	883			293				1231			255	
Travel Time (s)	20.1			6.7				28.0			5.8	
Confl. Peds. (#/hr)		407				110	110		407	295		295
Confl. Bikes (#/hr)		6			2	2			21	21		
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.75	0.75
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	0%	7%	4%	20%	0%	0%
Adj. Flow (vph)	408	17	11	254	693	34	11	576	28	28	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	425	0	0	265	727	0	0	643	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right	Left	Right
Median Width(ft)	0			0				20			0	
Link Offset(ft)	0			0				0			0	
Crosswalk Width(ft)	16			16				16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.14	1.25	1.14	1.14	0.97	1.14
Turning Speed (mph)		9	15		9	9	15	15	9	9		9
Number of Detectors	2		1	2	1		1	1			2	
Detector Template	Thru		Left	Thru	Right		Left	Left			Thru	
Leading Detector (ft)	100		20	100	20		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	6	20		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	NA	pt+ov		custom	Prot			NA	

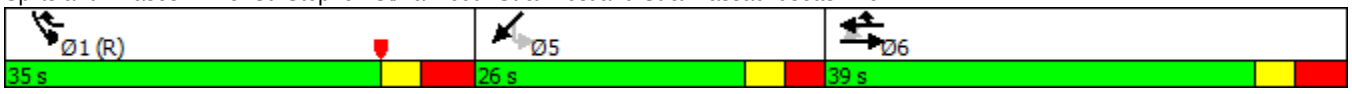


Lane Group	SWR2
Lane Configurations	
Traffic Volume (vph)	10
Future Volume (vph)	10
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	95
Confl. Bikes (#/hr)	
Peak Hour Factor	0.75
Heavy Vehicles (%)	0%
Adj. Flow (vph)	13
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.14
Turning Speed (mph)	9
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	

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Protected Phases	6			6	1 6			1			5	
Permitted Phases			6									
Detector Phase	6		6	6	1 6			1			5	
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0				10.0			10.0	
Minimum Split (s)	18.0		18.0	18.0				20.0			25.0	
Total Split (s)	39.0		39.0	39.0				35.0			26.0	
Total Split (%)	39.0%		39.0%	39.0%				35.0%			26.0%	
Maximum Green (s)	32.0		32.0	32.0				28.0			20.0	
Yellow Time (s)	3.0		3.0	3.0				3.0			3.0	
All-Red Time (s)	4.0		4.0	4.0				4.0			3.0	
Lost Time Adjust (s)	0.0			0.0				0.0			0.0	
Total Lost Time (s)	7.0			7.0				7.0			6.0	
Lead/Lag	Lag		Lag	Lag							Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0				0.2			2.0	
Recall Mode	None		None	None				C-Max			None	
Walk Time (s)	7.0		7.0	7.0				7.0			7.0	
Flash Dont Walk (s)	4.0		4.0	4.0				6.0			12.0	
Pedestrian Calls (#/hr)	101		101	101				101			45	
Act Effct Green (s)	25.7			25.7	76.2			0.0			15.4	
Actuated g/C Ratio	0.26			0.26	0.76			0.00			0.15	
v/c Ratio	0.53			0.69	0.43			no cap			0.10	
Control Delay	33.5			47.5	3.5						0.8	
Queue Delay	59.1			2.4	0.3						0.0	
Total Delay	92.6			49.9	3.8			Error			0.8	
LOS	F			D	A			F			A	
Approach Delay	92.6			16.1				Err			0.8	
Approach LOS	F			B				F			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 6 (6%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: Err			
Intersection Signal Delay: Err		Intersection LOS: F	
Intersection Capacity Utilization 74.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	SWR2
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	425	265	727	643	26
v/c Ratio	0.53	0.69	0.43	no cap	0.10
Control Delay	33.5	47.5	3.5		0.8
Queue Delay	59.1	2.4	0.3		0.0
Total Delay	92.6	49.9	3.8	Error	0.8
Queue Length 50th (ft)	120	179	40	~460	0
Queue Length 95th (ft)	147	m261	41	#569	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	1002	476	1660	1	308
Starvation Cap Reductn	0	111	393	0	0
Spillback Cap Reductn	691	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.37	0.73	0.57	643.00	0.08

Intersection Summary

~ 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.



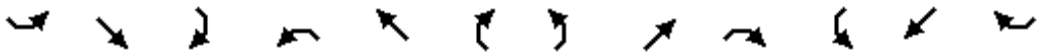
Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	351	15	10	234	638	31	10	513	25	25	0	10
Future Volume (vph)	351	15	10	234	638	31	10	513	25	25	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	12	10	12	12	16	12
Total Lost time (s)	7.0			7.0	7.0			7.0			6.0	
Lane Util. Factor	0.95			1.00	0.88			0.97			1.00	
Frpb, ped/bikes	0.97			1.00	1.00			0.92			0.63	
Flpb, ped/bikes	1.00			1.00	1.00			0.61			1.00	
Frt	0.99			1.00	0.85			0.99			0.86	
Flt Protected	1.00			1.00	1.00			0.96			1.00	
Satd. Flow (prot)	3133			1529	2218			1540			1060	
Flt Permitted	1.00			0.97	1.00			0.96			1.00	
Satd. Flow (perm)	3133			1489	2218			1540			1060	
Peak-hour factor, PHF	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.75	0.75
Adj. Flow (vph)	408	17	11	254	693	34	11	576	28	28	0	13
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	23	0
Lane Group Flow (vph)	425	0	0	265	718	0	0	643	0	0	3	0
Confl. Peds. (#/hr)		407				110	110		407	295		295
Confl. Bikes (#/hr)		6			2	2			21	21		
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	0%	7%	4%	20%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		custom	Prot			NA	
Protected Phases	6			6	1 6			1			5	
Permitted Phases			6									
Actuated Green, G (s)	25.7			25.7	73.6			40.9			13.4	
Effective Green, g (s)	25.7			25.7	73.6			40.9			13.4	
Actuated g/C Ratio	0.26			0.26	0.74			0.41			0.13	
Clearance Time (s)	7.0			7.0				7.0			6.0	
Vehicle Extension (s)	2.0			2.0				0.2			2.0	
Lane Grp Cap (vph)	805			382	1632			629			142	
v/s Ratio Prot	0.14				0.32						c0.00	
v/s Ratio Perm				c0.18				0.42				
v/c Ratio	0.53			0.69	0.44			1.02			0.02	
Uniform Delay, d1	31.9			33.6	5.2			29.6			37.6	
Progression Factor	1.00			1.22	0.49			1.00			1.00	
Incremental Delay, d2	0.3			3.3	0.1			40.4			0.0	
Delay (s)	32.2			44.4	2.6			70.0			37.6	
Level of Service	C			D	A			E			D	
Approach Delay (s)	32.2			13.8				70.0			37.6	
Approach LOS	C			B				E			D	

Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SWR2
Lane Configurations	
Traffic Volume (vph)	10
Future Volume (vph)	10
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.75
Adj. Flow (vph)	13
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	95
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	



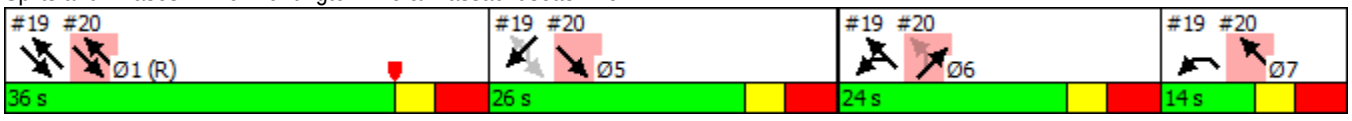
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	778	85	15	861	0	0	0	0	102	33	52
Future Volume (vph)	0	778	85	15	861	0	0	0	0	102	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.92		0.80								0.70
Frt		0.985										0.850
Flt Protected				0.950							0.964	
Satd. Flow (prot)	0	2634	0	1425	2861	0	0	0	0	0	1445	1301
Flt Permitted				0.950							0.964	
Satd. Flow (perm)	0	2634	0	1140	2861	0	0	0	0	0	1445	916
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Adj. Flow (vph)	0	864	94	16	926	0	0	0	0	120	39	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	958	0	16	926	0	0	0	0	0	159	61
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		169								169	169	169
Act Effct Green (s)		29.5		30.9	46.4						18.6	18.6
Actuated g/C Ratio		0.30		0.31	0.46						0.19	0.19
v/c Ratio		1.22		0.04	0.70						0.59	0.19
Control Delay		145.1		42.1	17.9						47.3	1.2
Queue Delay		1.9		0.0	0.1						0.0	0.0
Total Delay		146.9		42.1	18.1						47.3	1.2
LOS		F		D	B						D	A
Approach Delay		146.9			18.5						34.5	
Approach LOS		F			B						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 78.2		Intersection LOS: E	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	42	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

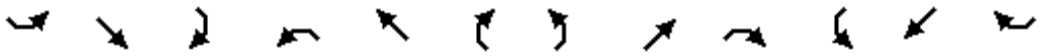
Intersection Summary



Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	958	16	926	159	61
v/c Ratio	1.22	0.04	0.70	0.59	0.19
Control Delay	145.1	42.1	17.9	47.3	1.2
Queue Delay	1.9	0.0	0.1	0.0	0.0
Total Delay	146.9	42.1	18.1	47.3	1.2
Queue Length 50th (ft)	~405	8	279	93	0
Queue Length 95th (ft)	149	m16	362	151	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	785	421	1330	274	332
Starvation Cap Reductn	195	0	0	0	0
Spillback Cap Reductn	15	0	40	0	2
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.62	0.04	0.72	0.58	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	778	85	15	861	0	0	0	0	102	33	52
Future Volume (vph)	0	778	85	15	861	0	0	0	0	102	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.92		1.00	1.00						1.00	0.70
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2634		1425	2861						1445	916
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2634		1425	2861						1445	916
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	864	94	16	926	0	0	0	0	120	39	61
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	50
Lane Group Flow (vph)	0	950	0	16	926	0	0	0	0	0	159	11
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		29.5		30.9	46.4						18.6	18.6
Effective Green, g (s)		29.5		30.9	46.4						18.6	18.6
Actuated g/C Ratio		0.29		0.31	0.46						0.19	0.19
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		777		440	1327						268	170
v/s Ratio Prot		c0.36		c0.01	c0.32							
v/s Ratio Perm											0.11	0.01
v/c Ratio		1.22		0.04	0.70						0.59	0.07
Uniform Delay, d1		35.2		24.1	21.2						37.2	33.5
Progression Factor		1.10		1.72	1.25						1.00	1.00
Incremental Delay, d2		111.3		0.0	1.1						2.3	0.1
Delay (s)		150.0		41.6	27.7						39.6	33.6
Level of Service		F		D	C						D	C
Approach Delay (s)		150.0			27.9			0.0			37.9	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	84.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

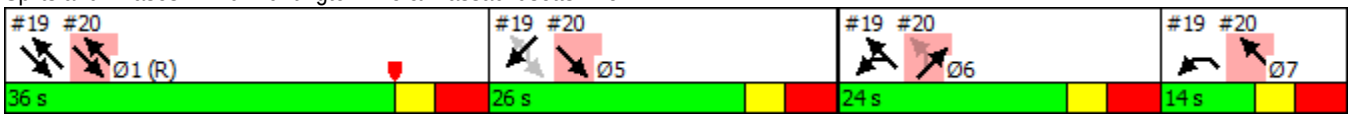
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	880	0	0	805	97	71	40	66	0	0	0
Future Volume (vph)	0	880	0	0	805	97	71	40	66	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.96			0.94				
Frt					0.984			0.944				
Flt Protected								0.980				
Satd. Flow (prot)	0	3185	0	0	4055	0	0	2361	0	0	0	0
Flt Permitted								0.980				
Satd. Flow (perm)	0	3185	0	0	4055	0	0	2361	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			78				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Adj. Flow (vph)	0	978	0	0	866	104	84	47	78	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	978	0	0	970	0	0	209	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							42	42				
Act Effct Green (s)		55.1			43.5			16.9				
Actuated g/C Ratio		0.55			0.44			0.17				
v/c Ratio		0.56			0.55			0.45				
Control Delay		0.8			21.8			26.5				
Queue Delay		0.0			0.5			0.1				
Total Delay		0.8			22.3			26.6				
LOS		A			C			C				
Approach Delay		0.8			22.3			26.6				
Approach LOS		A			C			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 97.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	169	169	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Lane Group	SET	NWT	NET
Lane Group Flow (vph)	978	970	209
v/c Ratio	0.56	0.55	0.45
Control Delay	0.8	21.8	26.5
Queue Delay	0.0	0.5	0.1
Total Delay	0.8	22.3	26.6
Queue Length 50th (ft)	2	159	38
Queue Length 95th (ft)	m2	202	69
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1767	1778	466
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	367	13
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.55	0.69	0.46

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	880	0	0	805	97	71	40	66	0	0	0
Future Volume (vph)	0	880	0	0	805	97	71	40	66	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.96			0.94				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.94				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		3185			4055			2362				
Flt Permitted		1.00			1.00			0.98				
Satd. Flow (perm)		3185			4055			2362				
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Adj. Flow (vph)	0	978	0	0	866	104	84	47	78	0	0	0
RTOR Reduction (vph)	0	0	0	0	15	0	0	65	0	0	0	0
Lane Group Flow (vph)	0	978	0	0	955	0	0	144	0	0	0	0
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.1			43.5			16.9				
Effective Green, g (s)		55.1			43.5			16.9				
Actuated g/C Ratio		0.55			0.44			0.17				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1754			1763			399				
v/s Ratio Prot		c0.31			c0.24							
v/s Ratio Perm								0.06				
v/c Ratio		0.56			0.54			0.36				
Uniform Delay, d1		14.6			20.9			36.8				
Progression Factor		0.05			1.00			1.00				
Incremental Delay, d2		0.0			0.2			0.2				
Delay (s)		0.7			21.1			37.0				
Level of Service		A			C			D				
Approach Delay (s)		0.7			21.1			37.0			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	51	568	46	0	671
Future Volume (vph)	0	51	568	46	0	671
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.99			
Frt		0.865	0.989			
Flt Protected						
Satd. Flow (prot)	0	1205	3090	0	0	3474
Flt Permitted						
Satd. Flow (perm)	0	1205	3090	0	0	3474
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		224	15			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Peak Hour Factor	0.72	0.72	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	71	604	49	0	699
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	653	0	0	699
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Detector Phase		3	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		27.0	12.0			12.0
Total Split (s)		37.0	73.0			73.0
Total Split (%)		33.6%	66.4%			66.4%
Maximum Green (s)		33.0	69.0			69.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		18				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.20	0.25			0.24
Control Delay		1.3	3.5			1.0
Queue Delay		0.0	0.0			0.0
Total Delay		1.3	3.5			1.0
LOS		A	A			A
Approach Delay	1.3		3.5			1.0
Approach LOS	A		A			A

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 57 (52%), Referenced to phase 1:NESW, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 44.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	71	653	699
v/c Ratio	0.20	0.25	0.24
Control Delay	1.3	3.5	1.0
Queue Delay	0.0	0.0	0.0
Total Delay	1.3	3.5	1.0
Queue Length 50th (ft)	0	29	11
Queue Length 95th (ft)	0	96	24
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	518	2564	2880
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.25	0.24

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	51	568	46	0	671
Future Volume (vph)	0	51	568	46	0	671
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1205	3093			3474
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1205	3093			3474
Peak-hour factor, PHF	0.72	0.72	0.94	0.94	0.96	0.96
Adj. Flow (vph)	0	71	604	49	0	699
RTOR Reduction (vph)	0	63	3	0	0	0
Lane Group Flow (vph)	0	8	650	0	0	699
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		135	2519			2829
v/s Ratio Prot		c0.01	c0.21			0.20
v/s Ratio Perm						
v/c Ratio		0.06	0.26			0.25
Uniform Delay, d1		43.6	2.4			2.4
Progression Factor		1.00	1.00			0.26
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.7	2.6			0.8
Level of Service		D	A			A
Approach Delay (s)	43.7		2.6			0.8
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	95	83	62	61	241	66	10	155	422	31	76	153
Future Volume (vph)	95	83	62	61	241	66	10	155	422	31	76	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.87		0.87		0.93			0.86	0.97			0.80
Frt			0.850		0.976				0.990			
Flt Protected	0.950				0.992			0.950				0.950
Satd. Flow (prot)	1417	1629	1357	0	1710	0	0	1297	2960	0	0	1435
Flt Permitted	0.354				0.930			0.950				0.950
Satd. Flow (perm)	460	1629	1185	0	1576	0	0	1120	2960	0	0	1152
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		11				7			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Adj. Flow (vph)	104	91	68	68	268	73	11	174	474	35	93	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	91	68	0	409	0	0	185	509	0	0	280
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			



Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	538	343
Future Volume (vph)	538	343
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.67
Frt		0.850
Flt Protected		
Satd. Flow (prot)	2963	1201
Flt Permitted		
Satd. Flow (perm)	2963	809
Right Turn on Red		Yes
Satd. Flow (RTOR)		101
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.82	0.82
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Adj. Flow (vph)	656	418
Shared Lane Traffic (%)		
Lane Group Flow (vph)	656	418
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	46.0	46.0	46.0	46.0	46.0		22.0	22.0	42.0		22.0	22.0
Total Split (%)	41.8%	41.8%	41.8%	41.8%	41.8%		20.0%	20.0%	38.2%		20.0%	20.0%
Maximum Green (s)	41.0	41.0	41.0	41.0	41.0		17.0	17.0	37.0		17.0	17.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Recall Mode	None	None	None	None	None		None	None	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	106	106	106	106	106				111			
Act Effct Green (s)	33.7	33.7	33.7		33.7			19.2	37.0			24.3
Actuated g/C Ratio	0.31	0.31	0.31		0.31			0.17	0.34			0.22
v/c Ratio	0.74	0.18	0.17		0.83			0.82	0.51			0.89
Control Delay	63.6	27.4	6.5		49.4			80.7	28.1			72.6
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	63.6	27.4	6.5		49.4			80.7	28.1			72.6
LOS	E	C	A		D			F	C			E
Approach Delay		36.3			49.4				42.1			
Approach LOS		D			D				D			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 25 (23%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.12			
Intersection Signal Delay: 53.7		Intersection LOS: D	
Intersection Capacity Utilization 92.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	42.0	42.0
Total Split (%)	38.2%	38.2%
Maximum Green (s)	37.0	37.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	111	111
Act Effct Green (s)	42.1	42.1
Actuated g/C Ratio	0.38	0.38
v/c Ratio	0.58	1.12
Control Delay	30.7	111.9
Queue Delay	0.0	0.0
Total Delay	30.7	111.9
LOS	C	F
Approach Delay	64.4	
Approach LOS	E	

Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	104	91	68	409	185	509	280	656	418
v/c Ratio	0.74	0.18	0.17	0.83	0.82	0.51	0.89	0.58	1.12
Control Delay	63.6	27.4	6.5	49.4	80.7	28.1	72.6	30.7	111.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	27.4	6.5	49.4	80.7	28.1	72.6	30.7	111.9
Queue Length 50th (ft)	66	47	0	262	115	147	192	201	~310
Queue Length 95th (ft)	#139	79	29	351	#275	177	#364	240	#440
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	171	607	484	594	229	1000	316	1133	372
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.15	0.14	0.69	0.81	0.51	0.89	0.58	1.12

Intersection Summary

~ 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.

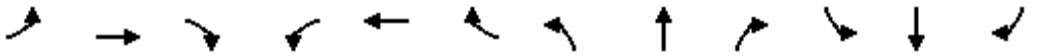
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	95	83	62	61	241	66	10	155	422	31	76	153
Future Volume (vph)	95	83	62	61	241	66	10	155	422	31	76	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.94			1.00	0.97			1.00
Flpb, ped/bikes	0.88	1.00	1.00		0.98			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.98			1.00	0.99			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1244	1629	1184		1680			1297	2959			1435
Flt Permitted	0.35	1.00	1.00		0.93			0.95	1.00			0.95
Satd. Flow (perm)	464	1629	1184		1575			1297	2959			1435
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Adj. Flow (vph)	104	91	68	68	268	73	11	174	474	35	93	187
RTOR Reduction (vph)	0	0	47	0	8	0	0	0	5	0	0	0
Lane Group Flow (vph)	104	91	21	0	401	0	0	185	504	0	0	280
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	33.7	33.7	33.7		33.7			19.2	37.0			24.3
Effective Green, g (s)	33.7	33.7	33.7		33.7			19.2	37.0			24.3
Actuated g/C Ratio	0.31	0.31	0.31		0.31			0.17	0.34			0.22
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0	2.0			2.0
Lane Grp Cap (vph)	142	499	362		482			226	995			317
v/s Ratio Prot		0.06						0.14	0.17			c0.20
v/s Ratio Perm	0.22		0.02		c0.25							
v/c Ratio	0.73	0.18	0.06		0.83			0.82	0.51			0.88
Uniform Delay, d1	34.1	28.0	26.9		35.5			43.7	29.2			41.5
Progression Factor	1.00	1.00	1.00		1.00			1.22	0.90			1.00
Incremental Delay, d2	15.4	0.1	0.0		11.2			18.9	1.8			23.3
Delay (s)	49.5	28.1	27.0		46.8			72.3	28.2			64.8
Level of Service	D	C	C		D			E	C			E
Approach Delay (s)		36.3			46.8				39.9			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	54.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	92.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

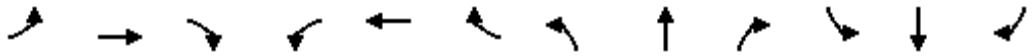


Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	538	343
Future Volume (vph)	538	343
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.67
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	2963	809
Flt Permitted	1.00	1.00
Satd. Flow (perm)	2963	809
Peak-hour factor, PHF	0.82	0.82
Adj. Flow (vph)	656	418
RTOR Reduction (vph)	0	62
Lane Group Flow (vph)	656	356
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	42.1	42.1
Effective Green, g (s)	42.1	42.1
Actuated g/C Ratio	0.38	0.38
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	2.0	2.0
Lane Grp Cap (vph)	1134	309
v/s Ratio Prot	0.22	
v/s Ratio Perm		c0.44
v/c Ratio	0.58	1.15
Uniform Delay, d1	26.9	34.0
Progression Factor	1.00	1.00
Incremental Delay, d2	2.2	98.6
Delay (s)	29.1	132.5
Level of Service	C	F
Approach Delay (s)	68.4	
Approach LOS	E	

Intersection Summary



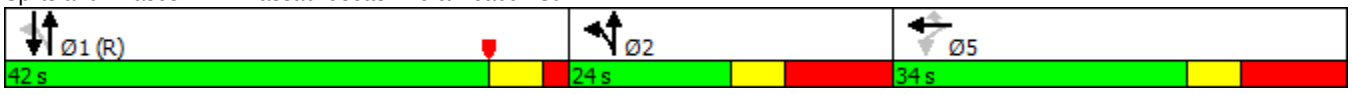
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	300	158	158	816	0	0	728	295
Future Volume (vph)	0	0	0	46	300	158	158	816	0	0	728	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.98	0.79					0.90	
Frt						0.850					0.957	
Flt Protected					0.993			0.992				
Satd. Flow (prot)	0	0	0	0	2903	1311	0	2888	0	0	2532	0
Flt Permitted					0.993			0.507				
Satd. Flow (perm)	0	0	0	0	2847	1033	0	1476	0	0	2532	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	53	345	182	170	877	0	0	774	314
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	398	182	0	1047	0	0	1088	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				33.0	33.0	33.0	23.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.0	22.0	22.0	12.0				36.0	
Yellow Time (s)				4.0	4.0	4.0	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					12.0	12.0					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				None	None	None	Max				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	10.0				10.0	
Pedestrian Calls (#/hr)				58	58	58	0				174	
Act Effct Green (s)					20.1	20.1		55.9			37.9	
Actuated g/C Ratio					0.20	0.20		0.56			0.38	
v/c Ratio					0.69	0.88		0.97			1.09	
Control Delay					43.7	76.5		37.9			85.1	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					43.7	76.5		37.9			85.1	
LOS					D	E		D			F	
Approach Delay					54.0			37.9			85.1	
Approach LOS					D			D			F	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 52 (52%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 60.3		Intersection LOS: E	
Intersection Capacity Utilization 102.8%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



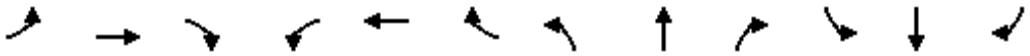


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	398	182	1047	1088
v/c Ratio	0.69	0.88	0.97	1.09
Control Delay	43.7	76.5	37.9	85.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.7	76.5	37.9	85.1
Queue Length 50th (ft)	121	110	181	~414
Queue Length 95th (ft)	166	#214	#463	#547
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	626	227	1078	1001
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	0.64	0.80	0.97	1.09

Intersection Summary

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

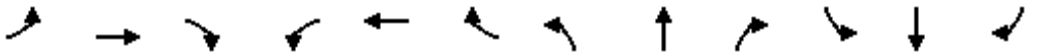
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



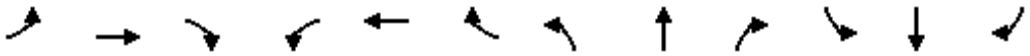
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	300	158	158	816	0	0	728	295
Future Volume (vph)	0	0	0	46	300	158	158	816	0	0	728	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					12.0	12.0		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.79		1.00			0.90	
Flpb, ped/bikes					0.98	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2849	1031		2888			2532	
Flt Permitted					0.99	1.00		0.51			1.00	
Satd. Flow (perm)					2849	1031		1475			2532	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	53	345	182	170	877	0	0	774	314
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	0	0	0	0	398	182	0	1047	0	0	1046	0
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					20.1	20.1		49.9			37.9	
Effective Green, g (s)					20.1	20.1		49.9			37.9	
Actuated g/C Ratio					0.20	0.20		0.50			0.38	
Clearance Time (s)					12.0	12.0					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					572	207		905			959	
v/s Ratio Prot								c0.14			0.41	
v/s Ratio Perm					0.14	c0.18		c0.44				
v/c Ratio					0.70	0.88		1.16			1.09	
Uniform Delay, d1					37.1	38.8		25.1			31.1	
Progression Factor					1.00	1.00		0.76			1.00	
Incremental Delay, d2					3.0	30.9		81.1			56.9	
Delay (s)					40.1	69.7		100.1			88.0	
Level of Service					D	E		F			F	
Approach Delay (s)		0.0			49.4			100.1			88.0	
Approach LOS		A			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	84.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	30.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	36	10	0	0	0	0	862	25	81	698	0
Future Volume (vph)	112	36	10	0	0	0	0	862	25	81	698	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.93						0.98			0.99	
Frt		0.991						0.996				
Flt Protected		0.966									0.995	
Satd. Flow (prot)	0	1643	0	0	0	0	0	2841	0	0	2873	0
Flt Permitted		0.966									0.718	
Satd. Flow (perm)	0	1543	0	0	0	0	0	2841	0	0	2051	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	123	40	11	0	0	0	0	947	27	90	776	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	0	0	0	974	0	0	866	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	27.0	27.0						61.0		12.0		
Total Split (%)	27.0%	27.0%						61.0%		12.0%		
Maximum Green (s)	22.0	22.0						56.0		7.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lag	Lag						Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	27	27						180		180		
Act Effct Green (s)		17.1						58.3			67.9	
Actuated g/C Ratio		0.17						0.58			0.68	
v/c Ratio		0.65						0.59			0.59	
Control Delay		49.0						6.2			3.9	
Queue Delay		0.3						0.2			0.1	
Total Delay		49.3						6.4			4.1	
LOS		D						A			A	
Approach Delay		49.3						6.4			4.1	
Approach LOS		D						A			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 62 (62%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 80.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Massachusetts Ave & Marlborough St

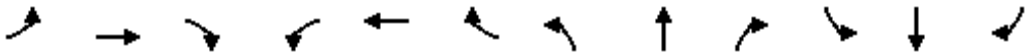




Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	174	974	866
v/c Ratio	0.65	0.59	0.59
Control Delay	49.0	6.2	3.9
Queue Delay	0.3	0.2	0.1
Total Delay	49.3	6.4	4.1
Queue Length 50th (ft)	98	41	8
Queue Length 95th (ft)	165	57	m8
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	341	1657	1471
Starvation Cap Reductn	0	17	100
Spillback Cap Reductn	20	149	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.54	0.65	0.63

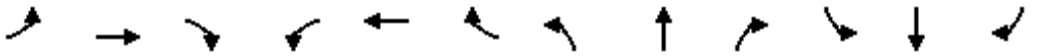
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	36	10	0	0	0	0	862	25	81	698	0
Future Volume (vph)	112	36	10	0	0	0	0	862	25	81	698	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.94						1.00			0.99	
Frt		0.99						1.00			1.00	
Flt Protected		0.97						1.00			0.99	
Satd. Flow (prot)		1543						2841			2849	
Flt Permitted		0.97						1.00			0.72	
Satd. Flow (perm)		1543						2841			2055	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	123	40	11	0	0	0	0	947	27	90	776	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	172	0	0	0	0	0	974	0	0	866	0
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.1						58.3			67.9	
Effective Green, g (s)		17.1						58.3			67.9	
Actuated g/C Ratio		0.17						0.58			0.68	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		263						1656			1471	
v/s Ratio Prot								0.34			c0.06	
v/s Ratio Perm		0.11									c0.34	
v/c Ratio		0.65						0.59			0.59	
Uniform Delay, d1		38.7						13.2			8.6	
Progression Factor		1.00						0.34			0.49	
Incremental Delay, d2		4.4						1.4			0.0	
Delay (s)		43.0						5.9			4.2	
Level of Service		D						A			A	
Approach Delay (s)		43.0			0.0			5.9			4.2	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



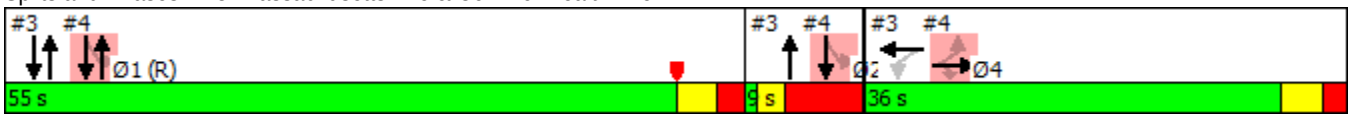
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	36	132	0	739	0	0	688	20
Future Volume (vph)	0	0	0	55	36	132	0	739	0	0	688	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.86	0.73						0.98	
Frt					0.882						0.996	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1570	948	0	0	2963	0	0	2826	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1347	948	0	0	2963	0	0	2826	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					157							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	65	43	157	0	786	0	0	756	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	65	200	0	0	786	0	0	778	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				36.0	36.0						55.0	
Total Split (%)				36.0%	36.0%						55.0%	
Maximum Green (s)				31.0	31.0						50.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				94	94						181	
Act Effct Green (s)				31.0	31.0			59.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.59			0.50	
v/c Ratio				0.16	0.50			0.45			0.55	
Control Delay				26.3	12.3			6.9			11.0	
Queue Delay				0.0	0.0			0.3			0.6	
Total Delay				26.3	12.3			7.2			11.6	
LOS				C	B			A			B	
Approach Delay					15.7			7.2			11.6	
Approach LOS					B			A			B	

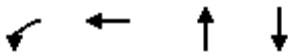
Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



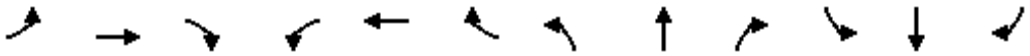
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



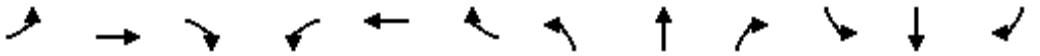
Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	65	200	786	778
v/c Ratio	0.16	0.50	0.45	0.55
Control Delay	26.3	12.3	6.9	11.0
Queue Delay	0.0	0.0	0.3	0.6
Total Delay	26.3	12.3	7.2	11.6
Queue Length 50th (ft)	30	20	63	74
Queue Length 95th (ft)	59	72	77	148
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	417	402	1748	1413
Starvation Cap Reductn	0	0	422	296
Spillback Cap Reductn	0	0	0	5
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.50	0.59	0.70

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	36	132	0	739	0	0	688	20
Future Volume (vph)	0	0	0	55	36	132	0	739	0	0	688	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.73			1.00			0.98	
Flpb, ped/bikes				0.86	1.00			1.00			1.00	
Frt				1.00	0.88			1.00			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1347	949			2963			2825	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1347	949			2963			2825	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Adj. Flow (vph)	0	0	0	65	43	157	0	786	0	0	756	22
RTOR Reduction (vph)	0	0	0	0	108	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	65	92	0	0	786	0	0	778	0
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				31.0	31.0			56.0			50.0	
Effective Green, g (s)				31.0	31.0			56.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.56			0.50	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				417	294			1659			1412	
v/s Ratio Prot					c0.10			c0.27			c0.28	
v/s Ratio Perm				0.05								
v/c Ratio				0.16	0.31			0.47			0.55	
Uniform Delay, d1				25.0	26.4			13.2			17.3	
Progression Factor				1.00	1.00			0.53			0.55	
Incremental Delay, d2				0.8	2.7			0.8			1.3	
Delay (s)				25.8	29.1			7.8			10.8	
Level of Service				C	C			A			B	
Approach Delay (s)		0.0			28.3			7.8			10.8	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



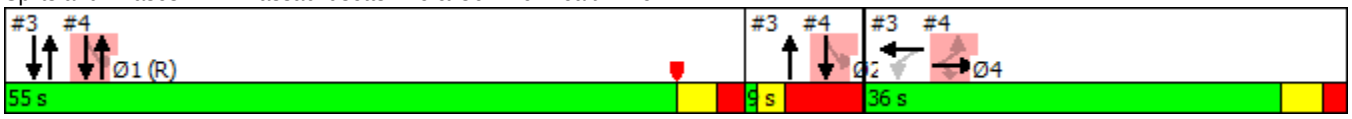
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	66	227	0	0	0	0	593	56	81	661	0
Future Volume (vph)	163	66	227	0	0	0	0	593	56	81	661	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.90	0.73					0.97			0.99	
Frt			0.850					0.987				
Flt Protected		0.966									0.995	
Satd. Flow (prot)	0	1513	1172	0	0	0	0	2759	0	0	3044	0
Flt Permitted		0.966									0.765	
Satd. Flow (perm)	0	1360	860	0	0	0	0	2759	0	0	2310	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			303			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	179	73	249	0	0	0	0	631	60	90	734	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	252	249	0	0	0	0	691	0	0	824	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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	36.0	36.0	36.0					55.0				
Total Split (%)	36.0%	36.0%	36.0%					55.0%				
Maximum Green (s)	31.0	31.0	31.0					50.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	94	94	94					181				
Act Effct Green (s)		31.0	31.0					50.0			59.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.59	
v/c Ratio		0.60	0.94					0.50			0.60	
Control Delay		36.3	76.7					19.5			4.3	
Queue Delay		62.2	0.0					0.6			0.3	
Total Delay		98.4	76.7					20.1			4.6	
LOS		F	E					C			A	
Approach Delay		87.7						20.1			4.6	
Approach LOS		F						C			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 79.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

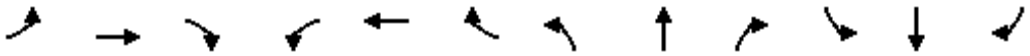
Intersection Summary



Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	252	249	691	824
v/c Ratio	0.60	0.94	0.50	0.60
Control Delay	36.3	76.7	19.5	4.3
Queue Delay	62.2	0.0	0.6	0.3
Total Delay	98.4	76.7	20.1	4.6
Queue Length 50th (ft)	135	154	203	24
Queue Length 95th (ft)	221	#309	180	29
Internal Link Dist (ft)	536		223	69
Turn Bay Length (ft)				
Base Capacity (vph)	421	266	1379	1362
Starvation Cap Reductn	0	0	336	129
Spillback Cap Reductn	202	0	41	17
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.15	0.94	0.66	0.67

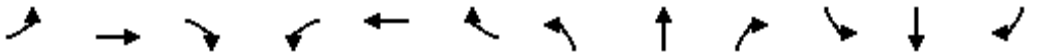
Intersection Summary

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

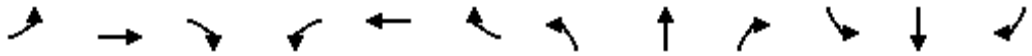


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	66	227	0	0	0	0	593	56	81	661	0
Future Volume (vph)	163	66	227	0	0	0	0	593	56	81	661	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.73					0.97			1.00	
Flpb, ped/bikes		0.90	1.00					1.00			0.99	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.97	1.00					1.00			0.99	
Satd. Flow (prot)		1359	860					2759			3003	
Flt Permitted		0.97	1.00					1.00			0.76	
Satd. Flow (perm)		1359	860					2759			2309	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	179	73	249	0	0	0	0	631	60	90	734	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	252	249	0	0	0	0	691	0	0	824	0
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		31.0	31.0					50.0			56.0	
Effective Green, g (s)		31.0	31.0					50.0			56.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.56	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		421	266					1379			1293	
v/s Ratio Prot								0.25				
v/s Ratio Perm		0.19	c0.29								c0.36	
v/c Ratio		0.60	0.94					0.50			0.64	
Uniform Delay, d1		29.2	33.5					16.7			15.1	
Progression Factor		1.00	1.00					1.08			0.19	
Incremental Delay, d2		6.2	40.9					1.1			2.1	
Delay (s)		35.4	74.4					19.1			5.0	
Level of Service		D	E					B			A	
Approach Delay (s)		54.8			0.0			19.1			5.0	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	584	41	102	125	0	0	0	0
Future Volume (vph)	0	0	0	0	584	41	102	125	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.91				
Frt					0.990							
Flt Protected								0.978				
Satd. Flow (prot)	0	0	0	0	2920	0	0	3055	0	0	0	0
Flt Permitted								0.978				
Satd. Flow (perm)	0	0	0	0	2920	0	0	2769	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					14			113				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	721	51	113	139	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	772	0	0	252	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					58.0		22.5	22.5				
Total Split (s)					58.0		32.0	32.0				
Total Split (%)					64.4%		35.6%	35.6%				
Maximum Green (s)					53.5		27.5	27.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					46.5		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					63		52	52				
Act Effct Green (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
v/c Ratio					0.44			0.27				
Control Delay					5.4			8.0				
Queue Delay					0.0			0.9				
Total Delay					5.4			8.9				
LOS					A			A				
Approach Delay					5.4			8.9				
Approach LOS					A			A				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 59.2%	ICU Level of Service B
Analysis Period (min) 15	

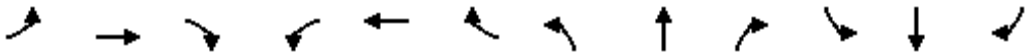
Splits and Phases: 5: Hereford St & Commonwealth Ave





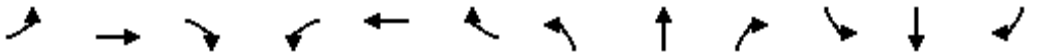
Lane Group	WBT	NBT
Lane Group Flow (vph)	772	252
v/c Ratio	0.44	0.27
Control Delay	5.4	8.0
Queue Delay	0.0	0.9
Total Delay	5.4	8.9
Queue Length 50th (ft)	37	14
Queue Length 95th (ft)	42	26
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1741	924
Starvation Cap Reductn	0	423
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.50

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	584	41	102	125	0	0	0	0
Future Volume (vph)	0	0	0	0	584	41	102	125	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.91				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2921			2770				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2921			2770				
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	721	51	113	139	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	78	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	766	0	0	174	0	0	0	0
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					53.5			27.5				
Effective Green, g (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1736			846				
v/s Ratio Prot					c0.26							
v/s Ratio Perm								0.06				
v/c Ratio					0.44			0.21				
Uniform Delay, d1					10.0			23.2				
Progression Factor					0.46			0.57				
Incremental Delay, d2					0.8			0.5				
Delay (s)					5.4			13.7				
Level of Service					A			B				
Approach Delay (s)		0.0			5.4			13.7			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	804	0	0	0	0	0	166	103	0	0	0
Future Volume (vph)	61	804	0	0	0	0	0	166	103	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.93				
Frt								0.943				
Flt Protected		0.996										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2591	0	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	2915	0	0	0	0	0	2591	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						110				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			314			139	
Travel Time (s)		16.2			10.1			7.1			3.2	
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Adj. Flow (vph)	68	893	0	0	0	0	0	177	110	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	961	0	0	0	0	0	287	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	58.0	58.0						22.5				
Total Split (s)	58.0	58.0						32.0				
Total Split (%)	64.4%	64.4%						35.6%				
Maximum Green (s)	53.5	53.5						27.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	46.5	46.5						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	63	63						52				
Act Effct Green (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
v/c Ratio		0.55						0.33				
Control Delay		12.3						15.8				
Queue Delay		0.0						0.0				
Total Delay		12.3						15.8				
LOS		B						B				
Approach Delay		12.3						15.8				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 45.8%		ICU Level of Service A	
Analysis Period (min) 15			

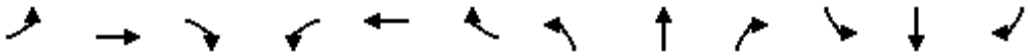
Splits and Phases: 6: Hereford St & Commonwealth Ave





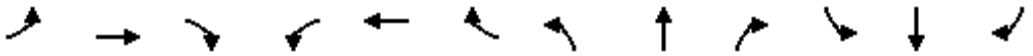
Lane Group	EBT	NBT
Lane Group Flow (vph)	961	287
v/c Ratio	0.55	0.33
Control Delay	12.3	15.8
Queue Delay	0.0	0.0
Total Delay	12.3	15.8
Queue Length 50th (ft)	156	39
Queue Length 95th (ft)	210	72
Internal Link Dist (ft)	633	234
Turn Bay Length (ft)		
Base Capacity (vph)	1740	868
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.55	0.33

Intersection Summary

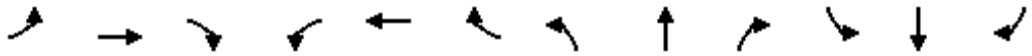


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	804	0	0	0	0	0	166	103	0	0	0
Future Volume (vph)	61	804	0	0	0	0	0	166	103	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.93				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2916						2590				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2916						2590				
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	68	893	0	0	0	0	0	177	110	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	76	0	0	0	0
Lane Group Flow (vph)	0	954	0	0	0	0	0	211	0	0	0	0
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		53.5						27.5				
Effective Green, g (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1733						791				
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.33										
v/c Ratio		0.55						0.27				
Uniform Delay, d1		11.0						23.6				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.3						0.8				
Delay (s)		12.3						24.4				
Level of Service		B						C				
Approach Delay (s)		12.3			0.0			24.4			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	102	594	0	0	0	0	0	120	31
Future Volume (vph)	0	0	0	102	594	0	0	0	0	0	120	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.97	
Frt											0.969	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2943	0	0	0	0	0	2819	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2926	0	0	0	0	0	2819	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					47						33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	124	724	0	0	0	0	0	136	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	848	0	0	0	0	0	171	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

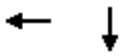


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				58.5	58.5						18.5	
Total Split (s)				65.0	65.0						25.0	
Total Split (%)				72.2%	72.2%						27.8%	
Maximum Green (s)				60.5	60.5						20.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				46.0	46.0						7.0	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				58	58						37	
Act Effct Green (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
v/c Ratio					0.43						0.26	
Control Delay					7.1						24.0	
Queue Delay					0.0						0.0	
Total Delay					7.1						24.0	
LOS					A						C	
Approach Delay					7.1						24.0	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 40.7%		ICU Level of Service A	
Analysis Period (min) 15			

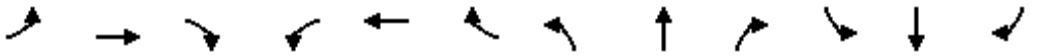
Splits and Phases: 7: Gloucester St & Commonwealth Ave





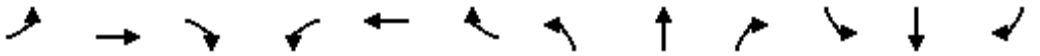
Lane Group	WBT	SBT
Lane Group Flow (vph)	848	171
v/c Ratio	0.43	0.26
Control Delay	7.1	24.0
Queue Delay	0.0	0.0
Total Delay	7.1	24.0
Queue Length 50th (ft)	95	33
Queue Length 95th (ft)	112	60
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1982	667
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.43	0.26

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	102	594	0	0	0	0	0	120	31
Future Volume (vph)	0	0	0	102	594	0	0	0	0	0	120	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.97	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2925						2820	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2925						2820	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	124	724	0	0	0	0	0	136	35
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	0	0	0	833	0	0	0	0	0	146	0
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					60.5						20.5	
Effective Green, g (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1966						642	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.28							
v/c Ratio					0.42						0.23	
Uniform Delay, d1					6.8						28.3	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.7						0.8	
Delay (s)					7.4						29.1	
Level of Service					A						C	
Approach Delay (s)		0.0			7.4			0.0			29.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	744	163	0	0	0	0	0	0	46	176	0
Future Volume (vph)	0	744	163	0	0	0	0	0	0	46	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.98									0.97	
Frt		0.973										
Flt Protected											0.990	
Satd. Flow (prot)	0	2811	0	0	0	0	0	0	0	0	3574	0
Flt Permitted											0.990	
Satd. Flow (perm)	0	2811	0	0	0	0	0	0	0	0	3467	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	818	179	0	0	0	0	0	0	50	191	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	997	0	0	0	0	0	0	0	0	241	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		58.5								18.5	18.5	
Total Split (s)		65.0								25.0	25.0	
Total Split (%)		72.2%								27.8%	27.8%	
Maximum Green (s)		60.5								20.5	20.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		46.0								7.0	7.0	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		58								37	37	
Act Effct Green (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
v/c Ratio		0.53									0.30	
Control Delay		4.9									20.2	
Queue Delay		0.0									1.3	
Total Delay		5.0									21.5	
LOS		A									C	
Approach Delay		5.0									21.5	
Approach LOS		A									C	

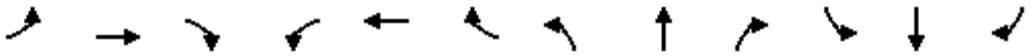
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



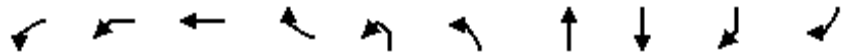
Lane Group	EBT	SBT
Lane Group Flow (vph)	997	241
v/c Ratio	0.53	0.30
Control Delay	4.9	20.2
Queue Delay	0.0	1.3
Total Delay	5.0	21.5
Queue Length 50th (ft)	60	34
Queue Length 95th (ft)	75	54
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1889	815
Starvation Cap Reductn	26	385
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.56

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	744	163	0	0	0	0	0	0	46	176	0
Future Volume (vph)	0	744	163	0	0	0	0	0	0	46	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		2811									3466	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		2811									3466	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	818	179	0	0	0	0	0	0	50	191	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	997	0	0	0	0	0	0	0	0	215	0
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		60.5									20.5	
Effective Green, g (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1889									789	
v/s Ratio Prot		c0.35										
v/s Ratio Perm											0.06	
v/c Ratio		0.53									0.27	
Uniform Delay, d1		7.5									28.6	
Progression Factor		0.52									0.78	
Incremental Delay, d2		0.9									0.8	
Delay (s)		4.8									23.1	
Level of Service		A									C	
Approach Delay (s)		4.8			0.0			0.0			23.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



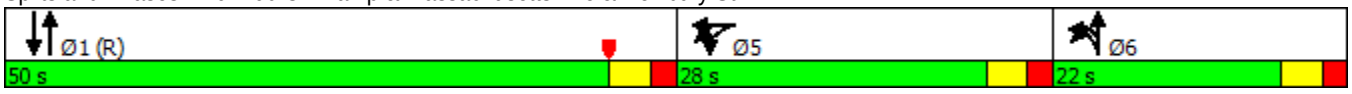
Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	112	107	32	81	251	51	568	654	198	36
Future Volume (vph)	112	107	32	81	251	51	568	654	198	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor								0.97		
Frt			0.892					0.960		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1417	1276	0	0	1499	1589	2831	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1417	1276	0	0	1499	1589	2831	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			89					5		
Link Speed (mph)			30				30	30		
Link Distance (ft)			702				307	303		
Travel Time (s)			16.0				7.0	6.9		
Confl. Bikes (#/hr)									50	50
Peak Hour Factor	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Adj. Flow (vph)	123	118	35	89	270	55	611	674	204	37
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	241	124	0	0	325	611	915	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0		
Minimum Split (s)	28.0	28.0	28.0		14.0	14.0		49.0		
Total Split (s)	28.0	28.0	28.0		22.0	22.0		50.0		
Total Split (%)	28.0%	28.0%	28.0%		22.0%	22.0%		50.0%		
Maximum Green (s)	23.0	23.0	23.0		17.0	17.0		45.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	72	72	72					180		
Act Effct Green (s)		21.3	21.3			18.7	68.7	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
v/c Ratio		0.80	0.36			1.16	0.56	0.72		
Control Delay		57.4	14.7			135.6	20.0	17.8		
Queue Delay		1.6	0.0			0.0	5.1	4.5		
Total Delay		59.0	14.7			135.6	25.1	22.2		
LOS		E	B			F	C	C		
Approach Delay			43.9				63.5	22.2		
Approach LOS			D				E	C		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 65 (65%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 43.2		Intersection LOS: D	
Intersection Capacity Utilization 73.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: I-90 On-Ramp & Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	241	124	325	611	915
v/c Ratio	0.80	0.36	1.16	0.56	0.72
Control Delay	57.4	14.7	135.6	20.0	17.8
Queue Delay	1.6	0.0	0.0	5.1	4.5
Total Delay	59.0	14.7	135.6	25.1	22.2
Queue Length 50th (ft)	143	18	~275	235	112
Queue Length 95th (ft)	#256	68	m#374	m350	m142
Internal Link Dist (ft)		622		227	223
Turn Bay Length (ft)					
Base Capacity (vph)	325	362	280	1091	1276
Starvation Cap Reductn	0	0	0	405	228
Spillback Cap Reductn	19	4	0	83	283
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.35	1.16	0.89	0.92

Intersection Summary

~ 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.

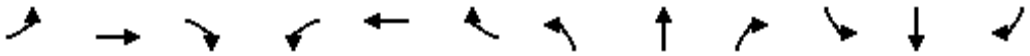
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	112	107	32	81	251	51	568	654	198	36
Future Volume (vph)	112	107	32	81	251	51	568	654	198	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.97		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.89			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1417	1276			1499	1589	2833		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1417	1276			1499	1589	2833		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	123	118	35	89	270	55	611	674	204	37
RTOR Reduction (vph)	0	0	70	0	0	0	0	3	0	0
Lane Group Flow (vph)	0	241	54	0	0	325	611	912	0	0
Confl. Bikes (#/hr)									50	50
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		21.3	21.3			18.7	68.7	45.0		
Effective Green, g (s)		21.3	21.3			18.7	68.7	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		301	271			280	1091	1274		
v/s Ratio Prot		c0.17	0.04			c0.22	0.38	c0.32		
v/s Ratio Perm										
v/c Ratio		0.80	0.20			1.16	0.56	0.72		
Uniform Delay, d1		37.3	32.3			40.6	8.0	22.3		
Progression Factor		1.00	1.00			1.02	2.12	0.67		
Incremental Delay, d2		14.1	0.4			95.5	1.4	2.5		
Delay (s)		51.4	32.7			137.2	18.3	17.5		
Level of Service		D	C			F	B	B		
Approach Delay (s)			45.1				59.5	17.5		
Approach LOS			D				E	B		

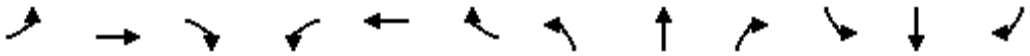
Intersection Summary			
HCM 2000 Control Delay	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	219	81	113	187	0	0	0	0
Future Volume (vph)	0	0	0	0	219	81	113	187	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.960							
Flt Protected								0.982				
Satd. Flow (prot)	0	0	0	0	2781	0	0	2915	0	0	0	0
Flt Permitted								0.982				
Satd. Flow (perm)	0	0	0	0	2781	0	0	2915	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		702			270			293			314	
Travel Time (s)		16.0			6.1			6.7			7.1	
Confl. Peds. (#/hr)						348	198					
Confl. Bikes (#/hr)						9						
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	3%	1%	0%	0%	0%	0%	0%	0%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	233	86	124	205	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	319	0	0	329	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

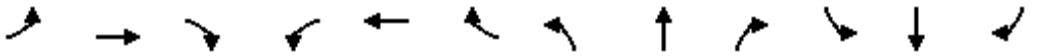
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	219	81	113	187	0	0	0	0
Future Volume (vph)	0	0	0	0	219	81	113	187	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	233	86	124	205	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	155	164	192	137
Volume Left (vph)	0	0	124	0
Volume Right (vph)	0	86	0	0
Hadj (s)	0.05	-0.33	0.32	0.00
Departure Headway (s)	5.4	5.0	5.6	5.3
Degree Utilization, x	0.23	0.23	0.30	0.20
Capacity (veh/h)	632	682	616	650
Control Delay (s)	8.9	8.3	9.8	8.4
Approach Delay (s)	8.6		9.3	
Approach LOS	A		A	

Intersection Summary				
Delay	8.9			
Level of Service	A			
Intersection Capacity Utilization	29.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	485	162	0	103	245	0	621	63	216	514	40
Future Volume (vph)	0	485	162	0	103	245	0	621	63	216	514	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.90				0.65		0.96		0.86	0.96	
Frt		0.962				0.850		0.986			0.989	
Flt Protected										0.950		
Satd. Flow (prot)	0	2661	0	0	1574	1425	0	2873	0	1562	1493	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2661	0	0	1574	925	0	2873	0	1342	1493	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		50				81						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			307	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Adj. Flow (vph)	0	533	178	0	112	266	0	654	66	223	530	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	711	0	0	112	266	0	720	0	223	571	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		30.0			30.0	24.0		30.0		24.0		
Total Split (s)		40.0			40.0	26.0		30.0		26.0		
Total Split (%)		40.0%			40.0%	26.0%		30.0%		26.0%		
Maximum Green (s)		35.0			35.0	20.0		25.0		20.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			10.0				
Pedestrian Calls (#/hr)		270			270			275				
Act Effct Green (s)		31.3			31.3	50.3		28.7		20.0	54.7	
Actuated g/C Ratio		0.31			0.31	0.50		0.29		0.20	0.55	
v/c Ratio		0.82			0.23	0.44		0.87		0.71	0.70	
Control Delay		37.7			25.6	8.8		48.4		45.0	19.0	
Queue Delay		0.0			0.0	0.4		8.6		0.0	49.7	
Total Delay		37.7			25.6	9.2		57.0		45.0	68.7	
LOS		D			C	A		E		D	E	
Approach Delay		37.7			14.1			57.0			62.0	
Approach LOS		D			B			E			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 73 (73%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 47.0		Intersection LOS: D	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	270
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

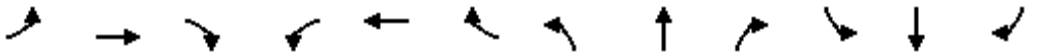
Intersection Summary



Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	711	112	266	720	223	571
v/c Ratio	0.82	0.23	0.44	0.87	0.71	0.70
Control Delay	37.7	25.6	8.8	48.4	45.0	19.0
Queue Delay	0.0	0.0	0.4	8.6	0.0	49.7
Total Delay	37.7	25.6	9.2	57.0	45.0	68.7
Queue Length 50th (ft)	201	51	48	233	143	336
Queue Length 95th (ft)	264	91	82	#370	m205	462
Internal Link Dist (ft)	713	526		236		227
Turn Bay Length (ft)						
Base Capacity (vph)	963	550	605	824	312	816
Starvation Cap Reductn	0	0	0	84	0	293
Spillback Cap Reductn	0	0	92	19	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.20	0.52	0.97	0.71	1.09

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	485	162	0	103	245	0	621	63	216	514	40
Future Volume (vph)	0	485	162	0	103	245	0	621	63	216	514	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.90			1.00	0.79		0.96		1.00	0.96	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.96			1.00	0.85		0.99		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2662			1574	1120		2875		1562	1493	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2662			1574	1120		2875		1562	1493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Adj. Flow (vph)	0	533	178	0	112	266	0	654	66	223	530	41
RTOR Reduction (vph)	0	34	0	0	0	39	0	0	0	0	0	0
Lane Group Flow (vph)	0	677	0	0	112	227	0	720	0	223	571	0
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		31.3			31.3	51.3		28.7		20.0	53.7	
Effective Green, g (s)		31.3			31.3	51.3		28.7		20.0	53.7	
Actuated g/C Ratio		0.31			0.31	0.51		0.29		0.20	0.54	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		833			492	574		825		312	801	
v/s Ratio Prot		c0.25			0.07	0.08		c0.25		0.14	c0.38	
v/s Ratio Perm						0.12						
v/c Ratio		0.81			0.23	0.39		0.87		0.71	0.71	
Uniform Delay, d1		31.6			25.4	14.9		33.9		37.3	17.4	
Progression Factor		1.00			1.00	1.00		1.00		0.93	0.84	
Incremental Delay, d2		6.1			0.2	0.4		12.3		9.1	3.7	
Delay (s)		37.7			25.6	15.3		46.2		43.9	18.3	
Level of Service		D			C	B		D		D	B	
Approach Delay (s)		37.7			18.4			46.2			25.5	
Approach LOS		D			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	33.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	501	92	0	0	326	407	
Future Volume (vph)	501	92	0	0	326	407	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor	0.99						
Frt	0.977					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2873	0	0	0	1510	1245	
Flt Permitted					0.950		
Satd. Flow (perm)	2873	0	0	0	1510	1245	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)		10					
Peak Hour Factor	0.97	0.97	0.92	0.92	0.94	0.94	
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%	
Parking (#/hr)	2						
Adj. Flow (vph)	516	95	0	0	347	433	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	611	0	0	0	347	433	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	32.0				32.0	32.0	26.0
Total Split (%)	35.6%				35.6%	35.6%	29%
Maximum Green (s)	22.5				26.0	26.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							362
Act Effct Green (s)	22.5				26.0	26.0	
Actuated g/C Ratio	0.25				0.29	0.29	
v/c Ratio	0.85				0.80	1.21	
Control Delay	45.2				45.0	147.4	
Queue Delay	0.0				0.0	0.0	
Total Delay	45.2				45.0	147.4	
LOS	D				D	F	
Approach Delay	45.2				101.8		
Approach LOS	D				F		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 45 (50%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 76.9		Intersection LOS: E	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	611	347	433
v/c Ratio	0.85	0.80	1.21
Control Delay	45.2	45.0	147.4
Queue Delay	0.0	0.0	0.0
Total Delay	45.2	45.0	147.4
Queue Length 50th (ft)	174	181	~303
Queue Length 95th (ft)	#265	#321	#483
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	718	436	359
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.85	0.80	1.21

Intersection Summary

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

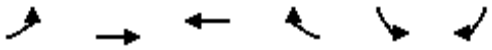
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	501	92	0	0	326	407
Future Volume (vph)	501	92	0	0	326	407
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	0.99				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.98				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2872				1510	1245
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2872				1510	1245
Peak-hour factor, PHF	0.97	0.97	0.92	0.92	0.94	0.94
Adj. Flow (vph)	516	95	0	0	347	433
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	611	0	0	0	347	433
Confl. Bikes (#/hr)		10				
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	22.5				26.0	26.0
Effective Green, g (s)	22.5				26.0	26.0
Actuated g/C Ratio	0.25				0.29	0.29
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	718				436	359
v/s Ratio Prot	c0.21				0.23	c0.35
v/s Ratio Perm						
v/c Ratio	0.85				0.80	1.21
Uniform Delay, d1	32.2				29.5	32.0
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	12.1				14.0	116.2
Delay (s)	44.3				43.5	148.2
Level of Service	D				D	F
Approach Delay (s)	44.3			0.0	101.6	
Approach LOS	D			A	F	

Intersection Summary			
HCM 2000 Control Delay	76.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

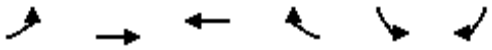
c Critical Lane Group



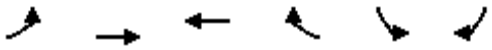
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	300	608	0	0	0	0
Future Volume (vph)	300	608	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.984				
Satd. Flow (prot)	0	3104	0	0	0	0
Flt Permitted		0.984				
Satd. Flow (perm)	0	3104	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		293	
Travel Time (s)		2.3	10.0		6.7	
Peak Hour Factor	0.97	0.97	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	0%	0%	0%	0%
Adj. Flow (vph)	309	627	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	936	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



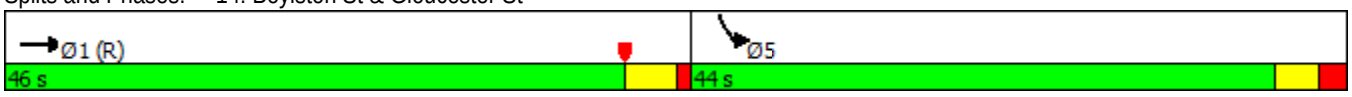
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	608	0	0	379	0
Future Volume (vph)	0	608	0	0	379	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	4243	0	0	2920	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	4243	0	0	2920	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					308	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.87	0.87
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	676	0	0	436	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	676	0	0	436	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		46.0			28.0	
Total Split (s)		46.0			44.0	
Total Split (%)		51.1%			48.9%	
Maximum Green (s)		41.5			39.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		30.5			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		162			113	
Act Effct Green (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
v/c Ratio		0.35			0.30	
Control Delay		19.5			9.8	
Queue Delay		0.0			0.0	
Total Delay		19.5			9.8	
LOS		B			A	
Approach Delay		19.5			9.8	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 38 (42%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 33.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

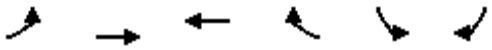




Lane Group	EBT	SBL
Lane Group Flow (vph)	676	436
v/c Ratio	0.35	0.30
Control Delay	19.5	9.8
Queue Delay	0.0	0.0
Total Delay	19.5	9.8
Queue Length 50th (ft)	71	2
Queue Length 95th (ft)	m75	64
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1956	1439
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.30

Intersection Summary

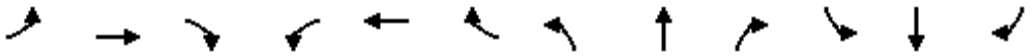
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	608	0	0	379	0
Future Volume (vph)	0	608	0	0	379	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		4243			2920	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		4243			2920	
Peak-hour factor, PHF	0.90	0.90	0.92	0.92	0.87	0.87
Adj. Flow (vph)	0	676	0	0	436	0
RTOR Reduction (vph)	0	0	0	0	175	0
Lane Group Flow (vph)	0	676	0	0	261	0
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		41.5			39.0	
Effective Green, g (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1956			1265	
v/s Ratio Prot		c0.16			c0.09	
v/s Ratio Perm						
v/c Ratio		0.35			0.21	
Uniform Delay, d1		15.5			15.9	
Progression Factor		1.23			1.89	
Incremental Delay, d2		0.2			0.4	
Delay (s)		19.4			30.4	
Level of Service		B			C	
Approach Delay (s)		19.4	0.0		30.4	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	23.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



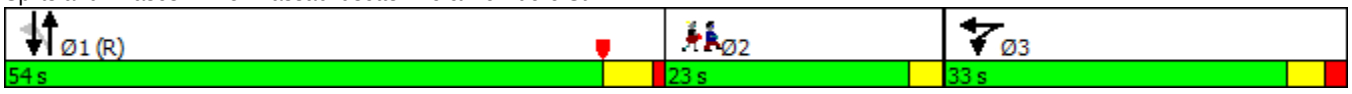
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	42	36	72	41	604	0	0	659	31
Future Volume (vph)	0	0	0	42	36	72	41	604	0	0	659	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.935						0.993	
Flt Protected					0.986			0.997				
Satd. Flow (prot)	0	0	0	0	1581	0	0	2885	0	0	3023	0
Flt Permitted					0.986			0.850				
Satd. Flow (perm)	0	0	0	0	1581	0	0	2459	0	0	3023	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)									56			50
Peak Hour Factor	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	54	46	92	44	649	0	0	766	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	192	0	0	693	0	0	802	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				3	3			1			1	
Permitted Phases							1					
Detector Phase				3	3		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				23.0	23.0		46.0	46.0			46.0	
Total Split (s)				33.0	33.0		54.0	54.0			54.0	
Total Split (%)				30.0%	30.0%		49.1%	49.1%			49.1%	
Maximum Green (s)				28.0	28.0		49.0	49.0			49.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							325	325			325	
Act Effct Green (s)					17.7			60.3			60.3	
Actuated g/C Ratio					0.16			0.55			0.55	
v/c Ratio					0.76			0.51			0.48	
Control Delay					61.6			18.3			17.3	
Queue Delay					0.0			0.0			2.9	
Total Delay					61.6			18.3			20.1	
LOS					E			B			C	
Approach Delay					61.6			18.3			20.1	
Approach LOS					E			B			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 28 (25%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.1		Intersection LOS: C	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	476
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

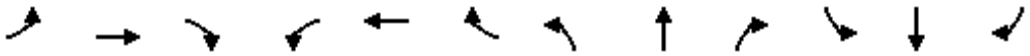
Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	192	693	802
v/c Ratio	0.76	0.51	0.48
Control Delay	61.6	18.3	17.3
Queue Delay	0.0	0.0	2.9
Total Delay	61.6	18.3	20.1
Queue Length 50th (ft)	134	154	173
Queue Length 95th (ft)	m164	239	243
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	402	1346	1658
Starvation Cap Reductn	0	0	717
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.48	0.51	0.85

Intersection Summary

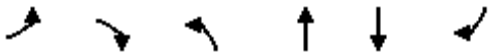
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	42	36	72	41	604	0	0	659	31
Future Volume (vph)	0	0	0	42	36	72	41	604	0	0	659	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1582			2884			3025	
Flt Permitted					0.99			0.85			1.00	
Satd. Flow (perm)					1582			2458			3025	
Peak-hour factor, PHF	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	54	46	92	44	649	0	0	766	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	192	0	0	693	0	0	799	0
Confl. Bikes (#/hr)									56			50
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				3	3			1			1	
Permitted Phases							1					
Actuated Green, G (s)					17.7			60.3			60.3	
Effective Green, g (s)					17.7			60.3			60.3	
Actuated g/C Ratio					0.16			0.55			0.55	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					254			1347			1658	
v/s Ratio Prot					c0.12						0.26	
v/s Ratio Perm								c0.28				
v/c Ratio					0.76			0.51			0.48	
Uniform Delay, d1					44.1			15.6			15.3	
Progression Factor					1.01			1.00			1.00	
Incremental Delay, d2					10.3			1.4			1.0	
Delay (s)					55.0			17.0			16.3	
Level of Service					E			B			B	
Approach Delay (s)		0.0			55.0			17.0			16.3	
Approach LOS		A			E			B			B	

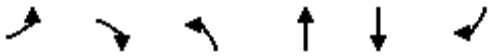
Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	153	0	519	102	0
Future Volume (vph)	15	153	0	519	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.877					
Flt Protected	0.996					
Satd. Flow (prot)	1467	0	0	1636	1863	0
Flt Permitted	0.996					
Satd. Flow (perm)	1467	0	0	1636	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	316			247	419	
Travel Time (s)	7.2			5.6	9.5	
Confl. Peds. (#/hr)		153				
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Heavy Vehicles (%)	0%	3%	0%	6%	4%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	20	204	0	535	159	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	224	0	0	535	159	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

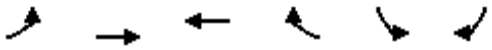
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	153	0	519	102	0
Future Volume (Veh/h)	15	153	0	519	102	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Hourly flow rate (vph)	20	204	0	535	159	0
Pedestrians				153		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	694	312	159			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	694	312	159			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	65	100			
cM capacity (veh/h)	412	585	1433			

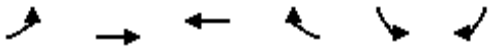
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	224	535	159
Volume Left	20	0	0
Volume Right	204	0	0
cSH	564	1700	1700
Volume to Capacity	0.40	0.31	0.09
Queue Length 95th (ft)	47	0	0
Control Delay (s)	15.5	0.0	0.0
Lane LOS	C		
Approach Delay (s)	15.5	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	92	524	275	31
Future Volume (vph)	0	0	92	524	275	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	0	1693	1371	1638	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	0	1693	1371	1638	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				185	97	25
Confl. Bikes (#/hr)				4		
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Heavy Vehicles (%)	2%	2%	1%	6%	2%	0%
Adj. Flow (vph)	0	0	96	546	299	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	96	546	333	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	92	524	275	31
Future Volume (Veh/h)	0	0	92	524	275	31
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Hourly flow rate (vph)	0	0	96	546	299	34
Pedestrians		25	97		185	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	9		19	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	827				378	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827				378	306
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				35	94
cM capacity (veh/h)	651				458	598

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	96	546	333
Volume Left	0	0	299
Volume Right	0	546	34
cSH	1700	1700	469
Volume to Capacity	0.06	0.32	0.71
Queue Length 95th (ft)	0	0	138
Control Delay (s)	0.0	0.0	29.3
Lane LOS			D
Approach Delay (s)	0.0		29.3
Approach LOS			D

Intersection Summary			
Average Delay		10.0	
Intersection Capacity Utilization		47.0%	ICU Level of Service A
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	366	10	10	300	591	10	614	36	51	10	0	20
Future Volume (vph)	366	10	10	300	591	10	614	36	51	10	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	10	12	12	12	16	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.98						0.89				0.57	
Frt	0.996				0.850		0.981				0.890	
Flt Protected				0.998			0.958				0.991	
Satd. Flow (prot)	3235	0	0	1563	2276	0	2493	0	0	0	1016	0
Flt Permitted				0.977			0.958				0.991	
Satd. Flow (perm)	3235	0	0	1530	2276	0	2493	0	0	0	980	0
Right Turn on Red		No				Yes			No			
Satd. Flow (RTOR)					33						120	
Link Speed (mph)	30			30			30				30	
Link Distance (ft)	883			293			1231				255	
Travel Time (s)	20.1			6.7			28.0				5.8	
Confl. Peds. (#/hr)		734				250		734	621	123		621
Confl. Bikes (#/hr)		7				41		34	34			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	398	11	11	326	642	11	633	37	53	14	0	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	409	0	0	337	653	0	723	0	0	0	77	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Right	Right	Left	Left	Right
Median Width(ft)	0			0			20				0	
Link Offset(ft)	0			0			0				0	
Crosswalk Width(ft)	16			16			16				16	
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.25	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)		9	15		9	9	15	9	9	15		9
Number of Detectors	2		1	2	1		1			1	2	
Detector Template	Thru		Left	Thru	Right		Left			Left	Thru	
Leading Detector (ft)	100		20	100	20		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	6	20		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	NA	pt+ov		Prot			Perm	NA	

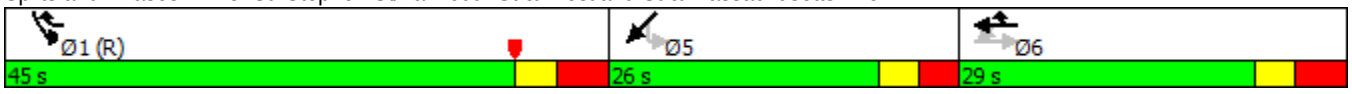


Lane Group	SWR2
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	180
Confl. Bikes (#/hr)	4
Peak Hour Factor	0.71
Heavy Vehicles (%)	0%
Adj. Flow (vph)	35
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.14
Turning Speed (mph)	9
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	

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWL	SWT	SWR
Protected Phases				6	1 6		1				5	
Permitted Phases	6		6							5		
Detector Phase	6		6	6	1 6		1			5	5	
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0			10.0			10.0	10.0	
Minimum Split (s)	23.0		23.0	23.0			27.0			25.0	25.0	
Total Split (s)	29.0		29.0	29.0			45.0			26.0	26.0	
Total Split (%)	29.0%		29.0%	29.0%			45.0%			26.0%	26.0%	
Maximum Green (s)	22.0		22.0	22.0			38.0			20.0	20.0	
Yellow Time (s)	3.0		3.0	3.0			3.0			3.0	3.0	
All-Red Time (s)	4.0		4.0	4.0			4.0			3.0	3.0	
Lost Time Adjust (s)	0.0			0.0			0.0				0.0	
Total Lost Time (s)	7.0			7.0			7.0				6.0	
Lead/Lag	Lag		Lag	Lag						Lead	Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0			0.2			2.0	2.0	
Recall Mode	None		None	None			C-Max			None	None	
Walk Time (s)	7.0		7.0	7.0			7.0			7.0	7.0	
Flash Dont Walk (s)	9.0		9.0	9.0			13.0			12.0	12.0	
Pedestrian Calls (#/hr)	246		246	246			246			76	76	
Act Effct Green (s)	24.0			24.0	74.4		42.0				17.2	
Actuated g/C Ratio	0.24			0.24	0.74		0.42				0.17	
v/c Ratio	0.53			0.92	0.38		0.69				0.29	
Control Delay	36.3			75.8	0.9		29.5				4.8	
Queue Delay	0.6			47.3	0.2		38.4				0.1	
Total Delay	37.0			123.1	1.1		67.9				4.9	
LOS	D			F	A		E				A	
Approach Delay	37.0			42.6			67.9				4.9	
Approach LOS	D			D			E				A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 11 (11%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 48.6		Intersection LOS: D	
Intersection Capacity Utilization 82.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	SWR2
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	409	337	653	723	77
v/c Ratio	0.53	0.92	0.38	0.69	0.29
Control Delay	36.3	75.8	0.9	29.5	4.8
Queue Delay	0.6	47.3	0.2	38.4	0.1
Total Delay	37.0	123.1	1.1	67.9	4.9
Queue Length 50th (ft)	121	232	5	204	0
Queue Length 95th (ft)	171	#399	7	276	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	777	367	1702	1046	292
Starvation Cap Reductn	0	62	373	0	0
Spillback Cap Reductn	129	0	0	368	24
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	1.10	0.49	1.07	0.29

Intersection Summary

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



Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	366	10	10	300	591	10	614	36	51	10	0	20
Future Volume (vph)	366	10	10	300	591	10	614	36	51	10	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	10	12	12	12	16	12
Total Lost time (s)	7.0			7.0	7.0		7.0				6.0	
Lane Util. Factor	0.95			1.00	0.88		0.97				1.00	
Frpb, ped/bikes	0.98			1.00	1.00		0.89				0.59	
Flpb, ped/bikes	1.00			1.00	1.00		1.00				0.96	
Frt	1.00			1.00	0.85		0.98				0.89	
Flt Protected	1.00			1.00	1.00		0.96				0.99	
Satd. Flow (prot)	3235			1563	2276		2495				979	
Flt Permitted	1.00			0.98	1.00		0.96				0.99	
Satd. Flow (perm)	3235			1530	2276		2495				979	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Adj. Flow (vph)	398	11	11	326	642	11	633	37	53	14	0	28
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	65	0
Lane Group Flow (vph)	409	0	0	337	644	0	723	0	0	0	12	0
Confl. Peds. (#/hr)		734				250		734	621	123		621
Confl. Bikes (#/hr)		7				41		34	34			1
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		Prot			Perm	NA	
Protected Phases				6	1 6		1				5	
Permitted Phases	6		6							5		
Actuated Green, G (s)	24.0			24.0	71.8		40.8				15.2	
Effective Green, g (s)	24.0			24.0	71.8		40.8				15.2	
Actuated g/C Ratio	0.24			0.24	0.72		0.41				0.15	
Clearance Time (s)	7.0			7.0			7.0				6.0	
Vehicle Extension (s)	2.0			2.0			0.2				2.0	
Lane Grp Cap (vph)	776			367	1634		1017				148	
v/s Ratio Prot					0.28		c0.29					
v/s Ratio Perm	0.13			c0.22							0.01	
v/c Ratio	0.53			0.92	0.39		0.71				0.08	
Uniform Delay, d1	33.1			37.0	5.5		24.7				36.4	
Progression Factor	1.00			1.30	0.07		1.00				1.00	
Incremental Delay, d2	0.3			23.3	0.0		4.2				0.1	
Delay (s)	33.4			71.6	0.4		28.9				36.5	
Level of Service	C			E	A		C				D	
Approach Delay (s)	33.4			24.6			28.9				36.5	
Approach LOS	C			C			C				D	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	SWR2
Lane Configurations	
Traffic Volume (vph)	25
Future Volume (vph)	25
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.71
Adj. Flow (vph)	35
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	180
Confl. Bikes (#/hr)	4
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	

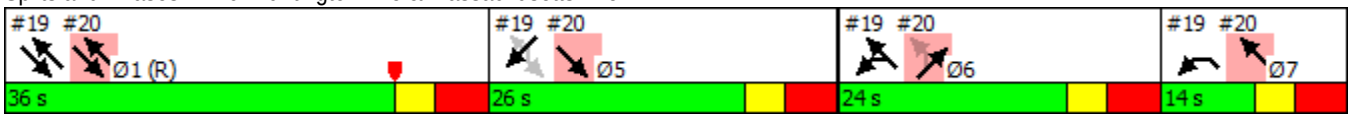
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	888	103	36	833	0	0	0	0	163	46	78
Future Volume (vph)	0	888	103	36	833	0	0	0	0	163	46	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.91										0.67
Frt		0.984										0.850
Flt Protected				0.950							0.963	
Satd. Flow (prot)	0	2633	0	1593	2888	0	0	0	0	0	1529	1326
Flt Permitted				0.950							0.963	
Satd. Flow (perm)	0	2633	0	1593	2888	0	0	0	0	0	1529	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Adj. Flow (vph)	0	925	107	37	859	0	0	0	0	187	53	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1032	0	37	859	0	0	0	0	0	240	90
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		175								76	76	76
Act Effct Green (s)		30.1		30.4	46.5						18.5	18.5
Actuated g/C Ratio		0.30		0.30	0.46						0.18	0.18
v/c Ratio		1.29		0.08	0.64						0.85	0.28
Control Delay		163.0		42.7	16.2						66.6	2.1
Queue Delay		0.3		0.0	0.5						0.0	0.6
Total Delay		163.3		42.7	16.7						66.6	2.7
LOS		F		D	B						E	A
Approach Delay		163.3			17.8						49.1	
Approach LOS		F			B						D	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.29			
Intersection Signal Delay: 88.9		Intersection LOS: F	
Intersection Capacity Utilization 101.7%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	76	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary



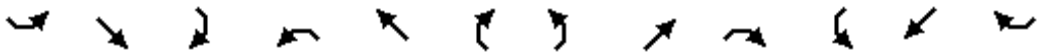
Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	1032	37	859	240	90
v/c Ratio	1.29	0.08	0.64	0.85	0.28
Control Delay	163.0	42.7	16.2	66.6	2.1
Queue Delay	0.3	0.0	0.5	0.0	0.6
Total Delay	163.3	42.7	16.7	66.6	2.7
Queue Length 50th (ft)	~438	18	257	148	0
Queue Length 95th (ft)	#573	m38	335	#262	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	801	471	1360	290	327
Starvation Cap Reductn	35	0	0	0	0
Spillback Cap Reductn	30	0	183	0	78
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.35	0.08	0.73	0.83	0.36

Intersection Summary

~ 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.

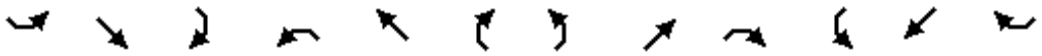
m Volume for 95th percentile queue is metered by upstream signal.



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	888	103	36	833	0	0	0	0	163	46	78
Future Volume (vph)	0	888	103	36	833	0	0	0	0	163	46	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.91		1.00	1.00						1.00	0.67
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2635		1593	2888						1528	886
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2635		1593	2888						1528	886
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	0	925	107	37	859	0	0	0	0	187	53	90
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	73
Lane Group Flow (vph)	0	1024	0	37	859	0	0	0	0	0	240	17
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		30.1		30.4	46.5						18.5	18.5
Effective Green, g (s)		30.1		30.4	46.5						18.5	18.5
Actuated g/C Ratio		0.30		0.30	0.46						0.18	0.18
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		793		484	1342						282	163
v/s Ratio Prot		c0.39		c0.02	c0.30							
v/s Ratio Perm											0.16	0.02
v/c Ratio		1.29		0.08	0.64						0.85	0.10
Uniform Delay, d1		35.0		24.8	20.4						39.4	33.9
Progression Factor		0.71		1.72	1.25						1.00	1.00
Incremental Delay, d2		138.3		0.0	0.7						20.4	0.1
Delay (s)		163.2		42.6	26.1						59.8	34.0
Level of Service		F		D	C						E	C
Approach Delay (s)		163.2			26.7			0.0			52.8	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	92.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



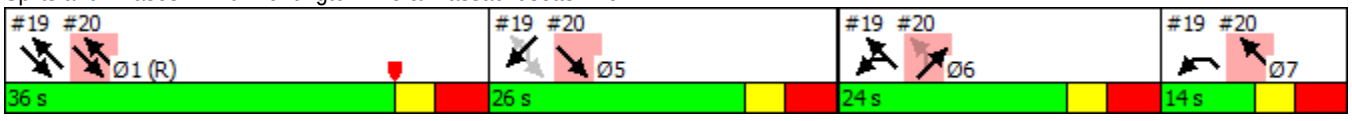
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1052	0	0	813	103	56	36	102	0	0	0
Future Volume (vph)	0	1052	0	0	813	103	56	36	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.99			0.82				
Frt					0.983			0.921				
Flt Protected								0.986				
Satd. Flow (prot)	0	3154	0	0	4077	0	0	2170	0	0	0	0
Flt Permitted								0.986				
Satd. Flow (perm)	0	3154	0	0	4077	0	0	2170	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					28			117				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Adj. Flow (vph)	0	1096	0	0	838	106	64	41	117	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1096	0	0	944	0	0	222	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							76	76				
Act Effct Green (s)		55.6			44.1			16.4				
Actuated g/C Ratio		0.56			0.44			0.16				
v/c Ratio		0.63			0.52			0.49				
Control Delay		1.4			21.2			21.8				
Queue Delay		0.0			0.4			0.1				
Total Delay		1.4			21.5			21.9				
LOS		A			C			C				
Approach Delay		1.4			21.5			21.9				
Approach LOS		A			C			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.29			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 101.7%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	175	76	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Lane Group	SET	NWT	NET
Lane Group Flow (vph)	1096	944	222
v/c Ratio	0.63	0.52	0.49
Control Delay	1.4	21.2	21.8
Queue Delay	0.0	0.4	0.1
Total Delay	1.4	21.5	21.9
Queue Length 50th (ft)	3	154	31
Queue Length 95th (ft)	m5	195	64
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1769	1813	466
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	367	17
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.62	0.65	0.49

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1052	0	0	813	103	56	36	102	0	0	0
Future Volume (vph)	0	1052	0	0	813	103	56	36	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.99			0.82				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.92				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		3154			4077			2169				
Flt Permitted		1.00			1.00			0.99				
Satd. Flow (perm)		3154			4077			2169				
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	0	1096	0	0	838	106	64	41	117	0	0	0
RTOR Reduction (vph)	0	0	0	0	16	0	0	98	0	0	0	0
Lane Group Flow (vph)	0	1096	0	0	928	0	0	124	0	0	0	0
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.6			44.1			16.4				
Effective Green, g (s)		55.6			44.1			16.4				
Actuated g/C Ratio		0.56			0.44			0.16				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1753			1797			355				
v/s Ratio Prot		c0.35			c0.23							
v/s Ratio Perm								0.06				
v/c Ratio		0.63			0.52			0.35				
Uniform Delay, d1		15.1			20.2			37.1				
Progression Factor		0.08			1.00			1.00				
Incremental Delay, d2		0.0			0.1			0.2				
Delay (s)		1.3			20.3			37.3				
Level of Service		A			C			D				
Approach Delay (s)		1.3			20.3			37.3			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	61	466	46	0	799
Future Volume (vph)	0	61	466	46	0	799
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.99			
Frt		0.865	0.986			
Flt Protected						
Satd. Flow (prot)	0	1229	3165	0	0	3575
Flt Permitted						
Satd. Flow (perm)	0	1229	3165	0	0	3575
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		165	17			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Peak Hour Factor	0.70	0.70	0.89	0.89	0.87	0.87
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	87	524	52	0	918
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	87	576	0	0	918
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Detector Phase		2	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		30.0	22.5			22.5
Total Split (s)		39.0	71.0			71.0
Total Split (%)		35.5%	64.5%			64.5%
Maximum Green (s)		35.0	67.0			67.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag		Lag	Lead			Lead
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		21				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.29	0.22			0.31
Control Delay		2.4	3.3			1.4
Queue Delay		0.0	0.0			0.1
Total Delay		2.4	3.3			1.5
LOS		A	A			A
Approach Delay	2.4		3.3			1.5
Approach LOS	A		A			A

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 67 (61%), Referenced to phase 1:NESW, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 29.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	87	576	918
v/c Ratio	0.29	0.22	0.31
Control Delay	2.4	3.3	1.4
Queue Delay	0.0	0.0	0.1
Total Delay	2.4	3.3	1.5
Queue Length 50th (ft)	0	24	14
Queue Length 95th (ft)	0	82	47
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	503	2627	2964
Starvation Cap Reductn	0	0	562
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.22	0.38

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	61	466	46	0	799
Future Volume (vph)	0	61	466	46	0	799
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1229	3177			3575
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1229	3177			3575
Peak-hour factor, PHF	0.70	0.70	0.89	0.89	0.87	0.87
Adj. Flow (vph)	0	87	524	52	0	918
RTOR Reduction (vph)	0	77	3	0	0	0
Lane Group Flow (vph)	0	10	573	0	0	918
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		138	2587			2912
v/s Ratio Prot		c0.01	0.18			c0.26
v/s Ratio Perm						
v/c Ratio		0.07	0.22			0.32
Uniform Delay, d1		43.6	2.3			2.5
Progression Factor		1.00	1.00			0.34
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.7	2.5			1.1
Level of Service		D	A			A
Approach Delay (s)	43.7		2.5			1.1
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	89	145	64	56	185	61	10	153	321	56	81	163
Future Volume (vph)	89	145	64	56	185	61	10	153	321	56	81	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.85		0.87		0.91			0.83	0.92			0.71
Frt			0.850		0.973				0.978			
Flt Protected	0.950				0.991			0.950				0.950
Satd. Flow (prot)	1472	1660	1330	0	1699	0	0	1386	2816	0	0	1496
Flt Permitted	0.374				0.878			0.950				0.950
Satd. Flow (perm)	493	1660	1159	0	1482	0	0	1150	2816	0	0	1063
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		12				18			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Peak Hour Factor	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Adj. Flow (vph)	113	184	81	68	226	74	11	161	338	59	88	177
Shared Lane Traffic (%)												
Lane Group Flow (vph)	113	184	81	0	368	0	0	172	397	0	0	265
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	669	326
Future Volume (vph)	669	326
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.60
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3079	1292
Flt Permitted		
Satd. Flow (perm)	3079	770
Right Turn on Red		Yes
Satd. Flow (RTOR)		230
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Adj. Flow (vph)	727	354
Shared Lane Traffic (%)		
Lane Group Flow (vph)	727	354
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0		34.0	34.0	36.0		34.0	34.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	36.4%		30.9%	30.9%	32.7%		30.9%	30.9%
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		29.0	29.0	31.0		29.0	29.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	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	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	136	136	136	136	136				192			
Act Effct Green (s)	31.7	31.7	31.7		31.7			18.9	39.5			23.7
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.17	0.36			0.22
v/c Ratio	0.80	0.38	0.21		0.84			0.72	0.39			0.82
Control Delay	73.6	33.3	9.9		53.7			56.5	25.5			61.2
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	73.6	33.3	9.9		53.7			56.5	25.5			61.2
LOS	E	C	A		D			E	C			E
Approach Delay		40.4			53.7				34.9			
Approach LOS		D			D				C			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 54 (49%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 38.4		Intersection LOS: D	
Intersection Capacity Utilization 96.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	36.0	36.0
Total Split (%)	32.7%	32.7%
Maximum Green (s)	31.0	31.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	192	192
Act Effct Green (s)	44.4	44.4
Actuated g/C Ratio	0.40	0.40
v/c Ratio	0.59	0.79
Control Delay	29.9	26.4
Queue Delay	0.0	0.0
Total Delay	29.9	26.4
LOS	C	C
Approach Delay	35.1	
Approach LOS	D	

Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	113	184	81	368	172	397	265	727	354
v/c Ratio	0.80	0.38	0.21	0.84	0.72	0.39	0.82	0.59	0.79
Control Delay	73.6	33.3	9.9	53.7	56.5	25.5	61.2	29.9	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.6	33.3	9.9	53.7	56.5	25.5	61.2	29.9	26.4
Queue Length 50th (ft)	73	103	6	234	116	106	178	211	79
Queue Length 95th (ft)	#132	139	31	301	126	166	262	317	#293
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	156	528	415	479	365	1023	394	1241	447
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.35	0.20	0.77	0.47	0.39	0.67	0.59	0.79

Intersection Summary

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

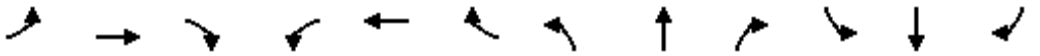
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	89	145	64	56	185	61	10	153	321	56	81	163
Future Volume (vph)	89	145	64	56	185	61	10	153	321	56	81	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.93			1.00	0.92			1.00
Flpb, ped/bikes	0.85	1.00	1.00		0.98			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1258	1660	1158		1673			1386	2816			1496
Flt Permitted	0.37	1.00	1.00		0.88			0.95	1.00			0.95
Satd. Flow (perm)	496	1660	1158		1483			1386	2816			1496
Peak-hour factor, PHF	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Adj. Flow (vph)	113	184	81	68	226	74	11	161	338	59	88	177
RTOR Reduction (vph)	0	0	49	0	9	0	0	0	12	0	0	0
Lane Group Flow (vph)	113	184	32	0	359	0	0	172	385	0	0	265
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	31.7	31.7	31.7		31.7			18.9	39.6			23.7
Effective Green, g (s)	31.7	31.7	31.7		31.7			18.9	39.6			23.7
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.17	0.36			0.22
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	142	478	333		427			238	1013			322
v/s Ratio Prot		0.11						0.12	0.14			c0.18
v/s Ratio Perm	0.23		0.03		c0.24							
v/c Ratio	0.80	0.38	0.10		0.84			0.72	0.38			0.82
Uniform Delay, d1	36.2	31.3	28.7		36.8			43.1	26.1			41.1
Progression Factor	1.00	1.00	1.00		1.00			0.93	0.90			1.00
Incremental Delay, d2	25.7	0.5	0.1		14.0			10.2	1.1			15.5
Delay (s)	61.9	31.9	28.8		50.7			50.5	24.5			56.6
Level of Service	E	C	C		D			D	C			E
Approach Delay (s)		40.2			50.7				32.4			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	38.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

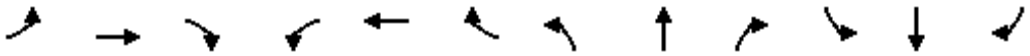


Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	669	326
Future Volume (vph)	669	326
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.60
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3079	770
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3079	770
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	727	354
RTOR Reduction (vph)	0	137
Lane Group Flow (vph)	727	217
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	44.4	44.4
Effective Green, g (s)	44.4	44.4
Actuated g/C Ratio	0.40	0.40
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1242	310
v/s Ratio Prot	0.24	
v/s Ratio Perm		c0.28
v/c Ratio	0.59	0.70
Uniform Delay, d1	25.6	27.3
Progression Factor	1.00	1.00
Incremental Delay, d2	2.0	12.4
Delay (s)	27.6	39.6
Level of Service	C	D
Approach Delay (s)	36.5	
Approach LOS	D	

Intersection Summary



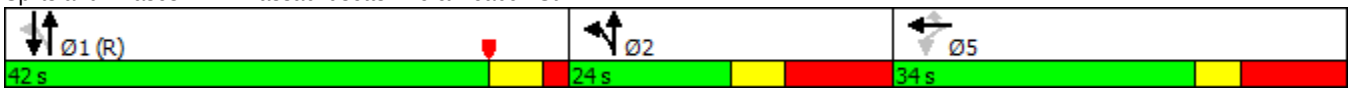
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	224	188	112	891	0	0	677	254
Future Volume (vph)	0	0	0	76	224	188	112	891	0	0	677	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.97	0.90					0.95	
Frt						0.850					0.959	
Flt Protected					0.987			0.994				
Satd. Flow (prot)	0	0	0	0	2726	1285	0	2791	0	0	2603	0
Flt Permitted					0.987			0.530				
Satd. Flow (perm)	0	0	0	0	2655	1150	0	1488	0	0	2603	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											60	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	81	238	200	119	948	0	0	736	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	319	200	0	1067	0	0	1012	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				32.5	32.5	32.5	24.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.5	22.5	22.5	12.0				36.0	
Yellow Time (s)				3.5	3.5	3.5	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					11.5	11.5					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?							Yes					
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				Max	Max	Max	None				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	11.0				10.0	
Pedestrian Calls (#/hr)				66	66	66	34				66	
Act Effct Green (s)					22.5	22.5		54.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.54			0.36	
v/c Ratio					0.53	0.78		1.03			1.04	
Control Delay					38.0	58.1		47.1			69.8	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					38.0	58.1		47.1			69.8	
LOS					D	E		D			E	
Approach Delay					45.7			47.1			69.8	
Approach LOS					D			D			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 30 (30%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 55.7		Intersection LOS: E	
Intersection Capacity Utilization 99.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



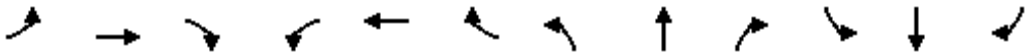


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	319	200	1067	1012
v/c Ratio	0.53	0.78	1.03	1.04
Control Delay	38.0	58.1	47.1	69.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	38.0	58.1	47.1	69.8
Queue Length 50th (ft)	94	120	~195	~354
Queue Length 95th (ft)	140	#236	#249	#484
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	597	258	1038	975
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.78	1.03	1.04

Intersection Summary

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

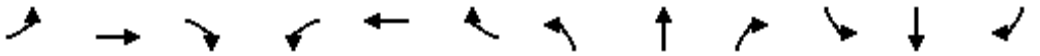
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	224	188	112	891	0	0	677	254
Future Volume (vph)	0	0	0	76	224	188	112	891	0	0	677	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					11.5	11.5		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.90		1.00			0.95	
Flpb, ped/bikes					0.97	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2657	1150		2792			2604	
Flt Permitted					0.99	1.00		0.53			1.00	
Satd. Flow (perm)					2657	1150		1487			2604	
Peak-hour factor, PHF	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	81	238	200	119	948	0	0	736	276
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	38	0
Lane Group Flow (vph)	0	0	0	0	319	200	0	1067	0	0	974	0
Confl. Peds. (#/hr)				71		64	73					73
Confl. Bikes (#/hr)						4						64
Heavy Vehicles (%)	2%	2%	2%	3%	9%	4%	16%	7%	0%	0%	6%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					22.5	22.5		48.0			36.0	
Effective Green, g (s)					22.5	22.5		48.0			36.0	
Actuated g/C Ratio					0.22	0.22		0.48			0.36	
Clearance Time (s)					11.5	11.5					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					597	258		870			937	
v/s Ratio Prot								c0.15			0.37	
v/s Ratio Perm					0.12	c0.17		c0.44				
v/c Ratio					0.53	0.78		1.23			1.04	
Uniform Delay, d1					34.1	36.4		26.0			32.0	
Progression Factor					1.00	1.00		0.52			1.00	
Incremental Delay, d2					3.4	20.1		109.8			40.0	
Delay (s)					37.5	56.5		123.3			72.0	
Level of Service					D	E		F			E	
Approach Delay (s)		0.0			44.8			123.3			72.0	
Approach LOS		A			D			F			E	

Intersection Summary			
HCM 2000 Control Delay	87.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	29.5
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

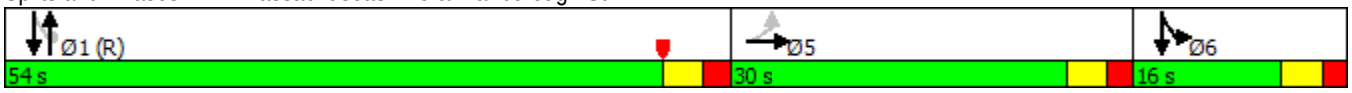


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	15	25	0	0	0	0	871	36	76	672	0
Future Volume (vph)	127	15	25	0	0	0	0	871	36	76	672	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.95						0.98				
Frt		0.980						0.994				
Flt Protected		0.963									0.995	
Satd. Flow (prot)	0	1579	0	0	0	0	0	2708	0	0	2776	0
Flt Permitted		0.963									0.734	
Satd. Flow (perm)	0	1516	0	0	0	0	0	2708	0	0	2048	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		8										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Peak Hour Factor	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	157	19	31	0	0	0	0	927	38	81	715	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	0	0	0	0	0	965	0	0	796	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	30.0	30.0						54.0		16.0		
Total Split (%)	30.0%	30.0%						54.0%		16.0%		
Maximum Green (s)	25.0	25.0						49.0		11.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lead	Lead								Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	18	18						78		78		
Act Effct Green (s)		17.6						53.7			67.4	
Actuated g/C Ratio		0.18						0.54			0.67	
v/c Ratio		0.76						0.66			0.54	
Control Delay		54.5						10.6			2.0	
Queue Delay		0.0						0.2			0.3	
Total Delay		54.5						10.8			2.3	
LOS		D						B			A	
Approach Delay		54.5						10.8			2.3	
Approach LOS		D						B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 47 (47%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 79.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 2: Massachusetts Ave & Marlborough St



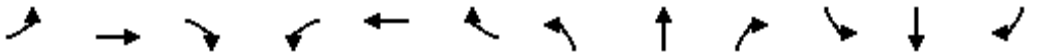
Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	207	965	796
v/c Ratio	0.76	0.66	0.54
Control Delay	54.5	10.6	2.0
Queue Delay	0.0	0.2	0.3
Total Delay	54.5	10.8	2.3
Queue Length 50th (ft)	122	65	10
Queue Length 95th (ft)	163	78	m23
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	385	1453	1481
Starvation Cap Reductn	0	0	215
Spillback Cap Reductn	0	89	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.54	0.71	0.63

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	127	15	25	0	0	0	0	871	36	76	672	0
Future Volume (vph)	127	15	25	0	0	0	0	871	36	76	672	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.96						1.00			1.00	
Frt		0.98						0.99			1.00	
Flt Protected		0.96						1.00			0.99	
Satd. Flow (prot)		1516						2708			2776	
Flt Permitted		0.96						1.00			0.73	
Satd. Flow (perm)		1516						2708			2048	
Peak-hour factor, PHF	0.81	0.81	0.81	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	157	19	31	0	0	0	0	927	38	81	715	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	200	0	0	0	0	0	965	0	0	796	0
Confl. Peds. (#/hr)	37		35						201	201		111
Confl. Bikes (#/hr)			4						57			61
Heavy Vehicles (%)	2%	6%	0%	0%	0%	0%	0%	9%	3%	1%	7%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.6						53.7			67.4	
Effective Green, g (s)		17.6						53.7			67.4	
Actuated g/C Ratio		0.18						0.54			0.67	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		266						1454			1480	
v/s Ratio Prot								c0.36			c0.07	
v/s Ratio Perm		0.13									0.29	
v/c Ratio		0.75						0.66			0.54	
Uniform Delay, d1		39.1						16.7			8.3	
Progression Factor		1.00						0.46			0.24	
Incremental Delay, d2		10.2						2.1			0.0	
Delay (s)		49.4						9.8			2.0	
Level of Service		D						A			A	
Approach Delay (s)		49.4			0.0			9.8			2.0	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



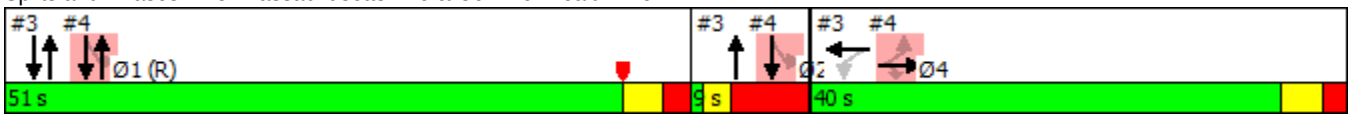
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	64	22	122	0	773	0	0	672	25
Future Volume (vph)	0	0	0	64	22	122	0	773	0	0	672	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.94	0.94						0.99	
Frt					0.873						0.995	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1540	1162	0	0	2855	0	0	2728	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1454	1162	0	0	2855	0	0	2728	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					144							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	75	26	144	0	805	0	0	700	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	75	170	0	0	805	0	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				40.0	40.0						51.0	
Total Split (%)				40.0%	40.0%						51.0%	
Maximum Green (s)				35.0	35.0						46.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				105	105						48	
Act Effct Green (s)				35.0	35.0			55.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.55			0.46	
v/c Ratio				0.15	0.34			0.51			0.58	
Control Delay				23.4	7.9			9.8			8.1	
Queue Delay				0.0	0.0			0.5			0.7	
Total Delay				23.4	7.9			10.3			8.8	
LOS				C	A			B			A	
Approach Delay					12.6			10.3			8.8	
Approach LOS					B			B			A	

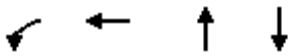
Intersection Summary	
Area Type:	CBD
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

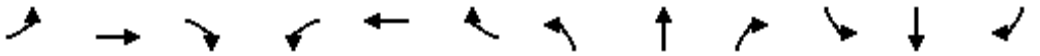


Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	75	170	805	726
v/c Ratio	0.15	0.34	0.51	0.58
Control Delay	23.4	7.9	9.8	8.1
Queue Delay	0.0	0.0	0.5	0.7
Total Delay	23.4	7.9	10.3	8.8
Queue Length 50th (ft)	32	11	73	47
Queue Length 95th (ft)	62	50	88	102
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	508	500	1570	1254
Starvation Cap Reductn	0	0	340	232
Spillback Cap Reductn	0	1	21	51
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.15	0.34	0.65	0.71

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	64	22	122	0	773	0	0	672	25
Future Volume (vph)	0	0	0	64	22	122	0	773	0	0	672	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.94			1.00			0.99	
Flpb, ped/bikes				0.94	1.00			1.00			1.00	
Frt				1.00	0.87			1.00			0.99	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1454	1162			2855			2727	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1454	1162			2855			2727	
Peak-hour factor, PHF	0.92	0.92	0.92	0.85	0.85	0.85	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	75	26	144	0	805	0	0	700	26
RTOR Reduction (vph)	0	0	0	0	94	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	75	76	0	0	805	0	0	726	0
Confl. Peds. (#/hr)				52		52						123
Confl. Bikes (#/hr)												56
Heavy Vehicles (%)	0%	0%	0%	2%	17%	2%	0%	10%	0%	0%	7%	4%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				35.0	35.0			52.0			46.0	
Effective Green, g (s)				35.0	35.0			52.0			46.0	
Actuated g/C Ratio				0.35	0.35			0.52			0.46	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				508	406			1484			1254	
v/s Ratio Prot					c0.07			c0.28			c0.27	
v/s Ratio Perm				0.05								
v/c Ratio				0.15	0.19			0.54			0.58	
Uniform Delay, d1				22.3	22.6			16.0			19.9	
Progression Factor				1.00	1.00			0.61			0.32	
Incremental Delay, d2				0.6	1.0			1.2			1.7	
Delay (s)				22.9	23.6			11.0			8.0	
Level of Service				C	C			B			A	
Approach Delay (s)		0.0			23.4			11.0			8.0	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



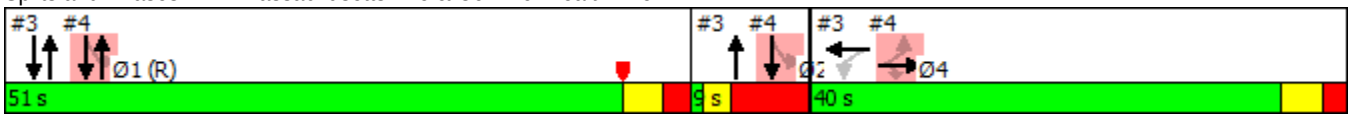
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	25	204	0	0	0	0	591	36	117	619	0
Future Volume (vph)	193	25	204	0	0	0	0	591	36	117	619	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor			0.84					0.98			0.98	
Frt			0.850					0.991				
Flt Protected		0.958									0.992	
Satd. Flow (prot)	0	1441	1078	0	0	0	0	2689	0	0	2942	0
Flt Permitted		0.958									0.678	
Satd. Flow (perm)	0	1441	907	0	0	0	0	2689	0	0	1978	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			302			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	205	27	217	0	0	0	0	622	38	126	666	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	232	217	0	0	0	0	660	0	0	792	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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	40.0	40.0	40.0					51.0				
Total Split (%)	40.0%	40.0%	40.0%					51.0%				
Maximum Green (s)	35.0	35.0	35.0					46.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	105	105	105					48				
Act Effct Green (s)		35.0	35.0					46.0			55.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.55	
v/c Ratio		0.46	0.68					0.53			0.73	
Control Delay		28.9	40.8					18.6			8.0	
Queue Delay		66.4	0.0					0.8			1.0	
Total Delay		95.3	40.8					19.4			8.9	
LOS		F	D					B			A	
Approach Delay		68.9						19.4			8.9	
Approach LOS		E						B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 43 (43%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 26.7		Intersection LOS: C	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

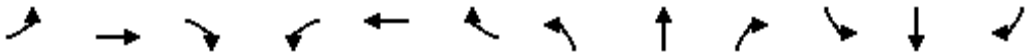
Intersection Summary



Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	232	217	660	792
v/c Ratio	0.46	0.68	0.53	0.73
Control Delay	28.9	40.8	18.6	8.0
Queue Delay	66.4	0.0	0.8	1.0
Total Delay	95.3	40.8	19.4	8.9
Queue Length 50th (ft)	113	117	166	30
Queue Length 95th (ft)	185	#223	216	36
Internal Link Dist (ft)	536		222	69
Turn Bay Length (ft)				
Base Capacity (vph)	504	317	1236	1087
Starvation Cap Reductn	0	0	290	110
Spillback Cap Reductn	326	0	43	56
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.30	0.68	0.70	0.81

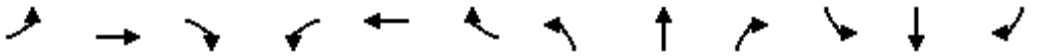
Intersection Summary

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

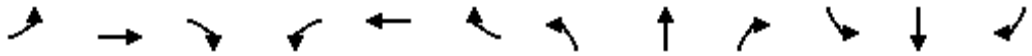


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	25	204	0	0	0	0	591	36	117	619	0
Future Volume (vph)	193	25	204	0	0	0	0	591	36	117	619	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.84					0.98			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			0.98	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.96	1.00					1.00			0.99	
Satd. Flow (prot)		1441	907					2690			2895	
Flt Permitted		0.96	1.00					1.00			0.68	
Satd. Flow (perm)		1441	907					2690			1978	
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.93	0.93	0.93
Adj. Flow (vph)	205	27	217	0	0	0	0	622	38	126	666	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	232	217	0	0	0	0	660	0	0	792	0
Confl. Peds. (#/hr)			138						263	263		
Confl. Bikes (#/hr)			3						45			
Heavy Vehicles (%)	10%	9%	12%	0%	0%	0%	0%	10%	3%	0%	7%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		35.0	35.0					46.0			52.0	
Effective Green, g (s)		35.0	35.0					46.0			52.0	
Actuated g/C Ratio		0.35	0.35					0.46			0.52	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		504	317					1237			1028	
v/s Ratio Prot								0.25				
v/s Ratio Perm		0.16	c0.24								c0.40	
v/c Ratio		0.46	0.68					0.53			0.77	
Uniform Delay, d1		25.2	27.8					19.3			19.2	
Progression Factor		1.00	1.00					0.87			0.24	
Incremental Delay, d2		3.0	11.4					1.4			4.8	
Delay (s)		28.2	39.2					18.2			9.5	
Level of Service		C	D					B			A	
Approach Delay (s)		33.5			0.0			18.2			9.5	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	456	31	83	81	0	0	0	0
Future Volume (vph)	0	0	0	0	456	31	83	81	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.93				
Frt					0.990							
Flt Protected								0.975				
Satd. Flow (prot)	0	0	0	0	2871	0	0	2974	0	0	0	0
Flt Permitted								0.975				
Satd. Flow (perm)	0	0	0	0	2871	0	0	2779	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					14			86				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	496	34	86	84	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	530	0	0	170	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					59.5		22.5	22.5				
Total Split (s)					60.0		30.0	30.0				
Total Split (%)					66.7%		33.3%	33.3%				
Maximum Green (s)					55.5		25.5	25.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					48.0		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					40		30	30				
Act Effct Green (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
v/c Ratio					0.30			0.20				
Control Delay					6.3			6.9				
Queue Delay					0.0			0.8				
Total Delay					6.3			7.7				
LOS					A			A				
Approach Delay					6.3			7.7				
Approach LOS					A			A				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 60.0%	ICU Level of Service B
Analysis Period (min) 15	

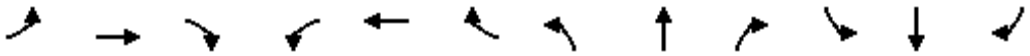
Splits and Phases: 5: Hereford St & Commonwealth Ave





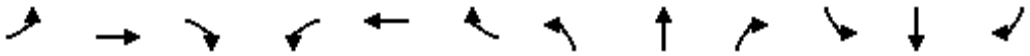
Lane Group	WBT	NBT
Lane Group Flow (vph)	530	170
v/c Ratio	0.30	0.20
Control Delay	6.3	6.9
Queue Delay	0.0	0.8
Total Delay	6.3	7.7
Queue Length 50th (ft)	42	7
Queue Length 95th (ft)	55	17
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1775	849
Starvation Cap Reductn	0	446
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.30	0.42

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	456	31	83	81	0	0	0	0
Future Volume (vph)	0	0	0	0	456	31	83	81	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.93				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2872			2780				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2872			2780				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	496	34	86	84	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	5	0	0	62	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	525	0	0	108	0	0	0	0
Confl. Peds. (#/hr)						56	67					
Confl. Bikes (#/hr)						7						
Heavy Vehicles (%)	2%	2%	2%	0%	2%	3%	1%	5%	0%	2%	2%	2%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					55.5			25.5				
Effective Green, g (s)					55.5			25.5				
Actuated g/C Ratio					0.62			0.28				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1771			787				
v/s Ratio Prot					c0.18							
v/s Ratio Perm								0.04				
v/c Ratio					0.30			0.14				
Uniform Delay, d1					8.1			24.1				
Progression Factor					0.73			0.50				
Incremental Delay, d2					0.4			0.3				
Delay (s)					6.4			12.4				
Level of Service					A			B				
Approach Delay (s)		0.0			6.4			12.4			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	865	0	0	0	0	0	117	76	0	0	0
Future Volume (vph)	51	865	0	0	0	0	0	117	76	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.96				
Frt								0.941				
Flt Protected		0.997										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2608	0	0	0	0
Flt Permitted		0.997										
Satd. Flow (perm)	0	2920	0	0	0	0	0	2608	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						93				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			327			139	
Travel Time (s)		16.2			10.1			7.4			3.2	
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Adj. Flow (vph)	54	920	0	0	0	0	0	143	93	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	974	0	0	0	0	0	236	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	59.5	59.5						22.5				
Total Split (s)	60.0	60.0						30.0				
Total Split (%)	66.7%	66.7%						33.3%				
Maximum Green (s)	55.5	55.5						25.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	48.0	48.0						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	40	40						30				
Act Effct Green (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
v/c Ratio		0.54						0.29				
Control Delay		11.1						16.1				
Queue Delay		0.0						0.0				
Total Delay		11.1						16.1				
LOS		B						B				
Approach Delay		11.1						16.1				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 78 (87%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 47.4%		ICU Level of Service A	
Analysis Period (min) 15			

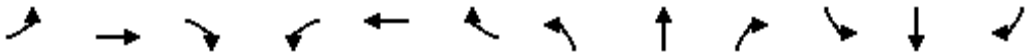
Splits and Phases: 6: Hereford St & Commonwealth Ave





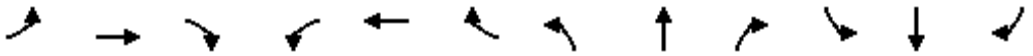
Lane Group	EBT	NBT
Lane Group Flow (vph)	974	236
v/c Ratio	0.54	0.29
Control Delay	11.1	16.1
Queue Delay	0.0	0.0
Total Delay	11.1	16.1
Queue Length 50th (ft)	148	32
Queue Length 95th (ft)	198	54
Internal Link Dist (ft)	633	247
Turn Bay Length (ft)		
Base Capacity (vph)	1807	805
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.29

Intersection Summary

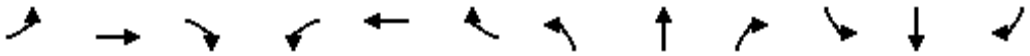


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	865	0	0	0	0	0	117	76	0	0	0
Future Volume (vph)	51	865	0	0	0	0	0	117	76	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.96				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2921						2608				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2921						2608				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92
Adj. Flow (vph)	54	920	0	0	0	0	0	143	93	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	67	0	0	0	0
Lane Group Flow (vph)	0	967	0	0	0	0	0	169	0	0	0	0
Confl. Peds. (#/hr)	56								43			
Confl. Bikes (#/hr)									5			
Heavy Vehicles (%)	4%	1%	0%	2%	2%	2%	0%	3%	3%	2%	2%	2%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		55.5						25.5				
Effective Green, g (s)		55.5						25.5				
Actuated g/C Ratio		0.62						0.28				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1801						738				
v/s Ratio Prot								c0.06				
v/s Ratio Perm		0.33										
v/c Ratio		0.54						0.23				
Uniform Delay, d1		9.9						24.7				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.2						0.7				
Delay (s)		11.0						25.4				
Level of Service		B						C				
Approach Delay (s)		11.0			0.0			25.4			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Future Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					1.00						0.99	
Frt											0.986	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2861	0	0	0	0	0	2955	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2852	0	0	0	0	0	2955	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					38						12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	79	485	0	0	0	0	0	227	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	564	0	0	0	0	0	251	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

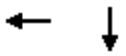


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				60.0	60.0						30.0	
Total Split (s)				60.0	60.0						30.0	
Total Split (%)				66.7%	66.7%						33.3%	
Maximum Green (s)				55.5	55.5						25.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				47.5	47.5						18.5	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				40	40						24	
Act Effct Green (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
v/c Ratio					0.32						0.30	
Control Delay					8.2						25.1	
Queue Delay					0.0						0.0	
Total Delay					8.2						25.1	
LOS					A						C	
Approach Delay					8.2						25.1	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

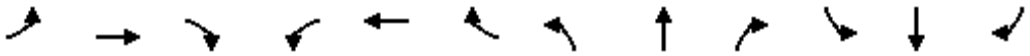
Splits and Phases: 7: Gloucester St & Commonwealth Ave





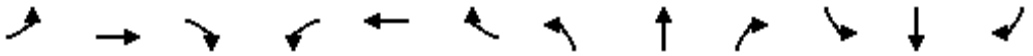
Lane Group	WBT	SBT
Lane Group Flow (vph)	564	251
v/c Ratio	0.32	0.30
Control Delay	8.2	25.1
Queue Delay	0.0	0.0
Total Delay	8.2	25.1
Queue Length 50th (ft)	67	55
Queue Length 95th (ft)	95	79
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1773	845
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.32	0.30

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Future Volume (vph)	0	0	0	76	466	0	0	0	0	0	186	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.99	
Flpb, ped/bikes					1.00						1.00	
Frt					1.00						0.99	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2852						2954	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2852						2954	
Peak-hour factor, PHF	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	79	485	0	0	0	0	0	227	24
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	9	0
Lane Group Flow (vph)	0	0	0	0	549	0	0	0	0	0	242	0
Confl. Peds. (#/hr)				48								45
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	2%	2%	2%	3%	3%	0%	2%	2%	2%	0%	2%	0%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					55.5						25.5	
Effective Green, g (s)					55.5						25.5	
Actuated g/C Ratio					0.62						0.28	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1758						836	
v/s Ratio Prot											c0.08	
v/s Ratio Perm					0.19							
v/c Ratio					0.31						0.29	
Uniform Delay, d1					8.2						25.2	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.5						0.9	
Delay (s)					8.7						26.1	
Level of Service					A						C	
Approach Delay (s)		0.0			8.7			0.0			26.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Future Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.99									0.99	
Frt		0.977										
Flt Protected											0.987	
Satd. Flow (prot)	0	2829	0	0	0	0	0	0	0	0	3531	0
Flt Permitted											0.987	
Satd. Flow (perm)	0	2829	0	0	0	0	0	0	0	0	3484	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Peak Hour Factor	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	832	148	0	0	0	0	0	0	81	217	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	980	0	0	0	0	0	0	0	0	298	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		60.0								30.0	30.0	
Total Split (s)		60.0								30.0	30.0	
Total Split (%)		66.7%								33.3%	33.3%	
Maximum Green (s)		55.5								25.5	25.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		47.5								18.5	18.5	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		40								24	24	
Act Effct Green (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
v/c Ratio		0.56									0.29	
Control Delay		4.0									8.3	
Queue Delay		0.0									0.6	
Total Delay		4.0									9.0	
LOS		A									A	
Approach Delay		4.0									9.0	
Approach LOS		A									A	

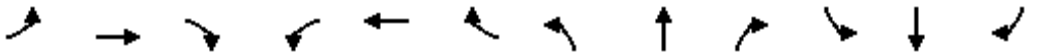
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 87 (97%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



Lane Group	EBT	SBT
Lane Group Flow (vph)	980	298
v/c Ratio	0.56	0.29
Control Delay	4.0	8.3
Queue Delay	0.0	0.6
Total Delay	4.0	9.0
Queue Length 50th (ft)	27	15
Queue Length 95th (ft)	35	26
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1744	1029
Starvation Cap Reductn	31	421
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.57	0.49

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Future Volume (vph)	0	799	142	0	0	0	0	0	0	71	191	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.99									1.00	
Flpb, ped/bikes		1.00									0.99	
Frt		0.98									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		2830									3482	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		2830									3482	
Peak-hour factor, PHF	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	832	148	0	0	0	0	0	0	81	217	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	0	980	0	0	0	0	0	0	0	0	256	0
Confl. Peds. (#/hr)			113							47		
Confl. Bikes (#/hr)			65									
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	2%	2%	2%	0%	4%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		55.5									25.5	
Effective Green, g (s)		55.5									25.5	
Actuated g/C Ratio		0.62									0.28	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1745									986	
v/s Ratio Prot		c0.35										
v/s Ratio Perm											0.07	
v/c Ratio		0.56									0.26	
Uniform Delay, d1		10.1									24.9	
Progression Factor		0.27									0.38	
Incremental Delay, d2		1.1									0.6	
Delay (s)		3.9									10.1	
Level of Service		A									B	
Approach Delay (s)		3.9			0.0			0.0			10.1	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	5.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

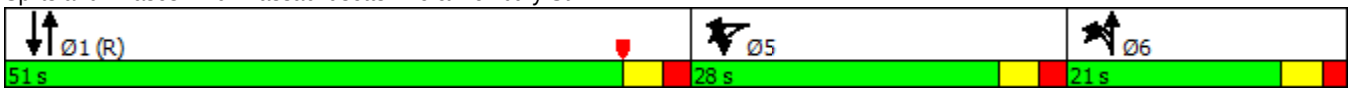


Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	71	78	47	46	200	15	581	610	173	41
Future Volume (vph)	71	78	47	46	200	15	581	610	173	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor			0.99					0.96		
Frt			0.926					0.961		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1320	1241	0	0	1484	1489	2662	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1320	1241	0	0	1484	1489	2662	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			46					7		
Link Speed (mph)			30				30	30		
Link Distance (ft)			722				308	302		
Travel Time (s)			16.4				7.0	6.9		
Confl. Bikes (#/hr)				2					85	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Adj. Flow (vph)	79	87	52	51	206	15	599	663	188	45
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	166	103	0	0	221	599	896	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		

Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0		6.0	6.0		8.0		
Minimum Split (s)	28.0	28.0	28.0		11.0	11.0		28.0		
Total Split (s)	28.0	28.0	28.0		21.0	21.0		51.0		
Total Split (%)	28.0%	28.0%	28.0%		21.0%	21.0%		51.0%		
Maximum Green (s)	23.0	23.0	23.0		16.0	16.0		46.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	45	45	45					123		
Act Effct Green (s)		18.8	18.8			20.2	71.2	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
v/c Ratio		0.67	0.38			0.74	0.57	0.73		
Control Delay		50.3	23.6			51.8	18.5	19.0		
Queue Delay		0.5	0.0			0.0	2.7	3.7		
Total Delay		50.8	23.6			51.8	21.2	22.7		
LOS		D	C			D	C	C		
Approach Delay			40.4				29.4	22.7		
Approach LOS			D				C	C		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 42 (42%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 27.9		Intersection LOS: C	
Intersection Capacity Utilization 61.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	166	103	221	599	896
v/c Ratio	0.67	0.38	0.74	0.57	0.73
Control Delay	50.3	23.6	51.8	18.5	19.0
Queue Delay	0.5	0.0	0.0	2.7	3.7
Total Delay	50.8	23.6	51.8	21.2	22.7
Queue Length 50th (ft)	94	30	153	205	144
Queue Length 95th (ft)	163	77	m#186	m245	224
Internal Link Dist (ft)		642		228	222
Turn Bay Length (ft)					
Base Capacity (vph)	303	320	299	1059	1228
Starvation Cap Reductn	0	0	0	332	242
Spillback Cap Reductn	18	1	0	40	130
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.58	0.32	0.74	0.82	0.91

Intersection Summary

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

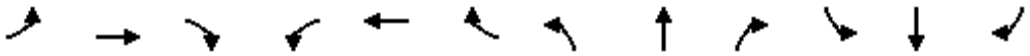
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	71	78	47	46	200	15	581	610	173	41
Future Volume (vph)	71	78	47	46	200	15	581	610	173	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	0.99			1.00	1.00	0.96		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.93			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1320	1240			1484	1489	2662		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1320	1240			1484	1489	2662		
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Adj. Flow (vph)	79	87	52	51	206	15	599	663	188	45
RTOR Reduction (vph)	0	0	37	0	0	0	0	4	0	0
Lane Group Flow (vph)	0	166	66	0	0	221	599	892	0	0
Confl. Bikes (#/hr)				2					85	85
Heavy Vehicles (%)	9%	10%	12%	6%	2%	5%	11%	10%	6%	2%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		18.8	18.8			20.2	71.2	46.0		
Effective Green, g (s)		18.8	18.8			20.2	71.2	46.0		
Actuated g/C Ratio		0.19	0.19			0.20	0.71	0.46		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		248	233			299	1060	1224		
v/s Ratio Prot		c0.13	0.05			c0.15	0.40	c0.34		
v/s Ratio Perm										
v/c Ratio		0.67	0.28			0.74	0.57	0.73		
Uniform Delay, d1		37.7	34.8			37.4	6.9	21.9		
Progression Factor		1.00	1.00			1.06	2.08	0.73		
Incremental Delay, d2		6.7	0.7			8.7	1.2	2.7		
Delay (s)		44.4	35.5			48.3	15.7	18.7		
Level of Service		D	D			D	B	B		
Approach Delay (s)			41.0				24.5	18.7		
Approach LOS			D				C	B		

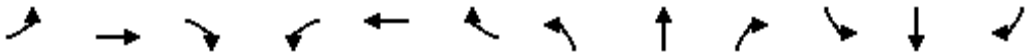
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	183	66	59	117	0	0	0	0
Future Volume (vph)	0	0	0	0	183	66	59	117	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.960							
Flt Protected								0.983				
Satd. Flow (prot)	0	0	0	0	2640	0	0	2726	0	0	0	0
Flt Permitted								0.983				
Satd. Flow (perm)	0	0	0	0	2640	0	0	2726	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		722			270			281			327	
Travel Time (s)		16.4			6.1			6.4			7.4	
Confl. Peds. (#/hr)						118			98			
Confl. Bikes (#/hr)						4						
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	9%	5%	11%	5%	2%	2%	2%	2%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	191	69	77	152	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	260	0	0	229	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

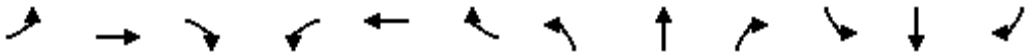
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	183	66	59	117	0	0	0	0
Future Volume (vph)	0	0	0	0	183	66	59	117	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	191	69	77	152	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	127	133	128	101
Volume Left (vph)	0	0	77	0
Volume Right (vph)	0	69	0	0
Hadj (s)	0.15	-0.25	0.45	0.09
Departure Headway (s)	5.3	4.9	5.6	5.2
Degree Utilization, x	0.19	0.18	0.20	0.15
Capacity (veh/h)	654	710	620	659
Control Delay (s)	8.3	7.7	8.8	7.9
Approach Delay (s)	8.0		8.4	
Approach LOS	A		A	

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	33.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	540	126	0	95	162	0	609	84	215	438	37
Future Volume (vph)	0	540	126	0	95	162	0	609	84	215	438	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.94				0.66		0.95		0.88	0.98	
Frt		0.972				0.850		0.982			0.988	
Flt Protected										0.950		
Satd. Flow (prot)	0	2752	0	0	1476	1384	0	2624	0	1450	1463	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2752	0	0	1476	908	0	2624	0	1282	1463	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		28				73						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			308	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Adj. Flow (vph)	0	581	135	0	112	191	0	641	88	224	456	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	716	0	0	112	191	0	729	0	224	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)		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	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		34.0			34.0	24.0		33.0		24.0		
Total Split (s)		34.0			34.0	29.0		33.0		29.0		
Total Split (%)		34.0%			34.0%	29.0%		33.0%		29.0%		
Maximum Green (s)		29.0			29.0	23.0		28.0		23.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?		Yes			Yes							
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			13.0				
Pedestrian Calls (#/hr)		197			197			262				
Act Effct Green (s)		28.2			28.2	50.2		28.8		23.0	57.8	
Actuated g/C Ratio		0.28			0.28	0.50		0.29		0.23	0.58	
v/c Ratio		0.90			0.27	0.32		0.97		0.67	0.59	
Control Delay		48.9			29.6	7.2		37.2		40.5	12.1	
Queue Delay		0.0			0.0	0.1		1.9		0.4	8.1	
Total Delay		48.9			29.6	7.3		39.2		40.8	20.2	
LOS		D			C	A		D		D	C	
Approach Delay		48.9			15.5			39.2			26.7	
Approach LOS		D			B			D			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 46 (46%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 35.5		Intersection LOS: D	
Intersection Capacity Utilization 72.7%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	197
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

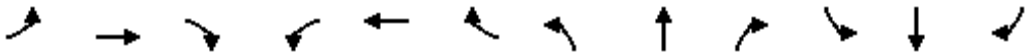


Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	716	112	191	729	224	495
v/c Ratio	0.90	0.27	0.32	0.97	0.67	0.59
Control Delay	48.9	29.6	7.2	37.2	40.5	12.1
Queue Delay	0.0	0.0	0.1	1.9	0.4	8.1
Total Delay	48.9	29.6	7.3	39.2	40.8	20.2
Queue Length 50th (ft)	220	55	30	223	147	245
Queue Length 95th (ft)	#325	95	55	#354	m206	400
Internal Link Dist (ft)	713	526		236		228
Turn Bay Length (ft)						
Base Capacity (vph)	817	428	601	755	333	845
Starvation Cap Reductn	0	0	0	9	9	306
Spillback Cap Reductn	0	0	63	8	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.26	0.36	0.98	0.69	0.92

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	540	126	0	95	162	0	609	84	215	438	37
Future Volume (vph)	0	540	126	0	95	162	0	609	84	215	438	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.94			1.00	0.81		0.95		1.00	0.98	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.97			1.00	0.85		0.98		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2751			1476	1122		2624		1450	1464	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2751			1476	1122		2624		1450	1464	
Peak-hour factor, PHF	0.93	0.93	0.93	0.85	0.85	0.85	0.95	0.95	0.95	0.96	0.96	0.96
Adj. Flow (vph)	0	581	135	0	112	191	0	641	88	224	456	39
RTOR Reduction (vph)	0	20	0	0	0	36	0	0	0	0	0	0
Lane Group Flow (vph)	0	696	0	0	112	155	0	729	0	224	495	0
Confl. Peds. (#/hr)			373			413			701	376		115
Confl. Bikes (#/hr)			18						34			45
Heavy Vehicles (%)	25%	4%	3%	0%	12%	5%	0%	10%	25%	12%	10%	3%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		28.2			28.2	51.2		28.8		23.0	56.8	
Effective Green, g (s)		28.2			28.2	51.2		28.8		23.0	56.8	
Actuated g/C Ratio		0.28			0.28	0.51		0.29		0.23	0.57	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		775			416	574		755		333	831	
v/s Ratio Prot		c0.25			0.08	0.06		c0.28		c0.15	0.34	
v/s Ratio Perm						0.08						
v/c Ratio		0.90			0.27	0.27		0.97		0.67	0.60	
Uniform Delay, d1		34.5			27.9	13.8		35.1		35.1	14.1	
Progression Factor		1.00			1.00	1.00		0.29		0.92	0.70	
Incremental Delay, d2		13.1			0.4	0.3		23.5		7.3	2.2	
Delay (s)		47.6			28.2	14.1		33.5		39.6	12.1	
Level of Service		D			C	B		C		D	B	
Approach Delay (s)		47.6			19.3			33.5			20.6	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	449	163	0	0	246	297	
Future Volume (vph)	449	163	0	0	246	297	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor							
Frt	0.960					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2573	0	0	0	1441	1094	
Flt Permitted					0.950		
Satd. Flow (perm)	2573	0	0	0	1441	1094	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)						1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%	
Parking (#/hr)	2						
Adj. Flow (vph)	493	179	0	0	273	330	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	672	0	0	0	273	330	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	35.0				29.0	29.0	26.0
Total Split (%)	38.9%				32.2%	32.2%	29%
Maximum Green (s)	25.5				23.0	23.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							154
Act Effct Green (s)	25.5				23.0	23.0	
Actuated g/C Ratio	0.28				0.26	0.26	
v/c Ratio	0.92				0.74	1.18	
Control Delay	51.5				44.8	145.5	
Queue Delay	0.0				0.0	0.0	
Total Delay	51.5				44.8	145.5	
LOS	D				D	F	
Approach Delay	51.5				99.9		
Approach LOS	D				F		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 37 (41%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.18			
Intersection Signal Delay: 74.4		Intersection LOS: E	
Intersection Capacity Utilization 52.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	672	273	330
v/c Ratio	0.92	0.74	1.18
Control Delay	51.5	44.8	145.5
Queue Delay	0.0	0.0	0.0
Total Delay	51.5	44.8	145.5
Queue Length 50th (ft)	194	143	~227
Queue Length 95th (ft)	#304	#259	#391
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	729	368	279
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.92	0.74	1.18

Intersection Summary

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

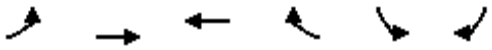
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	449	163	0	0	246	297
Future Volume (vph)	449	163	0	0	246	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	1.00				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.96				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2574				1441	1094
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2574				1441	1094
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	493	179	0	0	273	330
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	672	0	0	0	273	330
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	18%	5%	2%	2%	9%	24%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	25.5				23.0	23.0
Effective Green, g (s)	25.5				23.0	23.0
Actuated g/C Ratio	0.28				0.26	0.26
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	729				368	279
v/s Ratio Prot	c0.26				0.19	c0.30
v/s Ratio Perm						
v/c Ratio	0.92				0.74	1.18
Uniform Delay, d1	31.3				30.8	33.5
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	18.9				12.7	112.7
Delay (s)	50.2				43.4	146.2
Level of Service	D				D	F
Approach Delay (s)	50.2			0.0	99.7	
Approach LOS	D			A	F	

Intersection Summary			
HCM 2000 Control Delay	73.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

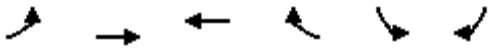
c Critical Lane Group



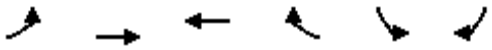
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	176	570	0	0	0	0
Future Volume (vph)	176	570	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.988				
Satd. Flow (prot)	0	2680	0	0	0	0
Flt Permitted		0.988				
Satd. Flow (perm)	0	2680	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		281	
Travel Time (s)		2.3	10.0		6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	24%	0%	0%	0%	0%
Adj. Flow (vph)	191	620	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	811	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Free	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



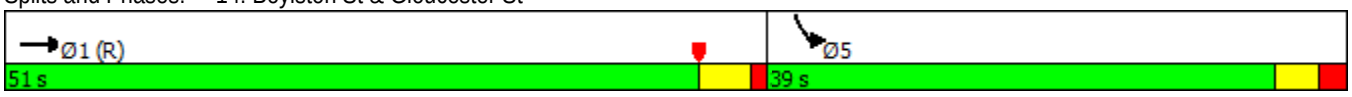
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	570	0	0	293	0
Future Volume (vph)	0	570	0	0	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	3811	0	0	2810	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	3811	0	0	2810	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					442	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	620	0	0	318	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	620	0	0	318	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		49.5			28.0	
Total Split (s)		51.0			39.0	
Total Split (%)		56.7%			43.3%	
Maximum Green (s)		46.5			34.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		34.0			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		47			26	
Act Effct Green (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
v/c Ratio		0.31			0.24	
Control Delay		18.4			3.9	
Queue Delay		0.0			0.0	
Total Delay		18.4			3.9	
LOS		B			A	
Approach Delay		18.4			3.9	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 28 (31%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 29.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

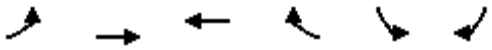




Lane Group	EBT	SBL
Lane Group Flow (vph)	620	318
v/c Ratio	0.31	0.24
Control Delay	18.4	3.9
Queue Delay	0.0	0.0
Total Delay	18.4	3.9
Queue Length 50th (ft)	69	0
Queue Length 95th (ft)	m70	36
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1969	1336
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.31	0.24

Intersection Summary

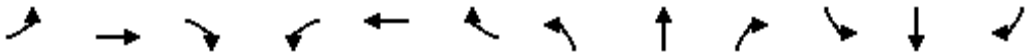
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	570	0	0	293	0
Future Volume (vph)	0	570	0	0	293	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		3811			2810	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		3811			2810	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	620	0	0	318	0
RTOR Reduction (vph)	0	0	0	0	198	0
Lane Group Flow (vph)	0	620	0	0	120	0
Heavy Vehicles (%)	0%	18%	2%	2%	6%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		46.5			34.0	
Effective Green, g (s)		46.5			34.0	
Actuated g/C Ratio		0.52			0.38	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1969			1061	
v/s Ratio Prot		c0.16			c0.04	
v/s Ratio Perm						
v/c Ratio		0.31			0.11	
Uniform Delay, d1		12.6			18.2	
Progression Factor		1.45			14.92	
Incremental Delay, d2		0.0			0.2	
Delay (s)		18.2			271.8	
Level of Service		B			F	
Approach Delay (s)		18.2	0.0		271.8	
Approach LOS		B	A		F	

Intersection Summary			
HCM 2000 Control Delay	104.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	29.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



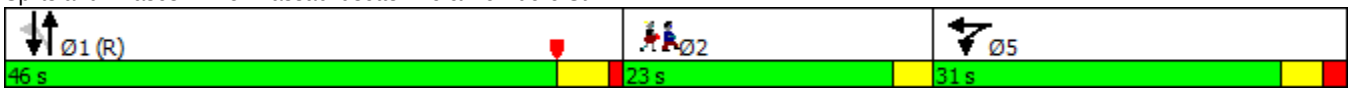
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	25	47	36	630	0	0	552	31
Future Volume (vph)	0	0	0	23	25	47	36	630	0	0	552	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.933						0.992	
Flt Protected					0.988			0.997				
Satd. Flow (prot)	0	0	0	0	1533	0	0	2806	0	0	2878	0
Flt Permitted					0.988			0.888				
Satd. Flow (perm)	0	0	0	0	1533	0	0	2500	0	0	2878	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)												39
Peak Hour Factor	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	30	32	61	38	670	0	0	613	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	123	0	0	708	0	0	647	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				5	5			1			1	
Permitted Phases							1					
Detector Phase				5	5		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				13.0	13.0		24.0	24.0			24.0	
Total Split (s)				31.0	31.0		46.0	46.0			46.0	
Total Split (%)				31.0%	31.0%		46.0%	46.0%			46.0%	
Maximum Green (s)				26.0	26.0		41.0	41.0			41.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							173	173			173	
Act Effct Green (s)					12.6			55.4			55.4	
Actuated g/C Ratio					0.13			0.55			0.55	
v/c Ratio					0.64			0.51			0.41	
Control Delay					55.7			13.9			7.4	
Queue Delay					0.0			0.3			0.4	
Total Delay					55.7			14.1			7.8	
LOS					E			B			A	
Approach Delay					55.7			14.1			7.8	
Approach LOS					E			B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 59 (59%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	23%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	264
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

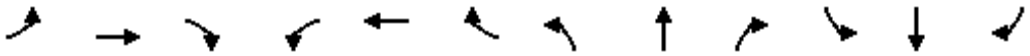
Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	123	708	647
v/c Ratio	0.64	0.51	0.41
Control Delay	55.7	13.9	7.4
Queue Delay	0.0	0.3	0.4
Total Delay	55.7	14.1	7.8
Queue Length 50th (ft)	76	68	45
Queue Length 95th (ft)	107	315	m111
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	398	1384	1596
Starvation Cap Reductn	0	0	461
Spillback Cap Reductn	0	199	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.31	0.60	0.57

Intersection Summary

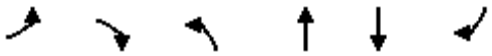
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	23	25	47	36	630	0	0	552	31
Future Volume (vph)	0	0	0	23	25	47	36	630	0	0	552	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1533			2807			2880	
Flt Permitted					0.99			0.89			1.00	
Satd. Flow (perm)					1533			2500			2880	
Peak-hour factor, PHF	0.92	0.92	0.92	0.77	0.77	0.77	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	30	32	61	38	670	0	0	613	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	123	0	0	708	0	0	644	0
Confl. Bikes (#/hr)												39
Heavy Vehicles (%)	0%	0%	0%	5%	0%	5%	3%	8%	0%	0%	8%	7%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				5	5			1			1	
Permitted Phases							1					
Actuated Green, G (s)					12.6			55.4			55.4	
Effective Green, g (s)					12.6			55.4			55.4	
Actuated g/C Ratio					0.13			0.55			0.55	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					193			1385			1595	
v/s Ratio Prot					c0.08						0.22	
v/s Ratio Perm								c0.28				
v/c Ratio					0.64			0.51			0.40	
Uniform Delay, d1					41.5			13.9			12.8	
Progression Factor					1.00			0.85			0.50	
Incremental Delay, d2					5.0			1.2			0.6	
Delay (s)					46.5			13.0			7.0	
Level of Service					D			B			A	
Approach Delay (s)		0.0			46.5			13.0			7.0	
Approach LOS		A			D			B			A	

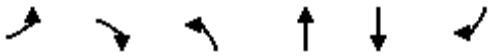
Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	153	0	504	91	0
Future Volume (vph)	18	153	0	504	91	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.879					
Flt Protected	0.995					
Satd. Flow (prot)	1495	0	0	1495	1746	0
Flt Permitted	0.995					
Satd. Flow (perm)	1495	0	0	1495	1746	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	296			247	419	
Travel Time (s)	6.7			5.6	9.5	
Confl. Peds. (#/hr)		151				
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Heavy Vehicles (%)	0%	1%	0%	16%	11%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	21	180	0	554	121	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	201	0	0	554	121	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

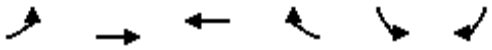
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	153	0	504	91	0
Future Volume (Veh/h)	18	153	0	504	91	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.91	0.91	0.75	0.75
Hourly flow rate (vph)	21	180	0	554	121	0
Pedestrians				151		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	675	272	121			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	675	272	121			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	71	100			
cM capacity (veh/h)	422	622	1479			

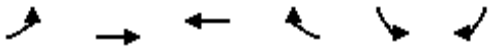
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	201	554	121
Volume Left	21	0	0
Volume Right	180	0	0
cSH	592	1700	1700
Volume to Capacity	0.34	0.33	0.07
Queue Length 95th (ft)	37	0	0
Control Delay (s)	14.2	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.2	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	108	534	267	22
Future Volume (vph)	0	0	108	534	267	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.990	
Flt Protected					0.956	
Satd. Flow (prot)	0	0	1598	1264	1607	0
Flt Permitted					0.956	
Satd. Flow (perm)	0	0	1598	1264	1607	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				111	76	10
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Heavy Vehicles (%)	2%	2%	7%	15%	4%	5%
Adj. Flow (vph)	0	0	120	593	270	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	120	593	292	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	108	534	267	22
Future Volume (Veh/h)	0	0	108	534	267	22
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.99	0.99
Hourly flow rate (vph)	0	0	120	593	270	22
Pedestrians		10	76		111	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	7		11	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	824				307	241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	824				307	241
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				52	97
cM capacity (veh/h)	714				559	700

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	120	593	292
Volume Left	0	0	270
Volume Right	0	593	22
cSH	1700	1700	568
Volume to Capacity	0.07	0.35	0.51
Queue Length 95th (ft)	0	0	73
Control Delay (s)	0.0	0.0	17.9
Lane LOS			C
Approach Delay (s)	0.0		17.9
Approach LOS			C

Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization		46.4%	ICU Level of Service A
Analysis Period (min)		15	



Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	351	15	10	234	639	31	10	515	25	25	0	10
Future Volume (vph)	351	15	10	234	639	31	10	515	25	25	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	12	10	12	12	16	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.95	0.97	0.95	0.95	1.00	1.00
Ped Bike Factor	0.97							0.57			0.63	
Frt	0.994				0.850			0.987			0.865	
Flt Protected				0.998				0.956				
Satd. Flow (prot)	3133	0	0	1529	2218	0	0	2508	0	0	1060	0
Flt Permitted				0.972				0.956				
Satd. Flow (perm)	3133	0	0	1489	2218	0	0	1539	0	0	1060	0
Right Turn on Red		No				Yes				No		
Satd. Flow (RTOR)					33						120	
Link Speed (mph)	30			30				30			30	
Link Distance (ft)	883			293				1231			255	
Travel Time (s)	20.1			6.7				28.0			5.8	
Confl. Peds. (#/hr)		407				110	110		407	295		295
Confl. Bikes (#/hr)		6			2	2			21	21		
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.75	0.75
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	0%	7%	4%	20%	0%	0%
Adj. Flow (vph)	408	17	11	254	695	34	11	579	28	28	0	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	425	0	0	265	729	0	0	646	0	0	26	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right	Left	Right
Median Width(ft)	0			0				20			0	
Link Offset(ft)	0			0				0			0	
Crosswalk Width(ft)	16			16				16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.14	1.25	1.14	1.14	0.97	1.14
Turning Speed (mph)		9	15		9	9	15	15	9	9		9
Number of Detectors	2		1	2	1		1	1			2	
Detector Template	Thru		Left	Thru	Right		Left	Left			Thru	
Leading Detector (ft)	100		20	100	20		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	6	20		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	NA	pt+ov		custom	Prot			NA	

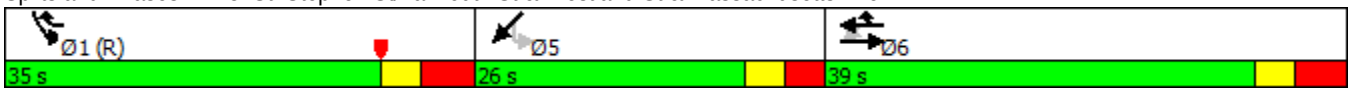


Lane Group	SWR2
Lane Configurations	
Traffic Volume (vph)	10
Future Volume (vph)	10
Ideal Flow (vphpl)	1900
Lane Width (ft)	12
Lane Util. Factor	1.00
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	Yes
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	95
Confl. Bikes (#/hr)	
Peak Hour Factor	0.75
Heavy Vehicles (%)	0%
Adj. Flow (vph)	13
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.14
Turning Speed (mph)	9
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	

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Protected Phases	6			6	1 6			1			5	
Permitted Phases			6									
Detector Phase	6		6	6	1 6			1			5	
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0				10.0			10.0	
Minimum Split (s)	18.0		18.0	18.0				20.0			25.0	
Total Split (s)	39.0		39.0	39.0				35.0			26.0	
Total Split (%)	39.0%		39.0%	39.0%				35.0%			26.0%	
Maximum Green (s)	32.0		32.0	32.0				28.0			20.0	
Yellow Time (s)	3.0		3.0	3.0				3.0			3.0	
All-Red Time (s)	4.0		4.0	4.0				4.0			3.0	
Lost Time Adjust (s)	0.0			0.0				0.0			0.0	
Total Lost Time (s)	7.0			7.0				7.0			6.0	
Lead/Lag	Lag		Lag	Lag							Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0				0.2			2.0	
Recall Mode	None		None	None				C-Max			None	
Walk Time (s)	7.0		7.0	7.0				7.0			7.0	
Flash Dont Walk (s)	4.0		4.0	4.0				6.0			12.0	
Pedestrian Calls (#/hr)	101		101	101				101			45	
Act Effct Green (s)	25.7			25.7	76.2			0.0			15.4	
Actuated g/C Ratio	0.26			0.26	0.76			0.00			0.15	
v/c Ratio	0.53			0.69	0.43			no cap			0.10	
Control Delay	33.5			47.5	3.5						0.8	
Queue Delay	59.1			2.4	0.3						0.0	
Total Delay	92.6			49.9	3.8			Error			0.8	
LOS	F			D	A			F			A	
Approach Delay	92.6			16.1				Err			0.8	
Approach LOS	F			B				F			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 6 (6%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: Err			
Intersection Signal Delay: Err		Intersection LOS: F	
Intersection Capacity Utilization 74.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	SWR2
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	425	265	729	646	26
v/c Ratio	0.53	0.69	0.43	no cap	0.10
Control Delay	33.5	47.5	3.5		0.8
Queue Delay	59.1	2.4	0.3		0.0
Total Delay	92.6	49.9	3.8	Error	0.8
Queue Length 50th (ft)	120	179	40	~462	0
Queue Length 95th (ft)	147	m261	41	#571	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	1002	476	1660	1	308
Starvation Cap Reductn	0	111	393	0	0
Spillback Cap Reductn	691	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.37	0.73	0.58	646.00	0.08

Intersection Summary

~ 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.



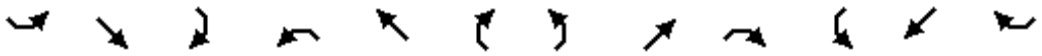
Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL2	SBL	SBR	SBR2	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	351	15	10	234	639	31	10	515	25	25	0	10
Future Volume (vph)	351	15	10	234	639	31	10	515	25	25	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	12	10	12	12	16	12
Total Lost time (s)	7.0			7.0	7.0			7.0			6.0	
Lane Util. Factor	0.95			1.00	0.88			0.97			1.00	
Frpb, ped/bikes	0.97			1.00	1.00			0.92			0.63	
Flpb, ped/bikes	1.00			1.00	1.00			0.61			1.00	
Frt	0.99			1.00	0.85			0.99			0.86	
Flt Protected	1.00			1.00	1.00			0.96			1.00	
Satd. Flow (prot)	3133			1529	2218			1540			1060	
Flt Permitted	1.00			0.97	1.00			0.96			1.00	
Satd. Flow (perm)	3133			1489	2218			1540			1060	
Peak-hour factor, PHF	0.86	0.86	0.92	0.92	0.92	0.92	0.89	0.89	0.89	0.89	0.75	0.75
Adj. Flow (vph)	408	17	11	254	695	34	11	579	28	28	0	13
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	0	23	0
Lane Group Flow (vph)	425	0	0	265	720	0	0	646	0	0	3	0
Confl. Peds. (#/hr)		407				110	110		407	295		295
Confl. Bikes (#/hr)		6			2	2			21	21		
Heavy Vehicles (%)	3%	8%	8%	4%	8%	0%	0%	7%	4%	20%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		custom	Prot			NA	
Protected Phases	6			6	1 6			1			5	
Permitted Phases			6									
Actuated Green, G (s)	25.7			25.7	73.6			40.9			13.4	
Effective Green, g (s)	25.7			25.7	73.6			40.9			13.4	
Actuated g/C Ratio	0.26			0.26	0.74			0.41			0.13	
Clearance Time (s)	7.0			7.0				7.0			6.0	
Vehicle Extension (s)	2.0			2.0				0.2			2.0	
Lane Grp Cap (vph)	805			382	1632			629			142	
v/s Ratio Prot	0.14				0.32						c0.00	
v/s Ratio Perm				c0.18				0.42				
v/c Ratio	0.53			0.69	0.44			1.03			0.02	
Uniform Delay, d1	31.9			33.6	5.2			29.6			37.6	
Progression Factor	1.00			1.22	0.49			1.00			1.00	
Incremental Delay, d2	0.3			3.3	0.1			41.7			0.0	
Delay (s)	32.2			44.4	2.6			71.3			37.6	
Level of Service	C			D	A			E			D	
Approach Delay (s)	32.2			13.7				71.3			37.6	
Approach LOS	C			B				E			D	

Intersection Summary			
HCM 2000 Control Delay	35.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	SWR2
Lane Configurations	
Traffic Volume (vph)	10
Future Volume (vph)	10
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.75
Adj. Flow (vph)	13
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	95
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	
Intersection Summary	



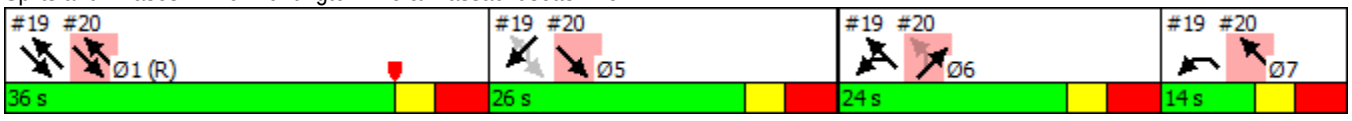
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	778	87	15	862	0	0	0	0	102	33	52
Future Volume (vph)	0	778	87	15	862	0	0	0	0	102	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.92		0.80								0.70
Frt		0.985										0.850
Flt Protected				0.950							0.964	
Satd. Flow (prot)	0	2627	0	1425	2861	0	0	0	0	0	1445	1301
Flt Permitted				0.950							0.964	
Satd. Flow (perm)	0	2627	0	1141	2861	0	0	0	0	0	1445	916
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Adj. Flow (vph)	0	864	97	16	927	0	0	0	0	120	39	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	961	0	16	927	0	0	0	0	0	159	61
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		169								169	169	169
Act Effct Green (s)		29.5		30.9	46.4						18.6	18.6
Actuated g/C Ratio		0.30		0.31	0.46						0.19	0.19
v/c Ratio		1.23		0.04	0.70						0.59	0.19
Control Delay		147.9		42.1	17.9						47.3	1.2
Queue Delay		1.9		0.0	0.1						0.0	0.0
Total Delay		149.8		42.1	18.1						47.3	1.2
LOS		F		D	B						D	A
Approach Delay		149.8			18.5						34.5	
Approach LOS		F			B						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.23			
Intersection Signal Delay: 79.5		Intersection LOS: E	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	42	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary



Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	961	16	927	159	61
v/c Ratio	1.23	0.04	0.70	0.59	0.19
Control Delay	147.9	42.1	17.9	47.3	1.2
Queue Delay	1.9	0.0	0.1	0.0	0.0
Total Delay	149.8	42.1	18.1	47.3	1.2
Queue Length 50th (ft)	~408	8	279	93	0
Queue Length 95th (ft)	149	m16	362	151	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	783	421	1330	274	332
Starvation Cap Reductn	195	0	0	0	0
Spillback Cap Reductn	16	0	40	0	2
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.63	0.04	0.72	0.58	0.18

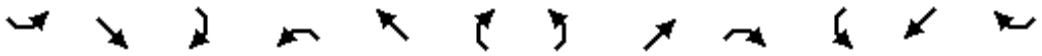
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	778	87	15	862	0	0	0	0	102	33	52
Future Volume (vph)	0	778	87	15	862	0	0	0	0	102	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.92		1.00	1.00						1.00	0.70
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2627		1425	2861						1445	916
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2627		1425	2861						1445	916
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	0	864	97	16	927	0	0	0	0	120	39	61
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	0	0	0	50
Lane Group Flow (vph)	0	953	0	16	927	0	0	0	0	0	159	11
Confl. Peds. (#/hr)			501	501								174
Confl. Bikes (#/hr)			8									
Heavy Vehicles (%)	0%	5%	4%	14%	6%	3%	0%	0%	0%	10%	11%	8%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		29.5		30.9	46.4						18.6	18.6
Effective Green, g (s)		29.5		30.9	46.4						18.6	18.6
Actuated g/C Ratio		0.29		0.31	0.46						0.19	0.19
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		774		440	1327						268	170
v/s Ratio Prot		c0.36		c0.01	c0.32							
v/s Ratio Perm											0.11	0.01
v/c Ratio		1.23		0.04	0.70						0.59	0.07
Uniform Delay, d1		35.2		24.1	21.3						37.2	33.5
Progression Factor		1.10		1.72	1.25						1.00	1.00
Incremental Delay, d2		114.9		0.0	1.1						2.3	0.1
Delay (s)		153.7		41.5	27.6						39.6	33.6
Level of Service		F		D	C						D	C
Approach Delay (s)		153.7			27.9			0.0			37.9	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	85.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



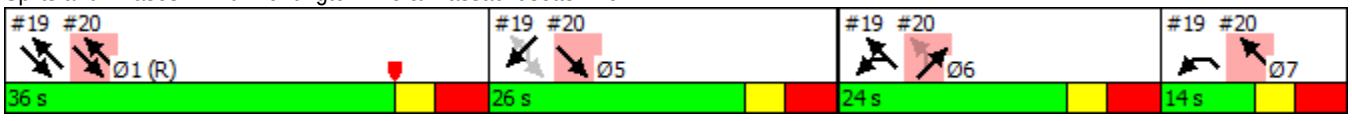
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	880	0	0	805	97	72	40	66	0	0	0
Future Volume (vph)	0	880	0	0	805	97	72	40	66	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.96			0.94				
Frt					0.984			0.944				
Flt Protected								0.980				
Satd. Flow (prot)	0	3185	0	0	4055	0	0	2362	0	0	0	0
Flt Permitted								0.980				
Satd. Flow (perm)	0	3185	0	0	4055	0	0	2362	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			78				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Adj. Flow (vph)	0	978	0	0	866	104	85	47	78	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	978	0	0	970	0	0	210	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							42	42				
Act Effct Green (s)		55.1			43.5			16.9				
Actuated g/C Ratio		0.55			0.44			0.17				
v/c Ratio		0.56			0.55			0.45				
Control Delay		0.8			21.8			26.6				
Queue Delay		0.0			0.5			0.1				
Total Delay		0.8			22.3			26.7				
LOS		A			C			C				
Approach Delay		0.8			22.3			26.7				
Approach LOS		A			C			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.23			
Intersection Signal Delay: 13.0		Intersection LOS: B	
Intersection Capacity Utilization 97.4%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	169	169	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary



Lane Group	SET	NWT	NET
Lane Group Flow (vph)	978	970	210
v/c Ratio	0.56	0.55	0.45
Control Delay	0.8	21.8	26.6
Queue Delay	0.0	0.5	0.1
Total Delay	0.8	22.3	26.7
Queue Length 50th (ft)	2	159	39
Queue Length 95th (ft)	m2	202	69
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1767	1778	466
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	367	13
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.55	0.69	0.46

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	880	0	0	805	97	72	40	66	0	0	0
Future Volume (vph)	0	880	0	0	805	97	72	40	66	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.96			0.94				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.94				
Flt Protected		1.00			1.00			0.98				
Satd. Flow (prot)		3185			4055			2363				
Flt Permitted		1.00			1.00			0.98				
Satd. Flow (perm)		3185			4055			2363				
Peak-hour factor, PHF	0.90	0.90	0.90	0.93	0.93	0.93	0.85	0.85	0.85	0.92	0.92	0.92
Adj. Flow (vph)	0	978	0	0	866	104	85	47	78	0	0	0
RTOR Reduction (vph)	0	0	0	0	15	0	0	65	0	0	0	0
Lane Group Flow (vph)	0	978	0	0	955	0	0	145	0	0	0	0
Confl. Peds. (#/hr)						174			78			
Confl. Bikes (#/hr)						32						
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	7%	14%	16%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.1			43.5			16.9				
Effective Green, g (s)		55.1			43.5			16.9				
Actuated g/C Ratio		0.55			0.44			0.17				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1754			1763			399				
v/s Ratio Prot		c0.31			c0.24							
v/s Ratio Perm								0.06				
v/c Ratio		0.56			0.54			0.36				
Uniform Delay, d1		14.6			20.9			36.8				
Progression Factor		0.05			1.00			1.00				
Incremental Delay, d2		0.0			0.2			0.2				
Delay (s)		0.7			21.1			37.0				
Level of Service		A			C			D				
Approach Delay (s)		0.7			21.1			37.0			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	51	569	46	0	672
Future Volume (vph)	0	51	569	46	0	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.99			
Frt		0.865	0.989			
Flt Protected						
Satd. Flow (prot)	0	1205	3090	0	0	3474
Flt Permitted						
Satd. Flow (perm)	0	1205	3090	0	0	3474
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		224	15			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Peak Hour Factor	0.72	0.72	0.94	0.94	0.96	0.96
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	71	605	49	0	700
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	71	654	0	0	700
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Detector Phase		3	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		27.0	12.0			12.0
Total Split (s)		37.0	73.0			73.0
Total Split (%)		33.6%	66.4%			66.4%
Maximum Green (s)		33.0	69.0			69.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		18				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.20	0.26			0.24
Control Delay		1.3	3.5			1.0
Queue Delay		0.0	0.0			0.0
Total Delay		1.3	3.5			1.0
LOS		A	A			A
Approach Delay	1.3		3.5			1.0
Approach LOS	A		A			A

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 57 (52%), Referenced to phase 1:NESW, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.26			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 44.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	71	654	700
v/c Ratio	0.20	0.26	0.24
Control Delay	1.3	3.5	1.0
Queue Delay	0.0	0.0	0.0
Total Delay	1.3	3.5	1.0
Queue Length 50th (ft)	0	29	11
Queue Length 95th (ft)	0	97	24
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	518	2564	2880
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.14	0.26	0.24

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	51	569	46	0	672
Future Volume (vph)	0	51	569	46	0	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1205	3093			3474
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1205	3093			3474
Peak-hour factor, PHF	0.72	0.72	0.94	0.94	0.96	0.96
Adj. Flow (vph)	0	71	605	49	0	700
RTOR Reduction (vph)	0	63	3	0	0	0
Lane Group Flow (vph)	0	8	651	0	0	700
Confl. Peds. (#/hr)		70		78		
Confl. Bikes (#/hr)				10		
Heavy Vehicles (%)	0%	2%	8%	0%	0%	6%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		3	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		135	2519			2829
v/s Ratio Prot		c0.01	c0.21			0.20
v/s Ratio Perm						
v/c Ratio		0.06	0.26			0.25
Uniform Delay, d1		43.6	2.4			2.4
Progression Factor		1.00	1.00			0.26
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.7	2.6			0.8
Level of Service		D	A			A
Approach Delay (s)	43.7		2.6			0.8
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	3.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	95	85	63	61	242	66	10	156	422	31	76	153
Future Volume (vph)	95	85	63	61	242	66	10	156	422	31	76	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.87		0.87		0.93			0.86	0.97			0.80
Frt			0.850		0.976				0.990			
Flt Protected	0.950				0.992			0.950				0.950
Satd. Flow (prot)	1417	1629	1357	0	1710	0	0	1297	2960	0	0	1435
Flt Permitted	0.354				0.929			0.950				0.950
Satd. Flow (perm)	460	1629	1185	0	1575	0	0	1120	2960	0	0	1152
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		11				7			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Adj. Flow (vph)	104	93	69	68	269	73	11	175	474	35	93	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	93	69	0	410	0	0	186	509	0	0	280
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			

Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	538	347
Future Volume (vph)	538	347
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.67
Frt		0.850
Flt Protected		
Satd. Flow (prot)	2963	1201
Flt Permitted		
Satd. Flow (perm)	2963	809
Right Turn on Red		Yes
Satd. Flow (RTOR)		101
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.82	0.82
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Adj. Flow (vph)	656	423
Shared Lane Traffic (%)		
Lane Group Flow (vph)	656	423
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	46.0	46.0	46.0	46.0	46.0		22.0	22.0	42.0		22.0	22.0
Total Split (%)	41.8%	41.8%	41.8%	41.8%	41.8%		20.0%	20.0%	38.2%		20.0%	20.0%
Maximum Green (s)	41.0	41.0	41.0	41.0	41.0		17.0	17.0	37.0		17.0	17.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Recall Mode	None	None	None	None	None		None	None	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	106	106	106	106	106				111			
Act Effct Green (s)	33.8	33.8	33.8		33.8			19.3	37.0			24.2
Actuated g/C Ratio	0.31	0.31	0.31		0.31			0.18	0.34			0.22
v/c Ratio	0.74	0.19	0.17		0.84			0.82	0.51			0.89
Control Delay	63.6	27.4	6.7		49.6			80.3	28.1			72.7
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	63.6	27.4	6.7		49.6			80.3	28.1			72.7
LOS	E	C	A		D			F	C			E
Approach Delay		36.2			49.6				42.0			
Approach LOS		D			D				D			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 25 (23%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.14			
Intersection Signal Delay: 54.8		Intersection LOS: D	
Intersection Capacity Utilization 92.8%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	42.0	42.0
Total Split (%)	38.2%	38.2%
Maximum Green (s)	37.0	37.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	111	111
Act Effct Green (s)	42.0	42.0
Actuated g/C Ratio	0.38	0.38
v/c Ratio	0.58	1.14
Control Delay	30.8	117.6
Queue Delay	0.0	0.0
Total Delay	30.8	117.6
LOS	C	F
Approach Delay	66.4	
Approach LOS	E	

Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	104	93	69	410	186	509	280	656	423
v/c Ratio	0.74	0.19	0.17	0.84	0.82	0.51	0.89	0.58	1.14
Control Delay	63.6	27.4	6.7	49.6	80.3	28.1	72.7	30.8	117.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	27.4	6.7	49.6	80.3	28.1	72.7	30.8	117.6
Queue Length 50th (ft)	66	48	0	263	115	148	193	202	~319
Queue Length 95th (ft)	#139	81	29	353	#275	175	#364	240	#449
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	171	607	484	593	230	1000	316	1130	371
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.15	0.14	0.69	0.81	0.51	0.89	0.58	1.14

Intersection Summary

~ 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.

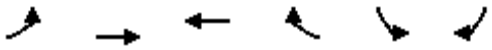
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	95	85	63	61	242	66	10	156	422	31	76	153
Future Volume (vph)	95	85	63	61	242	66	10	156	422	31	76	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.94			1.00	0.97			1.00
Flpb, ped/bikes	0.88	1.00	1.00		0.98			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.98			1.00	0.99			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1245	1629	1184		1681			1297	2959			1435
Flt Permitted	0.35	1.00	1.00		0.93			0.95	1.00			0.95
Satd. Flow (perm)	464	1629	1184		1575			1297	2959			1435
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.90	0.89	0.89	0.89	0.89	0.82	0.82
Adj. Flow (vph)	104	93	69	68	269	73	11	175	474	35	93	187
RTOR Reduction (vph)	0	0	48	0	8	0	0	0	5	0	0	0
Lane Group Flow (vph)	104	93	21	0	402	0	0	186	504	0	0	280
Confl. Peds. (#/hr)	325		98	98		325		278		167		167
Confl. Bikes (#/hr)			3			9				9		
Heavy Vehicles (%)	7%	5%	0%	3%	3%	5%	0%	18%	3%	4%	7%	5%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	33.8	33.8	33.8		33.8			19.3	37.0			24.2
Effective Green, g (s)	33.8	33.8	33.8		33.8			19.3	37.0			24.2
Actuated g/C Ratio	0.31	0.31	0.31		0.31			0.18	0.34			0.22
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	2.0	2.0	2.0		2.0			2.0	2.0			2.0
Lane Grp Cap (vph)	142	500	363		483			227	995			315
v/s Ratio Prot		0.06						0.14	0.17			c0.20
v/s Ratio Perm	0.22		0.02		c0.26							
v/c Ratio	0.73	0.19	0.06		0.83			0.82	0.51			0.89
Uniform Delay, d1	34.1	28.0	26.9		35.5			43.7	29.2			41.6
Progression Factor	1.00	1.00	1.00		1.00			1.22	0.90			1.00
Incremental Delay, d2	15.4	0.1	0.0		11.2			18.9	1.8			24.2
Delay (s)	49.4	28.1	26.9		46.7			72.3	28.1			65.8
Level of Service	D	C	C		D			E	C			E
Approach Delay (s)		36.1			46.7				40.0			
Approach LOS		D			D				D			

Intersection Summary			
HCM 2000 Control Delay	56.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



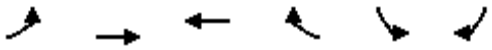
Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	538	347
Future Volume (vph)	538	347
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.67
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	2963	809
Flt Permitted	1.00	1.00
Satd. Flow (perm)	2963	809
Peak-hour factor, PHF	0.82	0.82
Adj. Flow (vph)	656	423
RTOR Reduction (vph)	0	63
Lane Group Flow (vph)	656	360
Confl. Peds. (#/hr)		278
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	6%	13%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	41.9	41.9
Effective Green, g (s)	41.9	41.9
Actuated g/C Ratio	0.38	0.38
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	2.0	2.0
Lane Grp Cap (vph)	1128	308
v/s Ratio Prot	0.22	
v/s Ratio Perm		c0.45
v/c Ratio	0.58	1.17
Uniform Delay, d1	27.1	34.0
Progression Factor	1.00	1.00
Incremental Delay, d2	2.2	105.8
Delay (s)	29.3	139.8
Level of Service	C	F
Approach Delay (s)	71.2	
Approach LOS	E	

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	10	188	0	0	13	0
Future Volume (vph)	10	188	0	0	13	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.997			0.950	
Satd. Flow (prot)	0	1857	0	0	1770	0
Flt Permitted		0.997			0.950	
Satd. Flow (perm)	0	1857	0	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		103	296		95	
Travel Time (s)		2.3	6.7		2.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	204	0	0	14	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	215	0	0	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	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
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

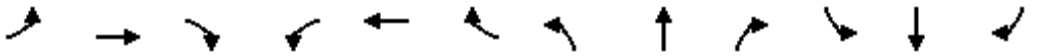
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.4%		ICU Level of Service A	
Analysis Period (min) 15			



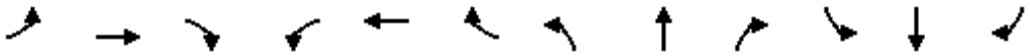
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	188	0	0	13	0
Future Volume (Veh/h)	10	188	0	0	13	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	204	0	0	14	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				226	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				226	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				98	100
cM capacity (veh/h)	1623				757	1085

Direction, Lane #	EB 1	SB 1
Volume Total	215	14
Volume Left	11	14
Volume Right	0	0
cSH	1623	757
Volume to Capacity	0.01	0.02
Queue Length 95th (ft)	1	1
Control Delay (s)	0.4	9.8
Lane LOS	A	A
Approach Delay (s)	0.4	9.8
Approach LOS		A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		



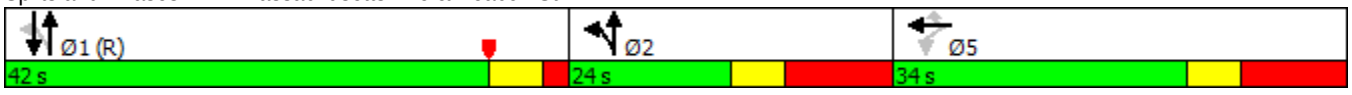
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	300	158	158	818	0	0	731	295
Future Volume (vph)	0	0	0	46	300	158	158	818	0	0	731	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	13	12	10	12	12	10	11
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor					0.98	0.79					0.90	
Frt						0.850					0.957	
Flt Protected					0.993			0.992				
Satd. Flow (prot)	0	0	0	0	2903	1311	0	2888	0	0	2533	0
Flt Permitted					0.993			0.507				
Satd. Flow (perm)	0	0	0	0	2847	1033	0	1476	0	0	2533	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		466			574			307			726	
Travel Time (s)		10.6			13.0			7.0			16.5	
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Peak Hour Factor	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Adj. Flow (vph)	0	0	0	53	345	182	170	880	0	0	778	314
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	398	182	0	1050	0	0	1092	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	1.14	1.14	1.14	1.14	1.28	1.27	1.14	1.25	1.14	1.14	1.25	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				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	
Detector 1 Queue (s)				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	
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												



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Detector Phase				5	5	5	2	1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0	8.0	6.0				8.0	
Minimum Split (s)				33.0	33.0	33.0	23.0				23.0	
Total Split (s)				34.0	34.0	34.0	24.0				42.0	
Total Split (%)				34.0%	34.0%	34.0%	24.0%				42.0%	
Maximum Green (s)				22.0	22.0	22.0	12.0				36.0	
Yellow Time (s)				4.0	4.0	4.0	4.0				4.0	
All-Red Time (s)				8.0	8.0	8.0	8.0				2.0	
Lost Time Adjust (s)					0.0	0.0					0.0	
Total Lost Time (s)					12.0	12.0					6.0	
Lead/Lag							Lag				Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0	2.0	2.0				2.0	
Recall Mode				None	None	None	Max				C-Max	
Walk Time (s)				7.0	7.0	7.0	1.0				7.0	
Flash Dont Walk (s)				14.0	14.0	14.0	10.0				10.0	
Pedestrian Calls (#/hr)				58	58	58	0				174	
Act Effct Green (s)					20.1	20.1		55.9			37.9	
Actuated g/C Ratio					0.20	0.20		0.56			0.38	
v/c Ratio					0.69	0.88		0.97			1.09	
Control Delay					43.7	76.5		38.5			86.4	
Queue Delay					0.0	0.0		0.0			0.0	
Total Delay					43.7	76.5		38.5			86.4	
LOS					D	E		D			F	
Approach Delay					54.0			38.5			86.4	
Approach LOS					D			D			F	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 52 (52%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.09			
Intersection Signal Delay: 61.1		Intersection LOS: E	
Intersection Capacity Utilization 102.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 1: Massachusetts Ave & Beacon St



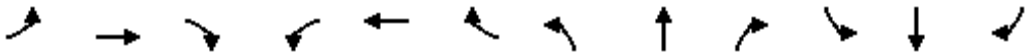


Lane Group	WBT	WBR	NBT	SBT
Lane Group Flow (vph)	398	182	1050	1092
v/c Ratio	0.69	0.88	0.97	1.09
Control Delay	43.7	76.5	38.5	86.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.7	76.5	38.5	86.4
Queue Length 50th (ft)	121	110	183	~417
Queue Length 95th (ft)	166	#214	#467	#549
Internal Link Dist (ft)	494		227	646
Turn Bay Length (ft)				
Base Capacity (vph)	626	227	1078	1001
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	0.64	0.80	0.97	1.09

Intersection Summary

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

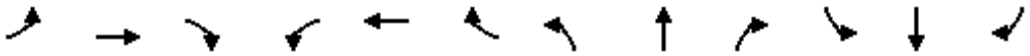
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	300	158	158	818	0	0	731	295
Future Volume (vph)	0	0	0	46	300	158	158	818	0	0	731	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	13	12	10	12	12	10	11
Total Lost time (s)					12.0	12.0		6.0			6.0	
Lane Util. Factor					0.95	1.00		0.95			0.95	
Frpb, ped/bikes					1.00	0.79		1.00			0.90	
Flpb, ped/bikes					0.98	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.96	
Flt Protected					0.99	1.00		0.99			1.00	
Satd. Flow (prot)					2849	1031		2888			2534	
Flt Permitted					0.99	1.00		0.51			1.00	
Satd. Flow (perm)					2849	1031		1475			2534	
Peak-hour factor, PHF	0.92	0.92	0.92	0.87	0.87	0.87	0.93	0.93	0.93	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	53	345	182	170	880	0	0	778	314
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	42	0
Lane Group Flow (vph)	0	0	0	0	398	182	0	1050	0	0	1050	0
Confl. Peds. (#/hr)				100		130	235					235
Confl. Bikes (#/hr)						25						79
Heavy Vehicles (%)	0%	0%	0%	5%	1%	2%	5%	4%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	11	0	0	0
Parking (#/hr)					2	2						
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					5		2	1 2			1	
Permitted Phases				5		5	1					
Actuated Green, G (s)					20.1	20.1		49.9			37.9	
Effective Green, g (s)					20.1	20.1		49.9			37.9	
Actuated g/C Ratio					0.20	0.20		0.50			0.38	
Clearance Time (s)					12.0	12.0					6.0	
Vehicle Extension (s)					2.0	2.0					2.0	
Lane Grp Cap (vph)					572	207		905			960	
v/s Ratio Prot								c0.14			0.41	
v/s Ratio Perm					0.14	c0.18		c0.44				
v/c Ratio					0.70	0.88		1.16			1.09	
Uniform Delay, d1					37.1	38.8		25.1			31.1	
Progression Factor					1.00	1.00		0.76			1.00	
Incremental Delay, d2					3.0	30.9		82.4			58.0	
Delay (s)					40.1	69.7		101.4			89.0	
Level of Service					D	E		F			F	
Approach Delay (s)		0.0			49.4			101.4			89.0	
Approach LOS		A			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	85.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	30.0
Intersection Capacity Utilization	102.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	36	10	0	0	0	0	864	25	81	701	0
Future Volume (vph)	112	36	10	0	0	0	0	864	25	81	701	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	12	12	12	10	10	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.93						0.98			0.99	
Frt		0.991						0.996				
Flt Protected		0.966									0.995	
Satd. Flow (prot)	0	1643	0	0	0	0	0	2841	0	0	2873	0
Flt Permitted		0.966									0.717	
Satd. Flow (perm)	0	1543	0	0	0	0	0	2841	0	0	2048	0
Right Turn on Red			Yes			Yes			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		635			420			299			307	
Travel Time (s)		14.4			9.5			6.8			7.0	
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Adj. Flow (vph)	123	40	11	0	0	0	0	949	27	90	779	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	0	0	0	976	0	0	869	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	1.14	1.13	1.14	1.14	1.14	1.14	1.14	1.25	1.25	1.14	1.28	1.14
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Detector Phase	5	5						1		6	1 6	
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0		6.0		
Minimum Split (s)	26.0	26.0						18.0		12.0		
Total Split (s)	27.0	27.0						61.0		12.0		
Total Split (%)	27.0%	27.0%						61.0%		12.0%		
Maximum Green (s)	22.0	22.0						56.0		7.0		
Yellow Time (s)	3.0	3.0						3.0		3.0		
All-Red Time (s)	2.0	2.0						2.0		2.0		
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		5.0						5.0				
Lead/Lag	Lag	Lag						Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0		2.0		
Recall Mode	None	None						C-Max		Ped		
Walk Time (s)	8.0	8.0						7.0		7.0		
Flash Dont Walk (s)	13.0	13.0						6.0		0.0		
Pedestrian Calls (#/hr)	27	27						180		180		
Act Effct Green (s)		17.1						58.3			67.9	
Actuated g/C Ratio		0.17						0.58			0.68	
v/c Ratio		0.65						0.59			0.59	
Control Delay		49.0						6.1			4.1	
Queue Delay		0.3						0.2			0.1	
Total Delay		49.3						6.3			4.2	
LOS		D						A			A	
Approach Delay		49.3						6.3			4.2	
Approach LOS		D						A			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 62 (62%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 80.3%		ICU Level of Service D	
Analysis Period (min) 15			

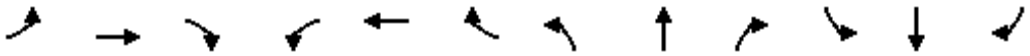
Splits and Phases: 2: Massachusetts Ave & Marlborough St



Lane Group	EBT	NBT	SBT
Lane Group Flow (vph)	174	976	869
v/c Ratio	0.65	0.59	0.59
Control Delay	49.0	6.1	4.1
Queue Delay	0.3	0.2	0.1
Total Delay	49.3	6.3	4.2
Queue Length 50th (ft)	98	40	8
Queue Length 95th (ft)	165	57	m8
Internal Link Dist (ft)	555	219	227
Turn Bay Length (ft)			
Base Capacity (vph)	341	1656	1470
Starvation Cap Reductn	0	17	99
Spillback Cap Reductn	20	154	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.54	0.65	0.63

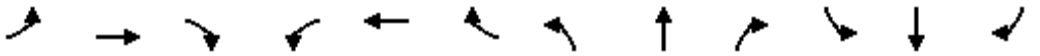
Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	36	10	0	0	0	0	864	25	81	701	0
Future Volume (vph)	112	36	10	0	0	0	0	864	25	81	701	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	10	10	12	11	12
Total Lost time (s)		5.0						5.0			5.0	
Lane Util. Factor		1.00						0.95			0.95	
Frpb, ped/bikes		0.99						0.98			1.00	
Flpb, ped/bikes		0.94						1.00			0.99	
Frt		0.99						1.00			1.00	
Flt Protected		0.97						1.00			0.99	
Satd. Flow (prot)		1543						2841			2850	
Flt Permitted		0.97						1.00			0.72	
Satd. Flow (perm)		1543						2841			2055	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	123	40	11	0	0	0	0	949	27	90	779	0
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	172	0	0	0	0	0	976	0	0	869	0
Confl. Peds. (#/hr)	60		47						475	475		
Confl. Bikes (#/hr)			5						85			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	4%	1%	3%	0%
Parking (#/hr)		2									2	
Turn Type	Perm	NA						NA		D.P+P	NA	
Protected Phases		5						1		6	1 6	
Permitted Phases	5									1		
Actuated Green, G (s)		17.1						58.3			67.9	
Effective Green, g (s)		17.1						58.3			67.9	
Actuated g/C Ratio		0.17						0.58			0.68	
Clearance Time (s)		5.0						5.0				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		263						1656			1471	
v/s Ratio Prot								0.34			c0.06	
v/s Ratio Perm		0.11									c0.34	
v/c Ratio		0.65						0.59			0.59	
Uniform Delay, d1		38.7						13.2			8.6	
Progression Factor		1.00						0.34			0.51	
Incremental Delay, d2		4.4						1.4			0.0	
Delay (s)		43.0						5.9			4.4	
Level of Service		D						A			A	
Approach Delay (s)		43.0			0.0			5.9			4.4	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



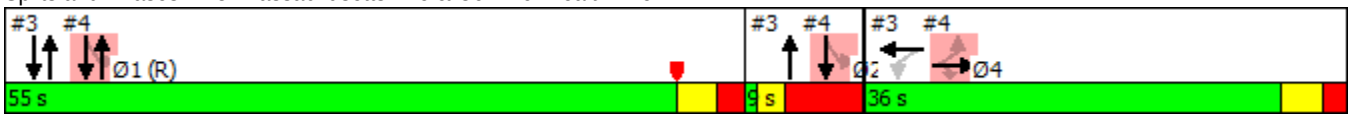
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	56	41	132	0	739	0	0	691	20
Future Volume (vph)	0	0	0	56	41	132	0	739	0	0	691	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor				0.86	0.74						0.98	
Frt					0.886						0.996	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1570	963	0	0	2963	0	0	2826	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1347	963	0	0	2963	0	0	2826	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)					157							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		721			701			149			299	
Travel Time (s)		16.4			15.9			3.4			6.8	
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Adj. Flow (vph)	0	0	0	67	49	157	0	786	0	0	759	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	67	206	0	0	786	0	0	781	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.19	1.38	1.14	1.14	1.19	1.14	1.14	1.28	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2			2			2	
Detector Template				Left	Thru			Thru			Thru	
Leading Detector (ft)				20	100			100			100	
Trailing Detector (ft)				0	0			0			0	
Detector 1 Position(ft)				0	0			0			0	
Detector 1 Size(ft)				20	6			6			6	
Detector 1 Type				Cl+Ex	Cl+Ex			Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0			0.0			0.0	
Detector 1 Queue (s)				0.0	0.0			0.0			0.0	
Detector 1 Delay (s)				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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Detector Phase				4	4			1 2			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0						10.0	
Minimum Split (s)				33.0	33.0						25.0	
Total Split (s)				36.0	36.0						55.0	
Total Split (%)				36.0%	36.0%						55.0%	
Maximum Green (s)				31.0	31.0						50.0	
Yellow Time (s)				3.0	3.0						3.0	
All-Red Time (s)				2.0	2.0						2.0	
Lost Time Adjust (s)				0.0	0.0						0.0	
Total Lost Time (s)				5.0	5.0						5.0	
Lead/Lag											Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				Max	Max						C-Max	
Walk Time (s)				14.0	14.0						14.0	
Flash Dont Walk (s)				14.0	14.0						6.0	
Pedestrian Calls (#/hr)				94	94						181	
Act Effct Green (s)				31.0	31.0			59.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.59			0.50	
v/c Ratio				0.16	0.51			0.45			0.55	
Control Delay				26.4	12.8			6.8			11.0	
Queue Delay				0.0	0.0			0.3			0.6	
Total Delay				26.4	12.8			7.2			11.7	
LOS				C	B			A			B	
Approach Delay					16.2			7.2			11.7	
Approach LOS					B			A			B	

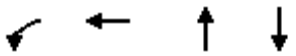
Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Massachusetts Ave & Commonwealth Ave



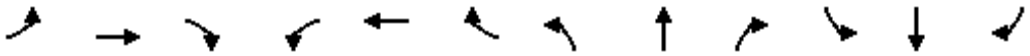
Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary



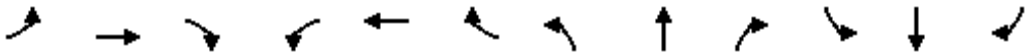
Lane Group	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	67	206	786	781
v/c Ratio	0.16	0.51	0.45	0.55
Control Delay	26.4	12.8	6.8	11.0
Queue Delay	0.0	0.0	0.3	0.6
Total Delay	26.4	12.8	7.2	11.7
Queue Length 50th (ft)	31	23	63	76
Queue Length 95th (ft)	60	75	77	150
Internal Link Dist (ft)		621	69	219
Turn Bay Length (ft)				
Base Capacity (vph)	417	406	1748	1413
Starvation Cap Reductn	0	0	424	297
Spillback Cap Reductn	0	0	0	6
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.51	0.59	0.70

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	56	41	132	0	739	0	0	691	20
Future Volume (vph)	0	0	0	56	41	132	0	739	0	0	691	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	11	11	12	12	11	12	12	11	12
Total Lost time (s)				5.0	5.0			5.0			5.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frpb, ped/bikes				1.00	0.74			1.00			0.98	
Flpb, ped/bikes				0.86	1.00			1.00			1.00	
Frt				1.00	0.89			1.00			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1347	962			2963			2826	
Flt Permitted				0.95	1.00			1.00			1.00	
Satd. Flow (perm)				1347	962			2963			2826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.84	0.84	0.84	0.94	0.94	0.94	0.91	0.91	0.91
Adj. Flow (vph)	0	0	0	67	49	157	0	786	0	0	759	22
RTOR Reduction (vph)	0	0	0	0	108	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	67	98	0	0	786	0	0	781	0
Confl. Peds. (#/hr)				133		442						263
Confl. Bikes (#/hr)						9						87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Parking (#/hr)					2						2	
Turn Type				Perm	NA			NA			NA	
Protected Phases					4			1 2			1	
Permitted Phases				4								
Actuated Green, G (s)				31.0	31.0			56.0			50.0	
Effective Green, g (s)				31.0	31.0			56.0			50.0	
Actuated g/C Ratio				0.31	0.31			0.56			0.50	
Clearance Time (s)				5.0	5.0						5.0	
Vehicle Extension (s)				2.0	2.0						2.0	
Lane Grp Cap (vph)				417	298			1659			1413	
v/s Ratio Prot					c0.10			c0.27			c0.28	
v/s Ratio Perm				0.05								
v/c Ratio				0.16	0.33			0.47			0.55	
Uniform Delay, d1				25.1	26.5			13.2			17.3	
Progression Factor				1.00	1.00			0.53			0.55	
Incremental Delay, d2				0.8	2.9			0.8			1.3	
Delay (s)				25.9	29.4			7.8			10.9	
Level of Service				C	C			A			B	
Approach Delay (s)		0.0			28.5			7.8			10.9	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



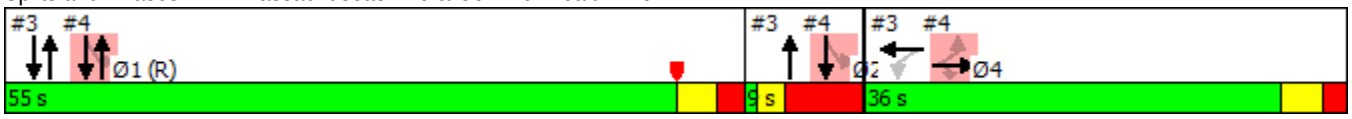
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	66	227	0	0	0	0	595	56	81	665	0
Future Volume (vph)	163	66	227	0	0	0	0	595	56	81	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Ped Bike Factor		0.90	0.73					0.97			0.99	
Frt			0.850					0.987				
Flt Protected		0.966									0.995	
Satd. Flow (prot)	0	1513	1172	0	0	0	0	2760	0	0	3044	0
Flt Permitted		0.966									0.765	
Satd. Flow (perm)	0	1360	860	0	0	0	0	2760	0	0	2310	0
Right Turn on Red			No			Yes			No			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		616			713			303			149	
Travel Time (s)		14.0			16.2			6.9			3.4	
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Adj. Flow (vph)	179	73	249	0	0	0	0	633	60	90	739	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	252	249	0	0	0	0	693	0	0	829	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	1.14	1.19	1.44	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1					2		1	2	
Detector Template	Left	Thru	Right					Thru		Left	Thru	
Leading Detector (ft)	20	100	20					100		20	100	
Trailing Detector (ft)	0	0	0					0		0	0	
Detector 1 Position(ft)	0	0	0					0		0	0	
Detector 1 Size(ft)	20	6	20					6		20	6	
Detector 1 Type	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	
Detector 1 Queue (s)	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	
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	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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)	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Detector Phase	4	4	4					1		1 2	1 2	
Switch Phase												
Minimum Initial (s)	8.0	8.0	8.0					10.0				
Minimum Split (s)	33.0	33.0	33.0					25.0				
Total Split (s)	36.0	36.0	36.0					55.0				
Total Split (%)	36.0%	36.0%	36.0%					55.0%				
Maximum Green (s)	31.0	31.0	31.0					50.0				
Yellow Time (s)	3.0	3.0	3.0					3.0				
All-Red Time (s)	2.0	2.0	2.0					2.0				
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		5.0	5.0					5.0				
Lead/Lag								Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0					2.0				
Recall Mode	Max	Max	Max					C-Max				
Walk Time (s)	14.0	14.0	14.0					14.0				
Flash Dont Walk (s)	14.0	14.0	14.0					6.0				
Pedestrian Calls (#/hr)	94	94	94					181				
Act Effct Green (s)		31.0	31.0					50.0			59.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.59	
v/c Ratio		0.60	0.94					0.50			0.61	
Control Delay		36.3	76.7					19.4			4.5	
Queue Delay		62.1	0.0					0.6			0.3	
Total Delay		98.4	76.7					20.0			4.8	
LOS		F	E					C			A	
Approach Delay		87.6						20.0			4.8	
Approach LOS		F						C			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 60 (60%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 80.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Massachusetts Ave & Commonwealth Ave



Lane Group	Ø2
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	9.0
Total Split (s)	9.0
Total Split (%)	9%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	6.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	Max
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

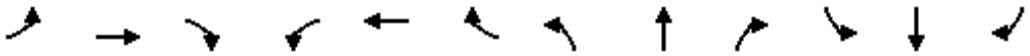
Intersection Summary



Lane Group	EBT	EBR	NBT	SBT
Lane Group Flow (vph)	252	249	693	829
v/c Ratio	0.60	0.94	0.50	0.61
Control Delay	36.3	76.7	19.4	4.5
Queue Delay	62.1	0.0	0.6	0.3
Total Delay	98.4	76.7	20.0	4.8
Queue Length 50th (ft)	135	154	202	24
Queue Length 95th (ft)	221	#309	180	30
Internal Link Dist (ft)	536		223	69
Turn Bay Length (ft)				
Base Capacity (vph)	421	266	1380	1362
Starvation Cap Reductn	0	0	337	129
Spillback Cap Reductn	201	0	41	17
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.15	0.94	0.66	0.67

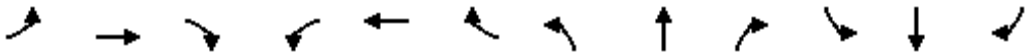
Intersection Summary

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

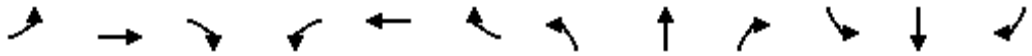


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	66	227	0	0	0	0	595	56	81	665	0
Future Volume (vph)	163	66	227	0	0	0	0	595	56	81	665	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	10	12	12	12	12	10	12	12	11	12
Total Lost time (s)		5.0	5.0					5.0			5.0	
Lane Util. Factor		1.00	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.73					0.97			1.00	
Flpb, ped/bikes		0.90	1.00					1.00			0.99	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.97	1.00					1.00			0.99	
Satd. Flow (prot)		1359	860					2760			3004	
Flt Permitted		0.97	1.00					1.00			0.76	
Satd. Flow (perm)		1359	860					2760			2309	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	179	73	249	0	0	0	0	633	60	90	739	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	252	249	0	0	0	0	693	0	0	829	0
Confl. Peds. (#/hr)	133		242						462	462		
Confl. Bikes (#/hr)									77			
Heavy Vehicles (%)	7%	2%	3%	0%	0%	0%	0%	5%	2%	0%	3%	0%
Parking (#/hr)			2									
Turn Type	Perm	NA	Perm					NA		Perm	NA	
Protected Phases		4						1			1 2	
Permitted Phases	4		4							1 2		
Actuated Green, G (s)		31.0	31.0					50.0			56.0	
Effective Green, g (s)		31.0	31.0					50.0			56.0	
Actuated g/C Ratio		0.31	0.31					0.50			0.56	
Clearance Time (s)		5.0	5.0					5.0				
Vehicle Extension (s)		2.0	2.0					2.0				
Lane Grp Cap (vph)		421	266					1380			1293	
v/s Ratio Prot								0.25				
v/s Ratio Perm		0.19	c0.29								c0.36	
v/c Ratio		0.60	0.94					0.50			0.64	
Uniform Delay, d1		29.2	33.5					16.7			15.1	
Progression Factor		1.00	1.00					1.08			0.20	
Incremental Delay, d2		6.2	40.9					1.1			2.1	
Delay (s)		35.4	74.4					19.1			5.2	
Level of Service		D	E					B			A	
Approach Delay (s)		54.8			0.0			19.1			5.2	
Approach LOS		D			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	585	41	107	125	0	0	0	0
Future Volume (vph)	0	0	0	0	585	41	107	125	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor					1.00			0.90				
Frt					0.990							
Flt Protected								0.977				
Satd. Flow (prot)	0	0	0	0	2920	0	0	3052	0	0	0	0
Flt Permitted								0.977				
Satd. Flow (perm)	0	0	0	0	2920	0	0	2759	0	0	0	0
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					14			119				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		701			444			139			265	
Travel Time (s)		15.9			10.1			3.2			6.0	
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	0	722	51	119	139	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	773	0	0	258	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.19	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors					2		1	2				
Detector Template					Thru		Left	Thru				
Leading Detector (ft)					100		20	100				
Trailing Detector (ft)					0		0	0				
Detector 1 Position(ft)					0		0	0				
Detector 1 Size(ft)					6		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			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				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Detector Phase					1		5	5				
Switch Phase												
Minimum Initial (s)					8.0		8.0	8.0				
Minimum Split (s)					58.0		22.5	22.5				
Total Split (s)					58.0		32.0	32.0				
Total Split (%)					64.4%		35.6%	35.6%				
Maximum Green (s)					53.5		27.5	27.5				
Yellow Time (s)					3.5		3.5	3.5				
All-Red Time (s)					1.0		1.0	1.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					4.5			4.5				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)					2.0		2.0	2.0				
Recall Mode					C-Max		Max	Max				
Walk Time (s)					46.5		7.0	7.0				
Flash Dont Walk (s)					7.0		7.0	7.0				
Pedestrian Calls (#/hr)					63		52	52				
Act Effct Green (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
v/c Ratio					0.44			0.28				
Control Delay					5.4			7.6				
Queue Delay					0.0			0.8				
Total Delay					5.4			8.5				
LOS					A			A				
Approach Delay					5.4			8.5				
Approach LOS					A			A				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 6.2	Intersection LOS: A
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

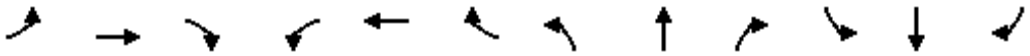
Splits and Phases: 5: Hereford St & Commonwealth Ave





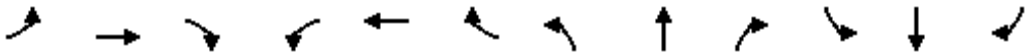
Lane Group	WBT	NBT
Lane Group Flow (vph)	773	258
v/c Ratio	0.44	0.28
Control Delay	5.4	7.6
Queue Delay	0.0	0.8
Total Delay	5.4	8.5
Queue Length 50th (ft)	37	13
Queue Length 95th (ft)	42	26
Internal Link Dist (ft)	364	59
Turn Bay Length (ft)		
Base Capacity (vph)	1741	925
Starvation Cap Reductn	0	414
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.44	0.50

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	585	41	107	125	0	0	0	0
Future Volume (vph)	0	0	0	0	585	41	107	125	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	11	12	12	12	12
Total Lost time (s)					4.5			4.5				
Lane Util. Factor					0.95			0.95				
Frpb, ped/bikes					1.00			1.00				
Flpb, ped/bikes					1.00			0.90				
Frt					0.99			1.00				
Flt Protected					1.00			0.98				
Satd. Flow (prot)					2921			2760				
Flt Permitted					1.00			0.98				
Satd. Flow (perm)					2921			2760				
Peak-hour factor, PHF	0.92	0.92	0.92	0.81	0.81	0.81	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	722	51	119	139	0	0	0	0
RTOR Reduction (vph)	0	0	0	0	6	0	0	83	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	767	0	0	175	0	0	0	0
Confl. Peds. (#/hr)						96	108					
Confl. Bikes (#/hr)						39						
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	0%	0%
Parking (#/hr)					2							
Turn Type					NA		Perm	NA				
Protected Phases					1			5				
Permitted Phases							5					
Actuated Green, G (s)					53.5			27.5				
Effective Green, g (s)					53.5			27.5				
Actuated g/C Ratio					0.59			0.31				
Clearance Time (s)					4.5			4.5				
Vehicle Extension (s)					2.0			2.0				
Lane Grp Cap (vph)					1736			843				
v/s Ratio Prot					c0.26							
v/s Ratio Perm								0.06				
v/c Ratio					0.44			0.21				
Uniform Delay, d1					10.0			23.2				
Progression Factor					0.46			0.55				
Incremental Delay, d2					0.8			0.5				
Delay (s)					5.4			13.2				
Level of Service					A			B				
Approach Delay (s)		0.0			5.4			13.2			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	804	0	0	0	0	0	171	104	0	0	0
Future Volume (vph)	61	804	0	0	0	0	0	171	104	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	11	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		1.00						0.93				
Frt								0.943				
Flt Protected		0.996										
Satd. Flow (prot)	0	2925	0	0	0	0	0	2593	0	0	0	0
Flt Permitted		0.996										
Satd. Flow (perm)	0	2915	0	0	0	0	0	2593	0	0	0	0
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18						111				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		713			444			314			139	
Travel Time (s)		16.2			10.1			7.1			3.2	
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Adj. Flow (vph)	68	893	0	0	0	0	0	182	111	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	961	0	0	0	0	0	293	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2						2				
Detector Template	Left	Thru						Thru				
Leading Detector (ft)	20	100						100				
Trailing Detector (ft)	0	0						0				
Detector 1 Position(ft)	0	0						0				
Detector 1 Size(ft)	20	6						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						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				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Detector Phase	1	1						5				
Switch Phase												
Minimum Initial (s)	8.0	8.0						8.0				
Minimum Split (s)	58.0	58.0						22.5				
Total Split (s)	58.0	58.0						32.0				
Total Split (%)	64.4%	64.4%						35.6%				
Maximum Green (s)	53.5	53.5						27.5				
Yellow Time (s)	3.5	3.5						3.5				
All-Red Time (s)	1.0	1.0						1.0				
Lost Time Adjust (s)		0.0						0.0				
Total Lost Time (s)		4.5						4.5				
Lead/Lag	Lead	Lead						Lag				
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0						2.0				
Recall Mode	C-Max	C-Max						Max				
Walk Time (s)	46.5	46.5						7.0				
Flash Dont Walk (s)	7.0	7.0						7.0				
Pedestrian Calls (#/hr)	63	63						52				
Act Effct Green (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
v/c Ratio		0.55						0.34				
Control Delay		12.3						15.9				
Queue Delay		0.0						0.0				
Total Delay		12.3						15.9				
LOS		B						B				
Approach Delay		12.3						15.9				
Approach LOS		B						B				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 81 (90%), Referenced to phase 1:WBT, Start of Yellow			
Natural Cycle: 85			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 45.8%		ICU Level of Service A	
Analysis Period (min) 15			

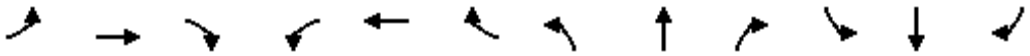
Splits and Phases: 6: Hereford St & Commonwealth Ave





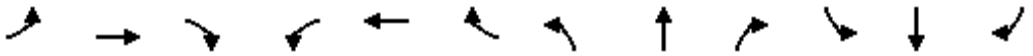
Lane Group	EBT	NBT
Lane Group Flow (vph)	961	293
v/c Ratio	0.55	0.34
Control Delay	12.3	15.9
Queue Delay	0.0	0.0
Total Delay	12.3	15.9
Queue Length 50th (ft)	156	40
Queue Length 95th (ft)	210	74
Internal Link Dist (ft)	633	234
Turn Bay Length (ft)		
Base Capacity (vph)	1740	869
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.55	0.34

Intersection Summary

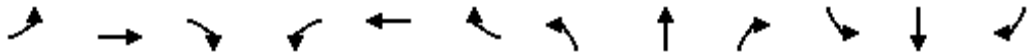


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	804	0	0	0	0	0	171	104	0	0	0
Future Volume (vph)	61	804	0	0	0	0	0	171	104	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	11	12	12	12	12
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.95						0.95				
Frpb, ped/bikes		1.00						0.93				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.94				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		2916						2594				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		2916						2594				
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	68	893	0	0	0	0	0	182	111	0	0	0
RTOR Reduction (vph)	0	7	0	0	0	0	0	77	0	0	0	0
Lane Group Flow (vph)	0	954	0	0	0	0	0	216	0	0	0	0
Confl. Peds. (#/hr)	96								86			
Confl. Bikes (#/hr)									8			
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Parking (#/hr)		2						2				
Turn Type	Perm	NA						NA				
Protected Phases		1						5				
Permitted Phases	1											
Actuated Green, G (s)		53.5						27.5				
Effective Green, g (s)		53.5						27.5				
Actuated g/C Ratio		0.59						0.31				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.0						2.0				
Lane Grp Cap (vph)		1733						792				
v/s Ratio Prot								c0.08				
v/s Ratio Perm		0.33										
v/c Ratio		0.55						0.27				
Uniform Delay, d1		11.0						23.7				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.3						0.8				
Delay (s)		12.3						24.5				
Level of Service		B						C				
Approach Delay (s)		12.3			0.0			24.5			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	102	595	0	0	0	0	0	120	31
Future Volume (vph)	0	0	0	102	595	0	0	0	0	0	120	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor					0.99						0.97	
Frt											0.969	
Flt Protected					0.993							
Satd. Flow (prot)	0	0	0	0	2943	0	0	0	0	0	2819	0
Flt Permitted					0.993							
Satd. Flow (perm)	0	0	0	0	2926	0	0	0	0	0	2819	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)					47						33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			565			157			646	
Travel Time (s)		10.1			12.8			3.6			14.7	
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Adj. Flow (vph)	0	0	0	124	726	0	0	0	0	0	136	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	850	0	0	0	0	0	171	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.23	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2						2	
Detector Template				Left	Thru						Thru	
Leading Detector (ft)				20	100						100	
Trailing Detector (ft)				0	0						0	
Detector 1 Position(ft)				0	0						0	
Detector 1 Size(ft)				20	6						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						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	

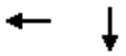


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Detector Phase				1	1						5	
Switch Phase												
Minimum Initial (s)				8.0	8.0						8.0	
Minimum Split (s)				58.5	58.5						18.5	
Total Split (s)				65.0	65.0						25.0	
Total Split (%)				72.2%	72.2%						27.8%	
Maximum Green (s)				60.5	60.5						20.5	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.0	1.0						1.0	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					4.5						4.5	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0						2.0	
Recall Mode				C-Max	C-Max						Max	
Walk Time (s)				46.0	46.0						7.0	
Flash Dont Walk (s)				8.0	8.0						7.0	
Pedestrian Calls (#/hr)				58	58						37	
Act Effct Green (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
v/c Ratio					0.43						0.26	
Control Delay					7.1						24.0	
Queue Delay					0.0						0.0	
Total Delay					7.1						24.0	
LOS					A						C	
Approach Delay					7.1						24.0	
Approach LOS					A						C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 10.0		Intersection LOS: A	
Intersection Capacity Utilization 40.7%		ICU Level of Service A	
Analysis Period (min) 15			

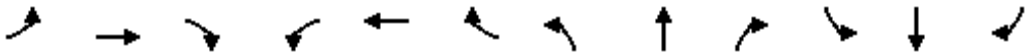
Splits and Phases: 7: Gloucester St & Commonwealth Ave





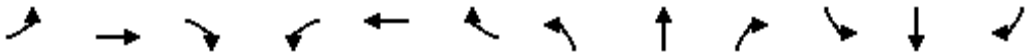
Lane Group	WBT	SBT
Lane Group Flow (vph)	850	171
v/c Ratio	0.43	0.26
Control Delay	7.1	24.0
Queue Delay	0.0	0.0
Total Delay	7.1	24.0
Queue Length 50th (ft)	96	33
Queue Length 95th (ft)	112	60
Internal Link Dist (ft)	485	566
Turn Bay Length (ft)		
Base Capacity (vph)	1982	667
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.43	0.26

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	102	595	0	0	0	0	0	120	31
Future Volume (vph)	0	0	0	102	595	0	0	0	0	0	120	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	12	12	12	12	12	12	12
Total Lost time (s)					4.5						4.5	
Lane Util. Factor					0.95						0.95	
Frpb, ped/bikes					1.00						0.97	
Flpb, ped/bikes					0.99						1.00	
Frt					1.00						0.97	
Flt Protected					0.99						1.00	
Satd. Flow (prot)					2925						2820	
Flt Permitted					0.99						1.00	
Satd. Flow (perm)					2925						2820	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.92	0.92	0.92	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	124	726	0	0	0	0	0	136	35
RTOR Reduction (vph)	0	0	0	0	15	0	0	0	0	0	25	0
Lane Group Flow (vph)	0	0	0	0	835	0	0	0	0	0	146	0
Confl. Peds. (#/hr)				78								74
Confl. Bikes (#/hr)												3
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	2%	3%
Parking (#/hr)					2						2	2
Turn Type				Perm	NA						NA	
Protected Phases					1						5	
Permitted Phases				1								
Actuated Green, G (s)					60.5						20.5	
Effective Green, g (s)					60.5						20.5	
Actuated g/C Ratio					0.67						0.23	
Clearance Time (s)					4.5						4.5	
Vehicle Extension (s)					2.0						2.0	
Lane Grp Cap (vph)					1966						642	
v/s Ratio Prot											c0.05	
v/s Ratio Perm					0.29							
v/c Ratio					0.42						0.23	
Uniform Delay, d1					6.8						28.3	
Progression Factor					1.00						1.00	
Incremental Delay, d2					0.7						0.8	
Delay (s)					7.4						29.1	
Level of Service					A						C	
Approach Delay (s)		0.0			7.4			0.0			29.1	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	745	163	0	0	0	0	0	0	46	176	0
Future Volume (vph)	0	745	163	0	0	0	0	0	0	46	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor		0.98									0.97	
Frt		0.973										
Flt Protected											0.990	
Satd. Flow (prot)	0	2811	0	0	0	0	0	0	0	0	3574	0
Flt Permitted											0.990	
Satd. Flow (perm)	0	2811	0	0	0	0	0	0	0	0	3467	0
Right Turn on Red			No			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)											34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		444			554			588			157	
Travel Time (s)		10.1			12.6			13.4			3.6	
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Adj. Flow (vph)	0	819	179	0	0	0	0	0	0	50	191	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	998	0	0	0	0	0	0	0	0	241	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	1.14	1.28	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	0.97	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2								1	2	
Detector Template		Thru								Left	Thru	
Leading Detector (ft)		100								20	100	
Trailing Detector (ft)		0								0	0	
Detector 1 Position(ft)		0								0	0	
Detector 1 Size(ft)		6								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									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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Detector Phase		1								5	5	
Switch Phase												
Minimum Initial (s)		8.0								8.0	8.0	
Minimum Split (s)		58.5								18.5	18.5	
Total Split (s)		65.0								25.0	25.0	
Total Split (%)		72.2%								27.8%	27.8%	
Maximum Green (s)		60.5								20.5	20.5	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.0								1.0	1.0	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		4.5									4.5	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)		2.0								2.0	2.0	
Recall Mode		C-Max								Max	Max	
Walk Time (s)		46.0								7.0	7.0	
Flash Dont Walk (s)		8.0								7.0	7.0	
Pedestrian Calls (#/hr)		58								37	37	
Act Effct Green (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
v/c Ratio		0.53									0.30	
Control Delay		5.0									20.1	
Queue Delay		0.0									1.3	
Total Delay		5.0									21.5	
LOS		A									C	
Approach Delay		5.0									21.5	
Approach LOS		A									C	

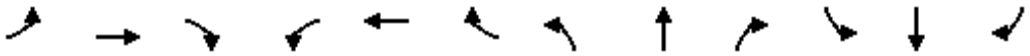
Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80 (89%), Referenced to phase 1:WBTL, Start of Yellow			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: Gloucester St & Commonwealth Ave



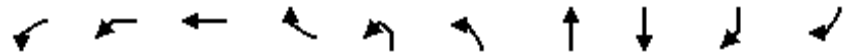
Lane Group	EBT	SBT
Lane Group Flow (vph)	998	241
v/c Ratio	0.53	0.30
Control Delay	5.0	20.1
Queue Delay	0.0	1.3
Total Delay	5.0	21.5
Queue Length 50th (ft)	61	34
Queue Length 95th (ft)	76	54
Internal Link Dist (ft)	364	77
Turn Bay Length (ft)		
Base Capacity (vph)	1889	815
Starvation Cap Reductn	26	385
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.54	0.56

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	745	163	0	0	0	0	0	0	46	176	0
Future Volume (vph)	0	745	163	0	0	0	0	0	0	46	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	12	12	12	12	12	12	16	12
Total Lost time (s)		4.5									4.5	
Lane Util. Factor		0.95									0.95	
Frpb, ped/bikes		0.98									1.00	
Flpb, ped/bikes		1.00									0.97	
Frt		0.97									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		2811									3466	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		2811									3466	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	819	179	0	0	0	0	0	0	50	191	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	26	0
Lane Group Flow (vph)	0	998	0	0	0	0	0	0	0	0	215	0
Confl. Peds. (#/hr)			155							75		
Confl. Bikes (#/hr)			21									
Heavy Vehicles (%)	0%	1%	1%	0%	0%	0%	0%	0%	0%	2%	2%	0%
Parking (#/hr)		2										
Turn Type		NA								Perm	NA	
Protected Phases		1									5	
Permitted Phases										5		
Actuated Green, G (s)		60.5									20.5	
Effective Green, g (s)		60.5									20.5	
Actuated g/C Ratio		0.67									0.23	
Clearance Time (s)		4.5									4.5	
Vehicle Extension (s)		2.0									2.0	
Lane Grp Cap (vph)		1889									789	
v/s Ratio Prot		c0.35										
v/s Ratio Perm											0.06	
v/c Ratio		0.53									0.27	
Uniform Delay, d1		7.5									28.6	
Progression Factor		0.53									0.78	
Incremental Delay, d2		0.9									0.8	
Delay (s)		4.9									23.0	
Level of Service		A									C	
Approach Delay (s)		4.9			0.0			0.0			23.0	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



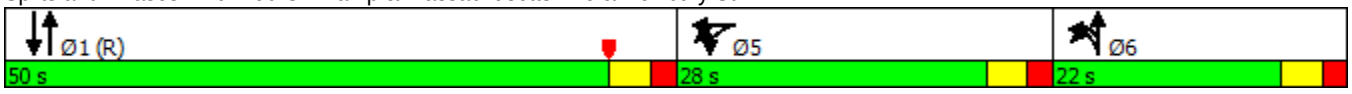
Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	112	107	32	81	260	51	570	658	198	36
Future Volume (vph)	112	107	32	81	260	51	570	658	198	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	11	12	12	10	11	11	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor								0.97		
Frt			0.892					0.961		
Flt Protected		0.950				0.950				
Satd. Flow (prot)	0	1417	1276	0	0	1499	1589	2835	0	0
Flt Permitted		0.950				0.950				
Satd. Flow (perm)	0	1417	1276	0	0	1499	1589	2835	0	0
Right Turn on Red				Yes						Yes
Satd. Flow (RTOR)			89					5		
Link Speed (mph)			30				30	30		
Link Distance (ft)			702				307	303		
Travel Time (s)			16.0				7.0	6.9		
Confl. Bikes (#/hr)									50	50
Peak Hour Factor	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Adj. Flow (vph)	123	118	35	89	280	55	613	678	204	37
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	241	124	0	0	335	613	919	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Left	Left	Right	Right
Median Width(ft)			12				10	10		
Link Offset(ft)			0				0	0		
Crosswalk Width(ft)			16				16	16		
Two way Left Turn Lane										
Headway Factor	1.14	1.32	1.38	1.14	1.14	1.25	1.19	1.19	1.14	1.14
Turning Speed (mph)	15	15		9	15	15			9	9
Number of Detectors	1	1	2		1	1	2	2		
Detector Template	Left	Left	Thru		Left	Left	Thru	Thru		
Leading Detector (ft)	20	20	100		20	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)	20	20	6		20	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		
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	Split	NA		Prot	Prot	NA	NA		



Lane Group	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Detector Phase	5	5	5		6	6	1 6	1		
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		5.0		
Minimum Split (s)	28.0	28.0	28.0		14.0	14.0		49.0		
Total Split (s)	28.0	28.0	28.0		22.0	22.0		50.0		
Total Split (%)	28.0%	28.0%	28.0%		22.0%	22.0%		50.0%		
Maximum Green (s)	23.0	23.0	23.0		17.0	17.0		45.0		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0		3.0		
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0		
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	Lag	Lag	Lag					Lead		
Lead-Lag Optimize?										
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		
Recall Mode	None	None	None		Max	Max		C-Max		
Walk Time (s)	12.0	12.0	12.0					8.0		
Flash Dont Walk (s)	11.0	11.0	11.0					15.0		
Pedestrian Calls (#/hr)	72	72	72					180		
Act Effct Green (s)		21.3	21.3			18.7	68.7	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
v/c Ratio		0.80	0.36			1.20	0.56	0.72		
Control Delay		57.4	14.7			148.2	19.9	17.8		
Queue Delay		2.1	0.0			0.0	5.1	4.8		
Total Delay		59.5	14.7			148.2	25.0	22.5		
LOS		E	B			F	C	C		
Approach Delay			44.3				68.5	22.5		
Approach LOS			D				E	C		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 65 (65%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 45.6		Intersection LOS: D	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: I-90 On-Ramp & Massachusetts Ave & Newbury St





Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	241	124	335	613	919
v/c Ratio	0.80	0.36	1.20	0.56	0.72
Control Delay	57.4	14.7	148.2	19.9	17.8
Queue Delay	2.1	0.0	0.0	5.1	4.8
Total Delay	59.5	14.7	148.2	25.0	22.5
Queue Length 50th (ft)	143	18	~289	239	112
Queue Length 95th (ft)	#256	68	m#387	m347	m141
Internal Link Dist (ft)		622		227	223
Turn Bay Length (ft)					
Base Capacity (vph)	325	362	280	1091	1278
Starvation Cap Reductn	0	0	0	403	228
Spillback Cap Reductn	24	4	0	83	286
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.35	1.20	0.89	0.93

Intersection Summary

~ 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.

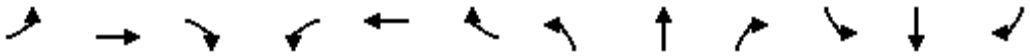
m Volume for 95th percentile queue is metered by upstream signal.



Movement	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	SBT	SBR	SBR2
Lane Configurations										
Traffic Volume (vph)	112	107	32	81	260	51	570	658	198	36
Future Volume (vph)	112	107	32	81	260	51	570	658	198	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	12	12	10	11	11	12	12
Total Lost time (s)		5.0	5.0			5.0	5.0	5.0		
Lane Util. Factor		1.00	1.00			1.00	1.00	0.95		
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.97		
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		
Frt		1.00	0.89			1.00	1.00	0.96		
Flt Protected		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (prot)		1417	1276			1499	1589	2834		
Flt Permitted		0.95	1.00			0.95	1.00	1.00		
Satd. Flow (perm)		1417	1276			1499	1589	2834		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.93	0.93	0.93	0.97	0.97	0.97
Adj. Flow (vph)	123	118	35	89	280	55	613	678	204	37
RTOR Reduction (vph)	0	0	70	0	0	0	0	3	0	0
Lane Group Flow (vph)	0	241	54	0	0	335	613	916	0	0
Confl. Bikes (#/hr)									50	50
Heavy Vehicles (%)	3%	1%	0%	4%	1%	2%	4%	4%	3%	0%
Parking (#/hr)		2	2							
Turn Type	Split	Split	NA		Prot	Prot	NA	NA		
Protected Phases	5	5	5		6	6	1 6	1		
Permitted Phases										
Actuated Green, G (s)		21.3	21.3			18.7	68.7	45.0		
Effective Green, g (s)		21.3	21.3			18.7	68.7	45.0		
Actuated g/C Ratio		0.21	0.21			0.19	0.69	0.45		
Clearance Time (s)		5.0	5.0			5.0		5.0		
Vehicle Extension (s)		3.0	3.0			3.0		3.0		
Lane Grp Cap (vph)		301	271			280	1091	1275		
v/s Ratio Prot		c0.17	0.04			c0.22	0.39	c0.32		
v/s Ratio Perm										
v/c Ratio		0.80	0.20			1.20	0.56	0.72		
Uniform Delay, d1		37.3	32.3			40.6	8.0	22.4		
Progression Factor		1.00	1.00			1.02	2.10	0.67		
Incremental Delay, d2		14.1	0.4			109.0	1.4	2.5		
Delay (s)		51.4	32.7			150.5	18.1	17.6		
Level of Service		D	C			F	B	B		
Approach Delay (s)			45.1				64.9	17.6		
Approach LOS			D				E	B		

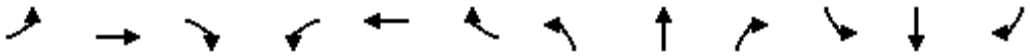
Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	219	81	113	193	0	0	0	0
Future Volume (vph)	0	0	0	0	219	81	113	193	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	12	12	11	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.960							
Flt Protected								0.982				
Satd. Flow (prot)	0	0	0	0	2781	0	0	2915	0	0	0	0
Flt Permitted								0.982				
Satd. Flow (perm)	0	0	0	0	2781	0	0	2915	0	0	0	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		702			270			293			314	
Travel Time (s)		16.0			6.1			6.7			7.1	
Confl. Peds. (#/hr)						348	198					
Confl. Bikes (#/hr)						9						
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	3%	1%	0%	0%	0%	0%	0%	0%
Parking (#/hr)					2	2		2				
Adj. Flow (vph)	0	0	0	0	233	86	124	212	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	319	0	0	336	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	1.14	1.14	1.14	1.14	1.28	1.14	1.14	1.28	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

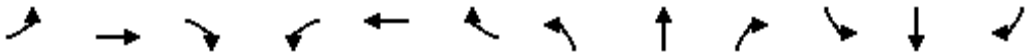
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	0	0	0	219	81	113	193	0	0	0	0
Future Volume (vph)	0	0	0	0	219	81	113	193	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	233	86	124	212	0	0	0	0

Direction, Lane #	WB 1	WB 2	NB 1	NB 2
Volume Total (vph)	155	164	195	141
Volume Left (vph)	0	0	124	0
Volume Right (vph)	0	86	0	0
Hadj (s)	0.05	-0.33	0.32	0.00
Departure Headway (s)	5.4	5.1	5.6	5.3
Degree Utilization, x	0.23	0.23	0.30	0.21
Capacity (veh/h)	630	680	616	650
Control Delay (s)	8.9	8.4	9.9	8.5
Approach Delay (s)	8.6		9.3	
Approach LOS	A		A	

Intersection Summary				
Delay	9.0			
Level of Service	A			
Intersection Capacity Utilization	29.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	498	162	0	109	256	0	621	66	220	514	40
Future Volume (vph)	0	498	162	0	109	256	0	621	66	220	514	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	12	12	11	12	12	11	12	12	11	12
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor		0.90				0.65		0.96		0.86	0.96	
Frt		0.963				0.850		0.986			0.989	
Flt Protected										0.950		
Satd. Flow (prot)	0	2669	0	0	1574	1425	0	2869	0	1562	1493	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	2669	0	0	1574	925	0	2869	0	1343	1493	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		48				81						
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		793			606			316			307	
Travel Time (s)		18.0			13.8			7.2			7.0	
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Adj. Flow (vph)	0	547	178	0	118	278	0	654	69	227	530	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	725	0	0	118	278	0	723	0	227	571	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			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2	1		2		1	2	
Detector Template		Thru			Thru	Right		Thru		Left	Thru	
Leading Detector (ft)		100			100	20		100		20	100	
Trailing Detector (ft)		0			0	0		0		0	0	
Detector 1 Position(ft)		0			0	0		0		0	0	
Detector 1 Size(ft)		6			6	20		6		20	6	
Detector 1 Type		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	
Detector 1 Queue (s)		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	
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			NA	pm+ov		NA		Prot	NA	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Detector Phase		7			7	5		1		5	1 5	
Switch Phase												
Minimum Initial (s)		5.0			5.0	5.0		5.0		5.0		
Minimum Split (s)		30.0			30.0	24.0		30.0		24.0		
Total Split (s)		40.0			40.0	26.0		30.0		26.0		
Total Split (%)		40.0%			40.0%	26.0%		30.0%		26.0%		
Maximum Green (s)		35.0			35.0	20.0		25.0		20.0		
Yellow Time (s)		3.0			3.0	3.0		3.0		3.0		
All-Red Time (s)		2.0			2.0	3.0		2.0		3.0		
Lost Time Adjust (s)		0.0			0.0	0.0		0.0		0.0		
Total Lost Time (s)		5.0			5.0	6.0		5.0		6.0		
Lead/Lag		Lag			Lag	Lag		Lead		Lag		
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Recall Mode		Ped			Ped	Max		C-Max		Max		
Walk Time (s)		9.0			9.0			15.0				
Flash Dont Walk (s)		16.0			16.0			10.0				
Pedestrian Calls (#/hr)		270			270			275				
Act Effct Green (s)		31.5			31.5	50.5		28.5		20.0	54.5	
Actuated g/C Ratio		0.32			0.32	0.50		0.28		0.20	0.54	
v/c Ratio		0.83			0.24	0.46		0.88		0.73	0.70	
Control Delay		38.4			25.7	9.2		49.5		45.6	19.1	
Queue Delay		0.0			0.0	0.6		8.9		0.0	51.3	
Total Delay		38.4			25.7	9.7		58.4		45.6	70.4	
LOS		D			C	A		E		D	E	
Approach Delay		38.4			14.5			58.4			63.4	
Approach LOS		D			B			E			E	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 73 (73%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 47.8		Intersection LOS: D	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 11: Massachusetts Ave & Boylston St



Lane Group	Ø4
Protected Phases	4
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)	2.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	2.0
Flash Dont Walk (s)	0.0
Pedestrian Calls (#/hr)	270
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

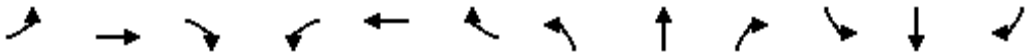


Lane Group	EBT	WBT	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	725	118	278	723	227	571
v/c Ratio	0.83	0.24	0.46	0.88	0.73	0.70
Control Delay	38.4	25.7	9.2	49.5	45.6	19.1
Queue Delay	0.0	0.0	0.6	8.9	0.0	51.3
Total Delay	38.4	25.7	9.7	58.4	45.6	70.4
Queue Length 50th (ft)	205	54	51	236	146	336
Queue Length 95th (ft)	271	96	87	#372	m#209	463
Internal Link Dist (ft)	713	526		236		227
Turn Bay Length (ft)						
Base Capacity (vph)	965	550	606	818	312	814
Starvation Cap Reductn	0	0	0	78	0	293
Spillback Cap Reductn	0	0	105	18	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.21	0.55	0.98	0.73	1.10

Intersection Summary

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.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	498	162	0	109	256	0	621	66	220	514	40
Future Volume (vph)	0	498	162	0	109	256	0	621	66	220	514	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	11	12	12	11	12	12	11	12	12	11	12
Total Lost time (s)		5.0			5.0	6.0		5.0		6.0	5.0	
Lane Util. Factor		0.95			1.00	1.00		0.95		1.00	1.00	
Frpb, ped/bikes		0.90			1.00	0.79		0.96		1.00	0.96	
Flpb, ped/bikes		1.00			1.00	1.00		1.00		1.00	1.00	
Frt		0.96			1.00	0.85		0.99		1.00	0.99	
Flt Protected		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)		2670			1574	1119		2869		1562	1493	
Flt Permitted		1.00			1.00	1.00		1.00		0.95	1.00	
Satd. Flow (perm)		2670			1574	1119		2869		1562	1493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.95	0.95	0.95	0.97	0.97	0.97
Adj. Flow (vph)	0	547	178	0	118	278	0	654	69	227	530	41
RTOR Reduction (vph)	0	33	0	0	0	39	0	0	0	0	0	0
Lane Group Flow (vph)	0	692	0	0	118	239	0	723	0	227	571	0
Confl. Peds. (#/hr)			639			440			597	597		501
Confl. Bikes (#/hr)						1			40			42
Heavy Vehicles (%)	14%	2%	3%	0%	5%	2%	0%	4%	2%	4%	5%	0%
Turn Type		NA			NA	pm+ov		NA		Prot	NA	
Protected Phases		7			7	5		1		5	1 5	
Permitted Phases						7						
Actuated Green, G (s)		31.5			31.5	51.5		28.5		20.0	53.5	
Effective Green, g (s)		31.5			31.5	51.5		28.5		20.0	53.5	
Actuated g/C Ratio		0.32			0.32	0.52		0.28		0.20	0.54	
Clearance Time (s)		5.0			5.0	6.0		5.0		6.0		
Vehicle Extension (s)		3.0			3.0	3.0		3.0		3.0		
Lane Grp Cap (vph)		841			495	576		817		312	798	
v/s Ratio Prot		c0.26			0.07	0.08		c0.25		0.15	c0.38	
v/s Ratio Perm						0.13						
v/c Ratio		0.82			0.24	0.41		0.88		0.73	0.72	
Uniform Delay, d1		31.7			25.4	15.0		34.2		37.4	17.5	
Progression Factor		1.00			1.00	1.00		1.00		0.93	0.84	
Incremental Delay, d2		6.5			0.3	0.5		13.5		9.6	3.7	
Delay (s)		38.2			25.6	15.4		47.6		44.5	18.5	
Level of Service		D			C	B		D		D	B	
Approach Delay (s)		38.2			18.5			47.6			25.9	
Approach LOS		D			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	34.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Lane Configurations							
Traffic Volume (vph)	501	92	0	0	343	413	
Future Volume (vph)	501	92	0	0	343	413	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	10	
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	
Ped Bike Factor	0.99						
Frt	0.977					0.850	
Flt Protected					0.950		
Satd. Flow (prot)	2873	0	0	0	1510	1245	
Flt Permitted					0.950		
Satd. Flow (perm)	2873	0	0	0	1510	1245	
Right Turn on Red		No				No	
Satd. Flow (RTOR)							
Link Speed (mph)	30			30	30		
Link Distance (ft)	606			100	419		
Travel Time (s)	13.8			2.3	9.5		
Confl. Bikes (#/hr)		10					
Peak Hour Factor	0.97	0.97	0.92	0.92	0.94	0.94	
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%	
Parking (#/hr)	2						
Adj. Flow (vph)	516	95	0	0	365	439	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	611	0	0	0	365	439	
Enter Blocked Intersection	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	0			0	11		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	1.23	1.14	1.14	1.14	1.19	1.25	
Turning Speed (mph)		9	15		15	9	
Number of Detectors	2				1	1	
Detector Template	Thru				Left	Right	
Leading Detector (ft)	100				20	20	
Trailing Detector (ft)	0				0	0	
Detector 1 Position(ft)	0				0	0	
Detector 1 Size(ft)	6				20	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	NA				Prot	Prot	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø2
Protected Phases	1				5	5	2
Permitted Phases							
Detector Phase	1				5	5	
Switch Phase							
Minimum Initial (s)	8.0				8.0	8.0	1.0
Minimum Split (s)	17.5				14.0	14.0	26.0
Total Split (s)	32.0				32.0	32.0	26.0
Total Split (%)	35.6%				35.6%	35.6%	29%
Maximum Green (s)	22.5				26.0	26.0	22.0
Yellow Time (s)	3.5				3.5	3.5	4.0
All-Red Time (s)	6.0				2.5	2.5	0.0
Lost Time Adjust (s)	0.0				0.0	0.0	
Total Lost Time (s)	9.5				6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0				2.0	2.0	0.2
Recall Mode	C-Max				Max	Max	None
Walk Time (s)							7.0
Flash Dont Walk (s)							15.0
Pedestrian Calls (#/hr)							362
Act Effct Green (s)	22.5				26.0	26.0	
Actuated g/C Ratio	0.25				0.29	0.29	
v/c Ratio	0.85				0.84	1.22	
Control Delay	45.2				48.8	153.7	
Queue Delay	0.0				0.0	0.0	
Total Delay	45.2				48.8	153.7	
LOS	D				D	F	
Approach Delay	45.2				106.1		
Approach LOS	D				F		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 45 (50%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.22			
Intersection Signal Delay: 79.8		Intersection LOS: E	
Intersection Capacity Utilization 60.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: Dalton St & Boylston St





Lane Group	EBT	NBL	NBR
Lane Group Flow (vph)	611	365	439
v/c Ratio	0.85	0.84	1.22
Control Delay	45.2	48.8	153.7
Queue Delay	0.0	0.0	0.0
Total Delay	45.2	48.8	153.7
Queue Length 50th (ft)	174	194	~310
Queue Length 95th (ft)	#265	#346	#491
Internal Link Dist (ft)	526	339	
Turn Bay Length (ft)			
Base Capacity (vph)	718	436	359
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.85	0.84	1.22

Intersection Summary

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

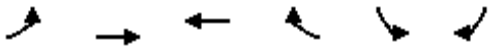
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	501	92	0	0	343	413
Future Volume (vph)	501	92	0	0	343	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	10
Total Lost time (s)	9.5				6.0	6.0
Lane Util. Factor	0.95				1.00	1.00
Frpb, ped/bikes	0.99				1.00	1.00
Flpb, ped/bikes	1.00				1.00	1.00
Frt	0.98				1.00	0.85
Flt Protected	1.00				0.95	1.00
Satd. Flow (prot)	2872				1510	1245
Flt Permitted	1.00				0.95	1.00
Satd. Flow (perm)	2872				1510	1245
Peak-hour factor, PHF	0.97	0.97	0.92	0.92	0.94	0.94
Adj. Flow (vph)	516	95	0	0	365	439
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	611	0	0	0	365	439
Confl. Bikes (#/hr)		10				
Heavy Vehicles (%)	4%	3%	2%	2%	4%	9%
Parking (#/hr)	2					
Turn Type	NA				Prot	Prot
Protected Phases	1				5	5
Permitted Phases						
Actuated Green, G (s)	22.5				26.0	26.0
Effective Green, g (s)	22.5				26.0	26.0
Actuated g/C Ratio	0.25				0.29	0.29
Clearance Time (s)	9.5				6.0	6.0
Vehicle Extension (s)	2.0				2.0	2.0
Lane Grp Cap (vph)	718				436	359
v/s Ratio Prot	c0.21				0.24	c0.35
v/s Ratio Perm						
v/c Ratio	0.85				0.84	1.22
Uniform Delay, d1	32.2				30.0	32.0
Progression Factor	1.00				1.00	1.00
Incremental Delay, d2	12.1				17.2	122.8
Delay (s)	44.3				47.2	154.8
Level of Service	D				D	F
Approach Delay (s)	44.3			0.0	105.9	
Approach LOS	D			A	F	

Intersection Summary			
HCM 2000 Control Delay	79.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

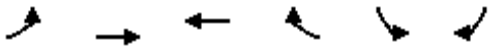
c Critical Lane Group



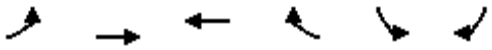
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	306	608	0	0	0	0
Future Volume (vph)	306	608	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.984				
Satd. Flow (prot)	0	3104	0	0	0	0
Flt Permitted		0.984				
Satd. Flow (perm)	0	3104	0	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		100	439		293	
Travel Time (s)		2.3	10.0		6.7	
Peak Hour Factor	0.97	0.97	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	4%	0%	0%	0%	0%
Adj. Flow (vph)	315	627	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	942	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Stop		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection Sign configuration not allowed in HCM analysis.



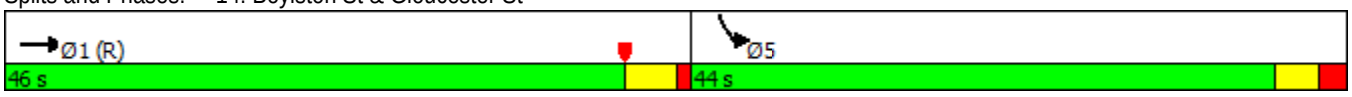
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	608	0	0	379	0
Future Volume (vph)	0	608	0	0	379	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	4243	0	0	2920	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	4243	0	0	2920	0
Right Turn on Red				Yes	Yes	Yes
Satd. Flow (RTOR)					308	
Link Speed (mph)		30	30		30	
Link Distance (ft)		439	563		588	
Travel Time (s)		10.0	12.8		13.4	
Peak Hour Factor	0.90	0.90	0.92	0.92	0.87	0.87
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Adj. Flow (vph)	0	676	0	0	436	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	676	0	0	436	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		24	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.20	1.14	1.14	1.23	1.14
Turning Speed (mph)	15			9	15	9
Number of Detectors		2			1	
Detector Template		Thru			Left	
Leading Detector (ft)		100			20	
Trailing Detector (ft)		0			0	
Detector 1 Position(ft)		0			0	
Detector 1 Size(ft)		6			20	
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		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Detector Phase		1			5	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Switch Phase						
Minimum Initial (s)		8.0			8.0	
Minimum Split (s)		46.0			28.0	
Total Split (s)		46.0			44.0	
Total Split (%)		51.1%			48.9%	
Maximum Green (s)		41.5			39.0	
Yellow Time (s)		3.5			3.0	
All-Red Time (s)		1.0			2.0	
Lost Time Adjust (s)		0.0			0.0	
Total Lost Time (s)		4.5			5.0	
Lead/Lag		Lead			Lag	
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0			2.0	
Recall Mode		C-Max			Max	
Walk Time (s)		30.5			12.0	
Flash Dont Walk (s)		11.0			11.0	
Pedestrian Calls (#/hr)		162			113	
Act Effct Green (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
v/c Ratio		0.35			0.30	
Control Delay		19.4			9.8	
Queue Delay		0.0			0.0	
Total Delay		19.4			9.8	
LOS		B			A	
Approach Delay		19.4			9.8	
Approach LOS		B			A	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 38 (42%), Referenced to phase 1:EBT, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay: 15.7		Intersection LOS: B	
Intersection Capacity Utilization 33.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 14: Boylston St & Gloucester St

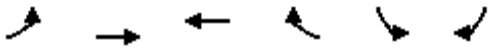




Lane Group	EBT	SBL
Lane Group Flow (vph)	676	436
v/c Ratio	0.35	0.30
Control Delay	19.4	9.8
Queue Delay	0.0	0.0
Total Delay	19.4	9.8
Queue Length 50th (ft)	70	4
Queue Length 95th (ft)	m75	64
Internal Link Dist (ft)	359	508
Turn Bay Length (ft)		
Base Capacity (vph)	1956	1439
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.35	0.30

Intersection Summary

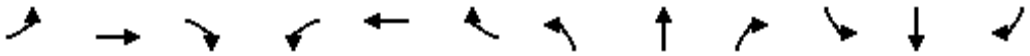
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	608	0	0	379	0
Future Volume (vph)	0	608	0	0	379	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			5.0	
Lane Util. Factor		0.91			0.97	
Frt		1.00			1.00	
Flt Protected		1.00			0.95	
Satd. Flow (prot)		4243			2920	
Flt Permitted		1.00			0.95	
Satd. Flow (perm)		4243			2920	
Peak-hour factor, PHF	0.90	0.90	0.92	0.92	0.87	0.87
Adj. Flow (vph)	0	676	0	0	436	0
RTOR Reduction (vph)	0	0	0	0	175	0
Lane Group Flow (vph)	0	676	0	0	261	0
Heavy Vehicles (%)	0%	6%	0%	0%	2%	0%
Parking (#/hr)	2	2			2	2
Turn Type		NA			Prot	
Protected Phases		1			5	
Permitted Phases						
Actuated Green, G (s)		41.5			39.0	
Effective Green, g (s)		41.5			39.0	
Actuated g/C Ratio		0.46			0.43	
Clearance Time (s)		4.5			5.0	
Vehicle Extension (s)		2.0			2.0	
Lane Grp Cap (vph)		1956			1265	
v/s Ratio Prot		c0.16			c0.09	
v/s Ratio Perm						
v/c Ratio		0.35			0.21	
Uniform Delay, d1		15.5			15.9	
Progression Factor		1.23			1.90	
Incremental Delay, d2		0.2			0.4	
Delay (s)		19.2			30.4	
Level of Service		B			C	
Approach Delay (s)		19.2	0.0		30.4	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.28		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



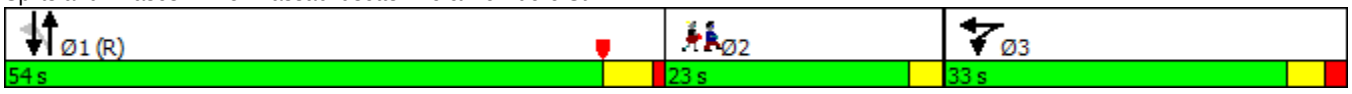
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	45	36	72	41	607	0	0	659	31
Future Volume (vph)	0	0	0	45	36	72	41	607	0	0	659	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	12	12	10	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Ped Bike Factor											1.00	
Frt					0.937						0.993	
Flt Protected					0.985			0.997				
Satd. Flow (prot)	0	0	0	0	1583	0	0	2885	0	0	3023	0
Flt Permitted					0.985			0.850				
Satd. Flow (perm)	0	0	0	0	1583	0	0	2459	0	0	3023	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)											6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		337			713			1231			316	
Travel Time (s)		7.7			16.2			28.0			7.2	
Confl. Bikes (#/hr)									56			50
Peak Hour Factor	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Adj. Flow (vph)	0	0	0	58	46	92	44	653	0	0	766	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	196	0	0	697	0	0	802	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	1.14	1.14	1.14	1.14	1.13	1.14	1.14	1.25	1.14	1.14	1.19	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	2		1	2			2	
Detector Template				Left	Thru		Left	Thru			Thru	
Leading Detector (ft)				20	100		20	100			100	
Trailing Detector (ft)				0	0		0	0			0	
Detector 1 Position(ft)				0	0		0	0			0	
Detector 1 Size(ft)				20	6		20	6			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				Split	NA		Perm	NA			NA	

Lane Group	Ø2
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Ped Bike 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)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Parking (#/hr)	
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases				3	3			1			1	
Permitted Phases							1					
Detector Phase				3	3		1	1			1	
Switch Phase												
Minimum Initial (s)				8.0	8.0		8.0	8.0			8.0	
Minimum Split (s)				23.0	23.0		46.0	46.0			46.0	
Total Split (s)				33.0	33.0		54.0	54.0			54.0	
Total Split (%)				30.0%	30.0%		49.1%	49.1%			49.1%	
Maximum Green (s)				28.0	28.0		49.0	49.0			49.0	
Yellow Time (s)				3.0	3.0		4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0		1.0	1.0			1.0	
Lost Time Adjust (s)					0.0			0.0			0.0	
Total Lost Time (s)					5.0			5.0			5.0	
Lead/Lag							Lead	Lead			Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0	2.0			2.0	
Recall Mode				None	None		C-Max	C-Max			C-Max	
Walk Time (s)							8.0	8.0			8.0	
Flash Dont Walk (s)							11.0	11.0			11.0	
Pedestrian Calls (#/hr)							325	325			325	
Act Effct Green (s)					18.0			60.0			60.0	
Actuated g/C Ratio					0.16			0.55			0.55	
v/c Ratio					0.76			0.52			0.49	
Control Delay					60.8			18.6			17.4	
Queue Delay					0.0			0.0			2.9	
Total Delay					60.8			18.6			20.3	
LOS					E			B			C	
Approach Delay					60.8			18.6			20.3	
Approach LOS					E			B			C	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 28 (25%), Referenced to phase 1:NBSB, Start of Yellow			
Natural Cycle: 95			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 24.3		Intersection LOS: C	
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 15: Massachusetts Ave & Belvidere St



Lane Group	Ø2
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	22.0
Total Split (s)	23.0
Total Split (%)	21%
Maximum Green (s)	20.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	8.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	476
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

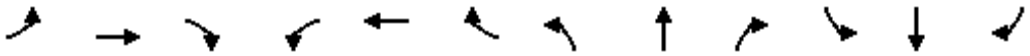
Intersection Summary



Lane Group	WBT	NBT	SBT
Lane Group Flow (vph)	196	697	802
v/c Ratio	0.76	0.52	0.49
Control Delay	60.8	18.6	17.4
Queue Delay	0.0	0.0	2.9
Total Delay	60.8	18.6	20.3
Queue Length 50th (ft)	135	156	174
Queue Length 95th (ft)	m164	242	244
Internal Link Dist (ft)	633	1151	236
Turn Bay Length (ft)			
Base Capacity (vph)	402	1341	1652
Starvation Cap Reductn	0	0	712
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.49	0.52	0.85

Intersection Summary

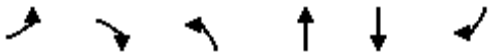
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	45	36	72	41	607	0	0	659	31
Future Volume (vph)	0	0	0	45	36	72	41	607	0	0	659	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	16	12	12	10	12	12	11	12
Total Lost time (s)					5.0			5.0			5.0	
Lane Util. Factor					1.00			0.95			0.95	
Frpb, ped/bikes					1.00			1.00			1.00	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1583			2884			3025	
Flt Permitted					0.99			0.85			1.00	
Satd. Flow (perm)					1583			2459			3025	
Peak-hour factor, PHF	0.92	0.92	0.92	0.78	0.78	0.78	0.93	0.93	0.93	0.86	0.86	0.86
Adj. Flow (vph)	0	0	0	58	46	92	44	653	0	0	766	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	0	196	0	0	697	0	0	799	0
Confl. Bikes (#/hr)									56			50
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	2%	5%	0%	0%	3%	0%
Parking (#/hr)					2							
Turn Type				Split	NA		Perm	NA			NA	
Protected Phases				3	3			1			1	
Permitted Phases							1					
Actuated Green, G (s)					18.0			60.0			60.0	
Effective Green, g (s)					18.0			60.0			60.0	
Actuated g/C Ratio					0.16			0.55			0.55	
Clearance Time (s)					5.0			5.0			5.0	
Vehicle Extension (s)					2.0			2.0			2.0	
Lane Grp Cap (vph)					259			1341			1650	
v/s Ratio Prot					c0.12						0.26	
v/s Ratio Perm								c0.28				
v/c Ratio					0.76			0.52			0.48	
Uniform Delay, d1					43.9			15.9			15.4	
Progression Factor					1.01			1.00			1.00	
Incremental Delay, d2					9.7			1.4			1.0	
Delay (s)					54.2			17.3			16.5	
Level of Service					D			B			B	
Approach Delay (s)		0.0			54.2			17.3			16.5	
Approach LOS		A			D			B			B	

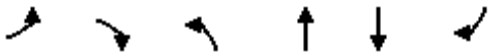
Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	38	165	0	519	102	0
Future Volume (vph)	38	165	0	519	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	16	16	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.890					
Flt Protected	0.991					
Satd. Flow (prot)	1485	0	0	1636	1863	0
Flt Permitted	0.991					
Satd. Flow (perm)	1485	0	0	1636	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	286			247	419	
Travel Time (s)	6.5			5.6	9.5	
Confl. Peds. (#/hr)		153				
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Heavy Vehicles (%)	0%	3%	0%	6%	4%	2%
Parking (#/hr)	2			1		
Adj. Flow (vph)	51	220	0	535	159	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	271	0	0	535	159	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	16			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.13	1.14	1.14	1.12	0.97	1.14
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

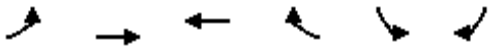
Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	165	0	519	102	0
Future Volume (Veh/h)	38	165	0	519	102	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.97	0.97	0.64	0.64
Hourly flow rate (vph)	51	220	0	535	159	0
Pedestrians				153		
Lane Width (ft)				16.0		
Walking Speed (ft/s)				3.5		
Percent Blockage				19		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					419	
pX, platoon unblocked						
vC, conflicting volume	694	312	159			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	694	312	159			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	62	100			
cM capacity (veh/h)	412	585	1433			

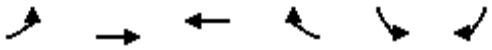
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	271	535	159
Volume Left	51	0	0
Volume Right	220	0	0
cSH	542	1700	1700
Volume to Capacity	0.50	0.31	0.09
Queue Length 95th (ft)	69	0	0
Control Delay (s)	18.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	18.1	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	114	524	284	34
Future Volume (vph)	0	0	114	524	284	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	13	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt				0.850	0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	0	1693	1371	1638	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	0	1693	1371	1638	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		713	855		247	
Travel Time (s)		16.2	19.4		5.6	
Confl. Peds. (#/hr)				185	97	25
Confl. Bikes (#/hr)				4		
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Heavy Vehicles (%)	2%	2%	1%	6%	2%	0%
Adj. Flow (vph)	0	0	119	546	309	37
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	119	546	346	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		13	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.10	1.14
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	CBD		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	114	524	284	34
Future Volume (Veh/h)	0	0	114	524	284	34
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Hourly flow rate (vph)	0	0	119	546	309	37
Pedestrians		25	97		185	
Lane Width (ft)		0.0	12.0		13.0	
Walking Speed (ft/s)		3.5	3.5		3.5	
Percent Blockage		0	9		19	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		713	855			
pX, platoon unblocked						
vC, conflicting volume	850				401	329
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	850				401	329
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				30	94
cM capacity (veh/h)	638				444	580

Direction, Lane #	WB 1	WB 2	SB 1
Volume Total	119	546	346
Volume Left	0	0	309
Volume Right	0	546	37
cSH	1700	1700	456
Volume to Capacity	0.07	0.32	0.76
Queue Length 95th (ft)	0	0	161
Control Delay (s)	0.0	0.0	33.8
Lane LOS			D
Approach Delay (s)	0.0		33.8
Approach LOS			D

Intersection Summary			
Average Delay		11.6	
Intersection Capacity Utilization		47.0%	ICU Level of Service A
Analysis Period (min)		15	

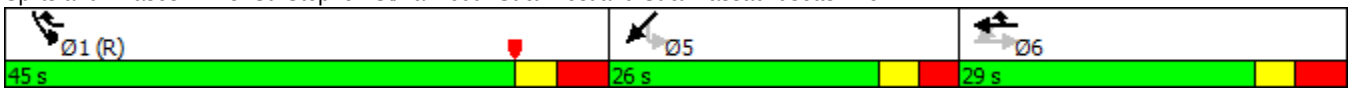


Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	366	10	10	300	594	10	617	36	51	0	20	25
Future Volume (vph)	366	10	10	300	594	10	617	36	51	0	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	10	10	12	10	12	12	16	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.88	1.00	0.97	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.98						0.89			0.50		
Frt	0.996				0.850		0.981			0.865		
Flt Protected				0.998			0.958					
Satd. Flow (prot)	3235	0	0	1563	2276	0	2495	0	0	845	0	0
Flt Permitted				0.977			0.958					
Satd. Flow (perm)	3235	0	0	1530	2276	0	2495	0	0	845	0	0
Right Turn on Red		No				Yes			No			Yes
Satd. Flow (RTOR)					33					120		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	883			293			1231			255		
Travel Time (s)	20.1			6.7			28.0			5.8		
Confl. Peds. (#/hr)		734				250		734	621		621	180
Confl. Bikes (#/hr)		7				41		34	34		1	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Adj. Flow (vph)	398	11	11	326	646	11	636	37	53	0	28	35
Shared Lane Traffic (%)												
Lane Group Flow (vph)	409	0	0	337	657	0	726	0	0	63	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Right	Right	Left	Right	Right	Left	Right	Right
Median Width(ft)	0			0			20			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.10	1.14	1.14	1.25	1.25	1.14	1.25	1.14	1.14	0.97	1.14	1.14
Turning Speed (mph)		9	15		9	9	15	9	9		9	9
Number of Detectors	2		1	2	1		1			2		
Detector Template	Thru		Left	Thru	Right		Left			Thru		
Leading Detector (ft)	100		20	100	20		20			100		
Trailing Detector (ft)	0		0	0	0		0			0		
Detector 1 Position(ft)	0		0	0	0		0			0		
Detector 1 Size(ft)	6		20	6	20		20			6		
Detector 1 Type	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		
Detector 1 Queue (s)	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		
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	NA	pt+ov		Prot			NA		

Lane Group	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Protected Phases				6	1 6		1			5		
Permitted Phases	6		6									
Detector Phase	6		6	6	1 6		1			5		
Switch Phase												
Minimum Initial (s)	6.0		6.0	6.0			10.0			10.0		
Minimum Split (s)	23.0		23.0	23.0			27.0			25.0		
Total Split (s)	29.0		29.0	29.0			45.0			26.0		
Total Split (%)	29.0%		29.0%	29.0%			45.0%			26.0%		
Maximum Green (s)	22.0		22.0	22.0			38.0			20.0		
Yellow Time (s)	3.0		3.0	3.0			3.0			3.0		
All-Red Time (s)	4.0		4.0	4.0			4.0			3.0		
Lost Time Adjust (s)	0.0			0.0			0.0			0.0		
Total Lost Time (s)	7.0			7.0			7.0			6.0		
Lead/Lag	Lag		Lag	Lag						Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0		2.0	2.0			0.2			2.0		
Recall Mode	None		None	None			C-Max			None		
Walk Time (s)	7.0		7.0	7.0			7.0			7.0		
Flash Dont Walk (s)	9.0		9.0	9.0			13.0			12.0		
Pedestrian Calls (#/hr)	246		246	246			246			76		
Act Effct Green (s)	24.0			24.0	74.4		42.0			17.2		
Actuated g/C Ratio	0.24			0.24	0.74		0.42			0.17		
v/c Ratio	0.53			0.92	0.39		0.69			0.26		
Control Delay	36.3			75.6	0.9		29.6			3.0		
Queue Delay	0.5			47.3	0.2		13.5			0.0		
Total Delay	36.8			122.9	1.1		43.2			3.0		
LOS	D			F	A		D			A		
Approach Delay	36.8			42.4			43.2			3.0		
Approach LOS	D			D			D			A		

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 11 (11%), Referenced to phase 1:SBL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 40.5		Intersection LOS: D	
Intersection Capacity Utilization 83.0%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 18: St. Stephen St/Falmouth St & Westland St & Massachusetts Ave





Lane Group	EBT	WBT	WBR	SBL	SWT
Lane Group Flow (vph)	409	337	657	726	63
v/c Ratio	0.53	0.92	0.39	0.69	0.26
Control Delay	36.3	75.6	0.9	29.6	3.0
Queue Delay	0.5	47.3	0.2	13.5	0.0
Total Delay	36.8	122.9	1.1	43.2	3.0
Queue Length 50th (ft)	121	231	5	205	0
Queue Length 95th (ft)	171	#402	7	278	0
Internal Link Dist (ft)	803	213		1151	175
Turn Bay Length (ft)					
Base Capacity (vph)	777	367	1702	1047	265
Starvation Cap Reductn	0	62	372	0	0
Spillback Cap Reductn	107	0	0	309	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.61	1.10	0.49	0.98	0.24

Intersection Summary

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



Movement	EBT	EBR	WBL	WBT	WBR	WBR2	SBL	SBR	SBR2	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	366	10	10	300	594	10	617	36	51	0	20	25
Future Volume (vph)	366	10	10	300	594	10	617	36	51	0	20	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	13	12	12	10	10	12	10	12	12	16	12	12
Total Lost time (s)	7.0			7.0	7.0		7.0			6.0		
Lane Util. Factor	0.95			1.00	0.88		0.97			1.00		
Frpb, ped/bikes	0.98			1.00	1.00		0.89			0.50		
Flpb, ped/bikes	1.00			1.00	1.00		1.00			1.00		
Frt	1.00			1.00	0.85		0.98			0.86		
Flt Protected	1.00			1.00	1.00		0.96			1.00		
Satd. Flow (prot)	3235			1563	2276		2496			844		
Flt Permitted	1.00			0.98	1.00		0.96			1.00		
Satd. Flow (perm)	3235			1530	2276		2496			844		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.71	0.71	0.71
Adj. Flow (vph)	398	11	11	326	646	11	636	37	53	0	28	35
RTOR Reduction (vph)	0	0	0	0	9	0	0	0	0	53	0	0
Lane Group Flow (vph)	409	0	0	337	648	0	726	0	0	10	0	0
Confl. Peds. (#/hr)		734				250		734	621		621	180
Confl. Bikes (#/hr)		7				41		34	34		1	4
Heavy Vehicles (%)	1%	0%	0%	2%	5%	0%	4%	0%	0%	0%	0%	0%
Turn Type	NA		Perm	NA	pt+ov		Prot			NA		
Protected Phases				6	1 6		1			5		
Permitted Phases	6		6									
Actuated Green, G (s)	24.0			24.0	71.8		40.8			15.2		
Effective Green, g (s)	24.0			24.0	71.8		40.8			15.2		
Actuated g/C Ratio	0.24			0.24	0.72		0.41			0.15		
Clearance Time (s)	7.0			7.0			7.0			6.0		
Vehicle Extension (s)	2.0			2.0			0.2			2.0		
Lane Grp Cap (vph)	776			367	1634		1018			128		
v/s Ratio Prot					0.28		c0.29			c0.01		
v/s Ratio Perm	0.13			c0.22								
v/c Ratio	0.53			0.92	0.40		0.71			0.07		
Uniform Delay, d1	33.1			37.0	5.6		24.7			36.4		
Progression Factor	1.00			1.30	0.07		1.00			1.00		
Incremental Delay, d2	0.3			23.3	0.0		4.3			0.1		
Delay (s)	33.4			71.4	0.4		29.0			36.5		
Level of Service	C			E	A		C			D		
Approach Delay (s)	33.4			24.5			29.0			36.5		
Approach LOS	C			C			C			D		

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

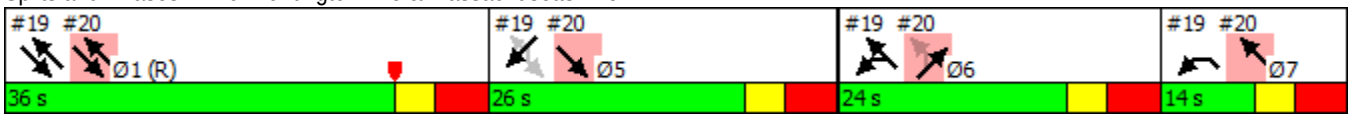
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	889	105	36	836	0	0	0	0	163	46	78
Future Volume (vph)	0	889	105	36	836	0	0	0	0	163	46	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	12	12	10	12	12	12	12	12	11	11
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.91										0.67
Frt		0.984										0.850
Flt Protected				0.950							0.963	
Satd. Flow (prot)	0	2629	0	1593	2888	0	0	0	0	0	1529	1326
Flt Permitted				0.950							0.963	
Satd. Flow (perm)	0	2629	0	1593	2888	0	0	0	0	0	1529	886
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13										196
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		293			61			356			335	
Travel Time (s)		6.7			1.4			8.1			7.6	
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Adj. Flow (vph)	0	926	109	37	862	0	0	0	0	187	53	90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1035	0	37	862	0	0	0	0	0	240	90
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	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14	1.14	1.19	1.19
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		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
Detector 1 Queue (s)		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
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		Prot	NA					Perm	NA	Perm

Lane Group	Ø6	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Ped Bike 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)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
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		

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Detector Phase		1		6 7	1 6					5	5	5
Switch Phase												
Minimum Initial (s)		10.0								6.0	6.0	6.0
Minimum Split (s)		21.0								25.0	25.0	25.0
Total Split (s)		36.0								26.0	26.0	26.0
Total Split (%)		36.0%								26.0%	26.0%	26.0%
Maximum Green (s)		29.0								19.0	19.0	19.0
Yellow Time (s)		3.0								3.0	3.0	3.0
All-Red Time (s)		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		Lead								Lag	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)		0.2								2.0	2.0	2.0
Recall Mode		C-Max								None	None	None
Walk Time (s)		7.0								7.0	7.0	7.0
Flash Dont Walk (s)		7.0								11.0	11.0	11.0
Pedestrian Calls (#/hr)		175								76	76	76
Act Effct Green (s)		30.1		30.4	46.5						18.5	18.5
Actuated g/C Ratio		0.30		0.30	0.46						0.18	0.18
v/c Ratio		1.30		0.08	0.64						0.85	0.28
Control Delay		165.6		42.8	16.1						66.6	2.1
Queue Delay		0.3		0.0	0.5						0.0	0.6
Total Delay		165.9		42.8	16.7						66.6	2.7
LOS		F		D	B						E	A
Approach Delay		165.9			17.8						49.1	
Approach LOS		F			B						D	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.30			
Intersection Signal Delay: 90.0		Intersection LOS: F	
Intersection Capacity Utilization 101.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 19: Huntington Ave & Massachusetts Ave



Lane Group	Ø6	Ø7
Protected Phases	6	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	6.0	6.0
Minimum Split (s)	23.0	13.0
Total Split (s)	24.0	14.0
Total Split (%)	24%	14%
Maximum Green (s)	17.0	7.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	4.0	4.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	7.0	
Flash Dont Walk (s)	9.0	
Pedestrian Calls (#/hr)	76	
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		

Intersection Summary



Lane Group	SET	NWL	NWT	SWT	SWR
Lane Group Flow (vph)	1035	37	862	240	90
v/c Ratio	1.30	0.08	0.64	0.85	0.28
Control Delay	165.6	42.8	16.1	66.6	2.1
Queue Delay	0.3	0.0	0.5	0.0	0.6
Total Delay	165.9	42.8	16.7	66.6	2.7
Queue Length 50th (ft)	~440	18	256	148	0
Queue Length 95th (ft)	#575	m38	335	#262	0
Internal Link Dist (ft)	213		1	255	
Turn Bay Length (ft)					
Base Capacity (vph)	799	471	1359	290	327
Starvation Cap Reductn	37	0	0	0	0
Spillback Cap Reductn	29	0	180	0	78
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.36	0.08	0.73	0.83	0.36

Intersection Summary

~ 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.

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	889	105	36	836	0	0	0	0	163	46	78
Future Volume (vph)	0	889	105	36	836	0	0	0	0	163	46	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	10	12	12	10	12	12	12	12	12	11	11
Total Lost time (s)		7.0		7.0	7.0						7.0	7.0
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.91		1.00	1.00						1.00	0.67
Flpb, ped/bikes		1.00		1.00	1.00						1.00	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		2630		1593	2888						1528	886
Flt Permitted		1.00		0.95	1.00						0.96	1.00
Satd. Flow (perm)		2630		1593	2888						1528	886
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.92	0.92	0.92	0.87	0.87	0.87
Adj. Flow (vph)	0	926	109	37	862	0	0	0	0	187	53	90
RTOR Reduction (vph)	0	9	0	0	0	0	0	0	0	0	0	73
Lane Group Flow (vph)	0	1026	0	37	862	0	0	0	0	0	240	17
Confl. Peds. (#/hr)			664									254
Confl. Bikes (#/hr)			5									3
Heavy Vehicles (%)	0%	3%	3%	2%	5%	0%	0%	0%	0%	3%	8%	6%
Turn Type		NA		Prot	NA					Perm	NA	Perm
Protected Phases		1		6 7	1 6						5	
Permitted Phases										5		5
Actuated Green, G (s)		30.1		30.4	46.5						18.5	18.5
Effective Green, g (s)		30.1		30.4	46.5						18.5	18.5
Actuated g/C Ratio		0.30		0.30	0.46						0.18	0.18
Clearance Time (s)		7.0									7.0	7.0
Vehicle Extension (s)		0.2									2.0	2.0
Lane Grp Cap (vph)		791		484	1342						282	163
v/s Ratio Prot		c0.39		c0.02	c0.30							
v/s Ratio Perm											0.16	0.02
v/c Ratio		1.30		0.08	0.64						0.85	0.10
Uniform Delay, d1		35.0		24.8	20.4						39.4	33.9
Progression Factor		0.71		1.72	1.24						1.00	1.00
Incremental Delay, d2		141.0		0.0	0.7						20.4	0.1
Delay (s)		165.7		42.6	26.0						59.8	34.0
Level of Service		F		D	C						E	C
Approach Delay (s)		165.7			26.6			0.0			52.8	
Approach LOS		F			C			A			D	

Intersection Summary			
HCM 2000 Control Delay	94.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

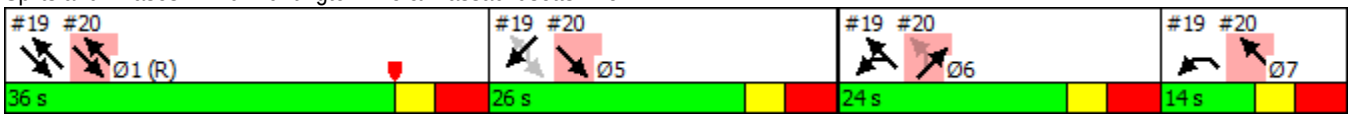
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1053	0	0	813	104	59	36	102	0	0	0
Future Volume (vph)	0	1053	0	0	813	104	59	36	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	12	12
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.95	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor					0.99			0.82				
Frt					0.983			0.922				
Flt Protected								0.985				
Satd. Flow (prot)	0	3154	0	0	4076	0	0	2179	0	0	0	0
Flt Permitted								0.985				
Satd. Flow (perm)	0	3154	0	0	4076	0	0	2179	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					28			117				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		61			460			357			350	
Travel Time (s)		1.4			10.5			8.1			8.0	
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Adj. Flow (vph)	0	1097	0	0	838	107	68	41	117	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1097	0	0	945	0	0	226	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	1.14	1.14	1.14	1.14	1.25	1.14	1.14	1.25	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2			2		1	2				
Detector Template		Thru			Thru		Left	Thru				
Leading Detector (ft)		100			100		20	100				
Trailing Detector (ft)		0			0		0	0				
Detector 1 Position(ft)		0			0		0	0				
Detector 1 Size(ft)		6			6		20	6				
Detector 1 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)		0.0			0.0		0.0	0.0				
Detector 1 Queue (s)		0.0			0.0		0.0	0.0				
Detector 1 Delay (s)		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			NA		Perm	NA				

Lane Group	Ø1	Ø5	Ø7
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Lane Util. Factor			
Ped Bike 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)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
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			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Detector Phase		1 5			1 7		6	6				
Switch Phase												
Minimum Initial (s)							6.0	6.0				
Minimum Split (s)							23.0	23.0				
Total Split (s)							24.0	24.0				
Total Split (%)							24.0%	24.0%				
Maximum Green (s)							17.0	17.0				
Yellow Time (s)							3.0	3.0				
All-Red Time (s)							4.0	4.0				
Lost Time Adjust (s)								0.0				
Total Lost Time (s)								7.0				
Lead/Lag							Lead	Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)							2.0	2.0				
Recall Mode							None	None				
Walk Time (s)							7.0	7.0				
Flash Dont Walk (s)							9.0	9.0				
Pedestrian Calls (#/hr)							76	76				
Act Effct Green (s)		55.6			44.1			16.4				
Actuated g/C Ratio		0.56			0.44			0.16				
v/c Ratio		0.63			0.52			0.50				
Control Delay		1.4			21.2			22.1				
Queue Delay		0.0			0.4			0.1				
Total Delay		1.4			21.6			22.3				
LOS		A			C			C				
Approach Delay		1.4			21.6			22.3				
Approach LOS		A			C			C				

Intersection Summary			
Area Type:	CBD		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 4 (4%), Referenced to phase 1:NWSE, Start of Yellow			
Natural Cycle: 105			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.30			
Intersection Signal Delay: 11.9		Intersection LOS: B	
Intersection Capacity Utilization 101.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 20: Huntington Ave & Massachusetts Ave



Lane Group	Ø1	Ø5	Ø7
Protected Phases	1	5	7
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	6.0	6.0
Minimum Split (s)	21.0	25.0	13.0
Total Split (s)	36.0	26.0	14.0
Total Split (%)	36%	26%	14%
Maximum Green (s)	29.0	19.0	7.0
Yellow Time (s)	3.0	3.0	3.0
All-Red Time (s)	4.0	4.0	4.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	Lag
Lead-Lag Optimize?			
Vehicle Extension (s)	0.2	2.0	2.0
Recall Mode	C-Max	None	None
Walk Time (s)	7.0	7.0	
Flash Dont Walk (s)	7.0	11.0	
Pedestrian Calls (#/hr)	175	76	
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			

Intersection Summary

Lane Group	SET	NWT	NET
Lane Group Flow (vph)	1097	945	226
v/c Ratio	0.63	0.52	0.50
Control Delay	1.4	21.2	22.1
Queue Delay	0.0	0.4	0.1
Total Delay	1.4	21.6	22.3
Queue Length 50th (ft)	3	154	32
Queue Length 95th (ft)	m6	195	65
Internal Link Dist (ft)	1	380	277
Turn Bay Length (ft)			
Base Capacity (vph)	1768	1812	467
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	367	17
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.62	0.65	0.50

Intersection Summary

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

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	1053	0	0	813	104	59	36	102	0	0	0
Future Volume (vph)	0	1053	0	0	813	104	59	36	102	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	10	12	12	10	12	12	12	12
Total Lost time (s)		7.0			7.0			7.0				
Lane Util. Factor		0.95			0.91			0.95				
Frpb, ped/bikes		1.00			0.99			0.82				
Flpb, ped/bikes		1.00			1.00			1.00				
Frt		1.00			0.98			0.92				
Flt Protected		1.00			1.00			0.99				
Satd. Flow (prot)		3154			4076			2180				
Flt Permitted		1.00			1.00			0.99				
Satd. Flow (perm)		3154			4076			2180				
Peak-hour factor, PHF	0.96	0.96	0.96	0.97	0.97	0.97	0.87	0.87	0.87	0.92	0.92	0.92
Adj. Flow (vph)	0	1097	0	0	838	107	68	41	117	0	0	0
RTOR Reduction (vph)	0	0	0	0	16	0	0	98	0	0	0	0
Lane Group Flow (vph)	0	1097	0	0	929	0	0	128	0	0	0	0
Confl. Peds. (#/hr)						37			255			
Confl. Bikes (#/hr)						22			3			
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	2%	10%	3%	0%	0%	0%
Turn Type		NA			NA		Perm	NA				
Protected Phases		1 5			1 7			6				
Permitted Phases							6					
Actuated Green, G (s)		55.6			44.1			16.4				
Effective Green, g (s)		55.6			44.1			16.4				
Actuated g/C Ratio		0.56			0.44			0.16				
Clearance Time (s)								7.0				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1753			1797			357				
v/s Ratio Prot		c0.35			c0.23							
v/s Ratio Perm								0.06				
v/c Ratio		0.63			0.52			0.36				
Uniform Delay, d1		15.1			20.2			37.1				
Progression Factor		0.08			1.00			1.00				
Incremental Delay, d2		0.0			0.1			0.2				
Delay (s)		1.3			20.3			37.4				
Level of Service		A			C			D				
Approach Delay (s)		1.3			20.3			37.4			0.0	
Approach LOS		A			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	28.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	61	471	46	0	801
Future Volume (vph)	0	61	471	46	0	801
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	15	12	12	16
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor			0.99			
Frt		0.865	0.987			
Flt Protected						
Satd. Flow (prot)	0	1229	3169	0	0	3575
Flt Permitted						
Satd. Flow (perm)	0	1229	3169	0	0	3575
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		163	17			
Link Speed (mph)	30		30			30
Link Distance (ft)	720		381			537
Travel Time (s)	16.4		8.7			12.2
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Peak Hour Factor	0.70	0.70	0.89	0.89	0.87	0.87
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Adj. Flow (vph)	0	87	529	52	0	921
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	87	581	0	0	921
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	0		10			10
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.14	1.44	1.09	1.14	1.14	0.97
Turning Speed (mph)	15	9		9	15	
Number of Detectors		1	2			2
Detector Template		Right	Thru			Thru
Leading Detector (ft)		20	100			100
Trailing Detector (ft)		0	0			0
Detector 1 Position(ft)		0	0			0
Detector 1 Size(ft)		20	6			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			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



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Detector Phase		2	1			1
Switch Phase						
Minimum Initial (s)		8.0	8.0			8.0
Minimum Split (s)		30.0	22.5			22.5
Total Split (s)		39.0	71.0			71.0
Total Split (%)		35.5%	64.5%			64.5%
Maximum Green (s)		35.0	67.0			67.0
Yellow Time (s)		3.0	3.0			3.0
All-Red Time (s)		1.0	1.0			1.0
Lost Time Adjust (s)		0.0	0.0			0.0
Total Lost Time (s)		4.0	4.0			4.0
Lead/Lag		Lag	Lead			Lead
Lead-Lag Optimize?						
Vehicle Extension (s)		2.0	2.0			2.0
Recall Mode		None	C-Max			C-Max
Walk Time (s)		15.0				
Flash Dont Walk (s)		8.0				
Pedestrian Calls (#/hr)		21				
Act Effct Green (s)		14.0	91.2			91.2
Actuated g/C Ratio		0.13	0.83			0.83
v/c Ratio		0.29	0.22			0.31
Control Delay		2.5	3.4			1.5
Queue Delay		0.0	0.0			0.1
Total Delay		2.5	3.4			1.5
LOS		A	A			A
Approach Delay	2.5		3.4			1.5
Approach LOS	A		A			A

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 67 (61%), Referenced to phase 1:NESW, Start of Yellow			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.31			
Intersection Signal Delay: 2.2		Intersection LOS: A	
Intersection Capacity Utilization 30.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Huntington Ave & Cumberland St





Lane Group	NWR	NET	SWT
Lane Group Flow (vph)	87	581	921
v/c Ratio	0.29	0.22	0.31
Control Delay	2.5	3.4	1.5
Queue Delay	0.0	0.0	0.1
Total Delay	2.5	3.4	1.5
Queue Length 50th (ft)	0	25	15
Queue Length 95th (ft)	0	82	48
Internal Link Dist (ft)		301	457
Turn Bay Length (ft)			
Base Capacity (vph)	502	2630	2964
Starvation Cap Reductn	0	0	584
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.22	0.39

Intersection Summary



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	61	471	46	0	801
Future Volume (vph)	0	61	471	46	0	801
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	10	15	12	12	16
Total Lost time (s)		4.0	4.0			4.0
Lane Util. Factor		1.00	0.95			0.95
Frpb, ped/bikes		1.00	0.99			1.00
Flpb, ped/bikes		1.00	1.00			1.00
Frt		0.86	0.99			1.00
Flt Protected		1.00	1.00			1.00
Satd. Flow (prot)		1229	3178			3575
Flt Permitted		1.00	1.00			1.00
Satd. Flow (perm)		1229	3178			3575
Peak-hour factor, PHF	0.70	0.70	0.89	0.89	0.87	0.87
Adj. Flow (vph)	0	87	529	52	0	921
RTOR Reduction (vph)	0	77	3	0	0	0
Lane Group Flow (vph)	0	10	578	0	0	921
Confl. Peds. (#/hr)				176		
Confl. Bikes (#/hr)		84		7		
Heavy Vehicles (%)	0%	0%	4%	0%	0%	3%
Parking (#/hr)		2	2			
Turn Type		Prot	NA			NA
Protected Phases		2	1			1
Permitted Phases						
Actuated Green, G (s)		12.4	89.6			89.6
Effective Green, g (s)		12.4	89.6			89.6
Actuated g/C Ratio		0.11	0.81			0.81
Clearance Time (s)		4.0	4.0			4.0
Vehicle Extension (s)		2.0	2.0			2.0
Lane Grp Cap (vph)		138	2588			2912
v/s Ratio Prot		c0.01	0.18			c0.26
v/s Ratio Perm						
v/c Ratio		0.07	0.22			0.32
Uniform Delay, d1		43.6	2.3			2.5
Progression Factor		1.00	1.00			0.35
Incremental Delay, d2		0.1	0.2			0.2
Delay (s)		43.7	2.5			1.1
Level of Service		D	A			A
Approach Delay (s)	43.7		2.5			1.1
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	89	152	66	56	192	61	10	158	321	56	81	163
Future Volume (vph)	89	152	66	56	192	61	10	158	321	56	81	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	10	12	16	12	12	10	13	12	12	10
Storage Length (ft)	0		0	0		0		230		0		0
Storage Lanes	1		1	0		0		1		0		1
Taper Length (ft)	25			25				25				25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.95	0.95	0.95	1.00
Ped Bike Factor	0.85		0.87		0.92			0.85	0.92			0.71
Frt			0.850		0.973				0.978			
Flt Protected	0.950				0.991			0.950				0.950
Satd. Flow (prot)	1472	1660	1330	0	1702	0	0	1386	2816	0	0	1496
Flt Permitted	0.368				0.869			0.950				0.950
Satd. Flow (perm)	487	1660	1159	0	1470	0	0	1184	2816	0	0	1063
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			69		12				18			
Link Speed (mph)		30			30				30			
Link Distance (ft)		855			845				537			
Travel Time (s)		19.4			19.2				12.2			
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Peak Hour Factor	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Adj. Flow (vph)	113	192	84	68	234	74	11	166	338	59	88	177
Shared Lane Traffic (%)												
Lane Group Flow (vph)	113	192	84	0	376	0	0	177	397	0	0	265
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		10			10				10			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.25	1.14	1.25	1.14	0.97	1.14	1.14	1.25	1.18	1.14	1.14	1.25
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Number of Detectors	1	2	1	1	2		1	1	2		1	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Left	Thru		Left	Left
Leading Detector (ft)	20	100	20	20	100		20	20	100		20	20
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)	20	6	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		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			
Detector 2 Size(ft)		6			6				6			



Lane Group	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	669	336
Future Volume (vph)	669	336
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	11	10
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Lane Util. Factor	0.95	1.00
Ped Bike Factor		0.60
Frt		0.850
Flt Protected		
Satd. Flow (prot)	3079	1292
Flt Permitted		
Satd. Flow (perm)	3079	770
Right Turn on Red		Yes
Satd. Flow (RTOR)		224
Link Speed (mph)	30	
Link Distance (ft)	772	
Travel Time (s)	17.5	
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Peak Hour Factor	0.92	0.92
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Adj. Flow (vph)	727	365
Shared Lane Traffic (%)		
Lane Group Flow (vph)	727	365
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	10	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.19	1.25
Turning Speed (mph)		9
Number of Detectors	2	1
Detector Template	Thru	Right
Leading Detector (ft)	100	20
Trailing Detector (ft)	0	0
Detector 1 Position(ft)	0	0
Detector 1 Size(ft)	6	20
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	

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
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	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Detector Phase	4	4	4	4	4		5	5	2		1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		6.0	6.0	12.0		6.0	6.0
Minimum Split (s)	33.0	33.0	33.0	33.0	33.0		11.0	11.0	28.0		11.0	11.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0		34.0	34.0	36.0		34.0	34.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	36.4%		30.9%	30.9%	32.7%		30.9%	30.9%
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		29.0	29.0	31.0		29.0	29.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	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			5.0	5.0			5.0
Lead/Lag							Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	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	C-Max		None	None
Walk Time (s)	8.0	8.0	8.0	8.0	8.0				8.0			
Flash Dont Walk (s)	20.0	20.0	20.0	20.0	20.0				15.0			
Pedestrian Calls (#/hr)	136	136	136	136	136				192			
Act Effct Green (s)	31.9	31.9	31.9		31.9			19.3	39.3			23.7
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.18	0.36			0.22
v/c Ratio	0.80	0.40	0.22		0.86			0.73	0.39			0.82
Control Delay	74.6	33.5	10.4		56.0			56.5	25.6			61.2
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0			0.0
Total Delay	74.6	33.5	10.4		56.0			56.5	25.6			61.2
LOS	E	C	B		E			E	C			E
Approach Delay		40.4			56.0				35.1			
Approach LOS		D			E				D			

Intersection Summary			
Area Type:	CBD		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 54 (49%), Referenced to phase 2:NET and 6:SWT, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 39.5		Intersection LOS: D	
Intersection Capacity Utilization 96.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 22: Huntington Ave & W Newton St/Belvidere St





Lane Group	SWT	SWR
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	12.0	12.0
Minimum Split (s)	28.0	28.0
Total Split (s)	36.0	36.0
Total Split (%)	32.7%	32.7%
Maximum Green (s)	31.0	31.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.0	5.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	C-Max	C-Max
Walk Time (s)	8.0	8.0
Flash Dont Walk (s)	15.0	15.0
Pedestrian Calls (#/hr)	192	192
Act Effct Green (s)	43.8	43.8
Actuated g/C Ratio	0.40	0.40
v/c Ratio	0.59	0.83
Control Delay	30.5	30.7
Queue Delay	0.0	0.0
Total Delay	30.5	30.7
LOS	C	C
Approach Delay	36.5	
Approach LOS	D	

Intersection Summary



Lane Group	SEL	SET	SER	NWT	NEL	NET	SWL	SWT	SWR
Lane Group Flow (vph)	113	192	84	376	177	397	265	727	365
v/c Ratio	0.80	0.40	0.22	0.86	0.73	0.39	0.82	0.59	0.83
Control Delay	74.6	33.5	10.4	56.0	56.5	25.6	61.2	30.5	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.6	33.5	10.4	56.0	56.5	25.6	61.2	30.5	30.7
Queue Length 50th (ft)	72	107	8	240	120	107	178	214	97
Queue Length 95th (ft)	#133	144	33	310	128	166	262	320	#320
Internal Link Dist (ft)		775		765		457		692	
Turn Bay Length (ft)					230				
Base Capacity (vph)	154	528	415	475	365	1018	394	1225	441
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.36	0.20	0.79	0.48	0.39	0.67	0.59	0.83

Intersection Summary

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

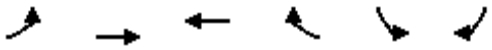
Movement	SEL	SET	SER	NWL	NWT	NWR	NEU	NEL	NET	NER	SWU	SWL
Lane Configurations												
Traffic Volume (vph)	89	152	66	56	192	61	10	158	321	56	81	163
Future Volume (vph)	89	152	66	56	192	61	10	158	321	56	81	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	12	10	12	16	12	12	10	13	12	12	10
Total Lost time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Lane Util. Factor	1.00	1.00	1.00		1.00			1.00	0.95			1.00
Frpb, ped/bikes	1.00	1.00	0.87		0.93			1.00	0.92			1.00
Flpb, ped/bikes	0.86	1.00	1.00		0.99			1.00	1.00			1.00
Frt	1.00	1.00	0.85		0.97			1.00	0.98			1.00
Flt Protected	0.95	1.00	1.00		0.99			0.95	1.00			0.95
Satd. Flow (prot)	1262	1660	1158		1678			1386	2816			1496
Flt Permitted	0.37	1.00	1.00		0.87			0.95	1.00			0.95
Satd. Flow (perm)	489	1660	1158		1470			1386	2816			1496
Peak-hour factor, PHF	0.79	0.79	0.79	0.82	0.82	0.82	0.95	0.95	0.95	0.95	0.92	0.92
Adj. Flow (vph)	113	192	84	68	234	74	11	166	338	59	88	177
RTOR Reduction (vph)	0	0	49	0	9	0	0	0	12	0	0	0
Lane Group Flow (vph)	113	192	35	0	367	0	0	177	385	0	0	265
Confl. Peds. (#/hr)	449		96	96		449		556		214		214
Confl. Bikes (#/hr)			10			6				8		
Heavy Vehicles (%)	3%	3%	2%	2%	2%	3%	0%	10%	2%	0%	0%	2%
Parking (#/hr)									2			
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	Prot
Protected Phases		4			4		5	5	2		1	1
Permitted Phases	4		4	4								
Actuated Green, G (s)	31.9	31.9	31.9		31.9			19.3	39.4			23.7
Effective Green, g (s)	31.9	31.9	31.9		31.9			19.3	39.4			23.7
Actuated g/C Ratio	0.29	0.29	0.29		0.29			0.18	0.36			0.22
Clearance Time (s)	5.0	5.0	5.0		5.0			5.0	5.0			5.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0			3.0	3.0			3.0
Lane Grp Cap (vph)	141	481	335		426			243	1008			322
v/s Ratio Prot		0.12						0.13	0.14			c0.18
v/s Ratio Perm	0.23		0.03		c0.25							
v/c Ratio	0.80	0.40	0.10		0.86			0.73	0.38			0.82
Uniform Delay, d1	36.1	31.4	28.6		37.0			42.9	26.3			41.1
Progression Factor	1.00	1.00	1.00		1.00			0.93	0.90			1.00
Incremental Delay, d2	26.9	0.5	0.1		16.3			10.3	1.1			15.5
Delay (s)	63.0	31.9	28.7		53.3			50.3	24.7			56.6
Level of Service	E	C	C		D			D	C			E
Approach Delay (s)		40.3			53.3				32.6			
Approach LOS		D			D				C			

Intersection Summary			
HCM 2000 Control Delay	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



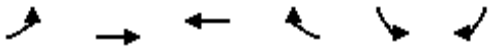
Movement	SWT	SWR
Lane Configurations		
Traffic Volume (vph)	669	336
Future Volume (vph)	669	336
Ideal Flow (vphpl)	1900	1900
Lane Width	11	10
Total Lost time (s)	5.0	5.0
Lane Util. Factor	0.95	1.00
Frpb, ped/bikes	1.00	0.60
Flpb, ped/bikes	1.00	1.00
Frt	1.00	0.85
Flt Protected	1.00	1.00
Satd. Flow (prot)	3079	770
Flt Permitted	1.00	1.00
Satd. Flow (perm)	3079	770
Peak-hour factor, PHF	0.92	0.92
Adj. Flow (vph)	727	365
RTOR Reduction (vph)	0	135
Lane Group Flow (vph)	727	230
Confl. Peds. (#/hr)		556
Confl. Bikes (#/hr)		2
Heavy Vehicles (%)	2%	5%
Parking (#/hr)		
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Actuated Green, G (s)	43.8	43.8
Effective Green, g (s)	43.8	43.8
Actuated g/C Ratio	0.40	0.40
Clearance Time (s)	5.0	5.0
Vehicle Extension (s)	3.0	3.0
Lane Grp Cap (vph)	1226	306
v/s Ratio Prot	0.24	
v/s Ratio Perm		c0.30
v/c Ratio	0.59	0.75
Uniform Delay, d1	26.1	28.4
Progression Factor	1.00	1.00
Incremental Delay, d2	2.1	15.7
Delay (s)	28.2	44.1
Level of Service	C	D
Approach Delay (s)	38.0	
Approach LOS	D	

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	42	173	0	0	35	0
Future Volume (vph)	42	173	0	0	35	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected		0.990			0.950	
Satd. Flow (prot)	0	1844	0	0	1770	0
Flt Permitted		0.990			0.950	
Satd. Flow (perm)	0	1844	0	0	1770	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		107	286		70	
Travel Time (s)		2.4	6.5		1.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	188	0	0	38	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	234	0	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	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
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	173	0	0	35	0
Future Volume (Veh/h)	42	173	0	0	35	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	188	0	0	38	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	0				280	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				280	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				94	100
cM capacity (veh/h)	1623				690	1085

Direction, Lane #	EB 1	SB 1
Volume Total	234	38
Volume Left	46	38
Volume Right	0	0
cSH	1623	690
Volume to Capacity	0.03	0.06
Queue Length 95th (ft)	2	4
Control Delay (s)	1.6	10.5
Lane LOS	A	B
Approach Delay (s)	1.6	10.5
Approach LOS		B

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	21.4%	ICU Level of Service	A
Analysis Period (min)	15		

Loading and Delivery Calculations

1000 Boylston Project
Delivery/Service Vehicle Trip Generation

Program	SF
Total (SF)	439,500
Retail (SF)	46,322
Residential (SF)	394,000
Residential Units	108

Program Deliveries

Shared Loading **25%**

		Loading Dock Deliveries			Other Short-term Deliveries (USPS, FedEx etc.) Could be Curbside			Combined	Shared Loading Totals		
Land Use	**SF**	**Data Source**	**Loading Dock Deliveries per KSF**	**# Deliveries per day**	**Data Source**	**Deliveries per KSF**	**# Deliveries per day**	**Total # Deliveries per day**	**Loading Dock**	**Short Term**	**Total**
Residential	394,000	NCHRP[1]	0.011	4	NCHRP[1]	0.225	89	93	3	66	69
Retail (restaurant)	6,000	NCHRP[2]	0.494	3	NCHRP[2]	0.714	4	7	2	3	5
Retail (shops)	40,322	NCHRP[2]	0.114	5	NCHRP[2]	0.282	11	16	3	9	12
Total	**440,322**		**-**	**12**		**-**	**104**	**116**	**8**	**78**	**86**

[1] NCHRP Synthesis 298 Truck Trip Generation Data for Residential

[2] NCHRP Synthesis 298 Truck Trip Generation Data varies by type of Retail significantly. (assumed Boston MA Retail Storefront and Retail Restaurants)

Appendix E: Supporting Environmental Studies

Pedestrian Wind Study

Daylight Analysis Comparisons

Solar Glare Study

FINAL REPORT

PARCEL 15

BOSTON, MA

PEDESTRIAN WIND COMFORT STUDY

RWDI #1601386

September 7, 2017

SUBMITTED TO

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Appendix A: Drawings List for Model Construction

1 INTRODUCTION

A pedestrian wind study was conducted on the proposed Parcel 15 Development located in Boston, Massachusetts. The objective of the study was to assess the effect of the proposed development on local conditions in pedestrian areas around the study site and provide recommendations for minimizing adverse effects.

The study involved wind simulations on a 1:400 scale model of the proposed building and surroundings. These simulations were conducted in RWDI's boundary-layer wind tunnel at Guelph, Ontario, for the purpose of quantifying local wind speed conditions and comparing to appropriate criteria for gauging wind comfort in pedestrian areas. A list of the drawings used for the construction of the model can be found in Appendix A. The criteria recommended by the Boston Planning and Development Agency (BPDA) were used in this study. The present report describes the methods and presents the results of the wind tunnel simulations.

2 OVERVIEW

Major buildings, especially those that protrude above their surroundings, often cause increased local wind speeds at the pedestrian level. Typically, wind speeds increase with elevation above the ground surface, and taller buildings intercept these faster winds and deflect them down to the pedestrian level. The funneling of wind through gaps between buildings and the acceleration of wind around corners of buildings may also cause increases in wind speed. Conversely, if a building is surrounded by others of equivalent height, it may be protected from the prevailing upper-level winds, resulting in no significant changes to the local pedestrian-level wind environment. The most effective way to assess potential pedestrian-level wind impacts around a proposed new building is to conduct scale model tests in a wind tunnel.

The consideration of wind in planning outdoor activity areas is important since high winds in an area tend to deter pedestrian use. For example, winds should be light or relatively light in areas where people would be sitting, such as outdoor cafes or playgrounds. For bus stops and other locations where people would be standing, somewhat higher winds can be tolerated. For frequently used sidewalks, where people are primarily walking, stronger winds are acceptable. For infrequently used areas, the wind comfort criteria can be relaxed even further. The actual effects of wind can range from pedestrian inconvenience, due to the blowing of dust and other loose material in a moderate breeze, to severe difficulty with walking due to the wind forces on the pedestrian.

3 METHODOLOGY

Information concerning the site and surroundings was derived from: information on surrounding buildings and terrain, site plans and elevations of the proposed development provided by the design team. The following configurations were simulated:

No Build: includes all existing and in construction and Future surrounding buildings; and

Full Build: includes the proposed Parcel 15 development and Future build surrounds in the area.

As shown in Figures 1a and 1b, the wind tunnel model included the proposed development and all relevant surrounding buildings and topography within a 1600 ft radius of the study site. The mean speed profile and turbulence of the natural wind approaching the modelled area were also simulated in RWDI's boundary layer wind tunnel. The scale model was equipped with 90 specially designed wind speed sensors that were connected to the wind tunnel's data acquisition system to record the mean and fluctuating components of wind speed at a full-scale height of 5 feet above grade in pedestrian areas throughout the study site. Wind speeds were measured for 36 wind directions, in 10 degree increments, starting from true north. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the reference wind speed in the free stream above the model. The results were then combined with long-term meteorological data, recorded during the years 1990 to 2015 at Boston's Logan International Airport, in order to predict full scale wind conditions. The analysis was performed separately for each of the four seasons and for the entire year.

Figures 2.1 through 2.3 present "wind roses" summarizing the seasonal and annual wind climates in the Boston area based on data from the Boston Logan International Airport. The first wind rose in Figure 2.1, for example, summarizes the spring (March, April, and May) wind data. In general, the prevailing winds at this time of year are from the, northwest, southwest and easterly directions. In the case of strong winds (speeds greater than 20 mph, red bands), the most common wind directions are northeast and west-northwest.

On an annual basis (the wind rose in Figure 2.3) the most common wind directions are those between south-southwest and northwest. Winds from the east and east-southeast are also relatively common. In the case of strong winds, northeast and west-northwest are the dominant wind directions.

This study involved state-of-the-art measurement and analysis techniques to predict wind conditions at the study site. Nevertheless, some uncertainty remains in predicting wind comfort, and this must be kept in mind. For example, the sensation of comfort among individuals can be quite variable. Variations in age, individual health, clothing, and other human factors can change a particular response of an individual. The comfort limits used in this report represent an average for the total population. Also, unforeseen changes in the project area, such as the construction or removal of buildings, can affect the conditions experienced at the site. Finally, the prediction of wind speeds is necessarily a statistical procedure. The wind speeds

reported are for the frequency of occurrence stated (one percent of the time). Higher wind speeds will occur but on a less frequent basis.

4 PEDESTRIAN WIND COMFORT CRITERIA

The BPDA has adopted two standards for assessing the relative wind comfort of pedestrians. First, the BPDA wind design guidance criterion states that an effective gust velocity (hourly mean wind speed +1.5 times the root-mean-square wind speed) of 31 mph should not be exceeded more than one percent of the time. The second set of criteria used by the BPDA to determine the acceptability of specific locations is based on the work of Melbourne[1]. This set of criteria is used to determine the relative level of pedestrian wind comfort for activities such as sitting, standing, or walking. The criteria are expressed in terms of benchmarks for the 1-hour mean wind speed exceeded 1% of the time (i.e., the 99-percentile mean wind speed). They are as follows:

BPDA Mean Wind Criteria*

Dangerous	> 27 mph
Uncomfortable for Walking	> 19 and ≤ 27 mph
Comfortable for Walking	> 15 and ≤ 19 mph
Comfortable for Standing	> 12 and ≤ 15 mph
Comfortable for Sitting	≤ 12 mph

* Applicable to the hourly mean wind speed exceeded one percent of the time.

The wind climate found in a typical downtown location in Boston is generally comfortable for the pedestrian use of sidewalks and thoroughfares and meets the BPDA effective gust velocity criterion of 31 mph. However, without any mitigation measures, this wind climate is likely to be frequently uncomfortable for more passive activities such as sitting.

5 TEST RESULTS

Figures 3a through 4b graphically depict the wind conditions at each wind measurement location based on the annual winds. Table 1 presents the mean and effective gust wind speeds for each season as well as annually. Typically, the summer and fall winds tend to be more comfortable than the annual winds, while the winter and spring winds are less comfortable than the annual winds. The following summary of pedestrian

[1] Melbourne, W.H., 1978, "Criteria for Environmental Wind Conditions", Journal of Industrial Aerodynamics, 3 (1978) 241 - 249.

wind comfort is based on the annual winds for each configuration tested, except where noted below in the text.

Wind conditions comfortable for walking or strolling are appropriate for sidewalks. Lower wind speeds conducive to sitting are recommended for terraces and podiums, while winds suitable for standing are preferred at main entrances where pedestrians are apt to linger.

5.1 No Build

As shown in Figure 3a, the No Build configuration was tested with the existing site conditions with existing and future surrounds. This figure shows the mean wind speeds are comfortable for standing or better around the majority of the site annually. There are a number of uncomfortable locations at the intersection of Belvidere and Dalton Street (Locations 55, 56 and 58), one at the intersection of St. Cecilia Street and Scotia Street (Location 62), one where St. Germain Street meets Massachusetts Avenue (Location 74) and one to the west along Boylston Street (Location 89).

The effective gust criterion is met seasonally and annually at most locations with the exception of Location 55 in the spring, fall, winter and annually, 56 in the spring and winter, 62 in the winter, 74 in the winter and 89 in the spring and winter (see Figure 4a and Table 1).

5.2 Full Build

With the addition of the proposed and future surrounding developments, conditions around the site are expected to remain unchanged to the north and east of the proposed site, and a decrease in speed is expected to the south and west of the site.

Immediately surrounding the proposed development conditions are expected to be less comfortable than the No Build configuration, with the overall number of uncomfortable locations increasing from six in the No Build configuration to eight in the Build configuration, however, these changes are to be expected in a location where the existing site has no buildings (See Figure 3b).

The proposed development has many positive design features that are contributing to the comfort conditions around the development. These include the podium setback along the west face of the building and the tower having many faces to reduce the amount of downwashing from a single direction.

The effective gust criterion is met seasonally and annually at most locations except for Location 6 in the Winter, Location 22 in the spring, Locations 56 and 64 in the Spring and Winter and Location 55 in the Spring, Fall, Winter and Annually (See Figure 4b and Table 1). The number of annual exceedances compared to the No Build configuration remains at one.

5.3 Adjacent Public Spaces

It can be seen from the results presented in Figures 3a and 3b, as well as Table 1, that there is little change in the wind comfort conditions more than two blocks away from the Parcel 15 Development. Hence, it is anticipated that the Parcel 15 Development will have no wind impact on the Charles River Embankment, the Commonwealth Avenue Mall, the Back Bay Fens, the Esplanade and the Christian Science Center Plaza. A number of these off-site locations are too far, or are located upwind for non-prevailing winds, for the Parcel 15 Development to have any wind impact on their conditions.

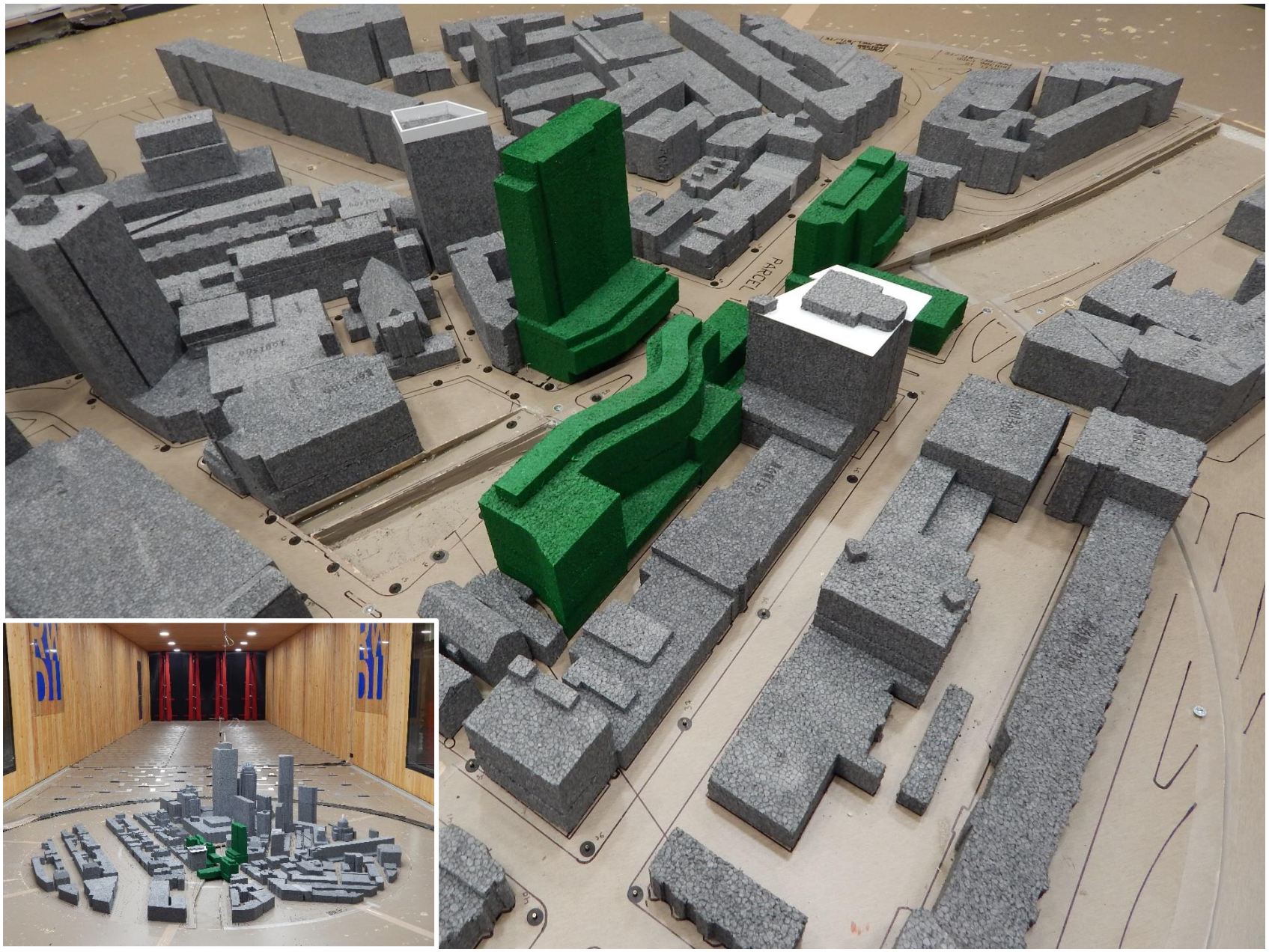
6 CONCLUSIONS

Based on the current Pedestrian Wind Comfort Study, it is expected that the wind comfort conditions throughout and around the Parcel 15 Development will be suitable for the intended usage of the spaces evaluated. Moreover, the Parcel 15 Development creates no new wind safety failures when compared to the No Build Condition.

7 APPLICABILITY OF RESULTS

The results presented in this report pertain to the model of the proposed Parcel 15 development constructed using the architectural design drawings listed in Appendix A. Should there be any design changes that deviate from this list of drawings, the results presented may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

FIGURES



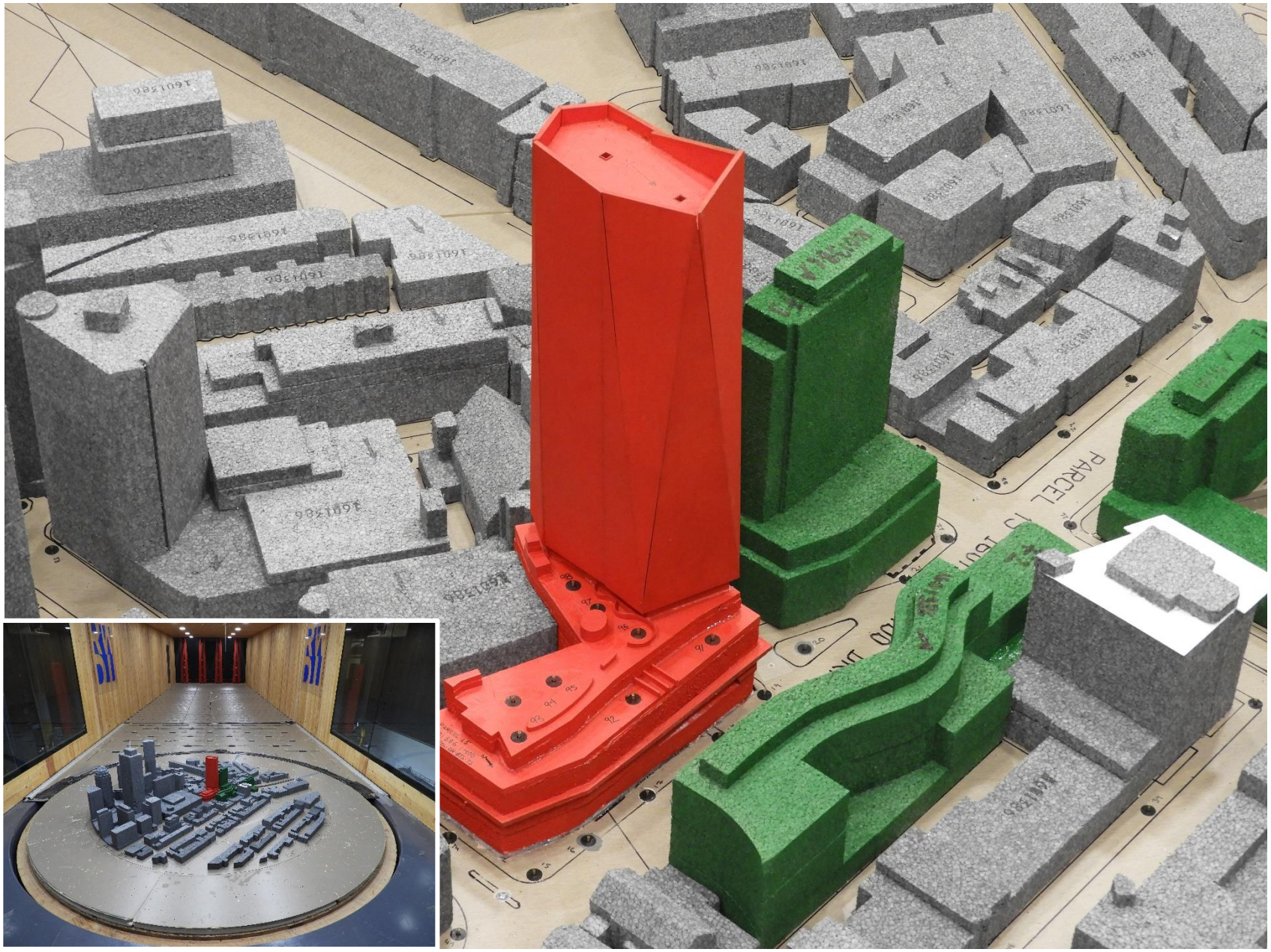
Wind Tunnel Study Model
No Build

Parcel 15 – Boston, MA

Project #1601386

Figure No. 1a

Date: September 7, 2017



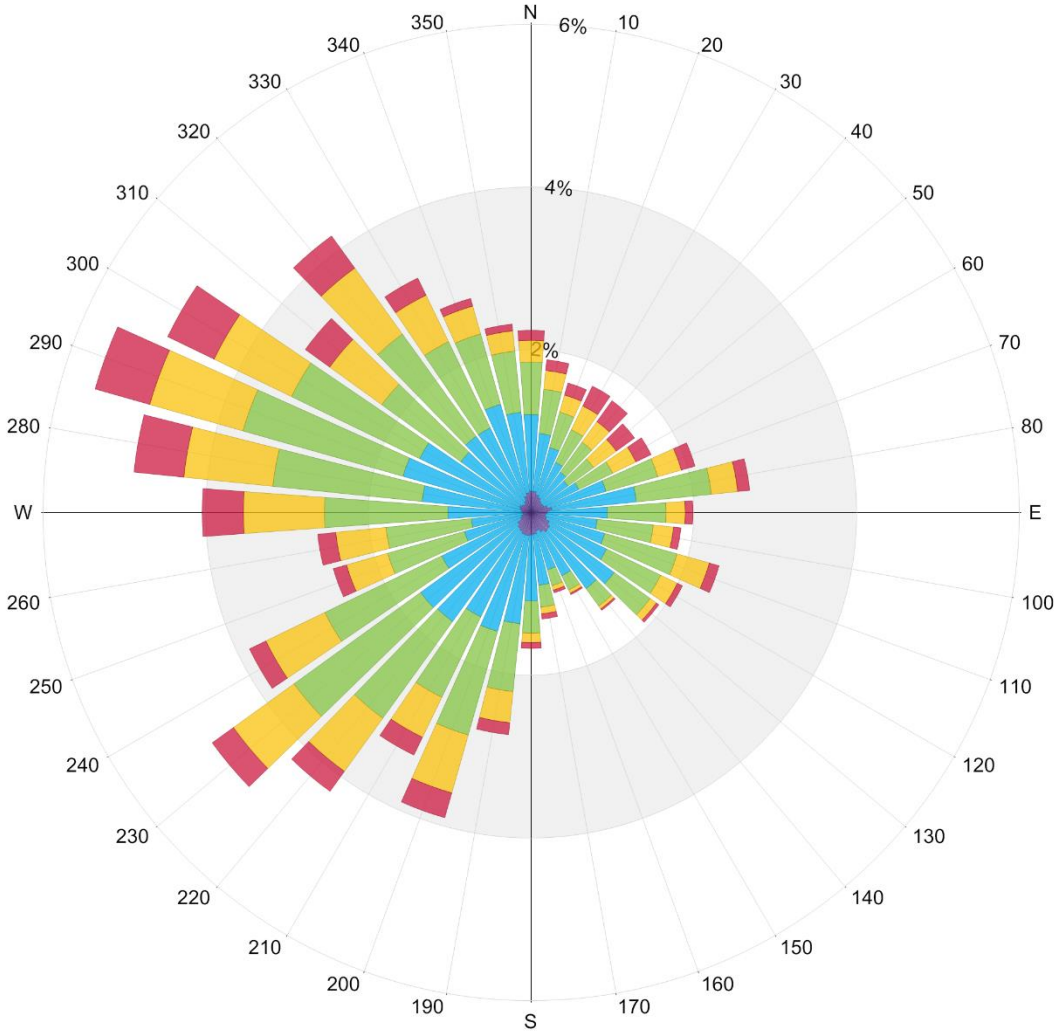
Wind Tunnel Study Model
Full Build

Parcel 15 – Boston, MA

Project #1601386

Figure No. 1b

Date: July 20, 2017



Annual Winds

Wind Speed (mph)	Probability (%)
Calm	2.6
1-5	7.4
6-10	32.1
11-15	33.0
16-20	16.9
>20	8.1

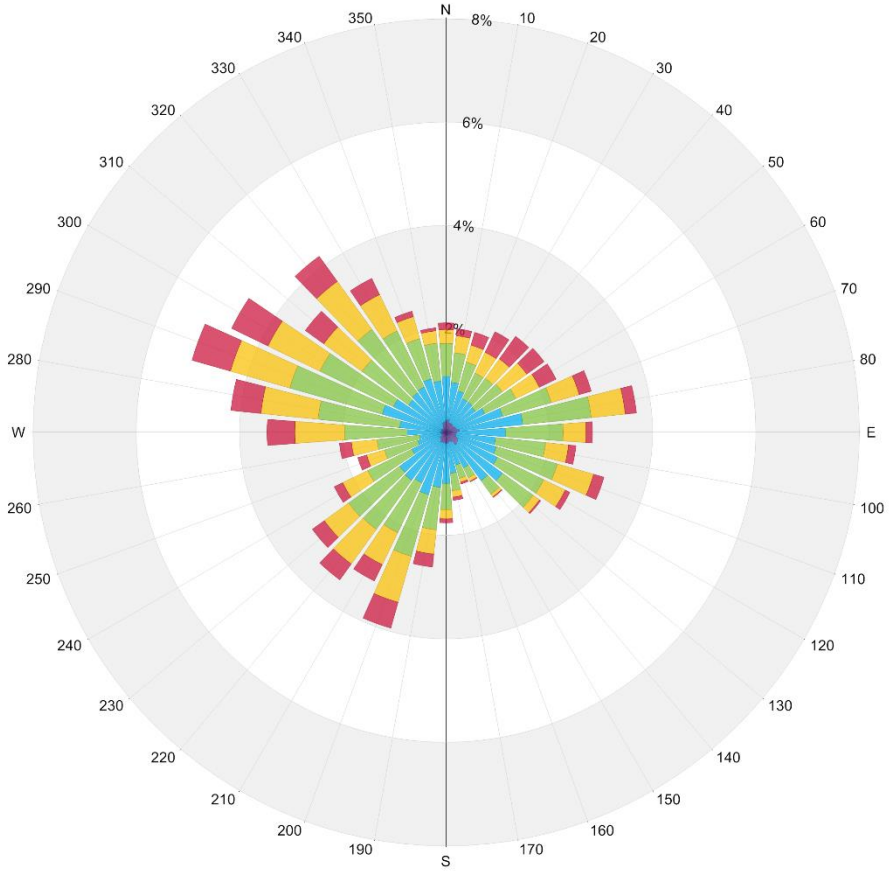
Directional Distribution of Winds Approaching
Boston Logan International Airport (1991 - 2016)

Parcel 15 – Boston, MA

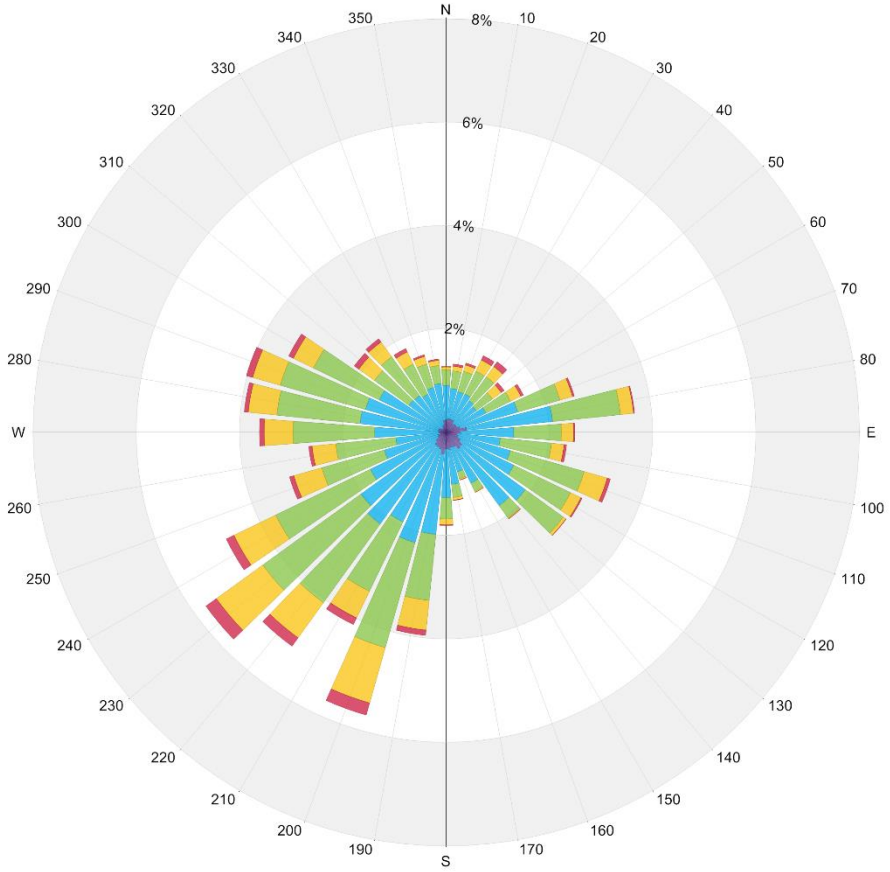
Project #1601386

Figure No. 2.1

Date: July 20, 2017



Spring
(March - May)



Summer
(June - August)

Wind Speed (mph)	Probability (%) Spring	Summer
Calm	2.4	2.7
1-5	6.4	8.9
6-10	28.5	38.1
11-15	32.9	35.1
16-20	19.7	12.6
>20	10.2	2.7

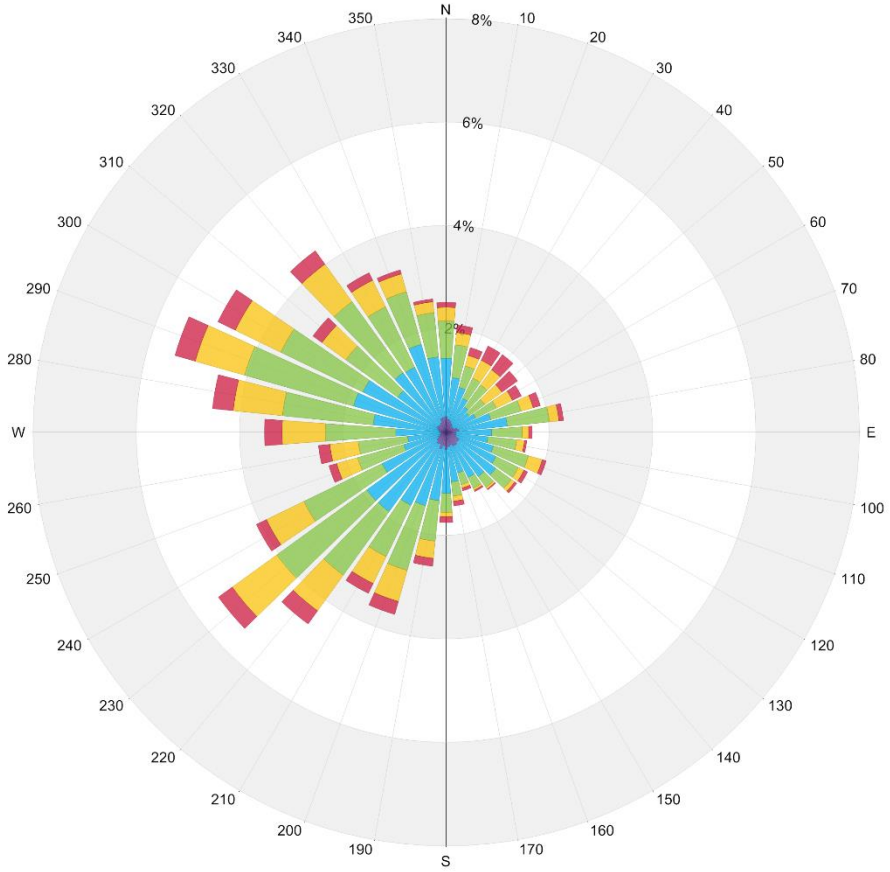
Directional Distribution of Winds Approaching
Boston Logan International Airport (1991 - 2015)

Parcel 15 – Boston, MA

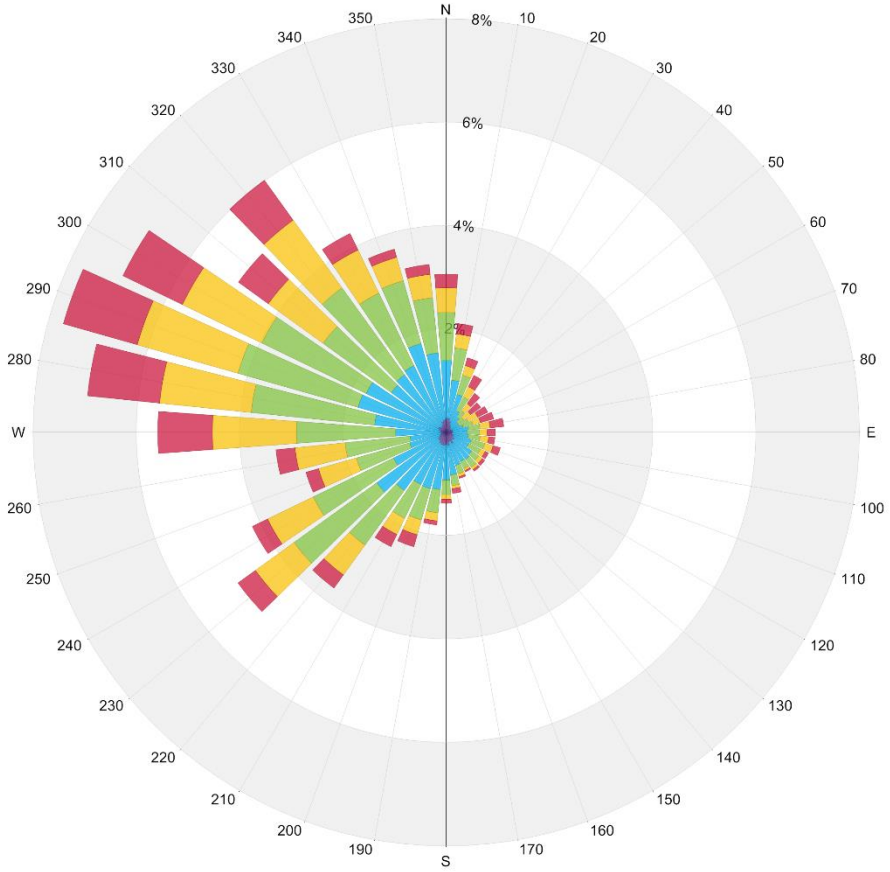
Project #1601386

Figure No. 2.2

Date: July 20, 2017



Fall
(September - November)



Winter
(December - February)

Wind Speed (mph)	Probability (%) Fall	Winter
Calm	2.9	2.3
1-5	8.0	6.2
6-10	34.3	27.6
11-15	32.8	31.0
16-20	15.3	20.1
>20	6.7	12.8

Directional Distribution of Winds Approaching
Boston Logan International Airport (1991 - 2015)

Parcel 15 – Boston, MA

Project #1601386

Figure No. 2.3

Date: July 20, 2017

FUTURE BUILDING

FUTURE BUILDING

HEREFORD STREET

GLOUCESTER STREET

BOYLSTON STREET

FUTURE BUILDING

CAMBRIA STREET

ST. CECILIA STREET

SCOTIA STREET

BELVIDERE STREET

ST. GERMAIN STREET

MASSACHUSETTS AVENUE

DALTON STREET

HYNES CONVENTION CENTER

SHERATON CONVENTION CENTER

PRUDENTIAL TOWER

LEGEND:

MEAN SPEED CATEGORIES:
- Sitting
- Standing
- Walking
- Uncomfortable
- Dangerous

SENSOR LOCATION:
- Grade Level

0 60 120ft

Pedestrian Wind Conditions - Mean Speed

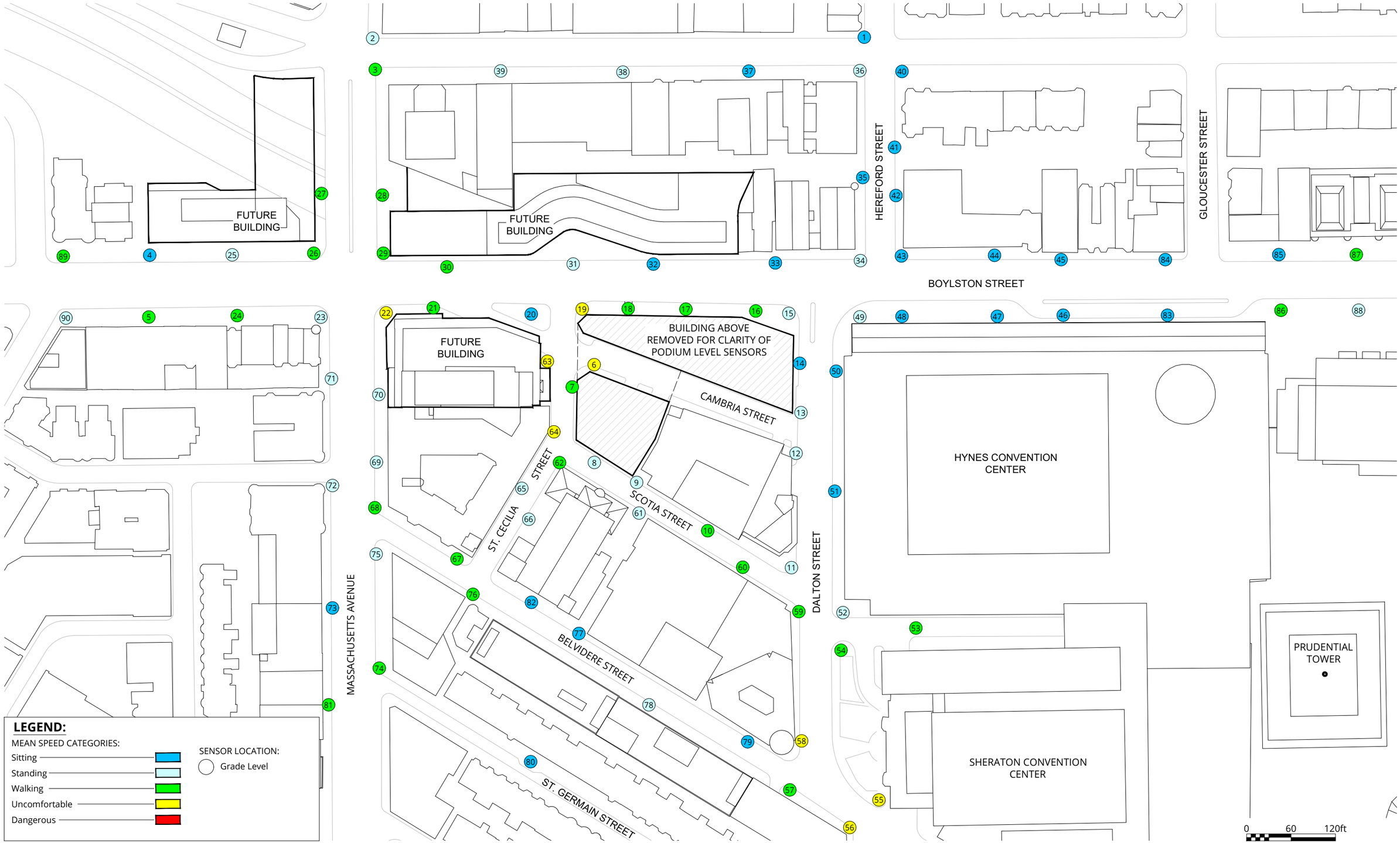
No Build
Annual

Parcel 15 - Boston, MA

True North

Project #1601386

Drawn by:	DBB	Figure:	3a
Approx. Scale:	1"=120'		
Date Revised:	Sept. 5, 2017		



Pedestrian Wind Conditions - Mean Speed
Full Build
Annual

Parcel 15 - Boston, MA

True North

Project #1601386

Drawn by:	DBB	Figure:	3b
Approx. Scale:	1"=120'		
Date Revised:	July 18, 2017		

FUTURE BUILDING

FUTURE BUILDING

HEREFORD STREET

GLOUCESTER STREET

BOYLSTON STREET

FUTURE BUILDING

CAMBRIA STREET

ST. CECILIA STREET

SCOTIA STREET

BELVIDERE STREET

ST. GERMAIN STREET

MASSACHUSETTS AVENUE

DALTON STREET

HYNES CONVENTION CENTER

PRUDENTIAL TOWER

SHERATON CONVENTION CENTER

LEGEND:

EFFECTIVE GUST CATEGORIES:

Acceptable

Unacceptable

SENSOR LOCATION:

Grade Level

0 60 120ft

Pedestrian Wind Conditions - Effective Gust Speed

No Build

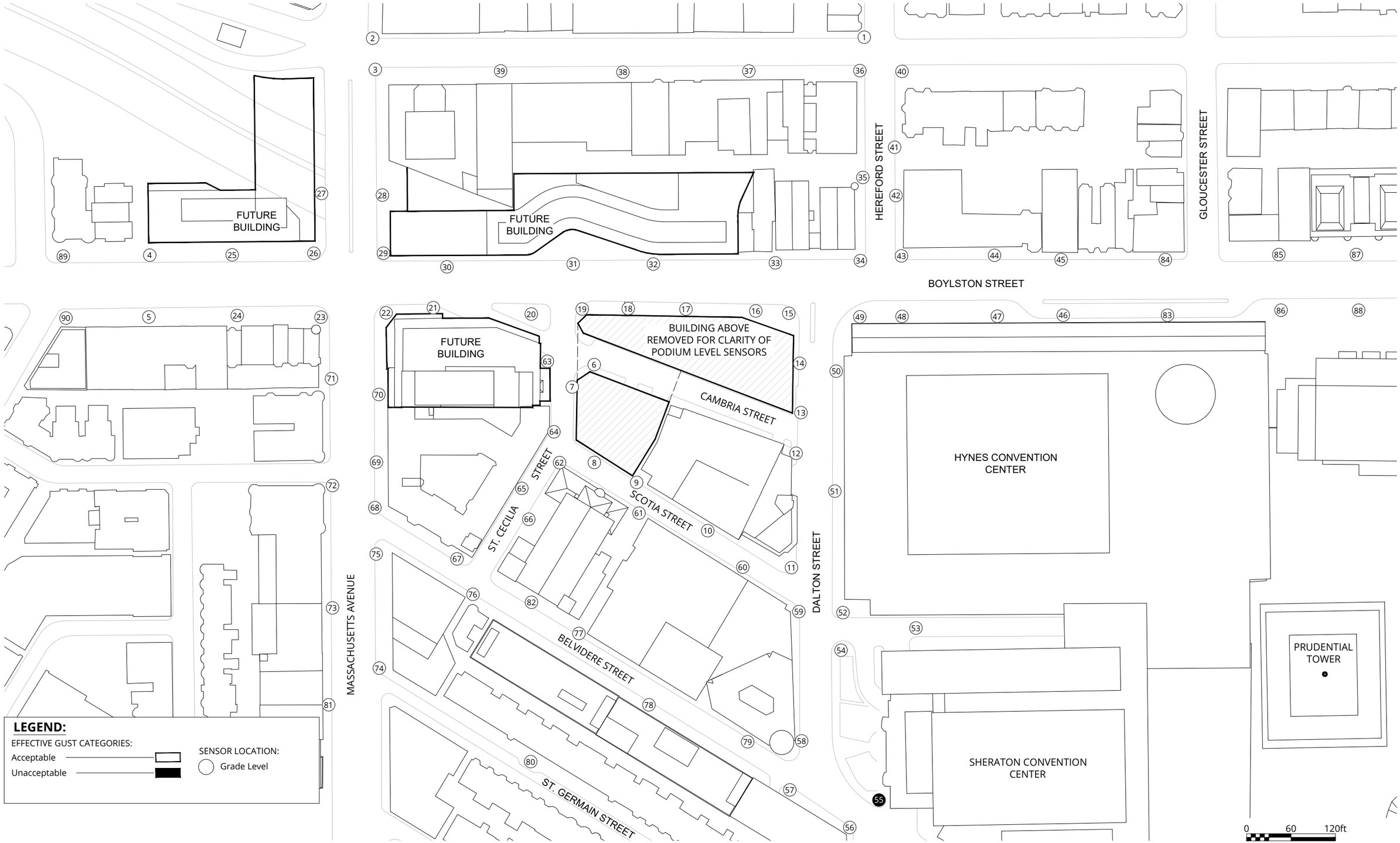
Annual

Parcel 15 - Boston, MA

True North

Project #1601386

Drawn by:	DBB	Figure:	4a
Approx. Scale:	1"=120'		
Date Revised:	Sept. 5, 2017		



Pedestrian Wind Conditions - Effective Gust Speed
Full Build
Annual

Parcel 15 - Boston, MA

True North

Project #1601386

Drawn by:	DBB	Figure:	4b
Approx. Scale:	1"=120'		
Date Revised:	July 18, 2017		

TABLES

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
1	A	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	16		Acceptable
	B	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
2	A	Spring	14		Standing	22		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	13		Standing	21		Acceptable
		Summer	11	-15%	Sitting	18		Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	21		Acceptable
3	A	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	16		Walking	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	18		Walking	25		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	19	12%	Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
4	A	Spring	11		Sitting	18		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	9	-18%	Sitting	15	-17%	Acceptable
		Summer	7	-12%	Sitting	12		Acceptable
		Fall	8	-27%	Sitting	14	-12%	Acceptable
		Winter	9	-25%	Sitting	15	-21%	Acceptable
		Annual	8	-27%	Sitting	14	-18%	Acceptable
5	A	Spring	17		Walking	25		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	16		Walking	25		Acceptable
	B	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable
6	A	Spring	12		Sitting	19		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	11		Sitting	19		Acceptable
	B	Spring	23	92%	Uncomfortable	31	63%	Acceptable
		Summer	17	89%	Walking	23	53%	Acceptable
		Fall	21	91%	Uncomfortable	28	56%	Acceptable
		Winter	24	85%	Uncomfortable	33	65%	Unacceptable
		Annual	22	100%	Uncomfortable	30	58%	Acceptable
7	A	Spring	19		Walking	28		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	27		Acceptable
	B	Spring	20		Uncomfortable	30		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	18		Walking	27		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	18		Walking	27		Acceptable
8	A	Spring	14		Standing	22		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	15		Standing	22		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	15		Standing	22		Acceptable
9	A	Spring	10		Sitting	17		Acceptable
		Summer	8		Sitting	14		Acceptable
		Fall	9		Sitting	16		Acceptable
		Winter	10		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
	B	Spring	15	50%	Standing	22	29%	Acceptable
		Summer	12	50%	Sitting	17	21%	Acceptable
		Fall	14	56%	Standing	20	25%	Acceptable
		Winter	15	50%	Standing	23	35%	Acceptable
		Annual	14	40%	Standing	21	31%	Acceptable
10	A	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	13		Standing	19		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	17	42%	Walking	23	21%	Acceptable
		Summer	15	67%	Standing	21	50%	Acceptable
		Fall	17	55%	Walking	22	29%	Acceptable
		Winter	18	38%	Walking	24	26%	Acceptable
		Annual	17	42%	Walking	23	28%	Acceptable
11	A	Spring	13		Standing	19		Acceptable
		Summer	10		Sitting	15		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Fall	12		Sitting	18		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	19		Acceptable
	B	Spring	15	15%	Standing	23	21%	Acceptable
		Summer	14	40%	Standing	21	40%	Acceptable
		Fall	15	25%	Standing	22	22%	Acceptable
		Winter	16	23%	Walking	23	15%	Acceptable
		Annual	15	25%	Standing	22	16%	Acceptable
12	A	Spring	12		Sitting	19		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	21		Acceptable
		Annual	12		Sitting	19		Acceptable
	B	Spring	14	17%	Standing	20		Acceptable
		Summer	13	44%	Standing	18	20%	Acceptable
		Fall	14	27%	Standing	20	11%	Acceptable
		Winter	15	15%	Standing	21		Acceptable
		Annual	14	17%	Standing	20		Acceptable
13	A	Spring	12		Sitting	18		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	12		Sitting	20		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	15	25%	Standing	22	22%	Acceptable
		Summer	13	18%	Standing	19	12%	Acceptable
		Fall	14	27%	Standing	21	17%	Acceptable
		Winter	16	33%	Walking	23	15%	Acceptable
		Annual	15	36%	Standing	21	17%	Acceptable
14	A	Spring	10		Sitting	17		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	10		Sitting	17		Acceptable
	B	Spring	12	20%	Sitting	19	12%	Acceptable
		Summer	10	11%	Sitting	16		Acceptable
		Fall	12	20%	Sitting	18	12%	Acceptable
		Winter	13	18%	Standing	19		Acceptable
		Annual	12	20%	Sitting	18		Acceptable
15	A	Spring	15		Standing	22		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16		Walking	22		Acceptable
		Annual	15		Standing	21		Acceptable
	B	Spring	15		Standing	22		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	14		Standing	19		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	15		Standing	21		Acceptable
16	A	Spring	15		Standing	21		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Winter	15		Standing	21		Acceptable
		Annual	14		Standing	20		Acceptable
	B	Spring	17	13%	Walking	24	14%	Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	19	27%	Walking	27	29%	Acceptable
		Annual	17	21%	Walking	24	20%	Acceptable
17	A	Spring	14		Standing	21		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	13		Standing	20		Acceptable
		Winter	14		Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	17	21%	Walking	25	19%	Acceptable
		Summer	13	18%	Standing	19	19%	Acceptable
		Fall	16	23%	Walking	23	15%	Acceptable
		Winter	19	36%	Walking	26	24%	Acceptable
		Annual	17	31%	Walking	24	20%	Acceptable
18	A	Spring	15		Standing	24		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	15		Standing	23		Acceptable
	B	Spring	18	20%	Walking	25		Acceptable
		Summer	14	27%	Standing	21	24%	Acceptable
		Fall	17	21%	Walking	24		Acceptable
		Winter	19	12%	Walking	27		Acceptable
		Annual	17	13%	Walking	25		Acceptable
19	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	23	53%	Uncomfortable	30	30%	Acceptable
		Summer	19	73%	Walking	25	47%	Acceptable
		Fall	21	50%	Uncomfortable	28	33%	Acceptable
		Winter	23	44%	Uncomfortable	30	25%	Acceptable
		Annual	22	47%	Uncomfortable	29	32%	Acceptable
20	A	Spring	16		Walking	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	13	-19%	Standing	21		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	13	-13%	Standing	20		Acceptable
		Winter	13	-19%	Standing	22		Acceptable
		Annual	12	-20%	Sitting	20		Acceptable
21	A	Spring	15		Standing	21		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16		Walking	22		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Annual	15		Standing	21		Acceptable
	B	Spring	21	40%	Uncomfortable	27	29%	Acceptable
		Summer	15	36%	Standing	19	19%	Acceptable
		Fall	19	36%	Walking	25	25%	Acceptable
		Winter	18	12%	Walking	25	14%	Acceptable
		Annual	18	20%	Walking	24	14%	Acceptable
22	A	Spring	19		Walking	25		Acceptable
		Summer	17		Walking	21		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	19		Walking	25		Acceptable
		Annual	18		Walking	24		Acceptable
	B	Spring	25	32%	Uncomfortable	32	28%	Unacceptable
		Summer	20	18%	Uncomfortable	26	24%	Acceptable
		Fall	23	28%	Uncomfortable	29	21%	Acceptable
		Winter	24	26%	Uncomfortable	31	24%	Acceptable
		Annual	23	28%	Uncomfortable	30	25%	Acceptable
23	A	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	13		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	16	33%	Walking	23	28%	Acceptable
		Summer	11	22%	Sitting	16	23%	Acceptable
		Fall	15	36%	Standing	21	24%	Acceptable
		Winter	14	27%	Standing	20	18%	Acceptable
		Annual	14	27%	Standing	20	18%	Acceptable
24	A	Spring	13		Standing	21		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	12		Sitting	19		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	19	46%	Walking	26	24%	Acceptable
		Summer	13	30%	Standing	19	27%	Acceptable
		Fall	17	42%	Walking	23	21%	Acceptable
		Winter	16	14%	Walking	24		Acceptable
		Annual	17	31%	Walking	23	15%	Acceptable
25	A	Spring	15		Standing	21		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
	B	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21	11%	Acceptable
		Winter	14		Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
26	A	Spring	19		Walking	25		Acceptable
		Summer	16		Walking	21		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	18		Walking	25		Acceptable
		Annual	18		Walking	24		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
	B	Spring	20		Uncomfortable	27		Acceptable
		Summer	16		Walking	21		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	19		Walking	26		Acceptable
		Annual	18		Walking	25		Acceptable
27	A	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	17		Walking	24		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
28	A	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	20		Uncomfortable	30		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	17		Walking	26		Acceptable
29	A	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	29		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	18		Walking	27		Acceptable
		Summer	13		Standing	20		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	26		Acceptable
30	A	Spring	16		Walking	23		Acceptable
		Summer	14		Standing	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	16		Walking	22		Acceptable
	B	Spring	17		Walking	24		Acceptable
		Summer	14		Standing	20	11%	Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	16		Walking	23		Acceptable
31	A	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	14	17%	Standing	21	17%	Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Summer	12	33%	Sitting	18	29%	Acceptable
		Fall	14	27%	Standing	20	18%	Acceptable
		Winter	15	15%	Standing	22		Acceptable
		Annual	14	17%	Standing	21	17%	Acceptable
32	A	Spring	12		Sitting	16		Acceptable
		Summer	10		Sitting	13		Acceptable
		Fall	11		Sitting	15		Acceptable
		Winter	12		Sitting	16		Acceptable
		Annual	12		Sitting	15		Acceptable
	B	Spring	11		Sitting	18	12%	Acceptable
		Summer	9		Sitting	15	15%	Acceptable
		Fall	11		Sitting	17	13%	Acceptable
		Winter	12		Sitting	19	19%	Acceptable
		Annual	11		Sitting	18	20%	Acceptable
33	A	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	15		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	13	18%	Standing	20	18%	Acceptable
		Annual	11		Sitting	18		Acceptable
34	A	Spring	15		Standing	21		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	15		Standing	21		Acceptable
		Annual	14		Standing	20		Acceptable
	B	Spring	13	-13%	Standing	19		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	12	-14%	Sitting	18		Acceptable
		Winter	14		Standing	20		Acceptable
		Annual	13		Standing	19		Acceptable
35	A	Spring	11		Sitting	18		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	11		Sitting	18		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
36	A	Spring	13		Standing	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	17		Acceptable
		Winter	13		Standing	20		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	14		Standing	20		Acceptable
		Summer	10	11%	Sitting	15		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed	
		Fall	12		Sitting	18	Acceptable
		Winter	14		Standing	20	Acceptable
		Annual	13		Standing	19	Acceptable
37	A	Spring	10		Sitting	15	Acceptable
		Summer	9		Sitting	11	Acceptable
		Fall	10		Sitting	14	Acceptable
		Winter	10		Sitting	15	Acceptable
		Annual	10		Sitting	14	Acceptable
	B	Spring	10		Sitting	15	Acceptable
		Summer	8	-11%	Sitting	12	Acceptable
		Fall	10		Sitting	14	Acceptable
		Winter	10		Sitting	16	Acceptable
		Annual	10		Sitting	15	Acceptable
38	A	Spring	13		Standing	20	Acceptable
		Summer	10		Sitting	15	Acceptable
		Fall	13		Standing	19	Acceptable
		Winter	15		Standing	22	Acceptable
		Annual	13		Standing	20	Acceptable
	B	Spring	14		Standing	21	Acceptable
		Summer	10		Sitting	15	Acceptable
		Fall	13		Standing	19	Acceptable
		Winter	16		Walking	23	Acceptable
		Annual	14		Standing	21	Acceptable
39	A	Spring	14		Standing	21	Acceptable
		Summer	11		Sitting	16	Acceptable
		Fall	13		Standing	20	Acceptable
		Winter	15		Standing	22	Acceptable
		Annual	14		Standing	20	Acceptable
	B	Spring	14		Standing	20	Acceptable
		Summer	10		Sitting	16	Acceptable
		Fall	13		Standing	19	Acceptable
		Winter	15		Standing	22	Acceptable
		Annual	14		Standing	20	Acceptable
40	A	Spring	12		Sitting	18	Acceptable
		Summer	9		Sitting	14	Acceptable
		Fall	11		Sitting	17	Acceptable
		Winter	12		Sitting	19	Acceptable
		Annual	11		Sitting	18	Acceptable
	B	Spring	11		Sitting	18	Acceptable
		Summer	9		Sitting	14	Acceptable
		Fall	10		Sitting	17	Acceptable
		Winter	12		Sitting	19	Acceptable
		Annual	11		Sitting	17	Acceptable
41	A	Spring	11		Sitting	16	Acceptable
		Summer	8		Sitting	12	Acceptable
		Fall	11		Sitting	15	Acceptable
		Winter	11		Sitting	17	Acceptable
		Annual	11		Sitting	15	Acceptable
	B	Spring	10		Sitting	15	Acceptable
		Summer	7	-12%	Sitting	11	Acceptable
		Fall	9	-18%	Sitting	14	Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Winter	10		Sitting	16		Acceptable
		Annual	10		Sitting	15		Acceptable
42	A	Spring	12		Sitting	17		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	11		Sitting	15		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	11		Sitting	16		Acceptable
	B	Spring	11		Sitting	16		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	10		Sitting	15		Acceptable
		Winter	11		Sitting	16		Acceptable
		Annual	10		Sitting	15		Acceptable
43	A	Spring	12		Sitting	17		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	10	-17%	Sitting	16		Acceptable
		Summer	9		Sitting	13	-13%	Acceptable
		Fall	10		Sitting	15		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
44	A	Spring	10		Sitting	15		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	9		Sitting	14		Acceptable
		Winter	10		Sitting	15		Acceptable
		Annual	9		Sitting	15		Acceptable
	B	Spring	9		Sitting	14		Acceptable
		Summer	7	-12%	Sitting	11		Acceptable
		Fall	8	-11%	Sitting	13		Acceptable
		Winter	9		Sitting	14		Acceptable
		Annual	8	-11%	Sitting	13	-13%	Acceptable
45	A	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	11		Sitting	16	-11%	Acceptable
		Summer	8	-11%	Sitting	12	-14%	Acceptable
		Fall	10		Sitting	15	-12%	Acceptable
		Winter	11		Sitting	16	-11%	Acceptable
		Annual	10		Sitting	15	-12%	Acceptable
46	A	Spring	11		Sitting	17		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
	B	Spring	10		Sitting	16		Acceptable
		Summer	7	-12%	Sitting	12		Acceptable
		Fall	9	-18%	Sitting	14	-12%	Acceptable
		Winter	10		Sitting	16		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Annual	9		Sitting	15		Acceptable
47	A	Spring	11		Sitting	18		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	10		Sitting	17		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	9	-18%	Sitting	15		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
48	A	Spring	11		Sitting	17		Acceptable
		Summer	8		Sitting	13		Acceptable
		Fall	11		Sitting	16		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	16		Acceptable
	B	Spring	11		Sitting	17		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	10		Sitting	15		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	10		Sitting	16		Acceptable
49	A	Spring	16		Walking	22		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	21		Acceptable
	B	Spring	13	-19%	Standing	20		Acceptable
		Summer	10	-17%	Sitting	15	-17%	Acceptable
		Fall	12	-20%	Sitting	18	-14%	Acceptable
		Winter	14	-12%	Standing	21		Acceptable
		Annual	13	-13%	Standing	19		Acceptable
50	A	Spring	10		Sitting	16		Acceptable
		Summer	8		Sitting	14		Acceptable
		Fall	9		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	9		Sitting	15		Acceptable
	B	Spring	12	20%	Sitting	19	19%	Acceptable
		Summer	11	38%	Sitting	17	21%	Acceptable
		Fall	12	33%	Sitting	18	20%	Acceptable
		Winter	13	30%	Standing	20	25%	Acceptable
		Annual	12	33%	Sitting	19	27%	Acceptable
51	A	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	17		Acceptable
		Winter	12		Sitting	20		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	13	18%	Standing	19		Acceptable
		Summer	11	22%	Sitting	17	21%	Acceptable
		Fall	12	20%	Sitting	19	12%	Acceptable
		Winter	13		Standing	21		Acceptable
		Annual	12		Sitting	19		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
52	A	Spring	15		Standing	24		Acceptable
		Summer	12		Sitting	19		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	16		Walking	25		Acceptable
		Annual	15		Standing	24		Acceptable
	B	Spring	16		Walking	26		Acceptable
		Summer	12		Sitting	20		Acceptable
		Fall	14		Standing	24		Acceptable
		Winter	17		Walking	28	12%	Acceptable
		Annual	15		Standing	26		Acceptable
53	A	Spring	18		Walking	26		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	17		Walking	26		Acceptable
	B	Spring	20	11%	Uncomfortable	29	12%	Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	18	12%	Walking	26		Acceptable
		Winter	21	11%	Uncomfortable	31	11%	Acceptable
		Annual	19	12%	Walking	28		Acceptable
54	A	Spring	20		Uncomfortable	28		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	20		Uncomfortable	29		Acceptable
		Annual	19		Walking	27		Acceptable
	B	Spring	20		Uncomfortable	29		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	21		Uncomfortable	30		Acceptable
		Annual	19		Walking	28		Acceptable
55	A	Spring	24		Uncomfortable	34		Unacceptable
		Summer	21		Uncomfortable	29		Acceptable
		Fall	23		Uncomfortable	32		Unacceptable
		Winter	25		Uncomfortable	35		Unacceptable
		Annual	23		Uncomfortable	33		Unacceptable
	B	Spring	25		Uncomfortable	34		Unacceptable
		Summer	21		Uncomfortable	29		Acceptable
		Fall	23		Uncomfortable	32		Unacceptable
		Winter	24		Uncomfortable	34		Unacceptable
		Annual	23		Uncomfortable	33		Unacceptable
56	A	Spring	23		Uncomfortable	32		Unacceptable
		Summer	18		Walking	26		Acceptable
		Fall	22		Uncomfortable	31		Acceptable
		Winter	24		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	31		Acceptable
	B	Spring	23		Uncomfortable	32		Unacceptable
		Summer	18		Walking	26		Acceptable
		Fall	22		Uncomfortable	30		Acceptable
		Winter	23		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	30		Acceptable
57	A	Spring	18		Walking	27		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Summer	16		Walking	23		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	20	11%	Uncomfortable	27		Acceptable
		Summer	17		Walking	23		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	19		Walking	28		Acceptable
		Annual	19		Walking	26		Acceptable
58	A	Spring	21		Uncomfortable	29		Acceptable
		Summer	16		Walking	22		Acceptable
		Fall	19		Walking	27		Acceptable
		Winter	22		Uncomfortable	30		Acceptable
		Annual	20		Uncomfortable	28		Acceptable
	B	Spring	22		Uncomfortable	30		Acceptable
		Summer	16		Walking	23		Acceptable
		Fall	20		Uncomfortable	28		Acceptable
		Winter	22		Uncomfortable	31		Acceptable
		Annual	21		Uncomfortable	28		Acceptable
59	A	Spring	17		Walking	25		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	24		Acceptable
	B	Spring	17		Walking	26		Acceptable
		Summer	15		Standing	22		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	17		Walking	25		Acceptable
60	A	Spring	16		Walking	23		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	24		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	19	19%	Walking	26	13%	Acceptable
		Summer	17	31%	Walking	23	21%	Acceptable
		Fall	18	29%	Walking	24	14%	Acceptable
		Winter	19	19%	Walking	26		Acceptable
		Annual	18	20%	Walking	24		Acceptable
61	A	Spring	18		Walking	27		Acceptable
		Summer	14		Standing	20		Acceptable
		Fall	16		Walking	24		Acceptable
		Winter	19		Walking	29		Acceptable
		Annual	17		Walking	26		Acceptable
	B	Spring	14	-22%	Standing	21	-22%	Acceptable
		Summer	12	-14%	Sitting	17	-15%	Acceptable
		Fall	13	-19%	Standing	30	25%	Acceptable
		Winter	16	-16%	Walking	23	-21%	Acceptable
		Annual	14	-18%	Standing	21	-19%	Acceptable
62	A	Spring	21		Uncomfortable	31		Acceptable
		Summer	15		Standing	23		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Fall	19		Walking	27		Acceptable
		Winter	23		Uncomfortable	34		Unacceptable
		Annual	21		Uncomfortable	30		Acceptable
	B	Spring	20		Uncomfortable	28		Acceptable
		Summer	14		Standing	20	-13%	Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	21		Uncomfortable	30	-12%	Acceptable
		Annual	19		Walking	27		Acceptable
63	A	Spring	15		Standing	25		Acceptable
		Summer	11		Sitting	18		Acceptable
		Fall	14		Standing	22		Acceptable
		Winter	17		Walking	27		Acceptable
		Annual	15		Standing	24		Acceptable
	B	Spring	24	60%	Uncomfortable	31	24%	Acceptable
		Summer	17	55%	Walking	22	22%	Acceptable
		Fall	21	50%	Uncomfortable	28	27%	Acceptable
		Winter	20	18%	Uncomfortable	28		Acceptable
		Annual	21	40%	Uncomfortable	27	12%	Acceptable
64	A	Spring	16		Walking	25		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable
	B	Spring	24	50%	Uncomfortable	33	32%	Unacceptable
		Summer	17	42%	Walking	24	33%	Acceptable
		Fall	21	40%	Uncomfortable	29	26%	Acceptable
		Winter	26	53%	Uncomfortable	35	35%	Unacceptable
		Annual	24	50%	Uncomfortable	30	25%	Acceptable
65	A	Spring	14		Standing	21		Acceptable
		Summer	10		Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	15		Standing	22		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	14		Standing	23		Acceptable
		Summer	10		Sitting	17	13%	Acceptable
		Fall	13		Standing	21	11%	Acceptable
		Winter	15		Standing	25	14%	Acceptable
		Annual	14		Standing	22		Acceptable
66	A	Spring	12		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	15	25%	Standing	23	28%	Acceptable
		Summer	11	22%	Sitting	17	21%	Acceptable
		Fall	14	27%	Standing	22	29%	Acceptable
		Winter	16	33%	Walking	25	32%	Acceptable
		Annual	15	36%	Standing	23	35%	Acceptable
67	A	Spring	17		Walking	26		Acceptable
		Summer	16		Walking	24		Acceptable
		Fall	17		Walking	26		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Winter	18		Walking	28		Acceptable
		Annual	17		Walking	26		Acceptable
	B	Spring	19	12%	Walking	27		Acceptable
		Summer	15		Standing	23		Acceptable
		Fall	18		Walking	25		Acceptable
		Winter	18		Walking	27		Acceptable
		Annual	18		Walking	25		Acceptable
68	A	Spring	20		Uncomfortable	28		Acceptable
		Summer	14		Standing	21		Acceptable
		Fall	18		Walking	26		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	18		Walking	26		Acceptable
	B	Spring	18		Walking	26		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	17		Walking	24		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	17		Walking	25		Acceptable
69	A	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	22		Acceptable
	B	Spring	15		Standing	22		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	15		Standing	21		Acceptable
70	A	Spring	14		Standing	20		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	14		Standing	21		Acceptable
		Annual	13		Standing	20		Acceptable
	B	Spring	15		Standing	22		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	16	14%	Walking	23		Acceptable
		Annual	15	15%	Standing	21		Acceptable
71	A	Spring	13		Standing	19		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	12		Sitting	18		Acceptable
	B	Spring	17	31%	Walking	24	26%	Acceptable
		Summer	12	33%	Sitting	17	21%	Acceptable
		Fall	15	25%	Standing	22	22%	Acceptable
		Winter	15	25%	Standing	22	22%	Acceptable
		Annual	15	25%	Standing	22	22%	Acceptable
72	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	15		Standing	23		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Annual	14		Standing	21		Acceptable
	B	Spring	15		Standing	21		Acceptable
		Summer	11		Sitting	16		Acceptable
		Fall	14		Standing	20		Acceptable
		Winter	15		Standing	22		Acceptable
		Annual	14		Standing	21		Acceptable
73	A	Spring	15		Standing	23		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable
	B	Spring	13	-13%	Standing	19	-17%	Acceptable
		Summer	10		Sitting	14	-18%	Acceptable
		Fall	12	-20%	Sitting	18	-18%	Acceptable
		Winter	13	-13%	Standing	20	-13%	Acceptable
		Annual	12	-14%	Sitting	18	-18%	Acceptable
74	A	Spring	22		Uncomfortable	30		Acceptable
		Summer	16		Walking	22		Acceptable
		Fall	20		Uncomfortable	27		Acceptable
		Winter	24		Uncomfortable	33		Unacceptable
		Annual	22		Uncomfortable	29		Acceptable
	B	Spring	18	-18%	Walking	25	-17%	Acceptable
		Summer	13	-19%	Standing	19	-14%	Acceptable
		Fall	16	-20%	Walking	23	-15%	Acceptable
		Winter	20	-17%	Uncomfortable	28	-15%	Acceptable
		Annual	17	-23%	Walking	25	-14%	Acceptable
75	A	Spring	17		Walking	24		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	15	-12%	Standing	22		Acceptable
		Summer	12		Sitting	17		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	23		Acceptable
		Annual	14	-12%	Standing	21		Acceptable
76	A	Spring	13		Standing	21		Acceptable
		Summer	11		Sitting	19		Acceptable
		Fall	12		Sitting	20		Acceptable
		Winter	14		Standing	22		Acceptable
		Annual	13		Standing	21		Acceptable
	B	Spring	17	31%	Walking	25	19%	Acceptable
		Summer	13	18%	Standing	20		Acceptable
		Fall	16	33%	Walking	23	15%	Acceptable
		Winter	17	21%	Walking	24		Acceptable
		Annual	16	23%	Walking	23		Acceptable
77	A	Spring	15		Standing	23		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	15		Standing	23		Acceptable
		Annual	14		Standing	22		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
	B	Spring	13	-13%	Standing	20	-13%	Acceptable
		Summer	10	-23%	Sitting	16	-16%	Acceptable
		Fall	12	-14%	Sitting	19		Acceptable
		Winter	13	-13%	Standing	21		Acceptable
		Annual	12	-14%	Sitting	19	-14%	Acceptable
78	A	Spring	16		Walking	24		Acceptable
		Summer	14		Standing	19		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	16		Walking	23		Acceptable
	B	Spring	14	-12%	Standing	20	-17%	Acceptable
		Summer	12	-14%	Sitting	17	-11%	Acceptable
		Fall	13	-13%	Standing	19	-14%	Acceptable
		Winter	14	-18%	Standing	21	-16%	Acceptable
		Annual	13	-19%	Standing	20	-13%	Acceptable
79	A	Spring	11		Sitting	18		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	11		Sitting	17		Acceptable
	B	Spring	11		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	18		Acceptable
		Annual	11		Sitting	17		Acceptable
80	A	Spring	13		Standing	21		Acceptable
		Summer	11		Sitting	17		Acceptable
		Fall	12		Sitting	20		Acceptable
		Winter	14		Standing	23		Acceptable
		Annual	13		Standing	21		Acceptable
	B	Spring	12		Sitting	20		Acceptable
		Summer	9	-18%	Sitting	15	-12%	Acceptable
		Fall	11		Sitting	18		Acceptable
		Winter	13		Standing	22		Acceptable
		Annual	12		Sitting	20		Acceptable
81	A	Spring	19		Walking	26		Acceptable
		Summer	15		Standing	19		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	22		Uncomfortable	28		Acceptable
		Annual	19		Walking	25		Acceptable
	B	Spring	20		Uncomfortable	25		Acceptable
		Summer	15		Standing	19		Acceptable
		Fall	18		Walking	24		Acceptable
		Winter	22		Uncomfortable	28		Acceptable
		Annual	19		Walking	25		Acceptable
82	A	Spring	10		Sitting	17		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	10		Sitting	16		Acceptable
		Winter	11		Sitting	17		Acceptable
		Annual	10		Sitting	16		Acceptable
	B	Spring	13	30%	Standing	19	12%	Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Summer	9		Sitting	14		Acceptable
		Fall	12	20%	Sitting	18	12%	Acceptable
		Winter	12		Sitting	19	12%	Acceptable
		Annual	12	20%	Sitting	18	12%	Acceptable
83	A	Spring	11		Sitting	16		Acceptable
		Summer	8		Sitting	12		Acceptable
		Fall	10		Sitting	15		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	10		Sitting	15		Acceptable
	B	Spring	9	-18%	Sitting	14	-12%	Acceptable
		Summer	7	-12%	Sitting	10	-17%	Acceptable
		Fall	8	-20%	Sitting	13	-13%	Acceptable
		Winter	9		Sitting	13	-19%	Acceptable
		Annual	8	-20%	Sitting	13	-13%	Acceptable
84	A	Spring	10		Sitting	15		Acceptable
		Summer	7		Sitting	12		Acceptable
		Fall	9		Sitting	14		Acceptable
		Winter	10		Sitting	16		Acceptable
		Annual	9		Sitting	15		Acceptable
	B	Spring	9		Sitting	14		Acceptable
		Summer	7		Sitting	11		Acceptable
		Fall	8	-11%	Sitting	13		Acceptable
		Winter	9		Sitting	14	-12%	Acceptable
		Annual	8	-11%	Sitting	13	-13%	Acceptable
85	A	Spring	13		Standing	20		Acceptable
		Summer	9		Sitting	14		Acceptable
		Fall	12		Sitting	18		Acceptable
		Winter	12		Sitting	18		Acceptable
		Annual	11		Sitting	18		Acceptable
	B	Spring	14		Standing	21		Acceptable
		Summer	10	11%	Sitting	15		Acceptable
		Fall	13		Standing	19		Acceptable
		Winter	12		Sitting	19		Acceptable
		Annual	12		Sitting	19		Acceptable
86	A	Spring	18		Walking	26		Acceptable
		Summer	15		Standing	21		Acceptable
		Fall	17		Walking	25		Acceptable
		Winter	19		Walking	27		Acceptable
		Annual	17		Walking	25		Acceptable
	B	Spring	17		Walking	25		Acceptable
		Summer	13	-13%	Standing	20		Acceptable
		Fall	16		Walking	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable
87	A	Spring	19		Walking	25		Acceptable
		Summer	13		Standing	18		Acceptable
		Fall	17		Walking	23		Acceptable
		Winter	17		Walking	24		Acceptable
		Annual	17		Walking	23		Acceptable
	B	Spring	17	-11%	Walking	23		Acceptable
		Summer	12		Sitting	16	-11%	Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed			Effective Gust Wind Speed		
		Fall	16		Walking	21		Acceptable
		Winter	16		Walking	22		Acceptable
		Annual	16		Walking	21		Acceptable
88	A	Spring	16		Walking	24		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	22		Acceptable
		Winter	17		Walking	26		Acceptable
		Annual	15		Standing	23		Acceptable
	B	Spring	15		Standing	23		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	17		Walking	25		Acceptable
		Annual	15		Standing	23		Acceptable
89	A	Spring	22		Uncomfortable	32		Unacceptable
		Summer	17		Walking	24		Acceptable
		Fall	20		Uncomfortable	29		Acceptable
		Winter	24		Uncomfortable	35		Unacceptable
		Annual	21		Uncomfortable	31		Acceptable
	B	Spring	17	-23%	Walking	24	-25%	Acceptable
		Summer	13	-24%	Standing	19	-21%	Acceptable
		Fall	15	-25%	Standing	22	-24%	Acceptable
		Winter	18	-25%	Walking	26	-26%	Acceptable
		Annual	16	-24%	Walking	23	-26%	Acceptable
90	A	Spring	17		Walking	26		Acceptable
		Summer	13		Standing	19		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	17		Walking	28		Acceptable
		Annual	16		Walking	25		Acceptable
	B	Spring	16		Walking	23	-12%	Acceptable
		Summer	11	-15%	Sitting	17	-11%	Acceptable
		Fall	14		Standing	21		Acceptable
		Winter	16		Walking	25	-11%	Acceptable
		Annual	15		Standing	23		Acceptable
91	A	Not Applicable						
	B	Spring	19		Walking	29		Acceptable
		Summer	14		Standing	22		Acceptable
		Fall	17		Walking	28		Acceptable
		Winter	20		Uncomfortable	32		Unacceptable
		Annual	18		Walking	29		Acceptable
92	A	Not Applicable						
	B	Spring	12		Sitting	19		Acceptable
		Summer	10		Sitting	16		Acceptable
		Fall	11		Sitting	17		Acceptable
		Winter	12		Sitting	20		Acceptable
		Annual	11		Sitting	18		Acceptable
93	A	Not Applicable						
	B	Spring	17		Walking	25		Acceptable
		Summer	12		Sitting	18		Acceptable
		Fall	15		Standing	23		Acceptable
		Winter	18		Walking	26		Acceptable
		Annual	16		Walking	24		Acceptable

Table 1: Mean Speed and Effective Gust Categories - Multiple Seasons

Location	Configuration	Season	Mean Wind Speed		Effective Gust Wind Speed	
94	A	Not Applicable				
	B	Spring	20	Uncomfortable	29	Acceptable
		Summer	14	Standing	21	Acceptable
		Fall	18	Walking	26	Acceptable
		Winter	22	Uncomfortable	31	Acceptable
		Annual	19	Walking	28	Acceptable
95	A	Not Applicable				
	B	Spring	20	Uncomfortable	28	Acceptable
		Summer	15	Standing	22	Acceptable
		Fall	18	Walking	26	Acceptable
		Winter	22	Uncomfortable	30	Acceptable
		Annual	19	Walking	28	Acceptable
96	A	Not Applicable				
	B	Spring	15	Standing	22	Acceptable
		Summer	11	Sitting	17	Acceptable
		Fall	14	Standing	21	Acceptable
		Winter	16	Walking	24	Acceptable
		Annual	15	Standing	22	Acceptable
97	A	Not Applicable				
	B	Spring	24	Uncomfortable	34	Unacceptable
		Summer	18	Walking	26	Acceptable
		Fall	22	Uncomfortable	31	Acceptable
		Winter	26	Uncomfortable	36	Unacceptable
		Annual	23	Uncomfortable	33	Unacceptable
98	A	Not Applicable				
	B	Spring	14	Standing	21	Acceptable
		Summer	11	Sitting	17	Acceptable
		Fall	13	Standing	20	Acceptable
		Winter	15	Standing	22	Acceptable
		Annual	14	Standing	21	Acceptable

Configurations		Mean Wind Criteria Speed (mph)		Effective Gust Criteria (mph)	
A	No Build	≤ 12	Comfortable for Sitting	≤ 31	Acceptable
B	Build	13 - 15	Comfortable for Standing	> 31	Unacceptable
		16 - 19	Comfortable for Walking		
		20 - 27	Uncomfortable for Walking		
		> 27	Dangerous Conditions		

1) Wind Speeds are for a 1% probability of exceedance; and,
2) % Change is based on comaprison with Configuration A and only those that are greater than 10% are listed

APPENDIX A

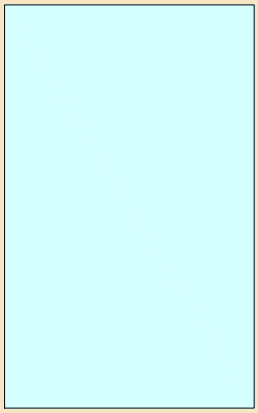
Drawing List for Model Construction

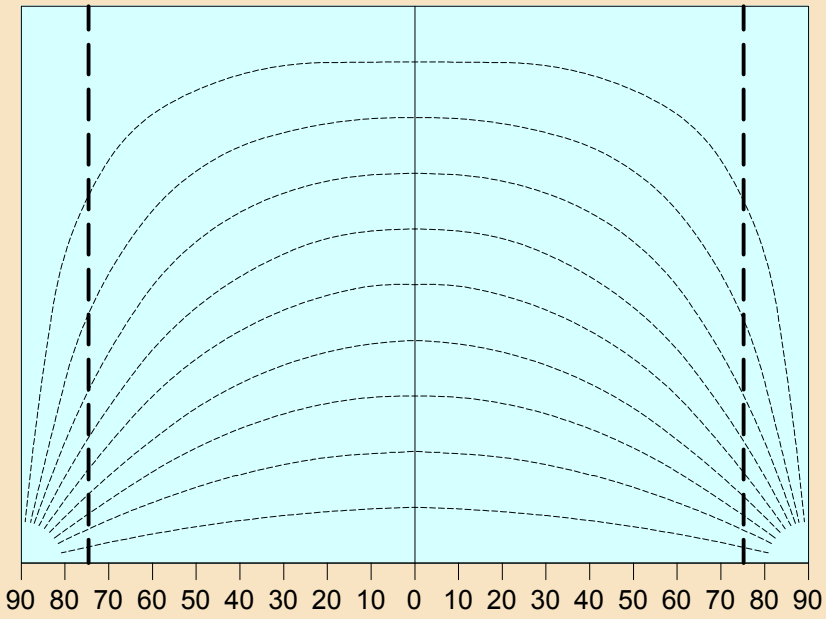
The drawings and information listed below were received from Elkus Manfredi Architects and were used to construct the scale model of the proposed Parcel 15. Should there be any design changes that deviate from this list of drawings, the results may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

File Name	File Type	Date Received (dd/mm/yyyy)
Parcel 15_ST CECILIAS_Core_Shell.rvt	Revit Model	21/06/2017
17_0608_P15-Massing Views	PDF	13/06/2017

Existing

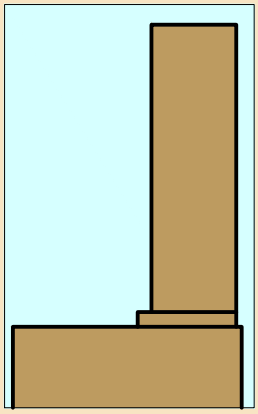
Obstruction of
Skyplane = 0.0%





Proposed

Obstruction of
Skyplane = 71.0%



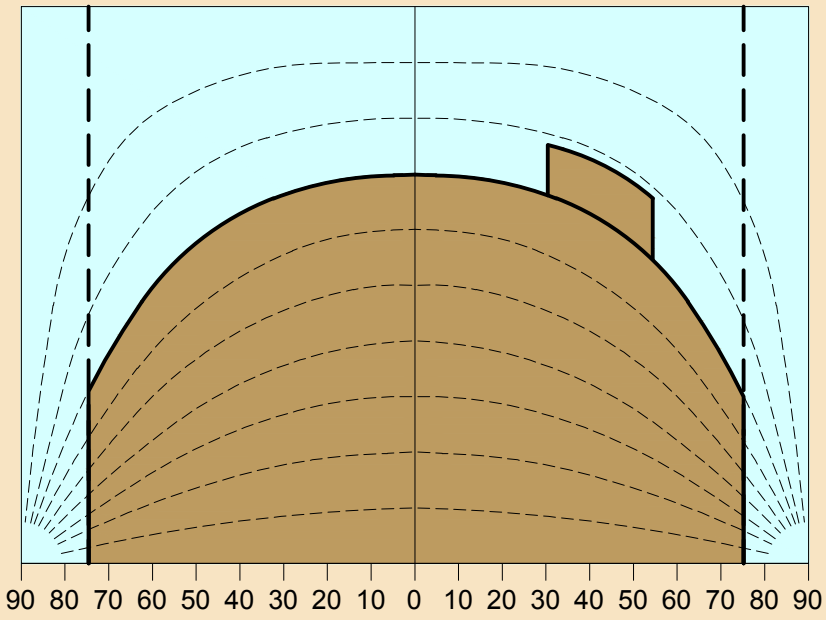


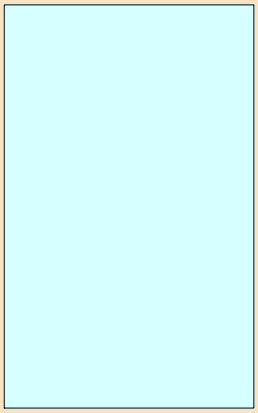
Figure E.1a

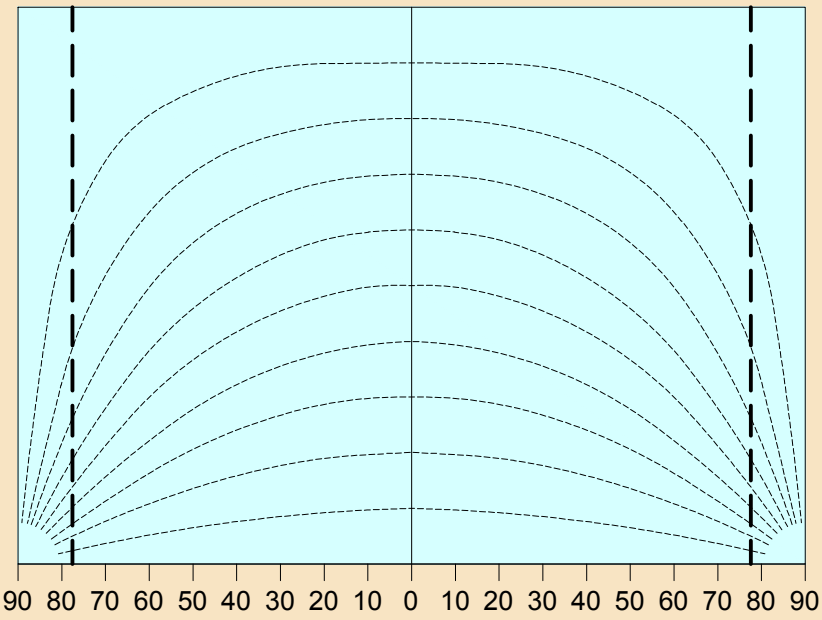
Daylight Analysis BPDA Reduced Build Alternative Center of Boylston Street

1000 Boylston Street
Boston, Massachusetts

Existing

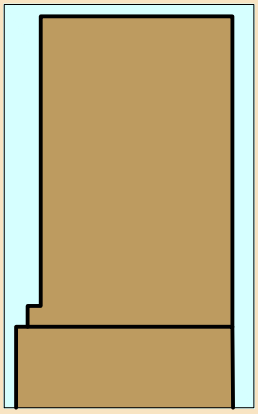
Obstruction of
Skyplane = 0.0%





Proposed

Obstruction of
Skyplane = 94.0%



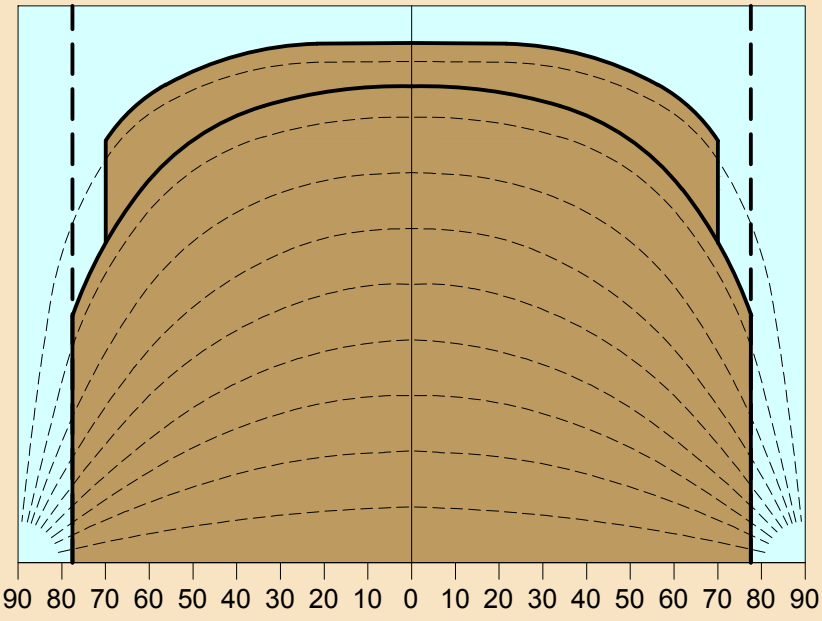


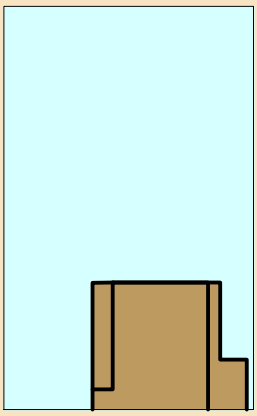
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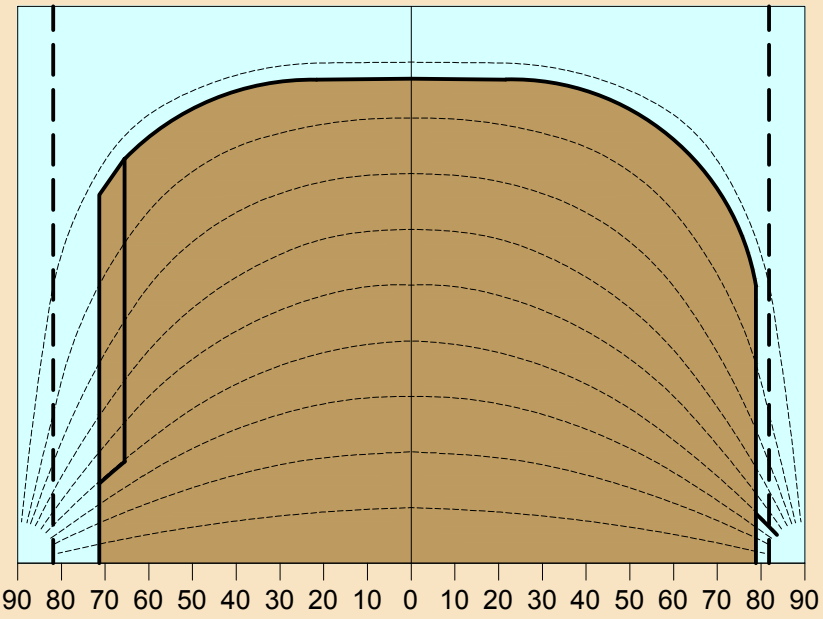
Daylight Analysis BPDA Reduced Build Alternative Center of St. Cecilia Street

1000 Boylston Street
Boston, Massachusetts

Existing

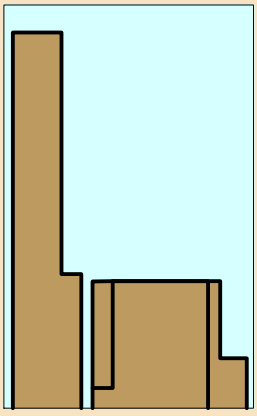
Obstruction of
Skyplane = 77.0%





Proposed

Obstruction of
Skyplane = 84.7%



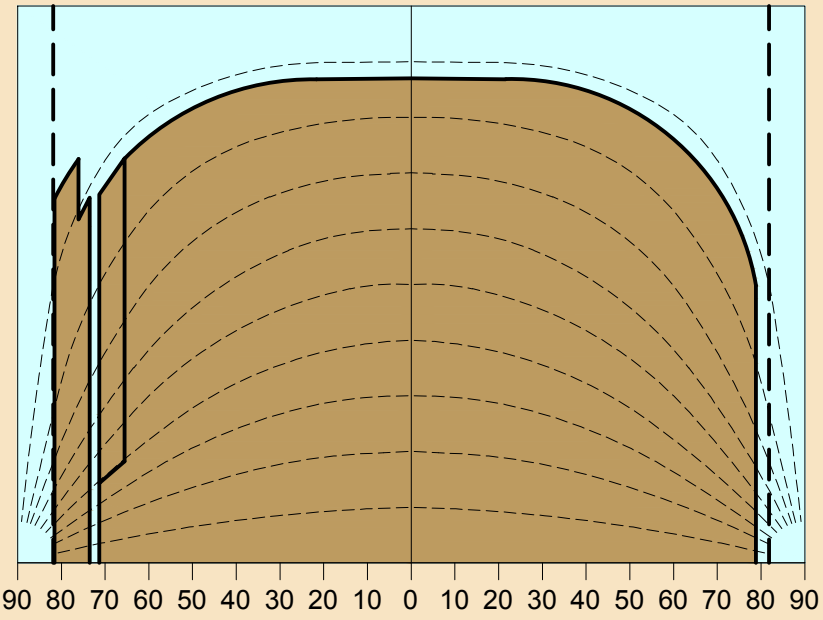


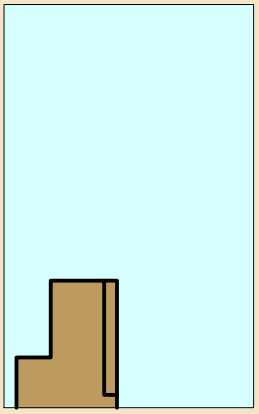
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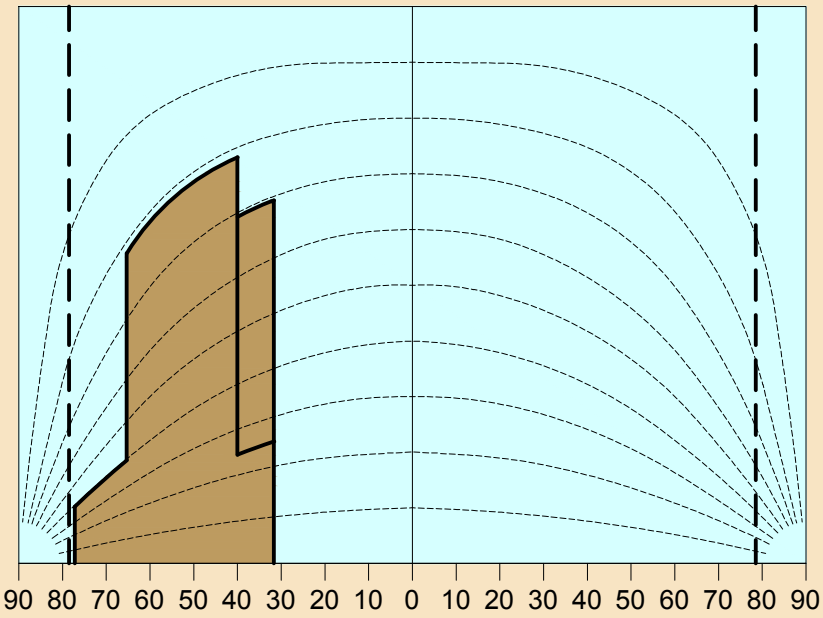
Daylight Analysis BPDA Reduced Build Alternative Center of Scotia Street

1000 Boylston Street
Boston, Massachusetts

Existing

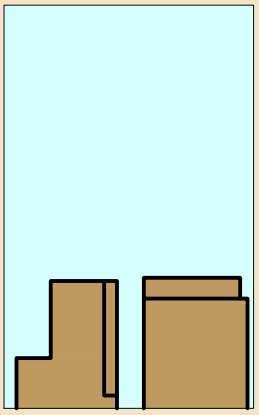
Obstruction of
Skyplane = 30.5%





Proposed

Obstruction of
Skyplane = 53.3%



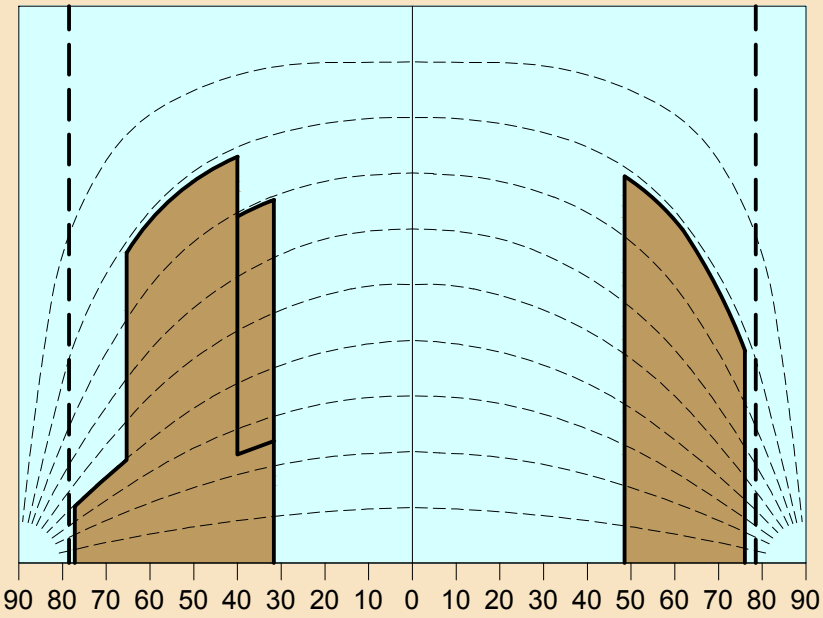


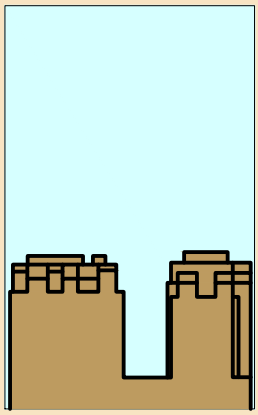
Figure E.1d

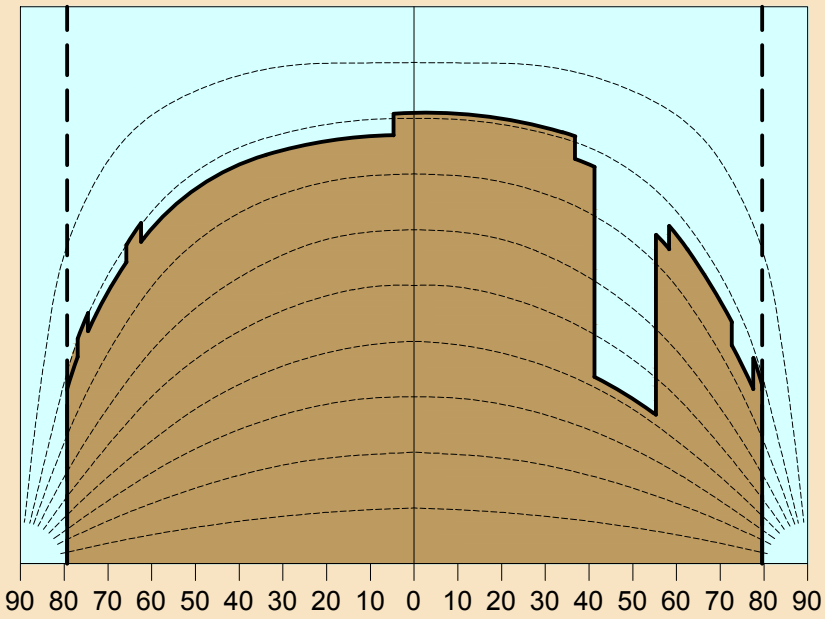
Daylight Analysis BPDA Reduced Build Alternative Center of Dalton Street

1000 Boylston Street
Boston, Massachusetts

Boylston Street

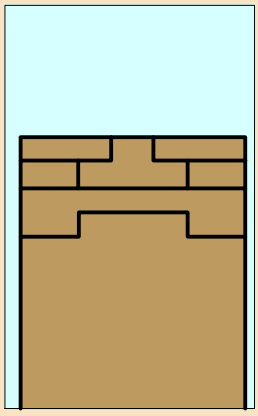
Obstruction of
Skyplane = 100.0%





Ring Road

Obstruction of
Skyplane = 84.4%



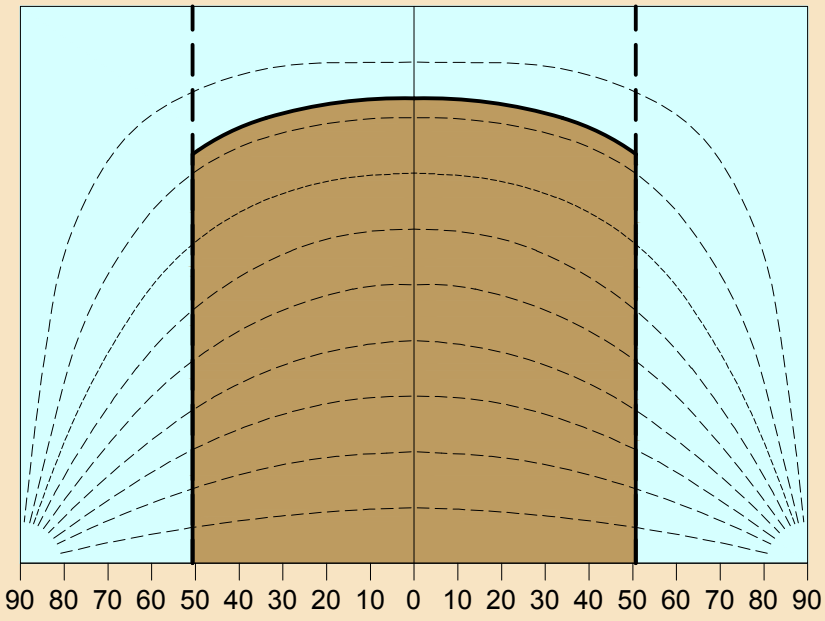


Figure E.2

Daylight Analysis Comparative Project Study
Mandarin Oriental Hotel

1000 Boylston Street
Boston, Massachusetts

REPORT

PARCEL 15

SOLAR REFLECTION ANALYSIS – DETAILED RESULTS

PROJECT #1601386

AUGUST 16, 2017

SUBMITTED TO

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EXECUTIVE SUMMARY

RWDI was retained to investigate the impact that solar reflections emanating from the proposed Parcel 15 development will have on the surrounding urban realm. This report provides the results of a detailed investigation into the frequency, intensity and duration of reflections at selected receptor points. These points were selected based on preliminary screening analyses and consultation with the design team.

Thermal Impact of Reflections

The planar and convex facades of Parcel 15 development ensure that reflected sunlight will not be concentrated in any particular area. Therefore, RWDI does not expect any significant thermal impacts (i.e. risks to human safety or property damage) to occur either on site or in the surrounding neighborhood.

Visual Impact of Reflections – Off-Site

Drivers traveling in some locations in the vicinity of the development are expected to experience an increased level of visual glare. Some of these impacts are expected to alter a driver's current experience as the reflections occur at times when the sun is not in the driver's field of view. In particular, a driver's experience could be altered when:

- Traveling eastbound on Massachusetts Turnpike near the Parcel 12 building (i.e. receptor D4) between 6:00 am and 7:00 am EST during April to May and August.
- Traveling northeast along Boylston Street (receptors D7 and D8) for brief periods in the morning (before 6:00 am EST) during May to July as well as in the afternoons from late February to mid March, and late September to mid October.

Although these reflections may cause distraction to the drivers, all reflections are short in duration (under 10 minutes per day) and mostly occur early in the morning for less than 30 days in a year.

Additionally, in some occasions, although the sun will not be within the view of a driver, the driver still would be generally facing the sun at this time. Hence the change in driver experience due to the reflections may be less significant (e.g. receptor D8).

Moderate levels of visual impact are predicted on the facade receptors in the surrounding neighborhood throughout the year (receptors F14-F18). This indicates a nuisance at worst, as viewers can easily close blinds. In addition, the simulations do not predict any significant visual impact from the reflections within Fenway Park (receptor P24).

Visual Impact of Reflections – On-Site

Frequent reflections are predicted to fall on the podium roof of the development (receptors P21 – P23) throughout the majority of the year and have the potential to be frequent and long in duration. While not posing any risk to safety, the reflections may be a nuisance for people in these areas, particularly if these areas are to be used as amenity spaces.

Overall Impact of Reflections

The impacts of this development on its surrounds are typical of any modern building of this size. If mitigation is desired, particularly for the drivers and amenity spaces, we have provided several strategies to minimize the reflection impacts. For further details, refer to the Mitigation Strategies section on page 21.

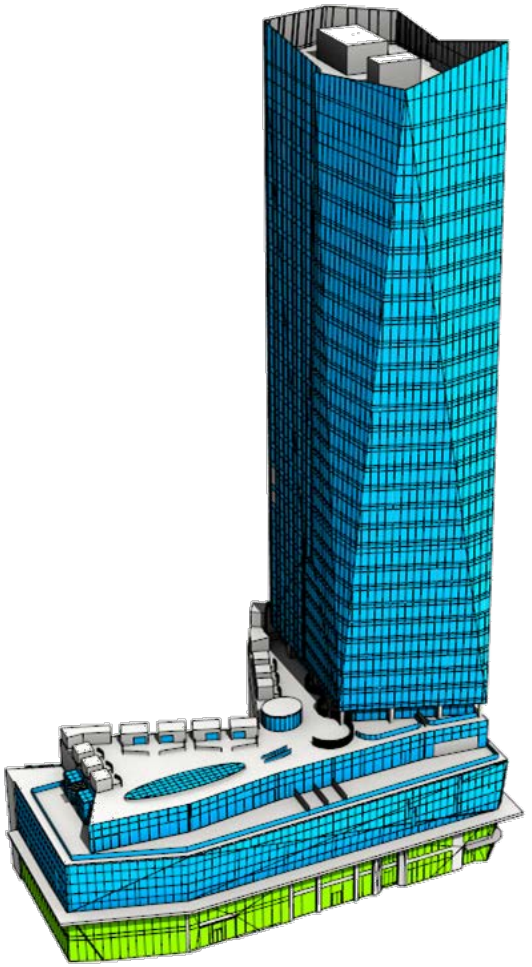
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1. INTRODUCTION

This report provides the computer modeling results of reflected sunlight from the proposed Parcel 15 development, which consists of a residential tower with a 5 story podium, located at the intersection of Boylston St and Dalton St. in Boston, MA (Figure 1). It is our understanding that the development will be surrounded by typical urban spaces such as busy roadways, and other buildings.

RWDI has been retained to investigate the impact that solar reflections emanating from the proposed Parcel 15 development will have on the surrounding urban realm.

A preliminary set of simulations was conducted to determine peak reflection intensities and the frequency of occurrence of reflections for a broad area around the development. This served to identify areas which may experience high intensity or very frequent reflections. This information, along with input from the design team, informed the selection of 24 points for a more detailed analysis.

These receptor points represent drivers, pedestrians, and building facades and the detailed results allow us to quantify the frequency, intensity and duration of glare events at the receptors as well as the sources of those reflections.

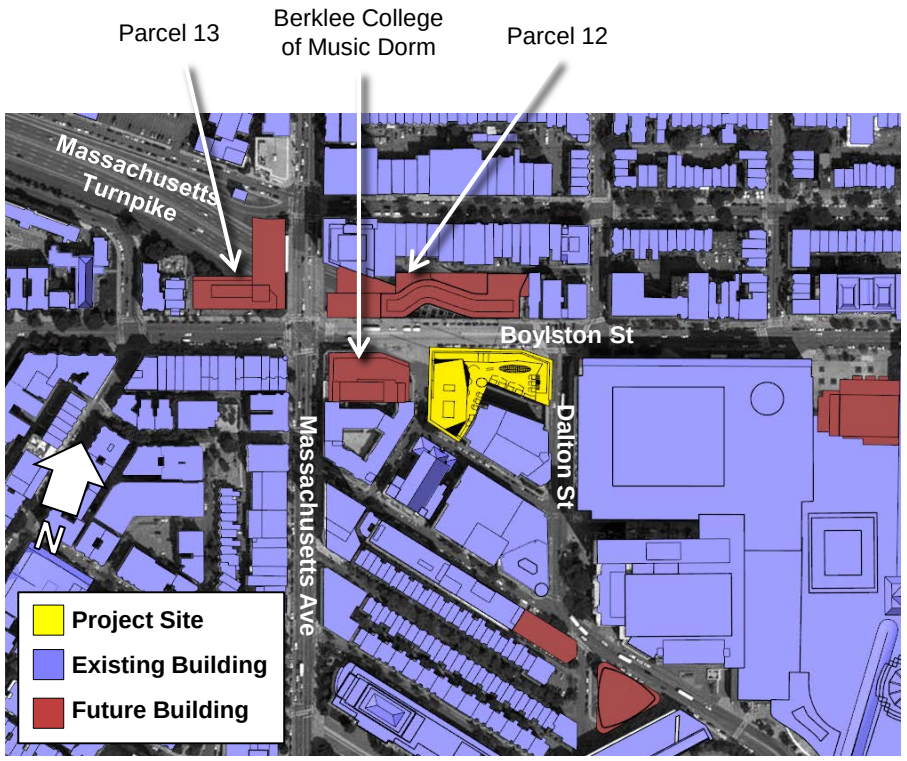


Figure 1: Location of Proposed Parcel 15 Development

2. BACKGROUND – URBAN REFLECTIONS

It is a common experience in urban areas to occasionally experience reflected light from glass and metallic surfaces. The interactions between a building and the sun can lead to numerous visual and thermal issues.

Visual glare can:

- impair the vision of motorists and others who cannot simply look away from the source because of an important activity;
- cause nuisance to pedestrians or occupants of nearby buildings; and,
- create undesirable patterns of light throughout the urban fabric.

Heat gain can*:*

- affect human thermal comfort;
- be a safety concern for people and materials, particularly if insolation levels are high as a result of focusing of multiple reflections to a single point; and,
- alter heating and cooling loads of conditioned spaces affected by the reflections.

The most significant safety concerns with solar reflections occur with concave facades which act to focus the reflected light in a single area (Figure 2). In contrast, convex facades act to scatter reflections in a "pinwheel" pattern. RWDI does not expect issues with solar focusing to be present in the Parcel 15 development as all surfaces are planar or convex.

To quantify the impact of solar reflections from the development, it is important to understand four critical characteristics:

1. ***Frequency*** (how often glare events occur);
2. ***Duration*** (how long each instance of glare lasts);
3. ***Intensity*** (how "bright"; the events are based on a combination of solar intensity, surface size and orientation, and the distance from the point of interest); and,
4. ***Location*** (does the reflection fall on a sensitive location).

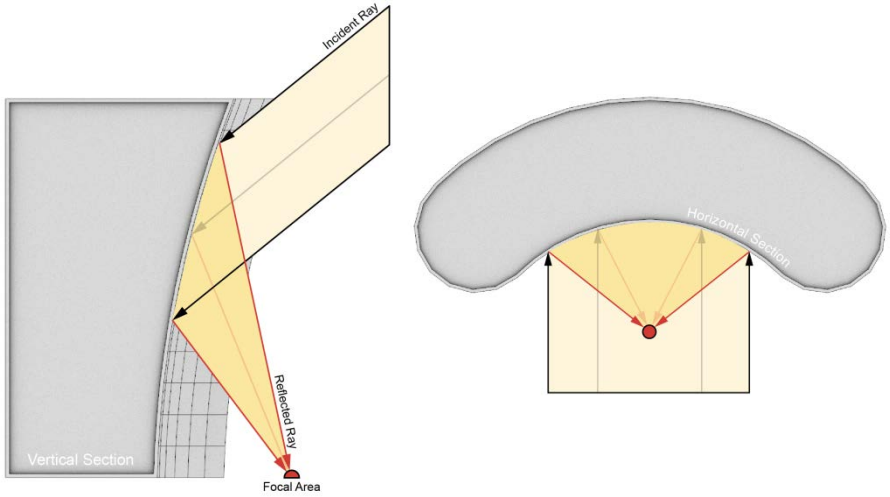


Figure 2: Illustration of an Example of Solar Focusing

3. GENERAL METHODOLOGY

RWDI assessed the potential reflection issues using computer modeling based on RWDI's proprietary software called *Eclipse*, as per the steps outlined below:

- A 3D model of the area of interest was developed (as shown in Figure 3) and subdivided into many smaller triangular patches (see Figure 4). The reflective properties of the various surfaces were defined using the data presented in Appendix B.
- For each minute in a year, the expected solar position was determined, and "virtual rays" were drawn from the sun to each triangular patch of the 3D model. Each ray that was considered to be "unobstructed" was reflected from the building surface and tested for intersections with the receptor points
- This analysis used "clear sky" solar data at the location of Boston Logan International Airport. This is a data set where it is assumed that no cloud cover ever occurs, which provides a "worst case" scenario showing the full extent of when and where glare could ever occur.
- Finally, a statistical analysis was performed to assess the duration, frequency, and intensity of the glare events occurring throughout the year for each receptor.

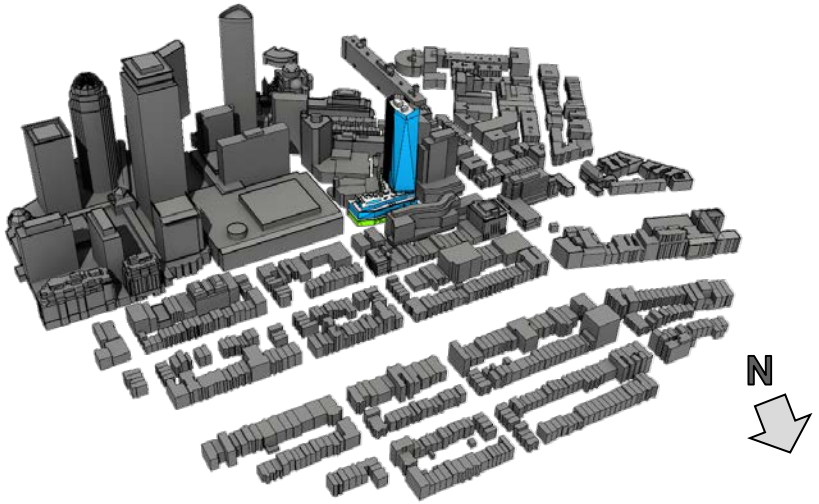


Figure 3: 3D Computer Model of the Proposed Parcel 15 Development along with the Surrounding Neighborhood

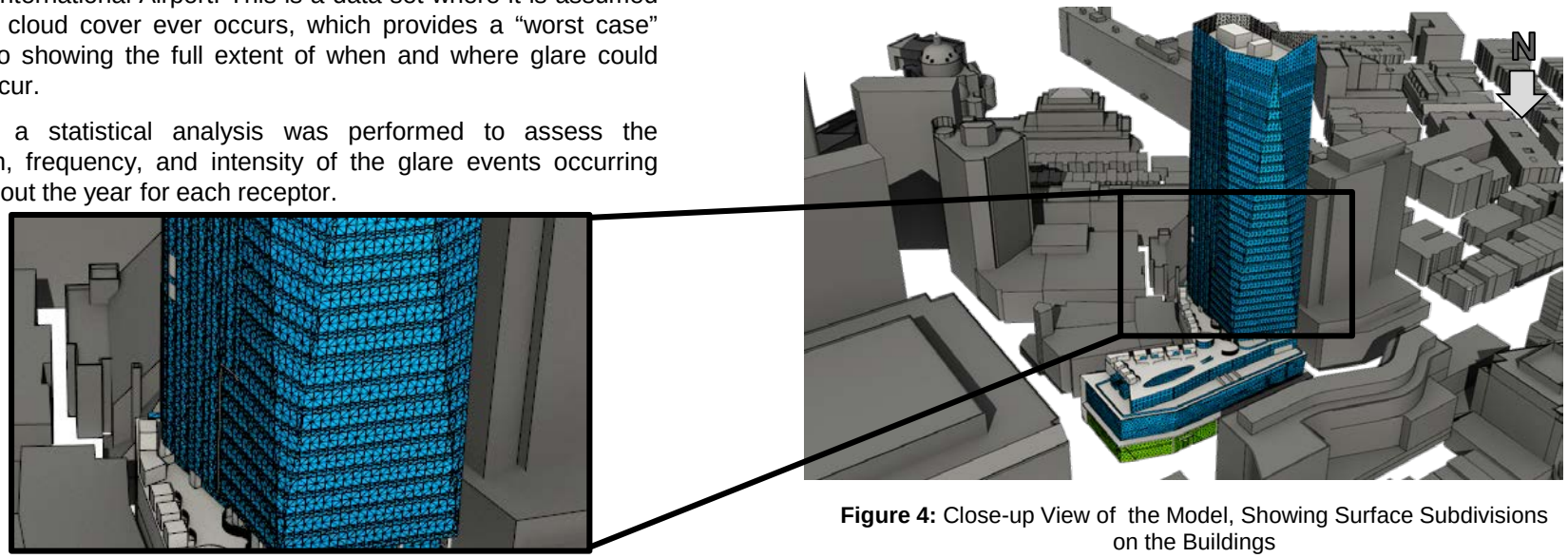


Figure 4: Close-up View of the Model, Showing Surface Subdivisions on the Buildings

4. ASSUMPTIONS AND LIMITATIONS

Key assumptions and simplifications of the modeling process included:

Model

- The analysis was conducted based on the geometry provided by Elkus Manfredi Architects to RWDI on June 21, 2017. It should be noted that this study is highly dependent on building geometry, and any significant changes to the building's geometry will likely require a new analysis.
- Potential reductions of solar reflections due to the presence of vegetation or other non-architectural obstructions were not included, nor are reflections from other buildings.
- Only a single reflection from the development is included in the analysis. As such, light that has reflected off several surfaces before reaching a receptor is assumed to have a negligible impact.

Material Properties of Glazing and Specular Facade Elements

- The reflective properties of the facade were based on information provided by Elkus Manfredi Architects to RWDI on July 18, 2017.
- The reflectance properties of the glazing units are included in Table 1. Figure 5 shows the location of the glazing on the facades. Further details are also available in Appendix B.
- Details of the ceramic frit were unavailable, however ceramic fritting typically has a small influence on the overall reflectivity of a glazing unit. Thus, podium levels 3 and 4 were conservatively assumed to have the same reflective properties as all levels above (VRE1-59 without ceramic frit pattern).

Table 1: Visible and Full Spectrum Nominal Reflectance Values of Glazing

Glazing and Specular Facade Elements	Glazing Type	Visible Reflectance	Full Spectrum Reflectance
Podium Levels 1&2	Guardian SNX 62/27	11%	48%
Podium Levels 3&4	Viracon VRE1-59 with ceramic frit pattern	30%	38%
Podium Level 5	Viracon VRE 1-59	30%	38%
Tower	Viracon VRE 1-59	30%	38%

Meteorological Data

- Irradiance levels were computed using "clear sky" solar data at the location of Boston Logan International Airport. This data uses mathematical algorithms to artificially derive solar intensity values for a given latitude and altitude, ignoring local effects such as cloud cover.

4. ASSUMPTIONS AND LIMITATIONS (CONT'D)

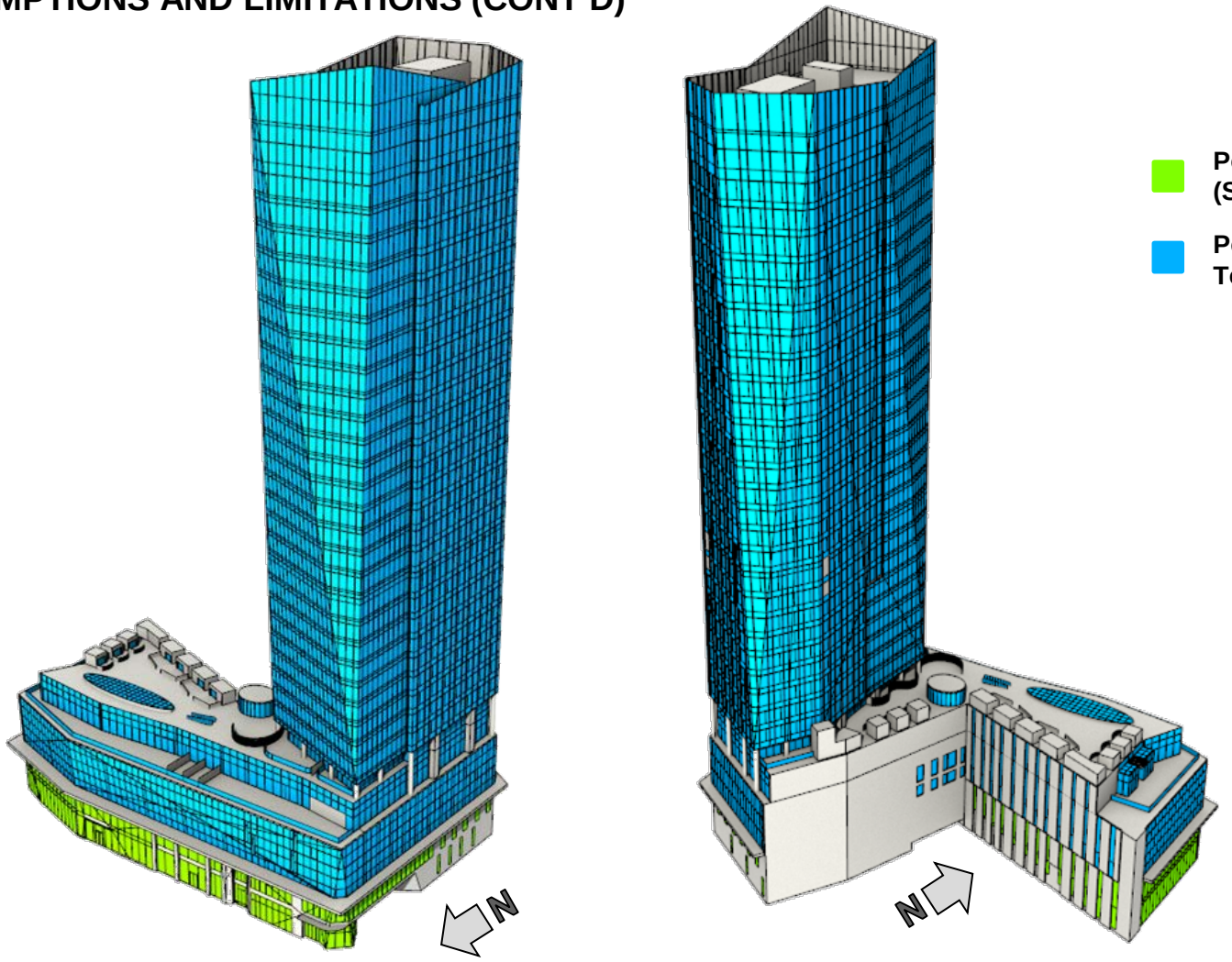


Figure 5: Diagrams indicating locations of glazed facades

5a. PRESENTATION OF RESULTS – VISUAL GLARE

Visual glare results are presented graphically using "annual glare impact diagrams" as shown below in Figure 6. The diagrams illustrate the frequency, duration and intensity of glare events. The horizontal axis of the diagram indicates the date, and the vertical axis indicates the hour of the day. We note that the referenced times are in local standard time, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate. The color of the plot for a given combination of date and time indicates the relative impact of any glare sources found. Additional information on RWDI's criteria for visual glare is included in Appendix C.

Low: Either no significant reflections occur or the reflections will have a minimal effect on a viewer, even when looking directly at the source.

Moderate: The reflections can cause some visual nuisance only to viewers looking directly at the source.

High: The reflections can cause safety issues to viewers who are unable to look away from the source (such as drivers).

Damaging: The brightest glare source is bright enough to permanently damage the eye for a viewer looking directly at the source.

The hatched areas represent times of the year when the observer would see the sun within their field of view. Hence, in these cases, the new impact imposed by the building will not add a new glare event.

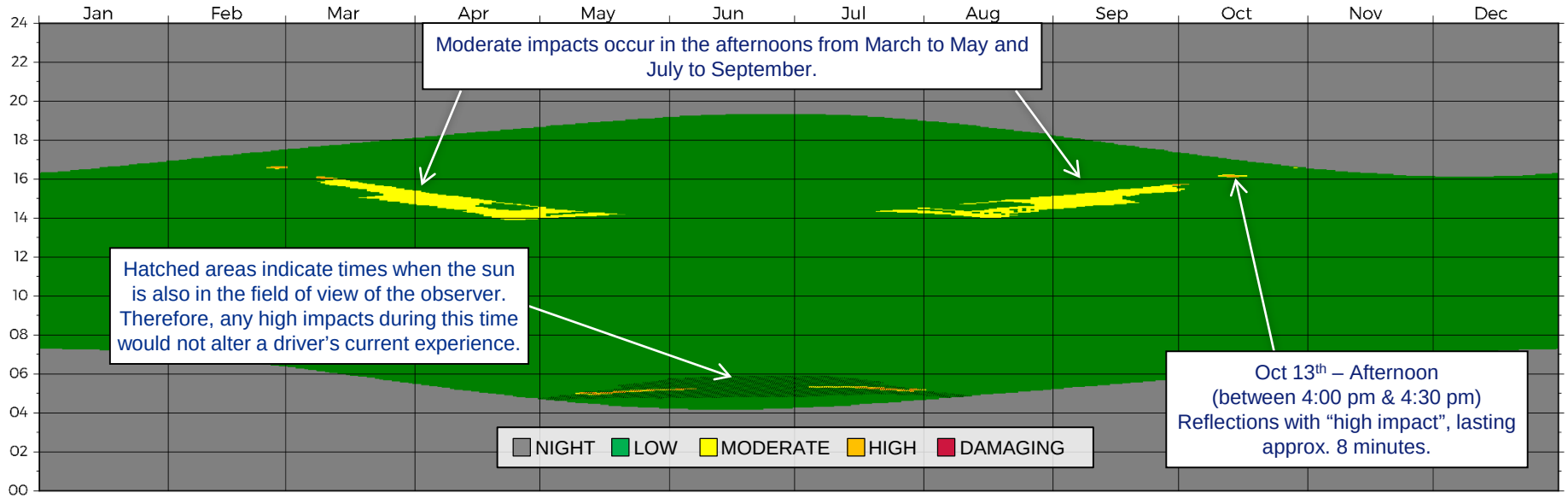


Figure 6: Example of Annual Glare Impact Diagram – Receptor D7

5b. PRESENTATION OF RESULTS – THERMAL IMPACT ON DRIVERS AND PEDESTRIANS

The thermal impacts of the reflections from the building on the ***driver***, and ***pedestrian*** receptors are presented using "annual thermal impact diagrams" as shown in Figure 7. These diagrams illustrate the frequency, duration and intensity of reflection events categorized based on RWDI's short-term and ceiling exposure thresholds. The horizontal axis of the diagram indicates the day of the year, and the vertical axis indicates the hour. We note that the referenced times are in local standard time, so in jurisdictions where Daylight Savings Time is used, the plot should be shifted by an hour when appropriate.

The color of the plot for a given combination of date and time indicates the thermal impact of the reflected light at that point in time.

Low: Either no significant reflections occur or the reflection intensity is below the short-term exposure threshold of 1500 W/m².

Moderate: The reflection intensity is above the short-term exposure threshold of 1500 W/m² but below the safety threshold of 2500 W/m². Such reflections would quickly cause thermal discomfort in people.

High: The reflection intensity is above the safety threshold of 2500 W/m² but below 3500 W/m². This level of exposure to bare skin would lead to the onset of pain within 30 seconds.

Very High: The reflection intensity is above 3500 W/m². This level of exposure would lead to second degree burns on bare skin within 1 minute.

Additional information on RWDI's criteria for solar thermal is included in Appendix C.

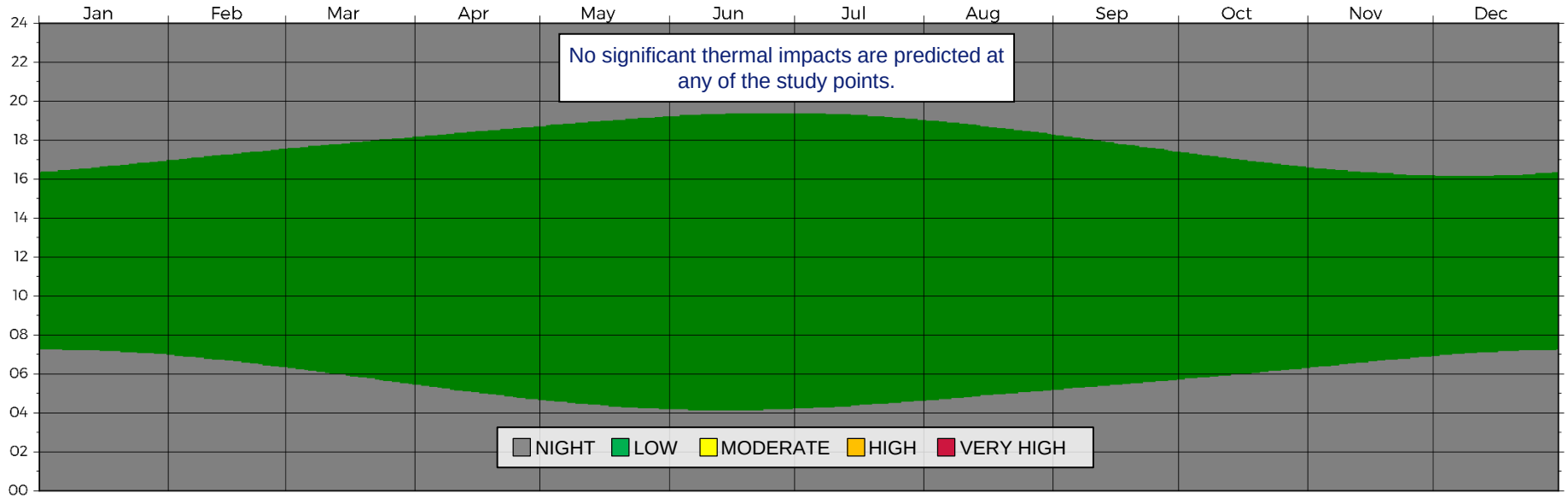


Figure 7: Example of Thermal Impact Diagram – Receptor P19

5c. PRESENTATION OF RESULTS – THERMAL IMPACT ON FACADE

A different scale is used to illustrate the reflected thermal energy on ***facades*** in order to provide further clarity on the potential for heat gain issues. Figure 8 illustrates an example of the annual heat impact diagram on a facade receptor. The diagrams illustrate the irradiance levels of all predicted reflection events along with their frequency, and duration.

The format of the diagram is similar to the diagram described in the previous pages. The color of the plot for a given combination of date and time indicates the intensity of the reflected energy at that point in time. Additional information on RWDI's criteria for solar thermal is included in Appendix C.

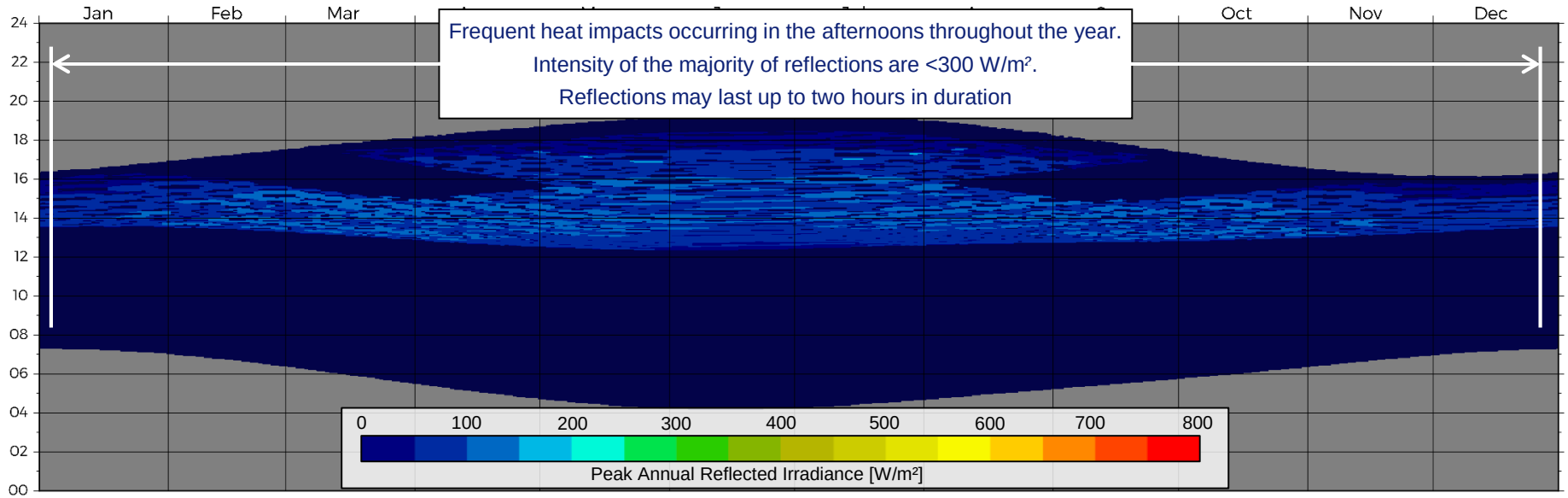


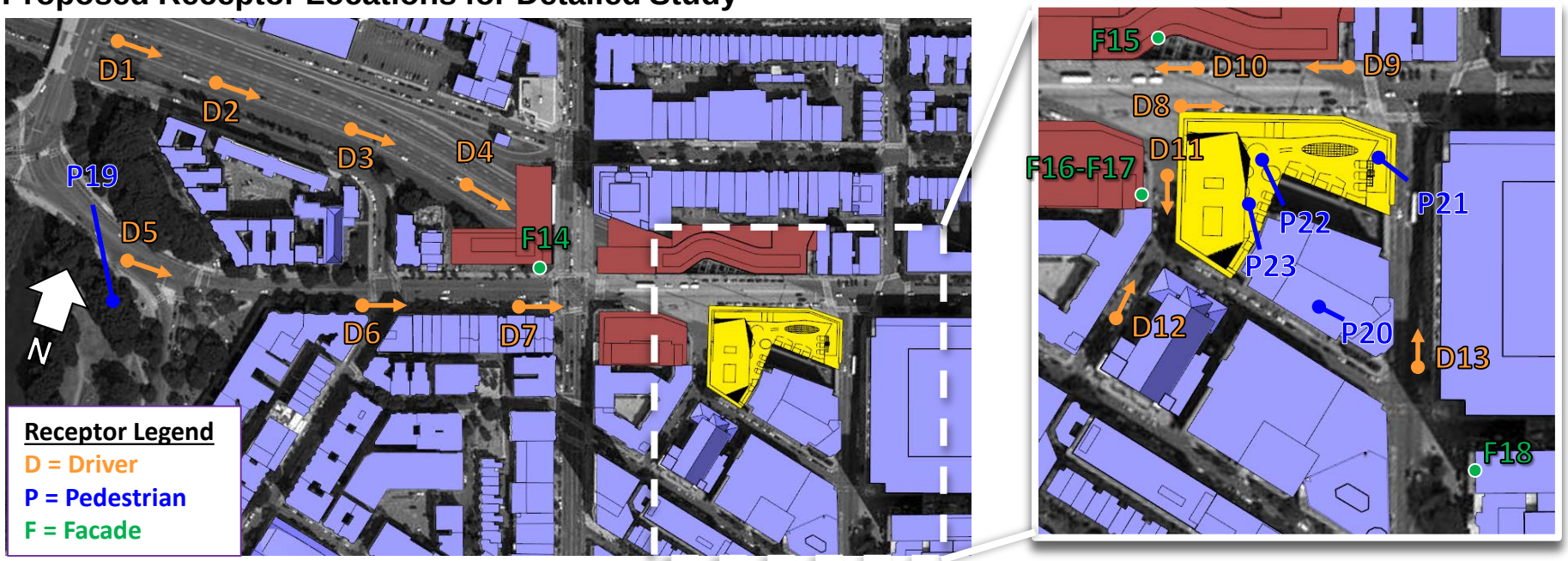
Figure 8: Example of Annual Thermal Impact Diagram – Receptor F17

6. RECEPTOR LOCATIONS

Based on the preliminary analysis (dated August 4, 2017) as well as areas of interest identified by the design team, 24 receptor locations (shown on the following page) were selected for detailed analysis. The selected points were chosen to understand in more detail how reflections from the building will impact drivers, pedestrians and other buildings.

For points that represent people undertaking tasks with a defined direction of view (i.e. motorists who must maintain forward visual contact) the assumed direction of view is indicated with an arrow.

Proposed Receptor Locations for Detailed Study



Receptor Number	Receptor Description	Receptor Number	Receptor Description
D1-D4	Drivers traveling east on Massachusetts Turnpike	F15	Facade of Parcel 13 to the northwest of the development
D5-D8	Drivers traveling east and northeast on Boylston St	F16-F17	Facade of Berklee College of Music Dorm to the southwest of the development, at lower-half and upper-half heights
D9-D10	Drivers traveling southwest on Boylston St	F18	Facade of Sheraton Boston Hotel to the southeast of the development
D11	Drivers traveling southeast on St Cecelia St	P19	Pedestrians at Mother's Rest Park
D12	Drivers traveling north on St Cecelia St	P20	Pedestrian receptor on the parking lot to the south of development
D13	Drivers traveling northwest on Dalton St	P21-P23	Pedestrians on the roof of the podium of the Parcel 15 development
F14	Facade of Parcel 12 to the west of the development	P24	Pedestrian receptor in Fenway Park (see page 50 in Appendix A for receptor location)

7. RESULTS

Table 2 on the following page summarizes the level of visual and thermal impacts around the Parcel 15 development at the receptors described earlier. Visual and thermal impact diagrams for each of the receptor points are provided in Appendix A.

Figures 9-11 illustrate the source of the glare from the Parcel 15 tower on selected points at selected times. This is not an exhaustive list of all potential glare impacts, but rather serves to illustrate important results and observations.

7. RESULTS
Summary of Predicted Overall Level of Impact of Reflected Sunlight

Table 2: Summary of Overall Predicted Impacts on Receptors

Receptor Number	Receptor Type	Assumed Activity Risk Level	Assumed Ability to Self-Mitigate	Peak Reflected Light Visual Impact	Direct Visual Impact of Sun at Time of High Impact Reflection event (Y/N)	Peak Reflected Solar Thermal Impact on People	Peak Reflected Solar Thermal Impact on Facade
D1	Driver	High	Low	***Low***	–	***Low***	–
D2	Driver	High	Low	***Low***	–	***Low***	–
D3	Driver	High	Low	***High****	***Yes***	***Low***	–
D4	Driver	High	Low	***High****	***No***	***Low***	–
D5	Driver	High	Low	***Low***	–	***Low***	–
D6	Driver	High	Low	***Low***	–	***Low***	–
D7	Driver	High	Low	***High****	Moring impacts: ***Yes*** Afternoon impacts: ***No***	***Low***	–
D8	Driver	High	Low	***High*****	***Some impacts***	***Low***	–
D9	Driver	High	Low	***Moderate***	–	***Low***	–
D10	Driver	High	Low	***Low***	–	***Low***	–
D11	Driver	High	Low	***Moderate***	–	***Low***	–
D12	Driver	High	Low	***Moderate***	–	***Low***	–
D13	Driver	High	Low	***Moderate***	–	***Low***	–
F14-F18	Facade	Low	High	***Moderate***	–	–	***Low***
P19	Pedestrian	Low	High	***Low***	–	***Low***	–
P20-P23	Pedestrian	Low	High	***Moderate***	–	***Low***	–
P24	Pedestrian	Low	High	***Low***	–	***Low***	–

***** **High impacts that occur when the sun is also in an observer's field of view cause a reduced level of impact**

****** **The high impact reflections are brief and last up to 8 minutes or less in duration.**

***** The high impact reflections last up to 10 minutes in duration. Additionally, during some periods of impact, the sun falls slightly out of the driver's field of view, indicating that the drivers are still facing the sun, hence their current experience will be altered less significantly by the reflections.**

8. OBSERVATIONS AND CONCLUSIONS

1. Like any contemporary building, the reflective surfaces of the Parcel 15 development are naturally causing solar reflections in the surrounding neighborhood. The impacts of this development on its surrounds are typical of any modern building of this size.
2. The vertical fins on the current façade design are a positive design feature and aid in reducing the frequency and intensity of reflections, particularly to the north and east of the development.

Thermal Impact of Reflections

3. The planar facades of this development ensure that reflected sunlight will not focus (multiply) in any particular area. Therefore, RWDI does not expect any significant thermal impacts (i.e. risks to human safety or property damage) to occur either on site or in the surrounding neighborhood.

Visual Impact of Reflections – Off-Site

Drivers on Massachusetts Turnpike:

4. The majority of drivers traveling east on the Massachusetts Turnpike are not expected to experience reflections that would alter a driver's current experience (receptors D1 – D3).
5. Drivers approaching the Parcel 12 building (receptor D4) are expected to see some infrequent **high** visual impact reflections during early mornings in April, May and August. However, these reflections occur at most 27 days in a year, with a maximum duration of 7 minutes per day. Additionally, all high impacts disappear after 7:00 am EST, which would reduce the number of people exposed to the reflections. The primary source of reflections is the lower third of the north facade of the Parcel 15 tower.

Drivers on Boylston Street:

6. Drivers traveling northeast on Boylston St at Massachusetts Avenue (receptor D7) are predicted to experience **high** impact reflections in February, March, September and October late afternoons. Similar to receptor D4, these reflections are brief and infrequent, occurring 27 days per year at most and lasting up to 8 minutes in duration. These high impact reflections are emanating from some small sections on the west façade. Some additional high impact reflections are also expected to occur in the summer mornings. However, the sun will already be in a driver's line of sight during this time and thus these reflections are not expected to alter a driver's current experience, reducing their impact.
7. Drivers immediately adjacent to the Parcel 15 development and traveling northeast (receptor D8) are expected to experience some frequent high impact reflections in the early mornings of May to July. That being said, all impacts are predicted to disappear after 5:00 am EST and the maximum duration of these reflections is 10 minutes per day. Furthermore, while the sun will not always be within the standard 20° view angle of a driver, the driver still would be generally facing the sun at this time, hence the change in driver experience due to the reflections may be less significant. The source of these reflections is a section of the north façade of the podium on levels 1 and 2.
8. Drivers traveling northeast on Boylston Street west of receptor D7 (receptors D5 and D6) are not predicted to experience any high visual impacts.
9. Drivers traveling southeast (receptors D9 and D10) are not expected to experience any high impact reflections from the Parcel 15 development.

8. OBSERVATIONS AND CONCLUSIONS

Pedestrians and Surrounding Buildings:

10. Moderate levels of visual impact are predicted to fall on the facade receptors in the surrounding neighborhood throughout the year (receptors F14 – F18) indicating a nuisance at worst, as viewers can easily look away or close blinds.

11. The simulations do not predict any significant visual impact from the reflections within Mother's Rest Park (receptor P19) and Fenway Park (receptor P24).

Visual Impact of Reflections – On-Site

12. Frequent reflections are predicted to fall on the podium roof of the Parcel 15 development in the mornings throughout the majority of the year (receptors P21 – P23). At these locations where people are also expected to linger, the reflections have the potential to be frequent and long in duration. While not posing any risk to safety, the reflections may be a nuisance for people in these areas.

13. The potential exists for reflections from the tower to travel through the skylight on the roof of the podium during the morning and evening hours. While the brightness of the reflection will be attenuated by the skylight glazing, these reflections may be bright enough to be visible to the occupants below. The extent of this impact will depend on the interior design of the space below as well as the electric lighting planned for this space. We would expect that any visual impact would be minor (aside from individuals who elect to look up at the reflection), and that any additional solar heat gain would be offset by the mechanical systems servicing the space.

8. OBSERVATIONS AND CONCLUSIONS (CONT'D)

Glare Source Diagram for Selected Impacts on Driver Receptor D4

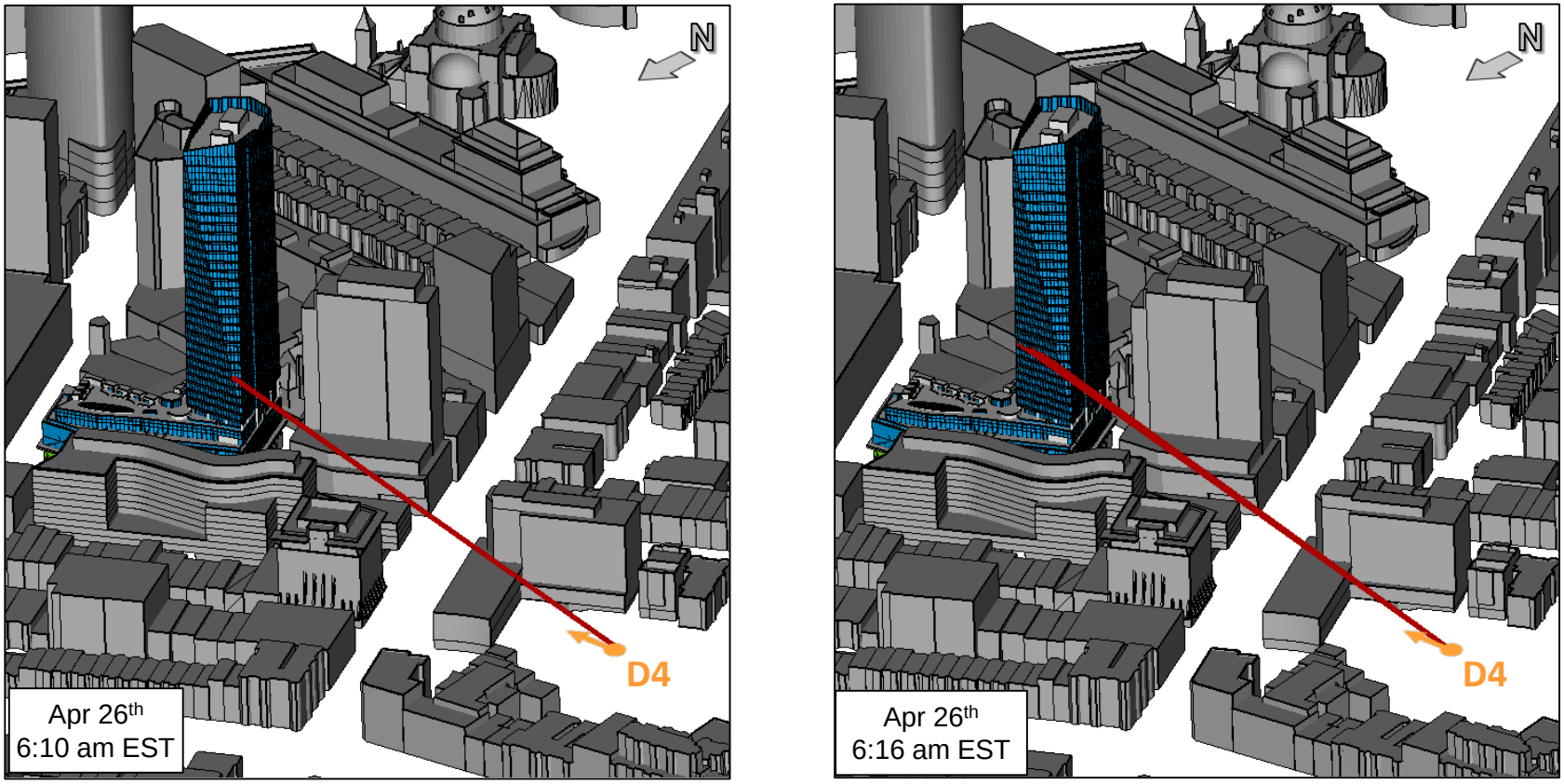


Figure 9: Illustration of Reflection Traces with High Impacts on Driver Receptor D4 on April 26th Morning. These Impacts May Alter a Driver's Experience as the Sun Would not be in the Driver's Field of View.

8. OBSERVATIONS AND CONCLUSIONS (CONT'D)

Glare Source Diagram for Selected Impacts on Driver Receptor D7

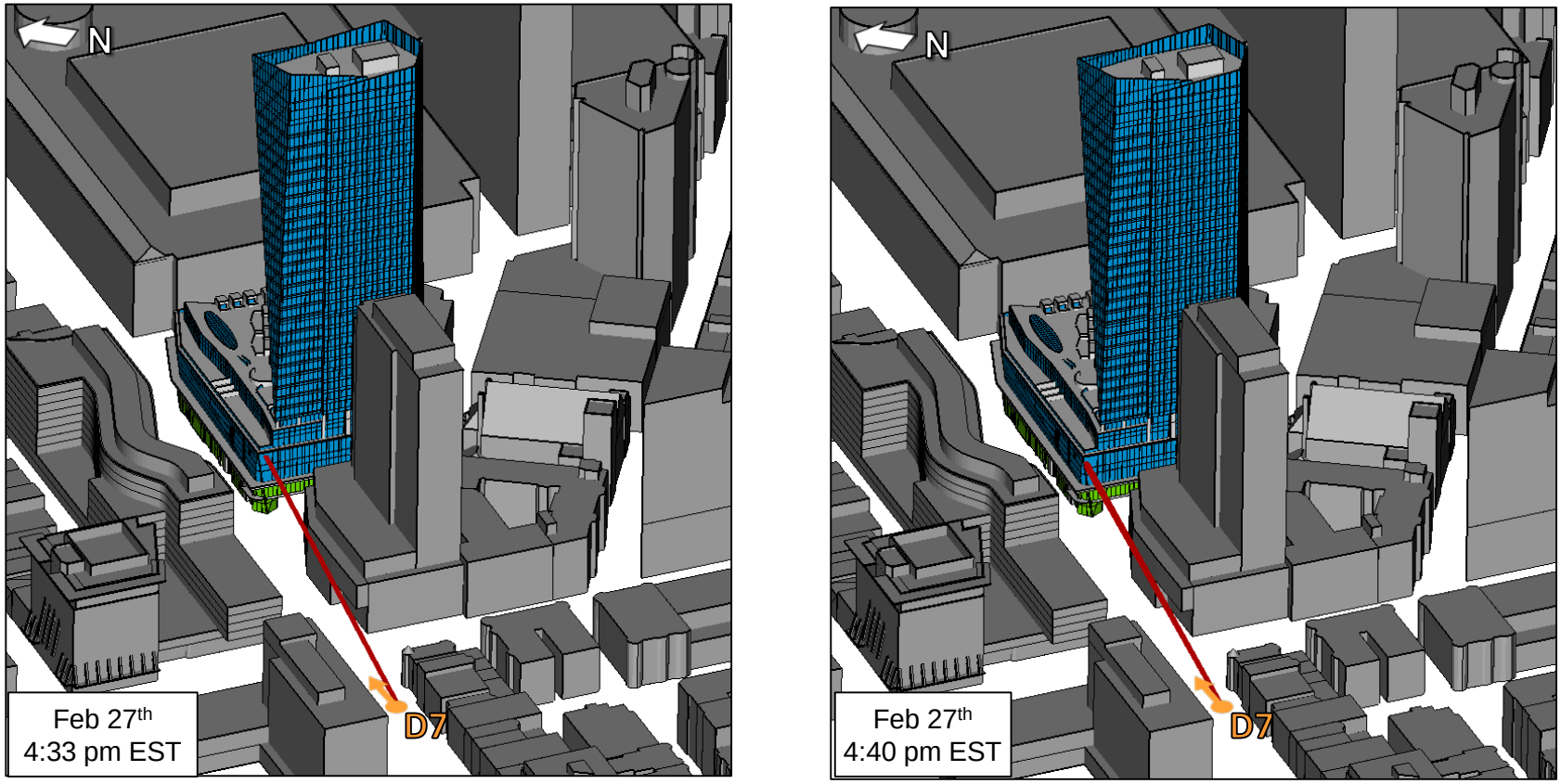


Figure 10: Illustration of Reflection Traces with High Impacts on Driver Receptor D7 on February 27th Afternoon. These Impacts May Alter a Driver's Experience as the Sun Would not be in the Driver's Field of View.

8. OBSERVATIONS AND CONCLUSIONS (CONT'D)

Glare Source Diagram for Selected Impacts on Driver Receptor D8

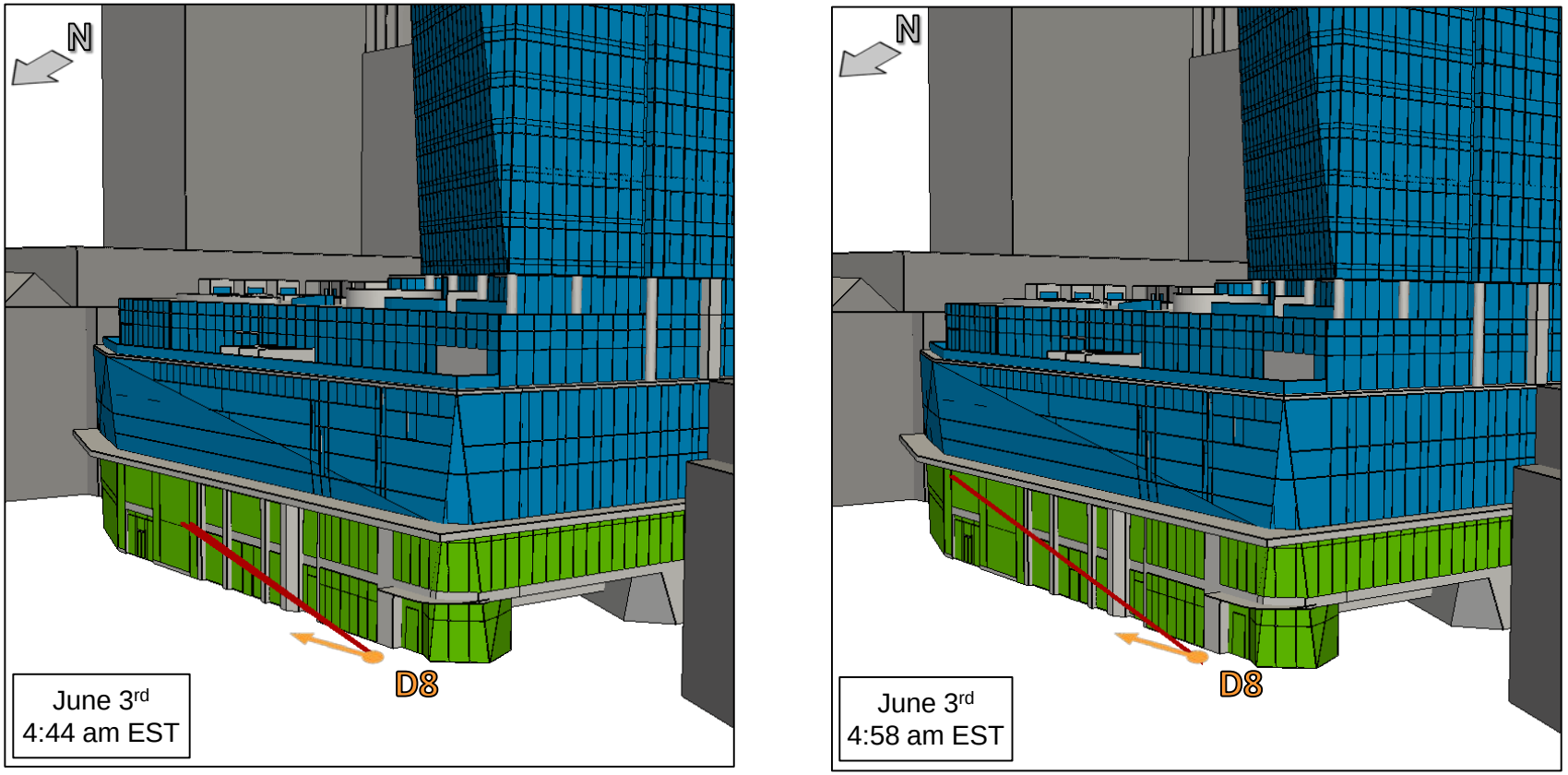


Figure 11: Illustration of Reflection Traces with High Impacts on Driver Receptor D8 on June 3rd Morning. These Impacts May Alter a Driver's Experience as the Sun Would not be in the Driver's Field of View.

9. MITIGATION STRATEGIES

If mitigation is desired, RWDI recommends that the following mitigation options be considered (refer to Figures 12 – 14 on the following pages for a mark-up of these recommendations):

1. *Building Mounted Shading Devices* – Breaking up the reflections emanating from the north facade of the development (area inside the white box in Figure 12) which impact driver receptor D4 could be accomplished by constructing physical blockages. In particular, employing vertical fins approximately 3 – 4 inches deep at each mullion would aid in intercepting high-impact reflections falling onto those receptors during early morning in summer.

   Vertical mullion fins approximately 4 – 5 inches deep for podium levels 1 and 2 of the north facade (area inside the white box in Figure 13) would help reduce the frequency of glancing reflections that fall onto the drivers traveling on Boylston Street in the early mornings (receptor D8).

   Eliminating the reflections with high impacts that fall onto receptor D7 would require significant alterations to the west facade (areas inside the white box in Figure 13), which may not be justifiable to implement given the narrow range of dates and the expected duration of the high impacts (less than 30 days per year).

   It should be noted that building mounted shading devices need careful design to ensure that they do not lead to potential problems with wind induced noise or vibration, snow and ice build up, etc. Thus, if mitigation via facade mounted shading structures is desired, RWDI would recommend re-running the simulations with the proposed shading devices included to predict their effectiveness.

2. *Free-Standing Shading Devices* – A practical approach to intercept some of the frequent reflections falling onto the potentially sensitive areas on the podium roof (receptors P21 – P23) may be to block reflections closer to grade. Strategic use of shading devices (umbrellas, canopies, vegetation, etc.) on the areas between the two buildings (Figure 14) will limit the thermal and visual impact of reflections. However, this would have no impact on the off-site reflections.

3. *Operationalized Mitigation* – Mitigation on-site can also be achieved through operational means (e.g. scheduling any activities during the afternoons). This would not be necessary if the pedestrian areas are sufficiently shaded as per point 2 above.

9. RECOMMENDATIONS (CONT'D)

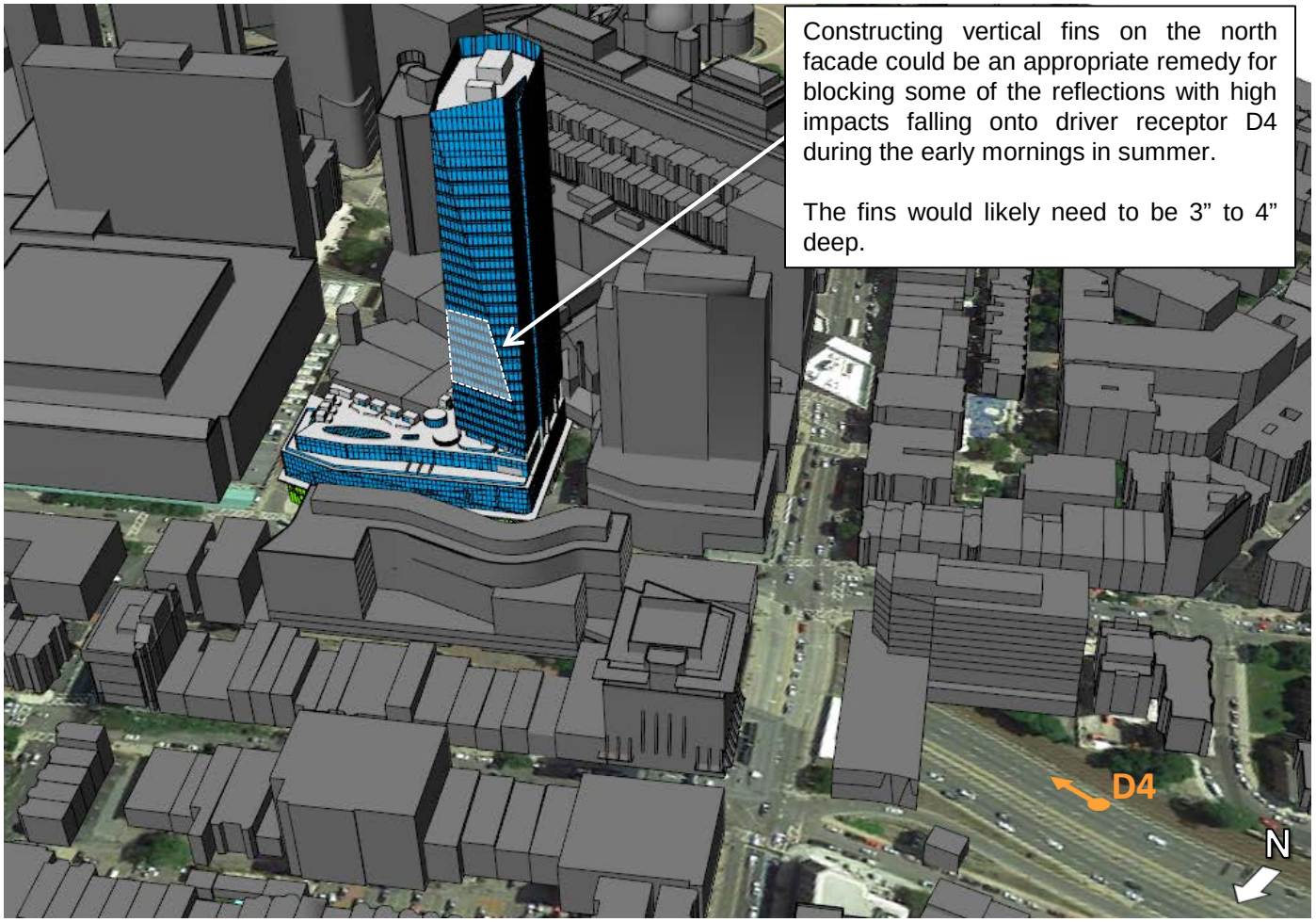


Figure 12: Markup of the Recommendations for Building-mounted Shading Devices for Receptor D4.

9. RECOMMENDATIONS (CONT'D)

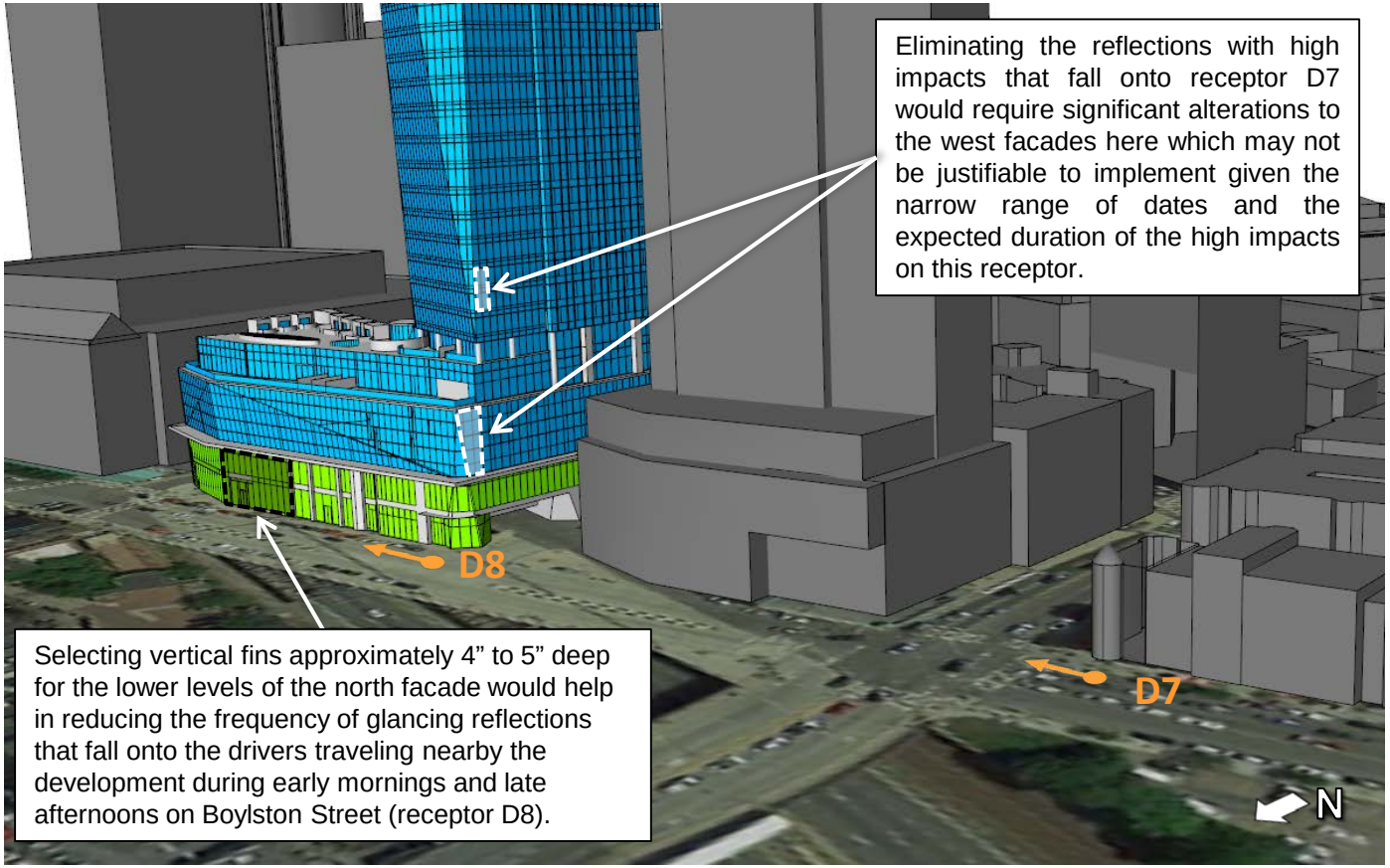


Figure 13: Markup of the Recommendations for Building-mounted Shading Devices for Receptors D7 and D8.

9. RECOMMENDATIONS (CONT'D)

Strategic use of shading structures (canopies, umbrellas, etc.) and/or landscaping (dense trees) would improve visual and thermal comfort in the areas located on the roof of podium by obstructing both direct and reflected sunlight.

Mitigation on-site can also be achieved through operational means (e.g. scheduling any activities after 12:00pm). This would not be necessary if the pedestrian areas are sufficiently shaded as mentioned above.

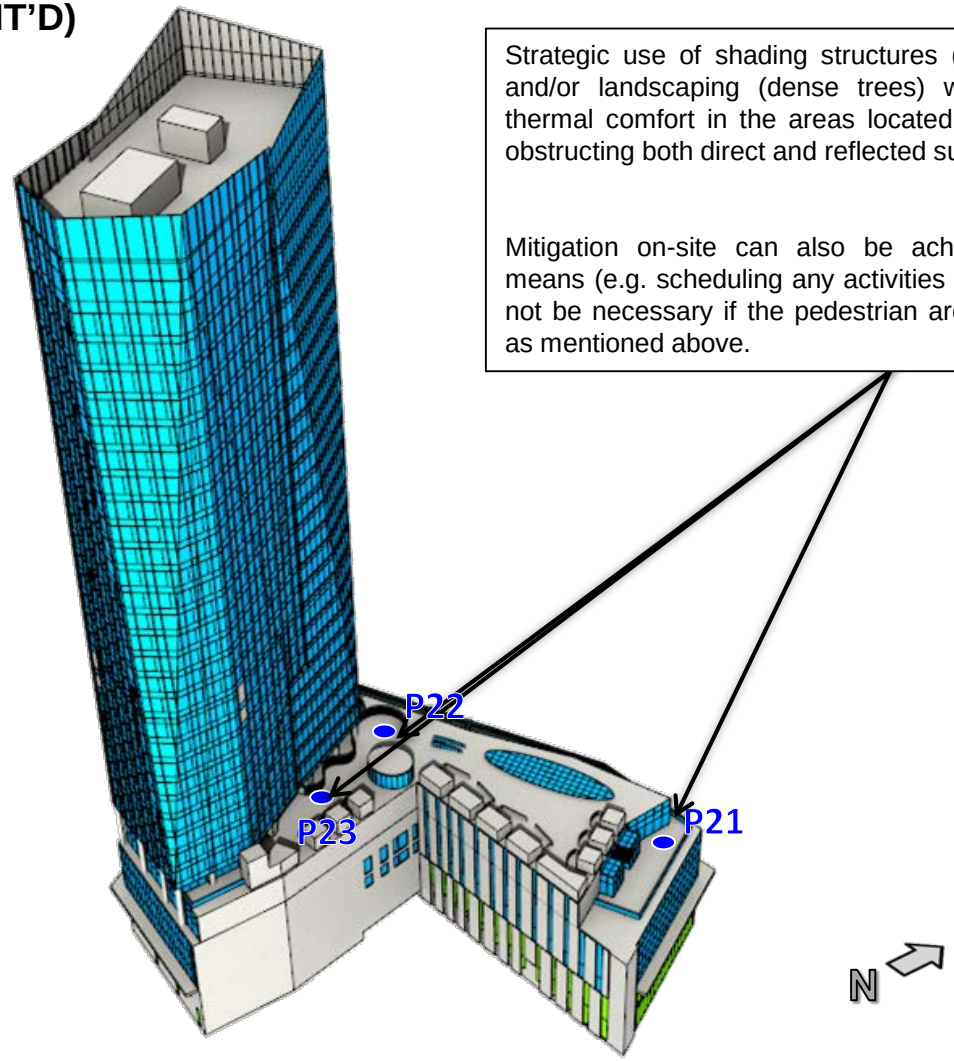


Figure 14: Markup of the Recommendations for Free-Standing Shading Devices for Receptors P21 – P23.

APPENDIX A - DETAILED REFLECTION RESULTS

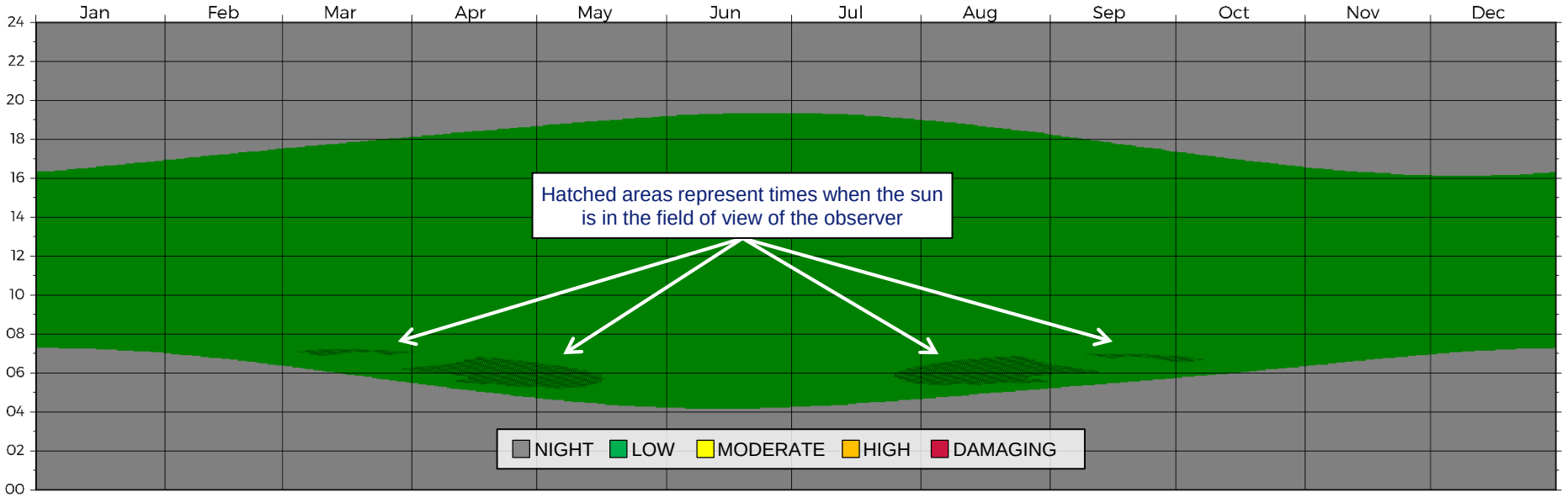
Visual Reflection Impact Plots

Receptor D1 Annual Visual Impact

Receptor D1 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling east on Massachusetts Turnpike.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



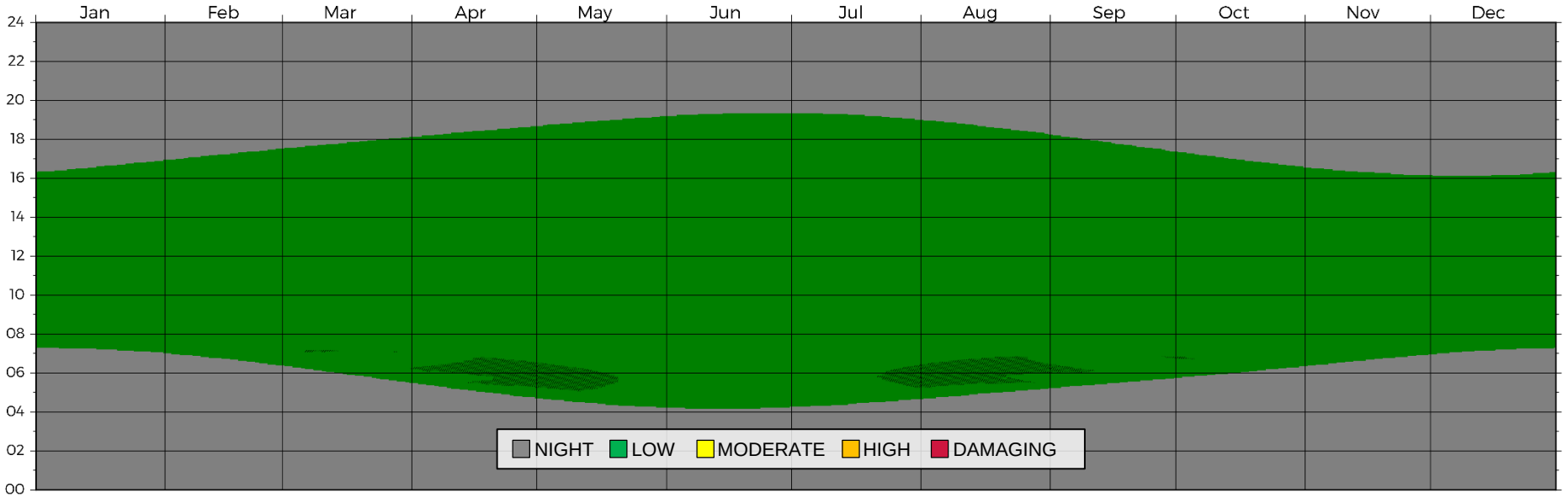


Receptor D2 Annual Visual Impact

Receptor D2 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling east on Massachusetts Turnpike.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



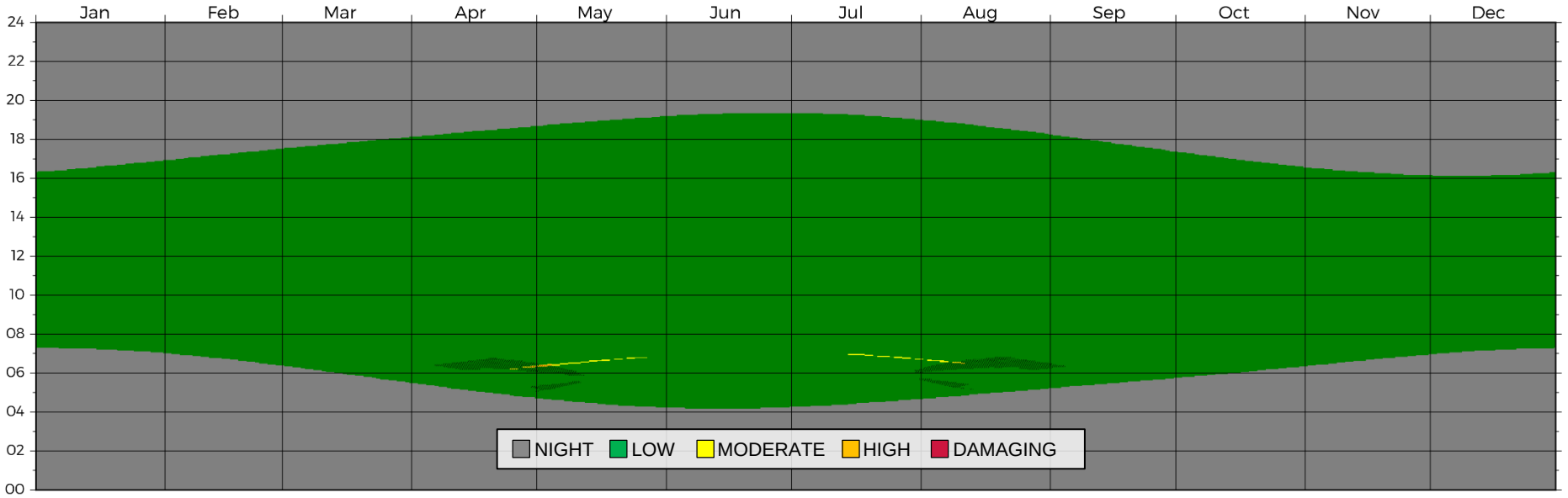


Receptor D3 Annual Visual Impact

Receptor D3 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling east on Massachusetts Turnpike.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



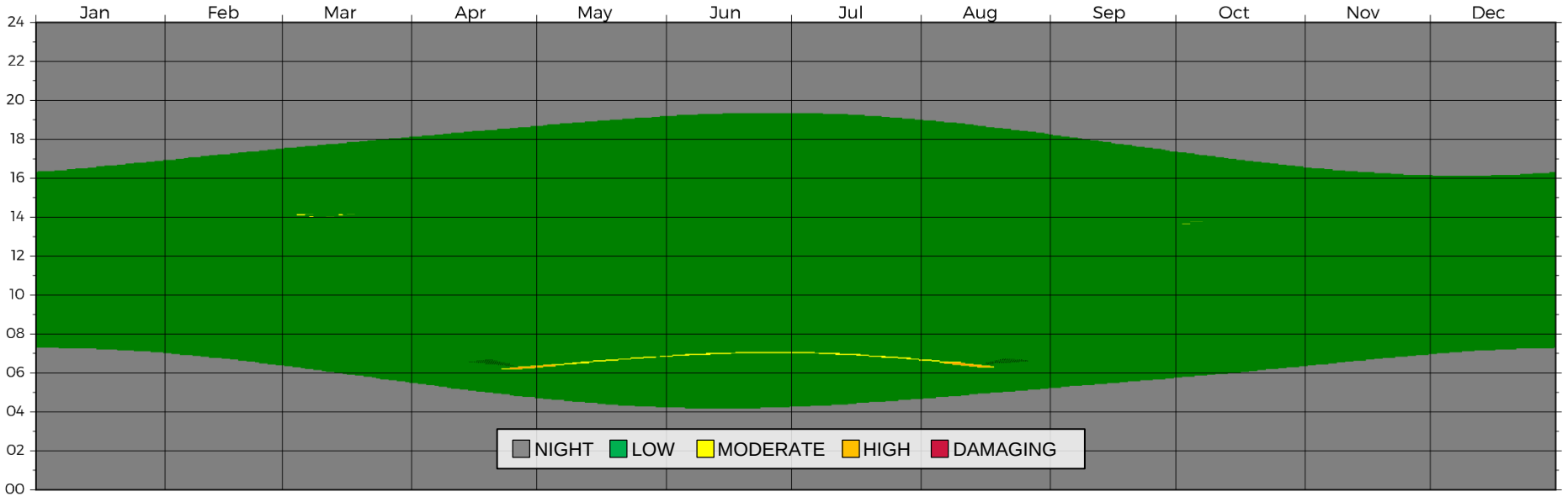


Receptor D4 Annual Visual Impact

Receptor D4 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling east on Massachusetts Turnpike.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



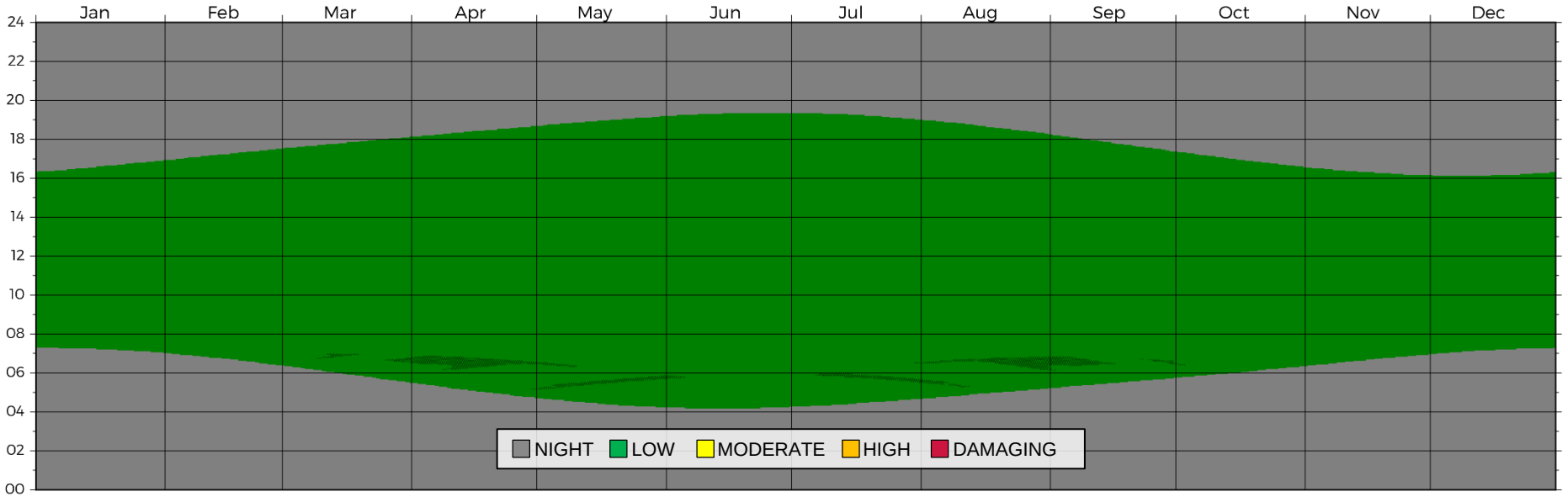


Receptor D5 Annual Visual Impact

Receptor D5 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling east on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



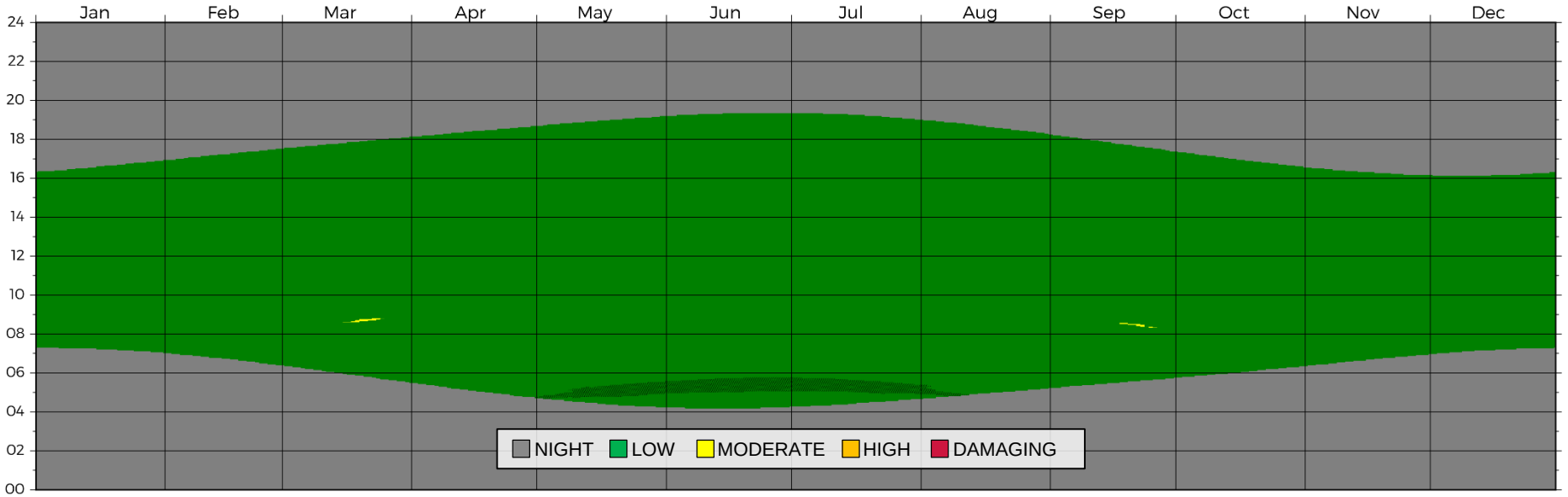


Receptor D6 Annual Visual Impact

Receptor D6 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling northeast on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



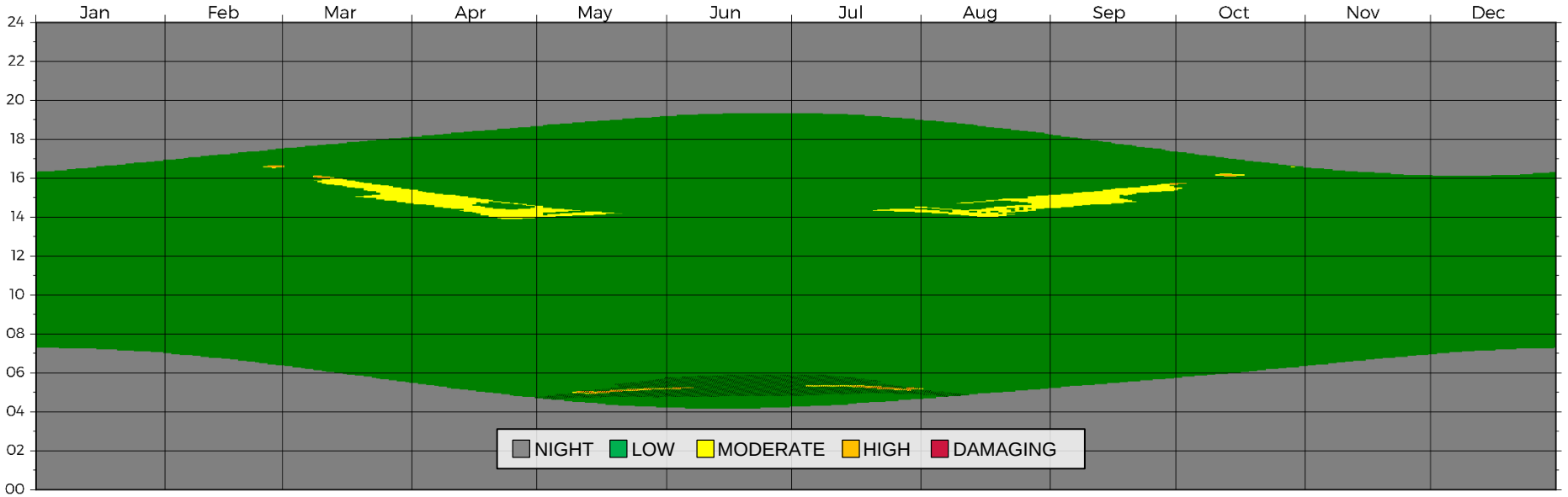


Receptor D7 Annual Visual Impact

Receptor D7 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling northeast on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



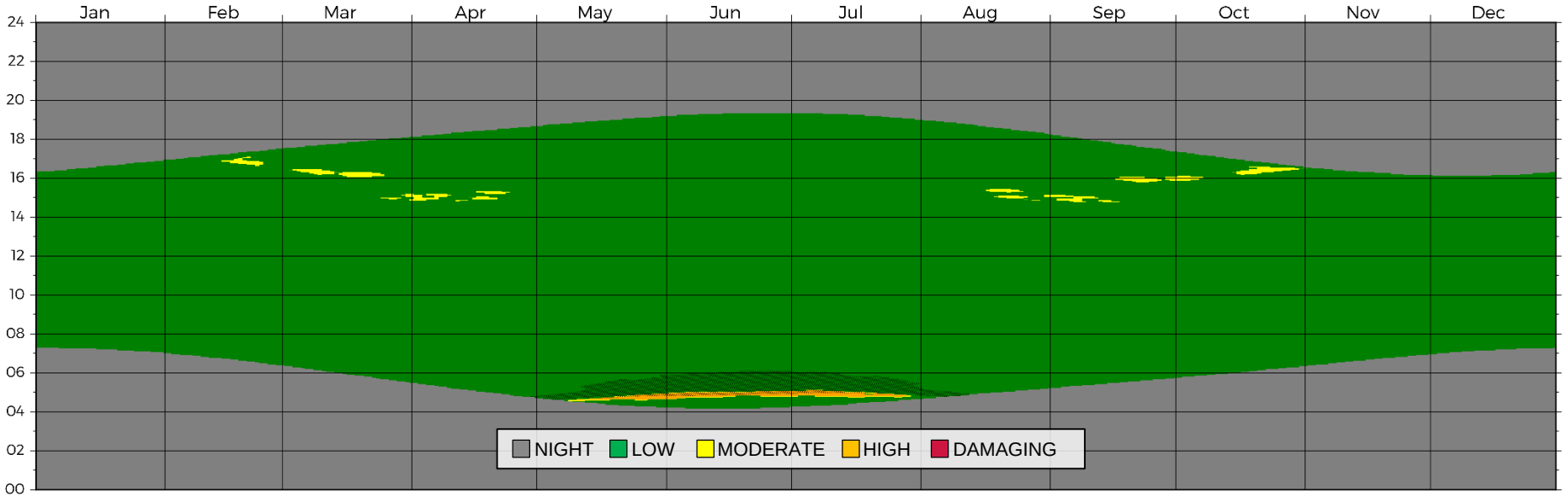


Receptor D8 Annual Visual Impact

Receptor D8 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling northeast on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



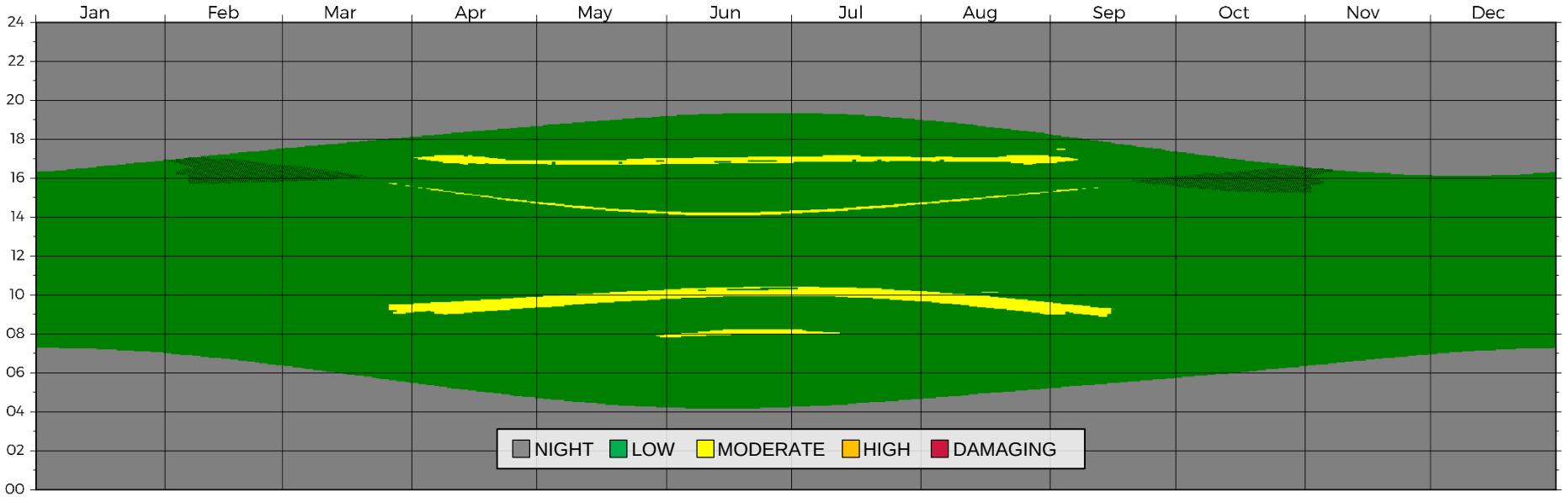


Receptor D9 Annual Visual Impact

Receptor D9 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling southwest on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



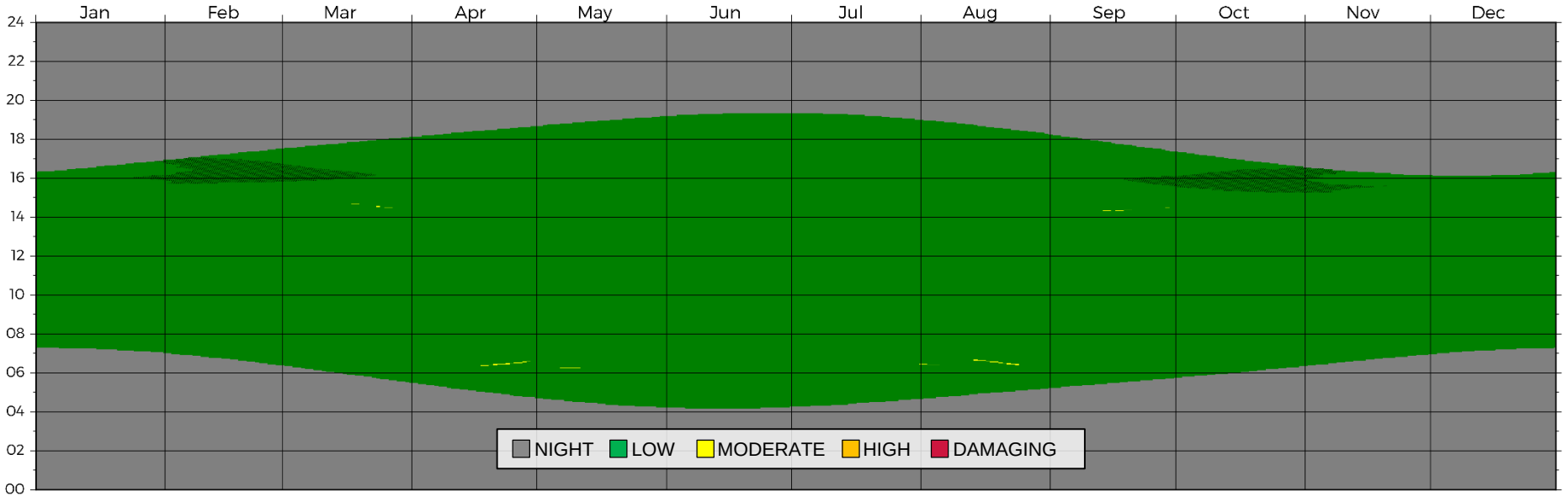


Receptor D10 Annual Visual Impact

Receptor D10 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling southwest on Boylston St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



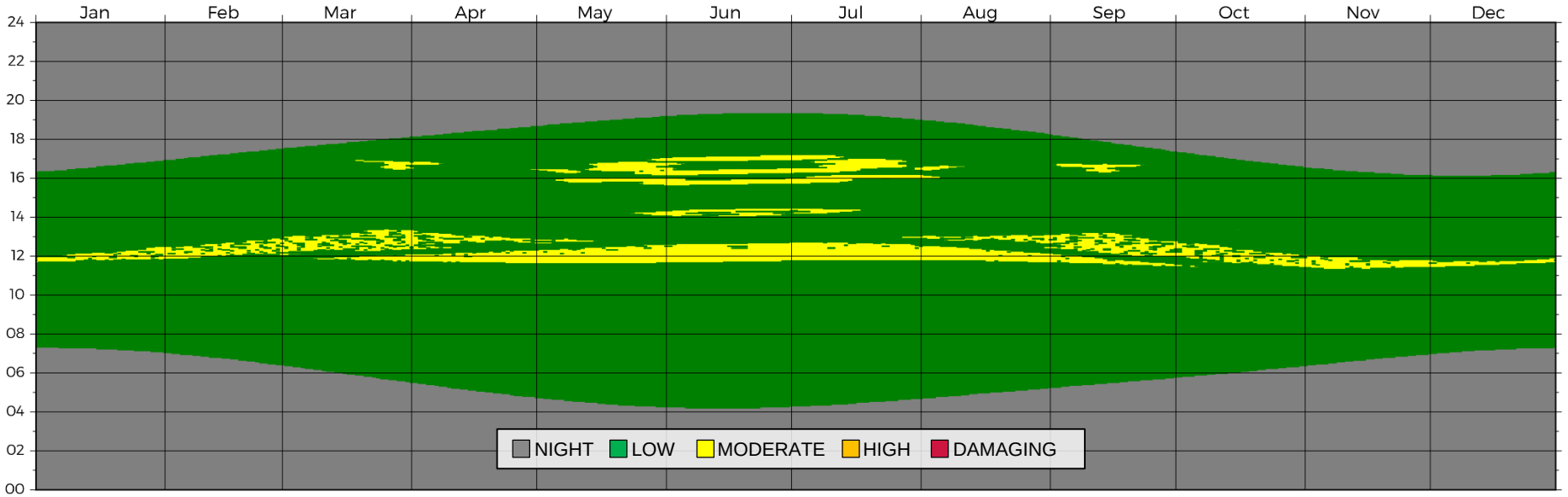


Receptor D11 Annual Visual Impact

Receptor D11 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling southeast on St Cecelia St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



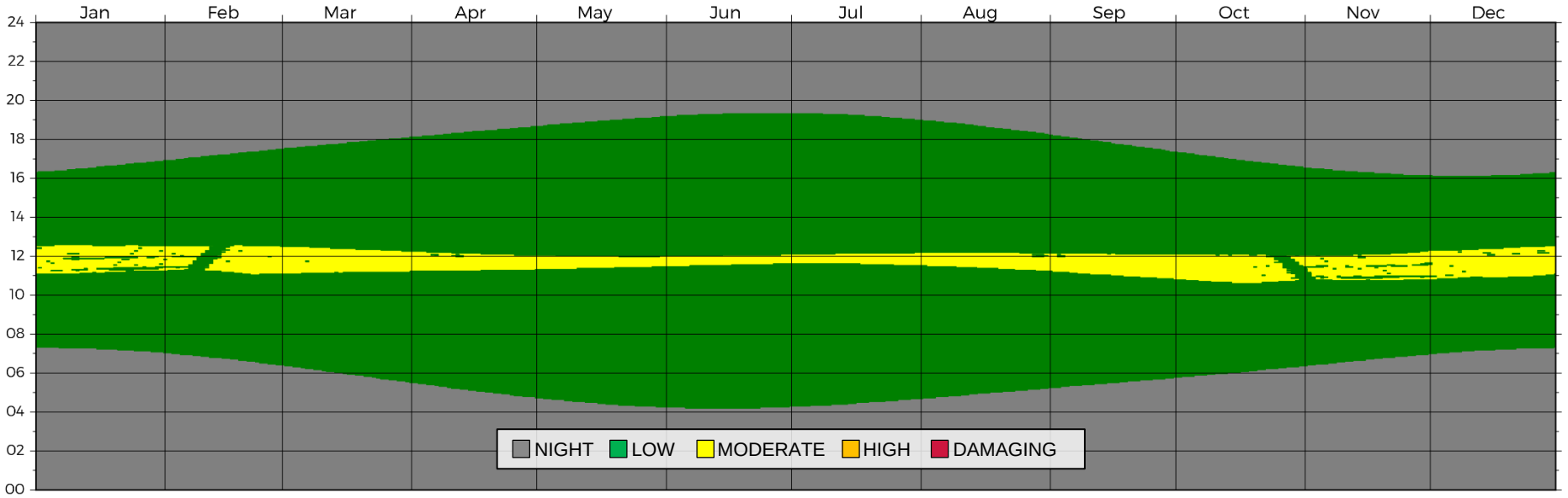


Receptor D12 Annual Visual Impact

Receptor D12 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling north on St Cecelia St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



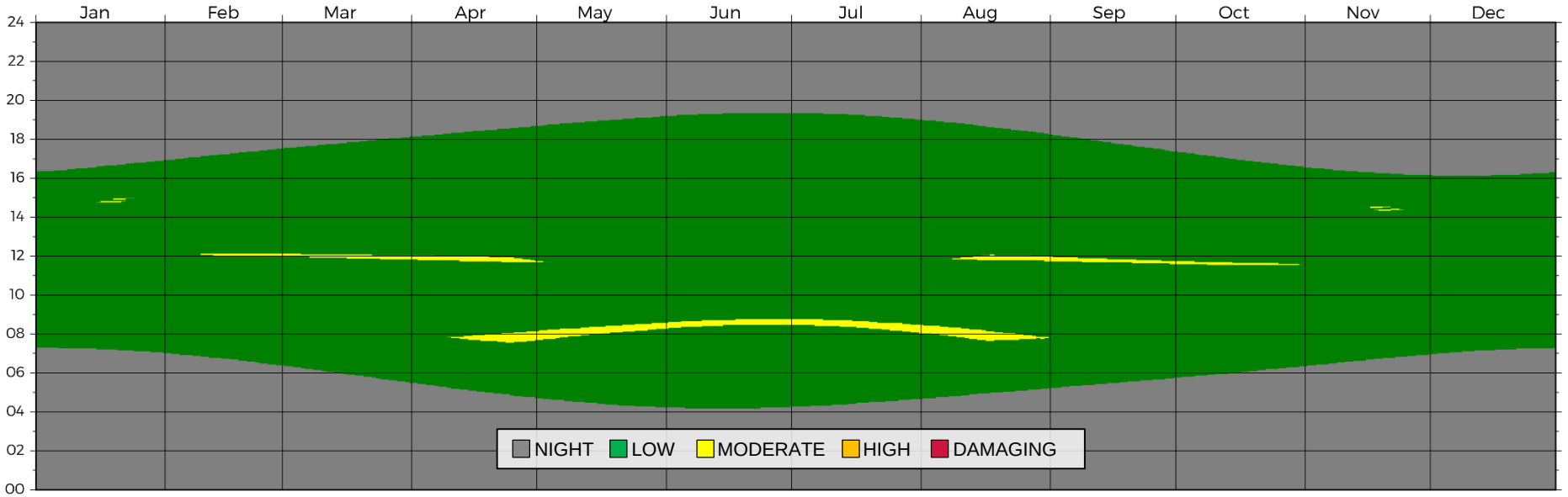


Receptor D13 Annual Visual Impact

Receptor D13 was chosen to assess the visual risk associated with solar reflections affecting drivers traveling northwest on Dalton St.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

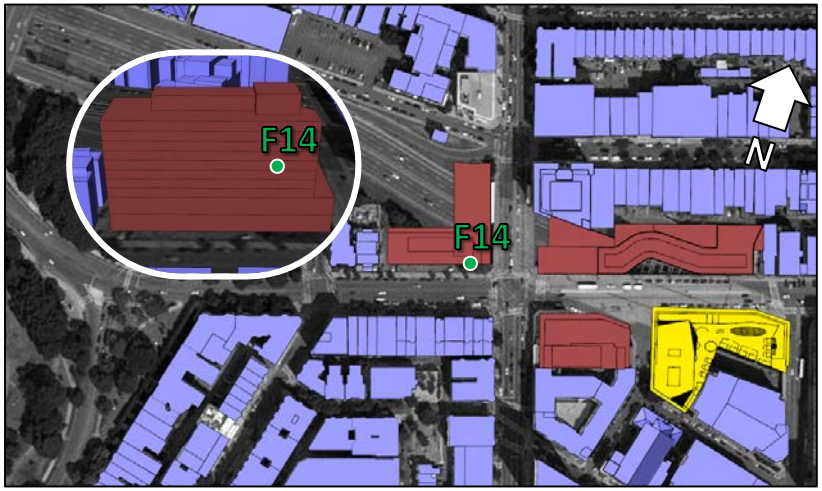


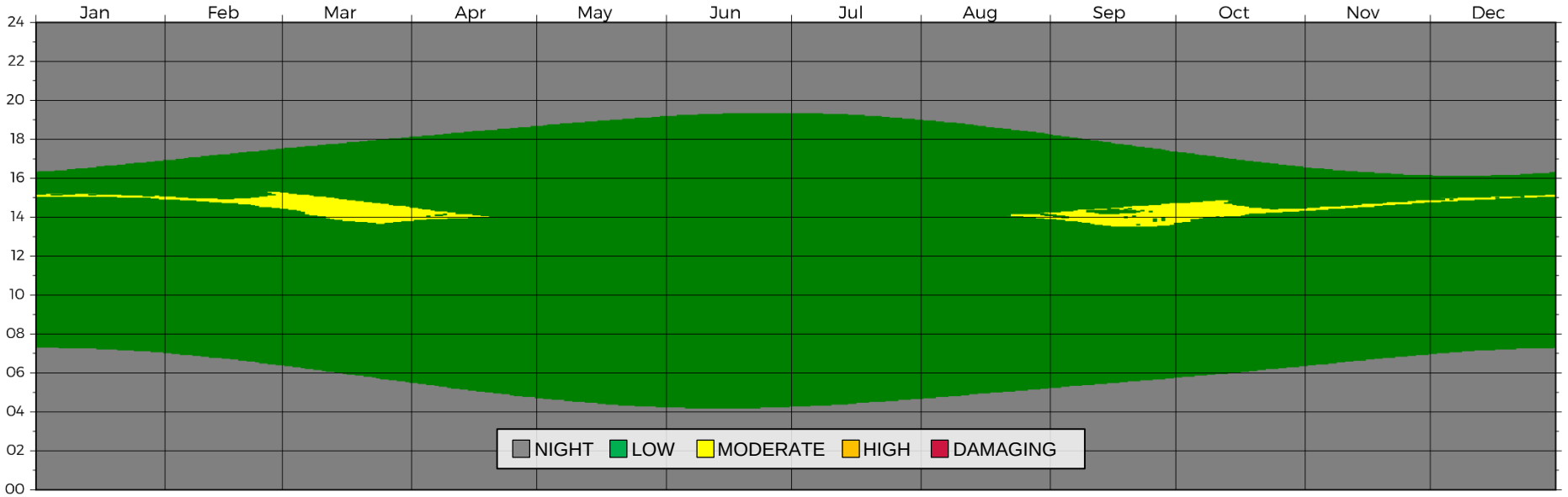


Receptor F14 Annual Visual Impact

Receptor F14 is a receptor placed on the facade of Parcel 12 to the west of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

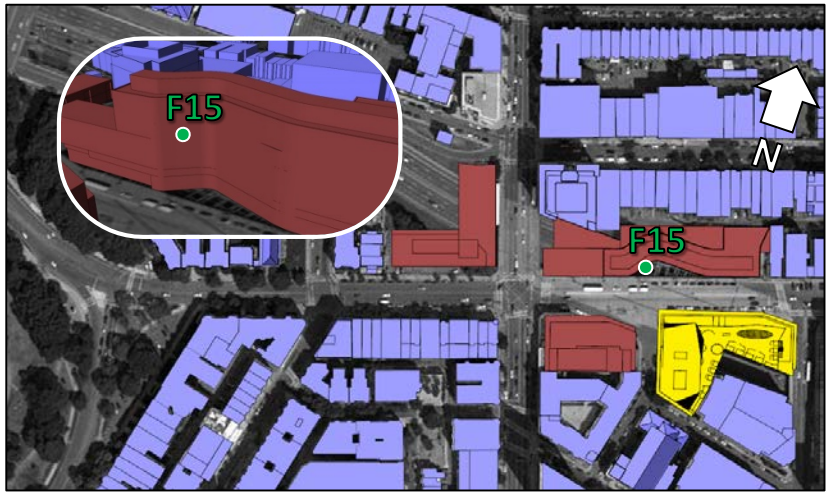


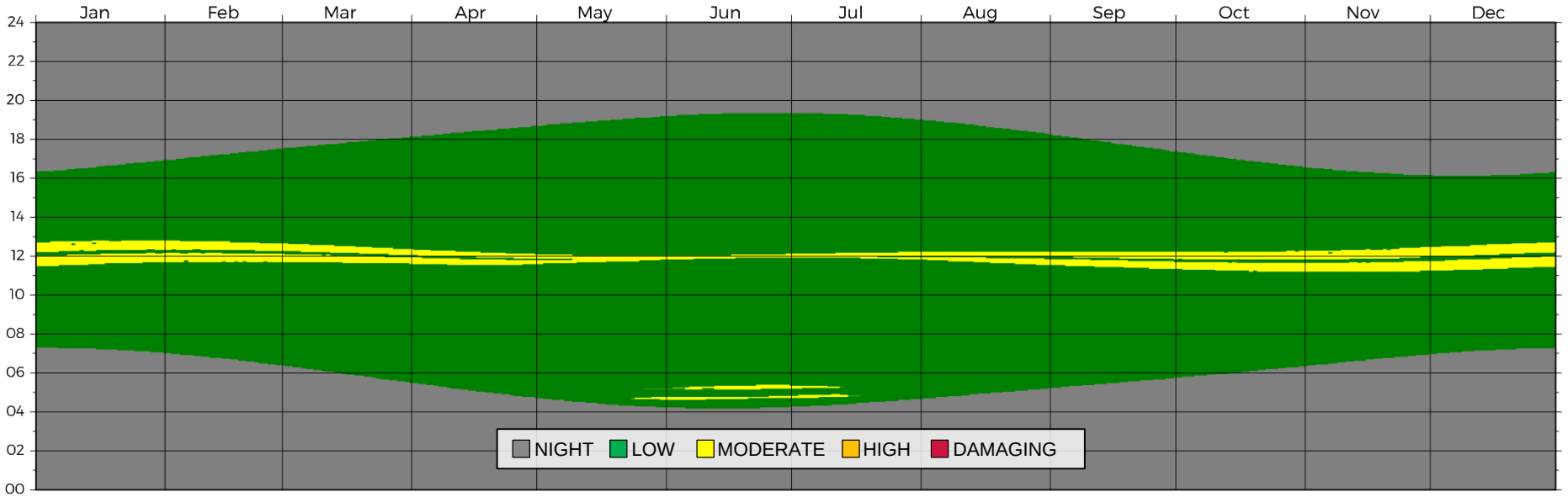


Receptor F15 Annual Visual Impact

Receptor F15 is a receptor placed on the facade of Parcel 13 to the northwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

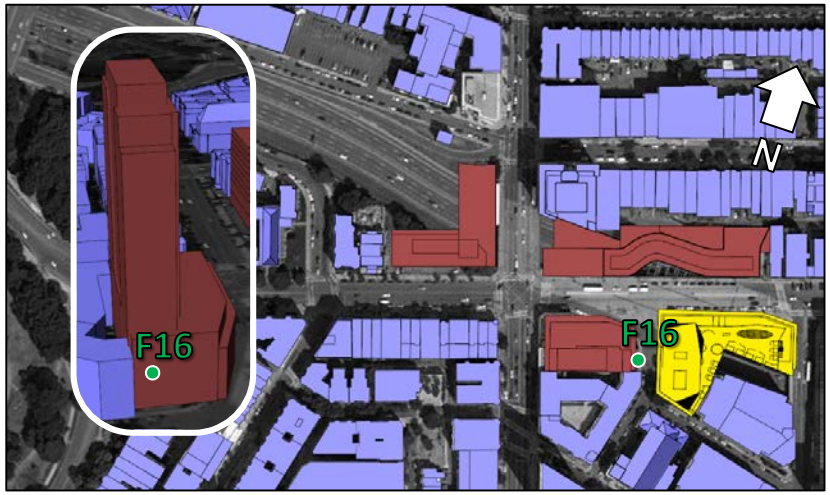


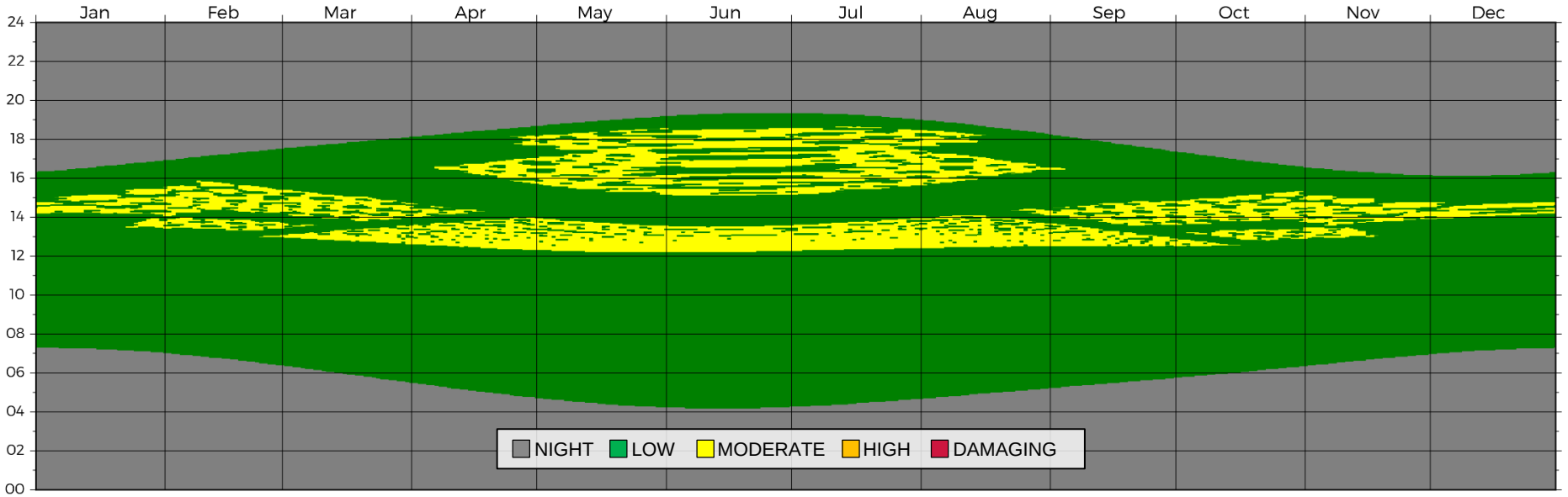


Receptor F16 Annual Visual Impact

Receptor F16 is a receptor placed on the lower-half height of facade of Berklee College of Music Dorm to the southwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

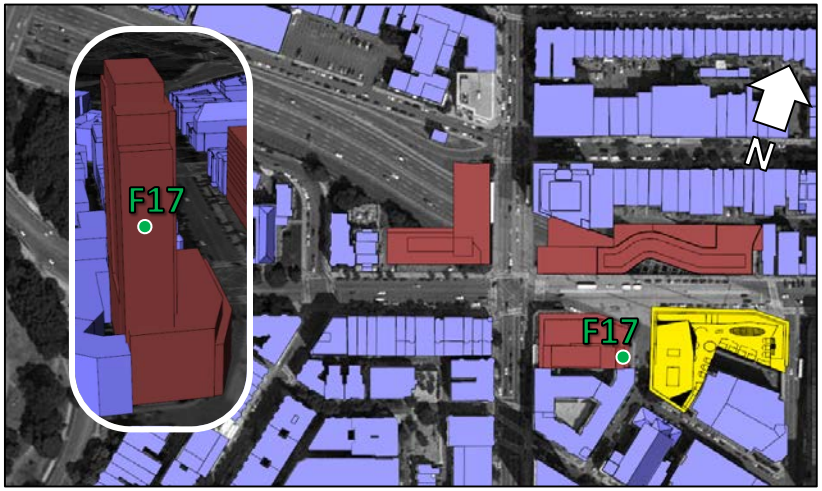


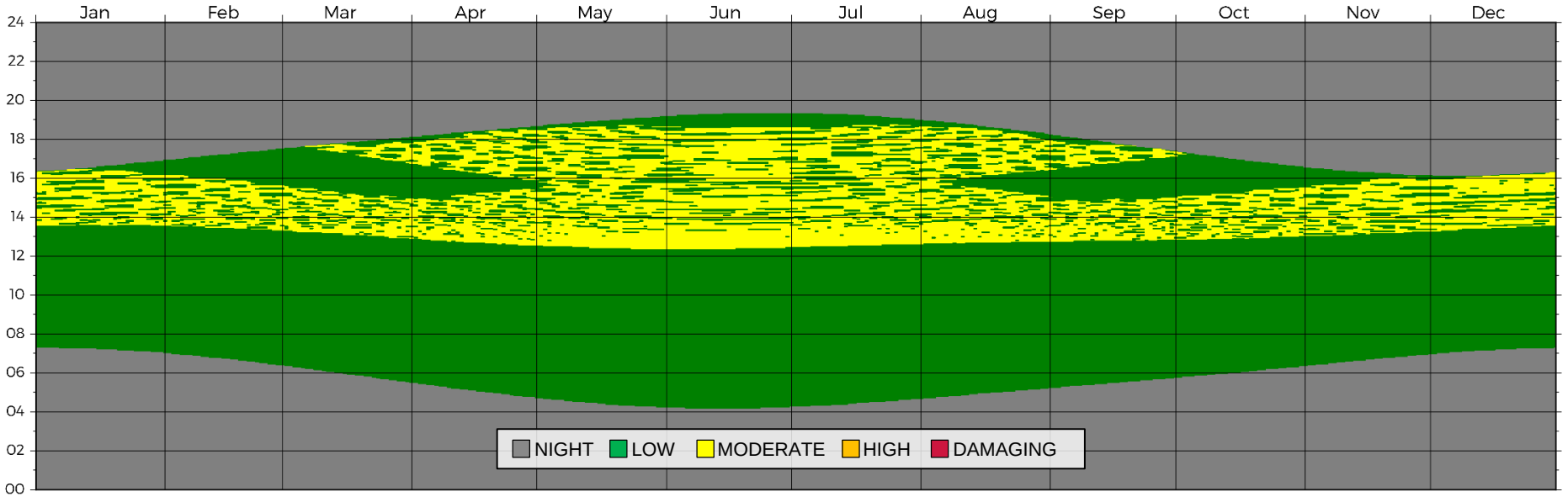


Receptor F17 Annual Visual Impact

Receptor F17 is a receptor placed on the upper-half height of facade of Berklee College of Music Dorm to the southwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

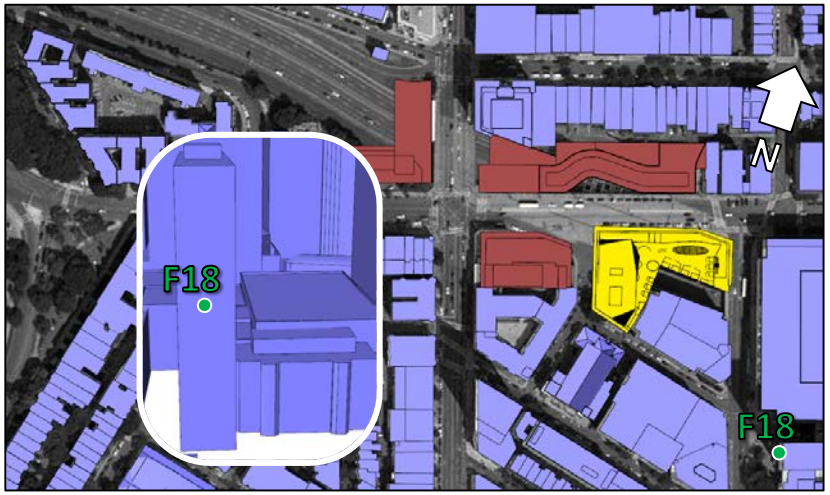


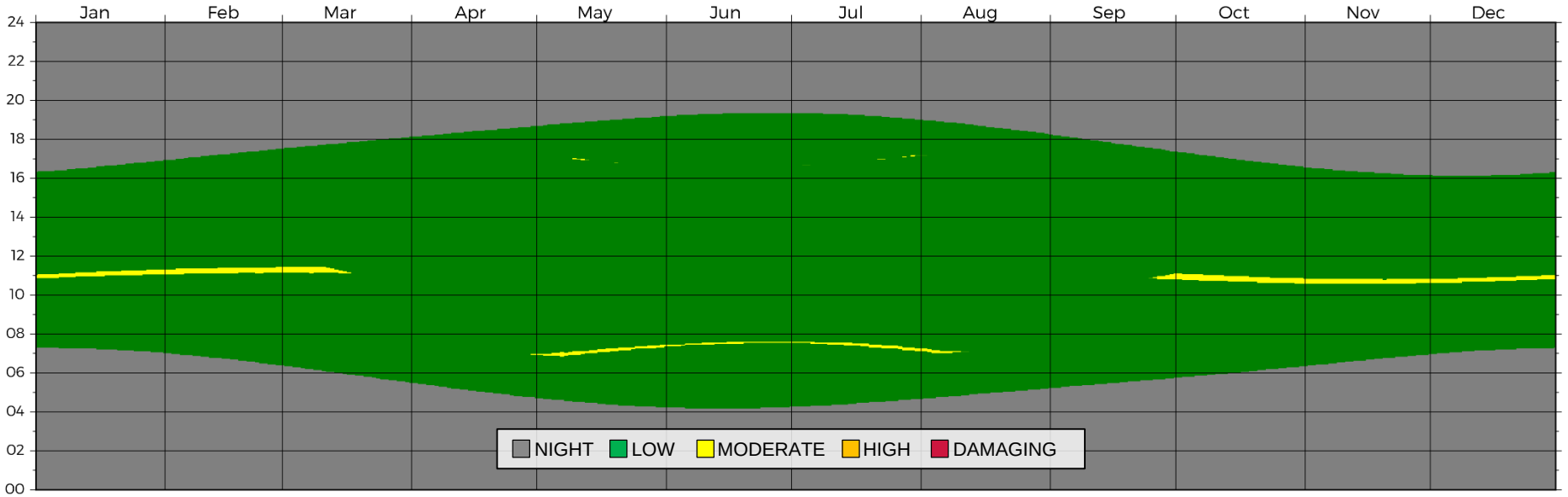


Receptor F18 Annual Visual Impact

Receptor F18 is a receptor placed on the facade of Sheraton Boston Hotel to the southeast of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



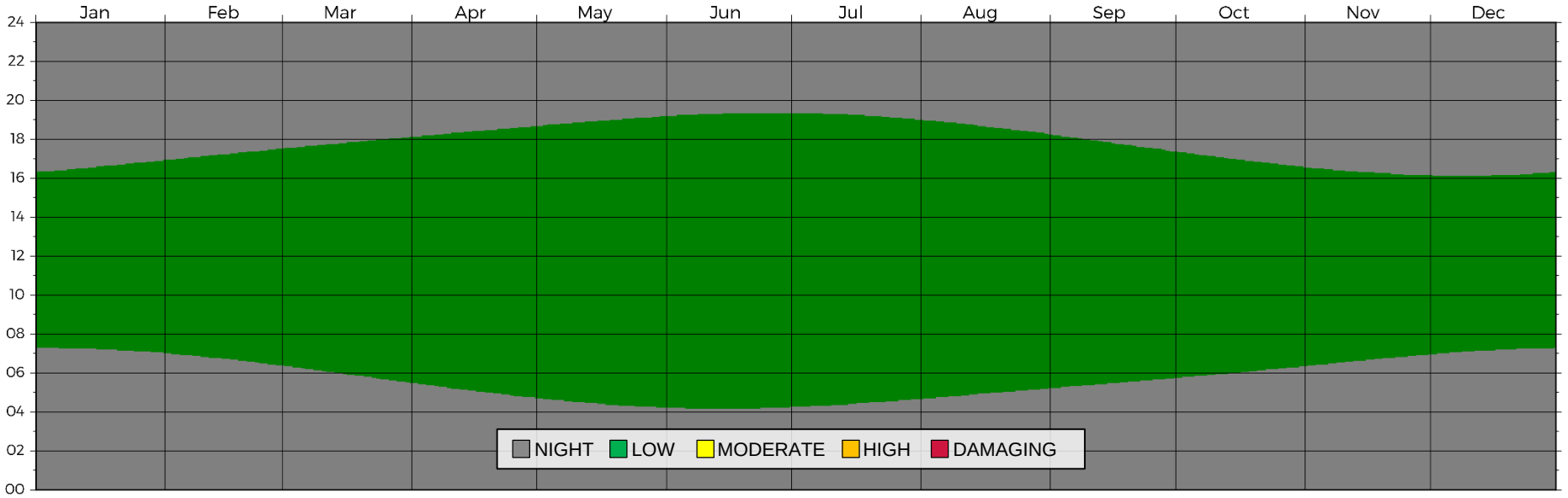


Receptor P19 Annual Visual Impact

Receptor P19 was chosen to assess the visual risk associated with solar reflections affecting pedestrians at Mother's Rest Park.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

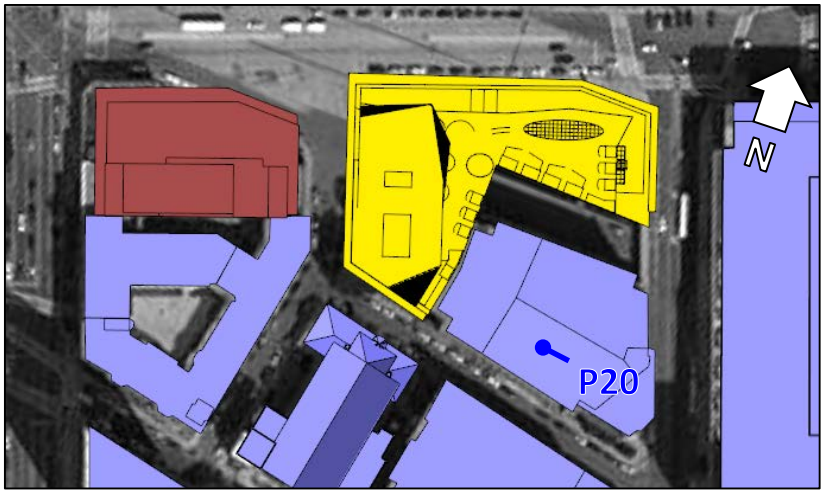


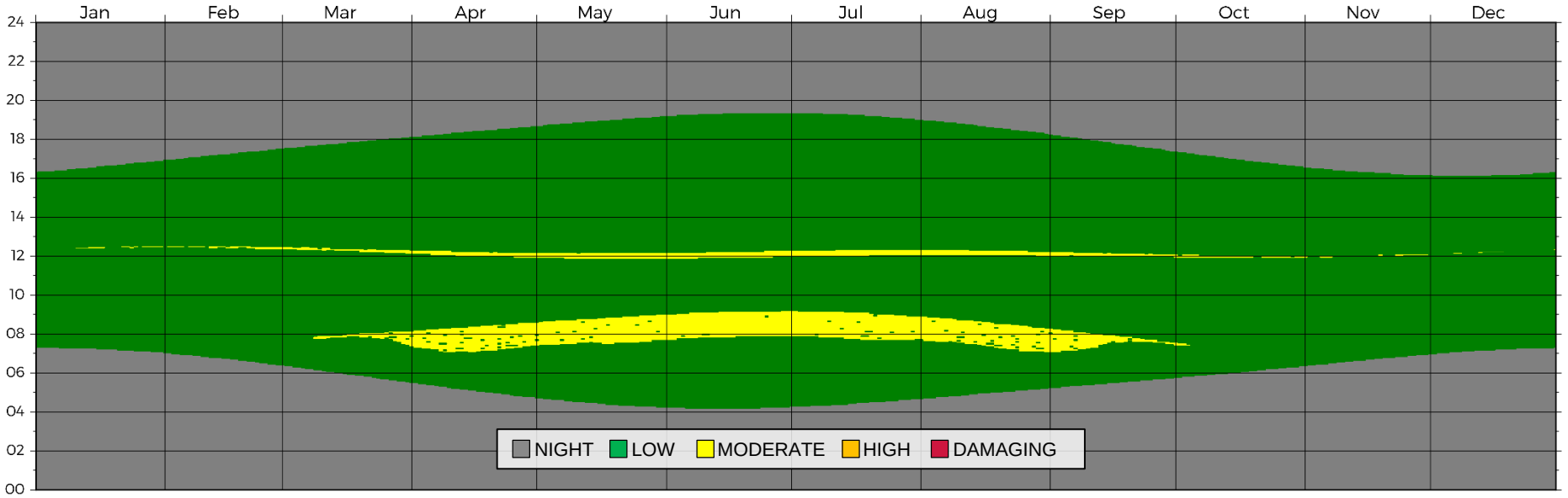


Receptor P20 Annual Visual Impact

Receptor P20 was chosen to assess the visual risk associated with solar reflections affecting pedestrians/cars on the parking lot to the south of development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

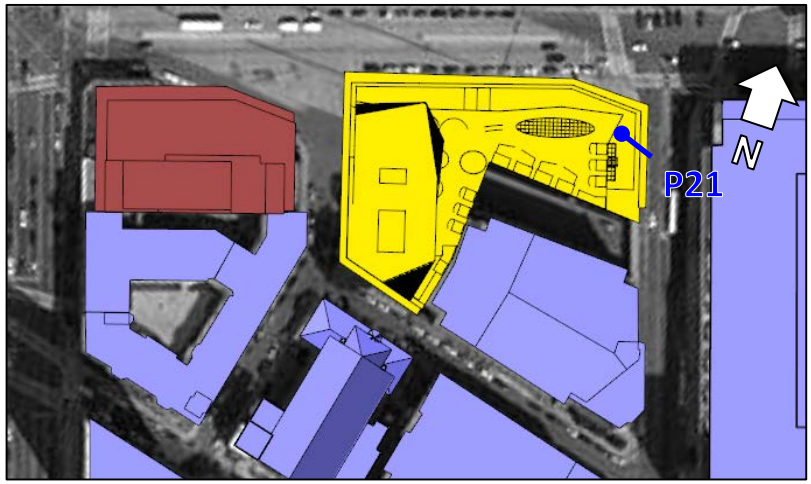


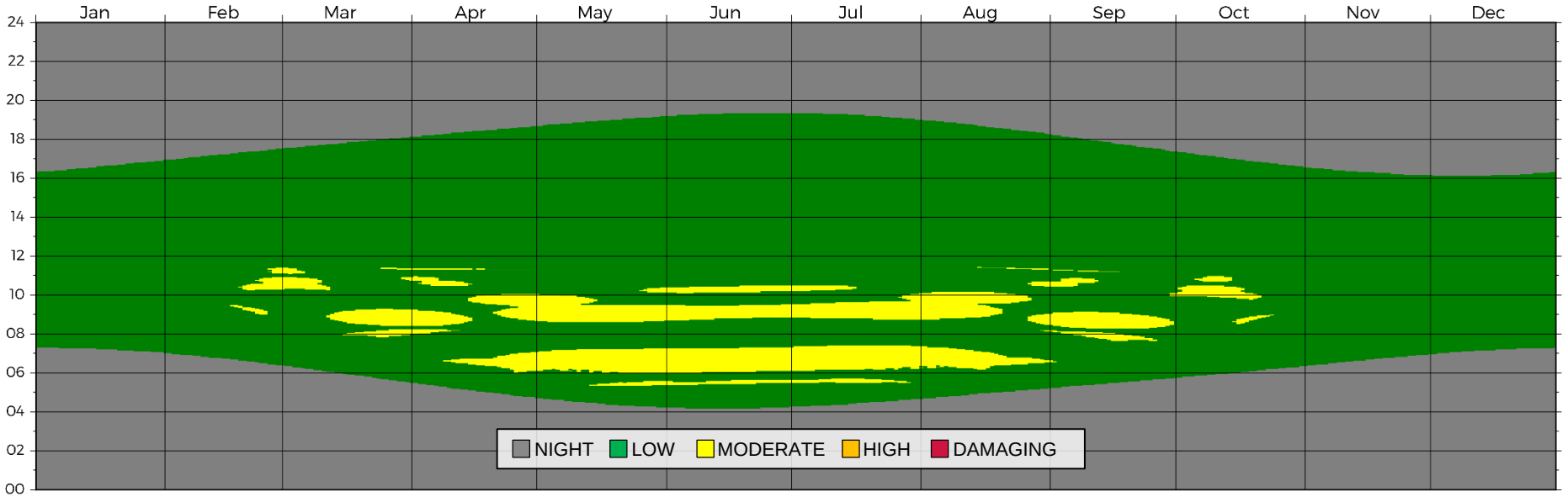


Receptor P21 Annual Visual Impact

Receptor P21 was chosen to assess the visual risk associated with solar reflections affecting pedestrians on the roof of the podium of the Parcel 15 development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

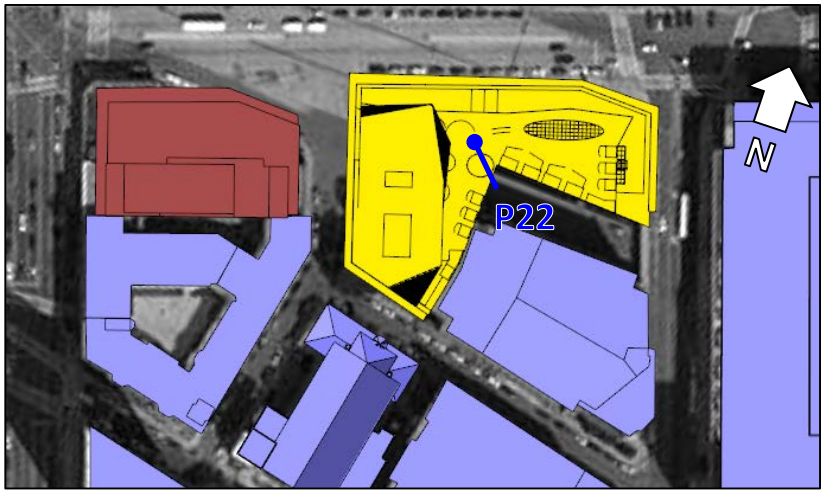


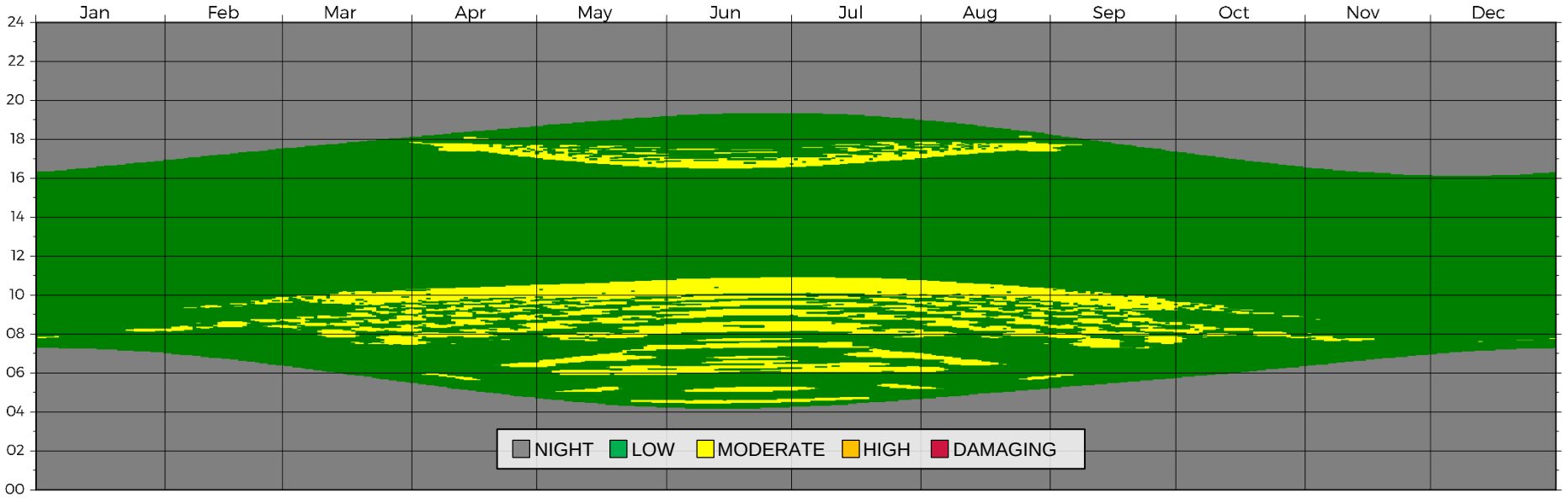


Receptor P22 Annual Visual Impact

Receptor P22 was chosen to assess the visual risk associated with solar reflections affecting pedestrians on the roof of the podium of the Parcel 15 development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

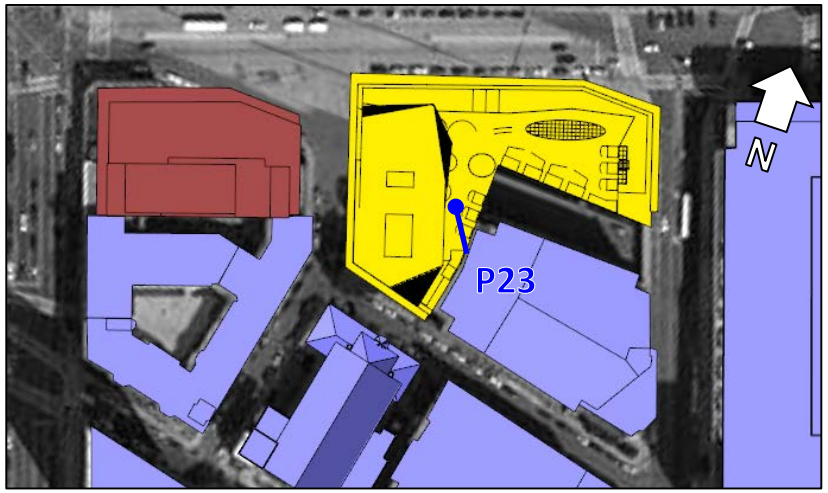


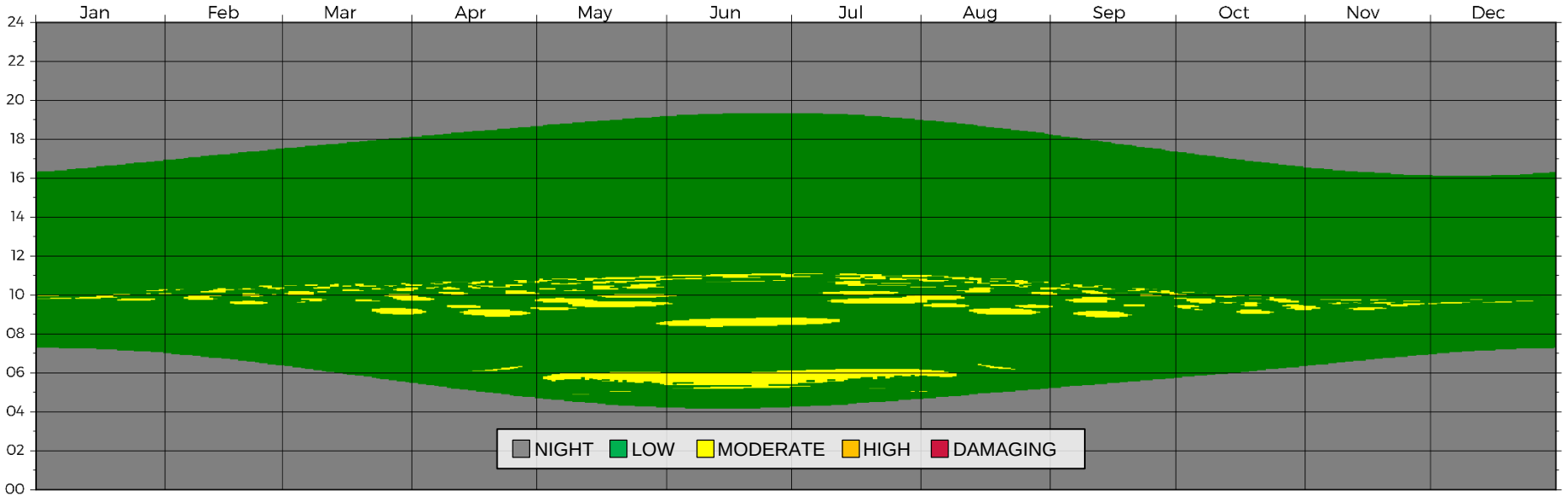


Receptor P23 Annual Visual Impact

Receptor P23 was chosen to assess the visual risk associated with solar reflections affecting pedestrians on the roof of the podium of the Parcel 15 development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



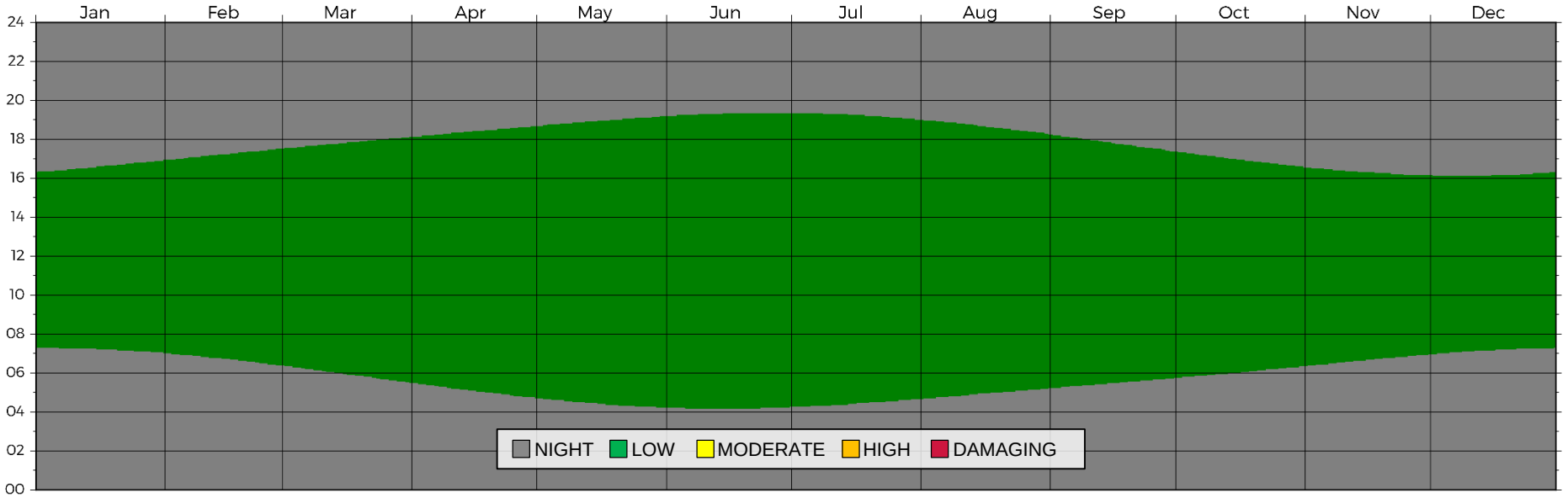


Receptor P24 Annual Visual Impact

Receptor P24 was chosen to assess the visual risk associated with solar reflections affecting baseball players in Fenway Park.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.





Thermal Reflection Impact Plots

The following pages present the predicted thermal impacts on the drivers, pedestrians, and facade receptors. Since all reflections falling on ***driver*** receptors D1-D13, and ***pedestrian*** receptors P19-P24 are predicted to be within RWDI's proposed short-term exposure thermal criteria (see Appendix C), they are all presented through only one representative diagram.

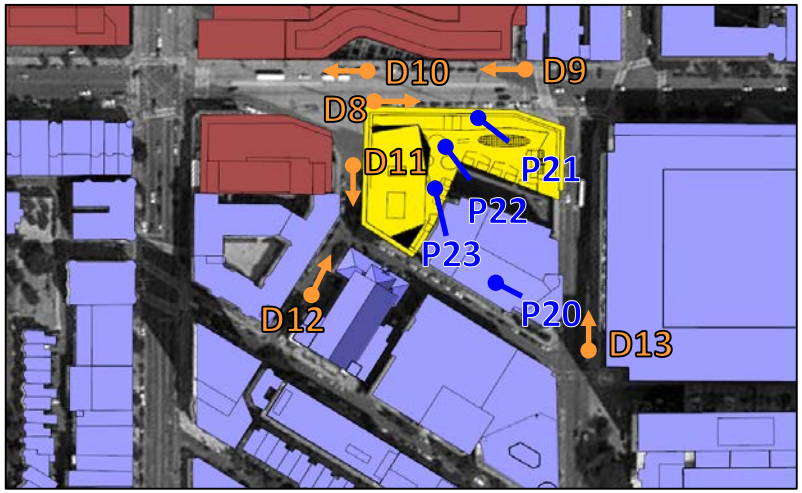
A different scale is used to illustrate the reflected thermal energy on ***facades*** in order to provide further clarity on the potential for heat gain issues.

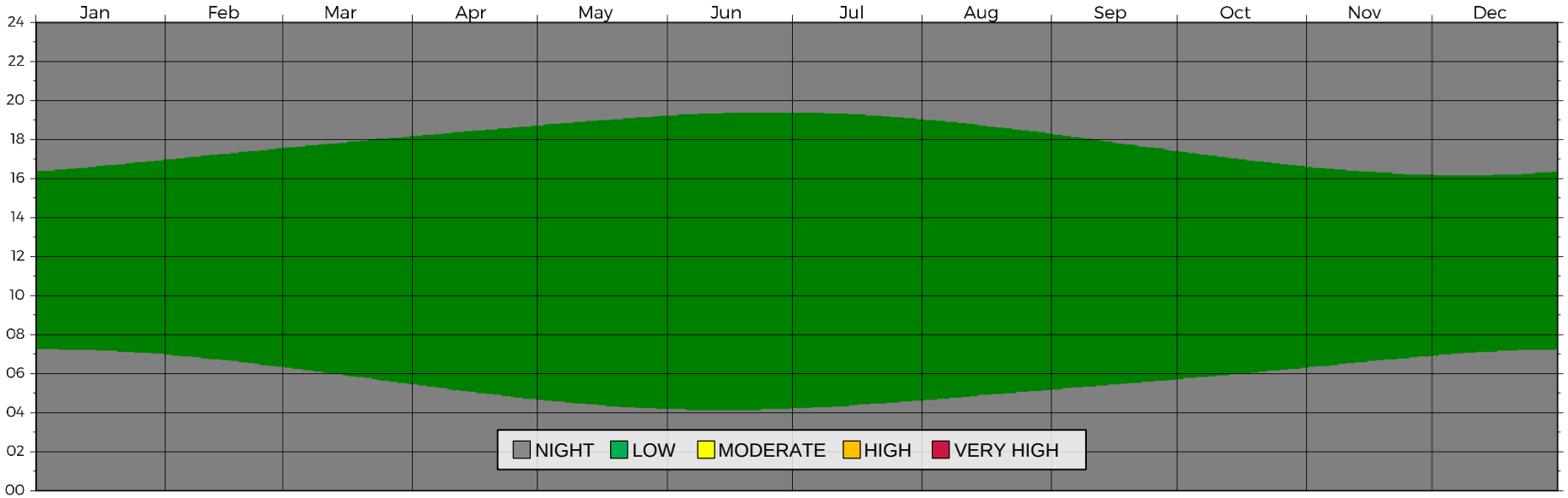
Thermal Impact on Drivers, and Pedestrians

All reflections falling on driver receptors D1-D13, and pedestrian receptors P19- P24 are predicted to be within RWDI's proposed exposure limits (see Appendix C).

RWDI considers all the above-noted receptors in the neighborhood of the Parcel 15 development to have a **low** thermal impact since no significant reflections are predicted.

The following pages illustrate the reflected thermal energy on facades using a different scale to provide further clarity on the potential for heat gain issues.

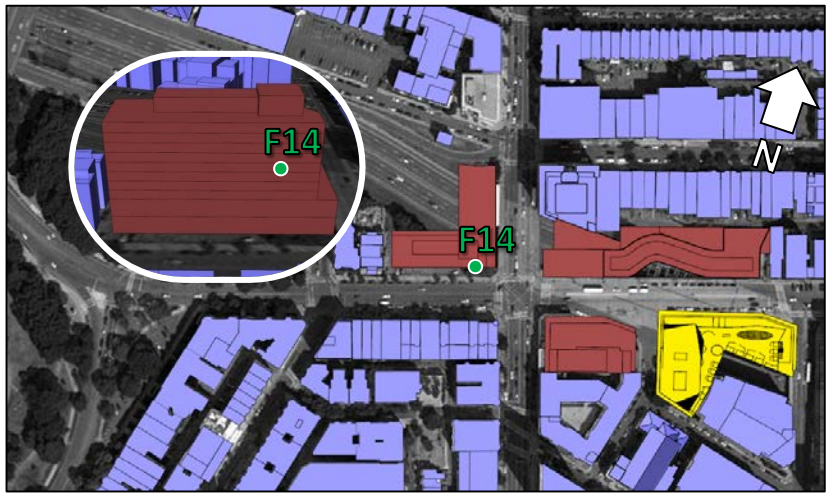


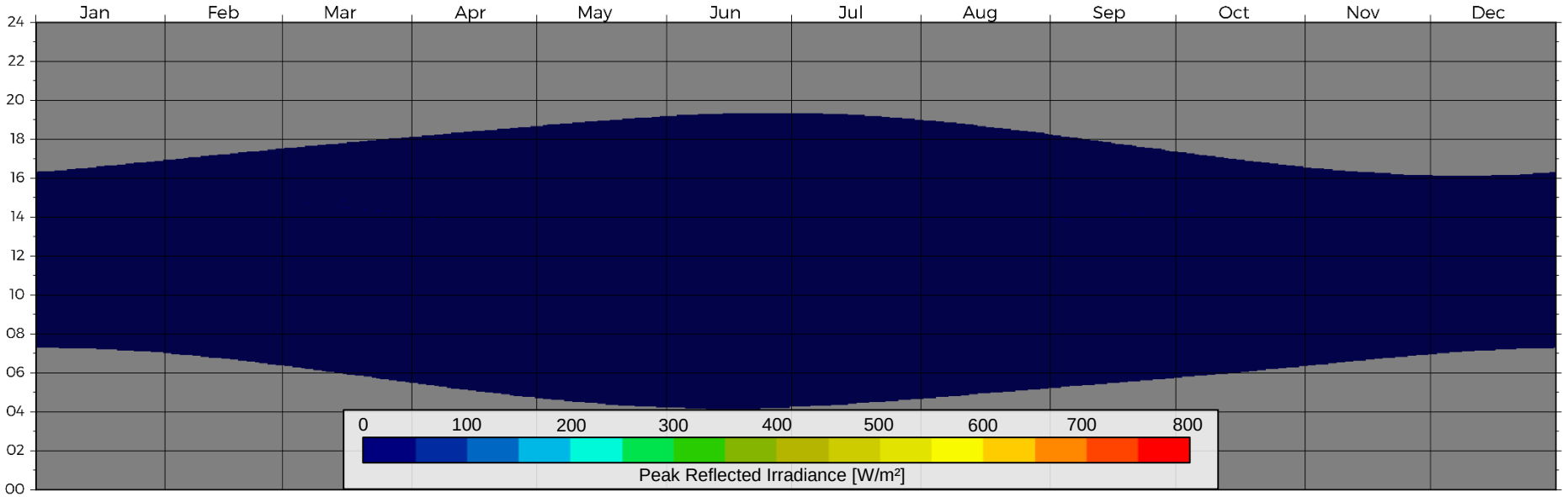


Receptor F14 Annual Thermal Impact

Receptor F14 is a receptor placed on the facade of Parcel 12 to the west of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

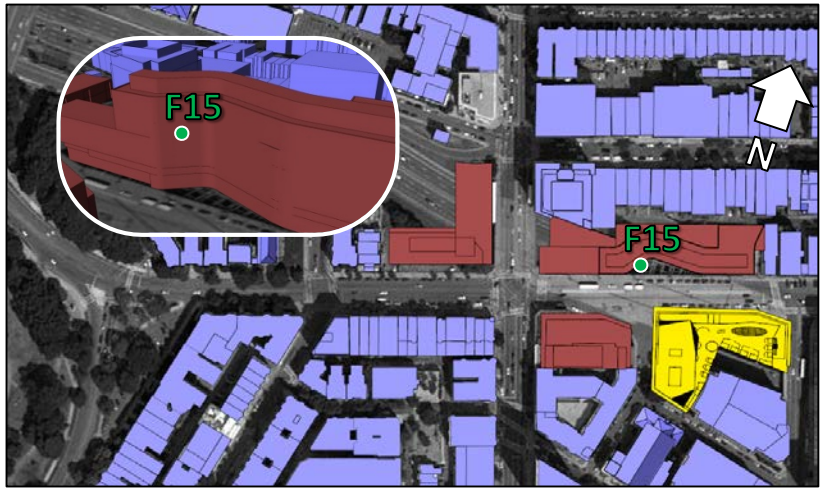


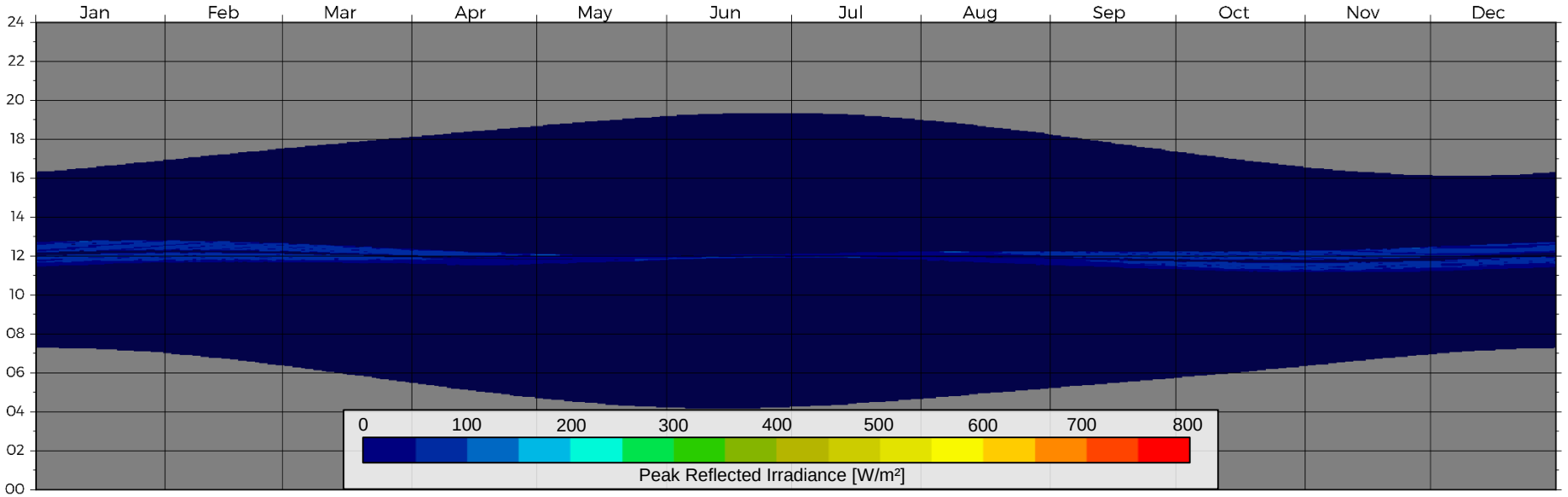


Receptor F15 Annual Thermal Impact

Receptor F15 is a receptor placed on the facade of Parcel 13 to the northwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

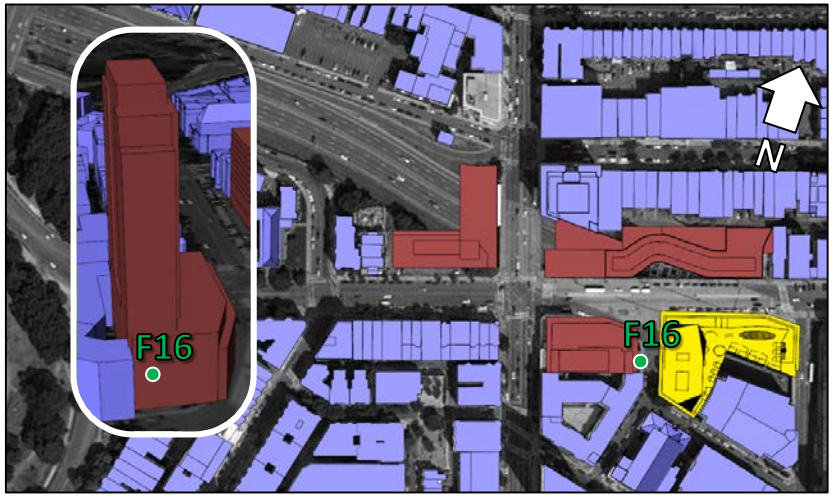


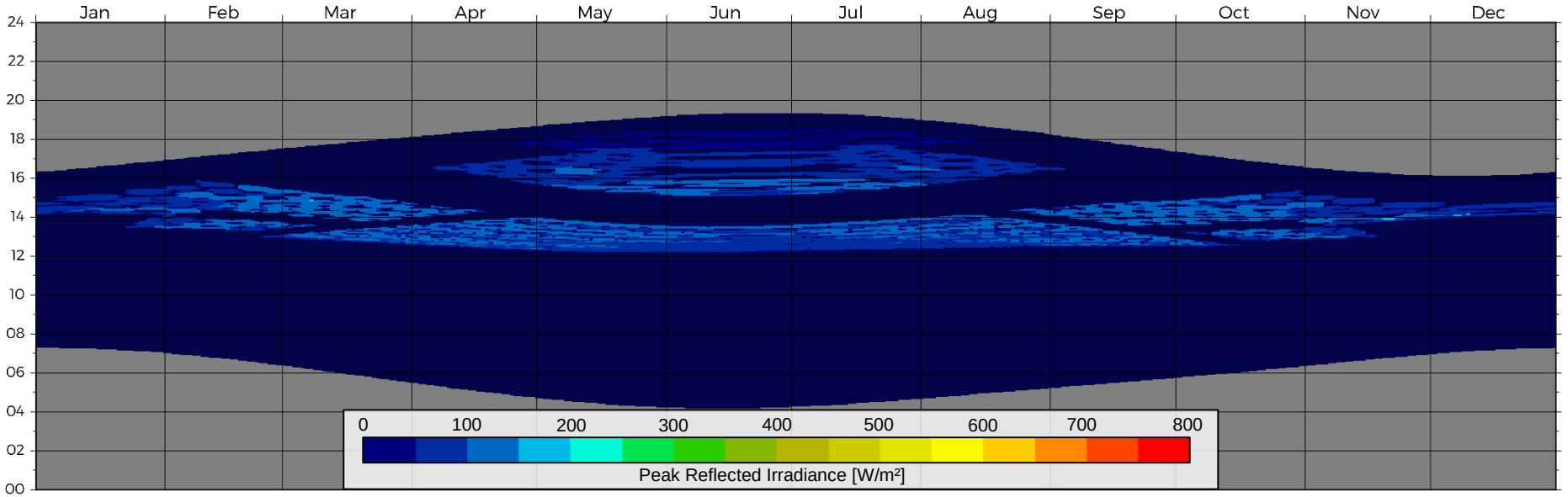


Receptor F16 Annual Thermal Impact

Receptor F16 is a receptor placed on the lower-half height of facade of Berklee College of Music Dorm to the southwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

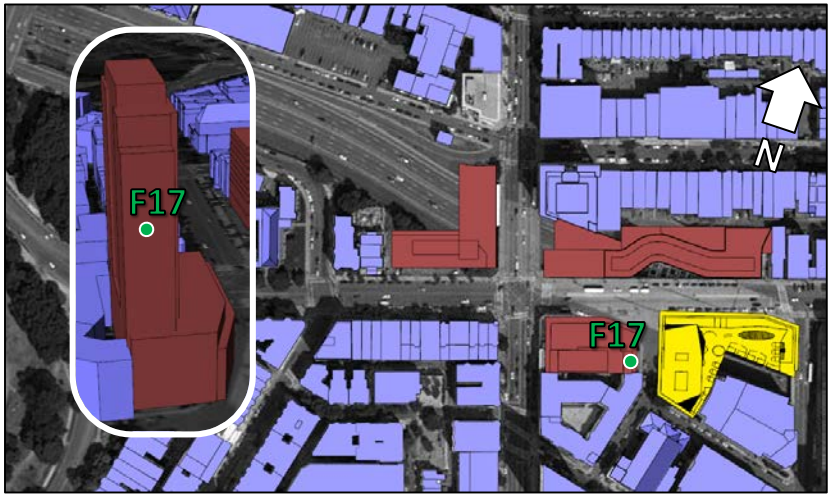


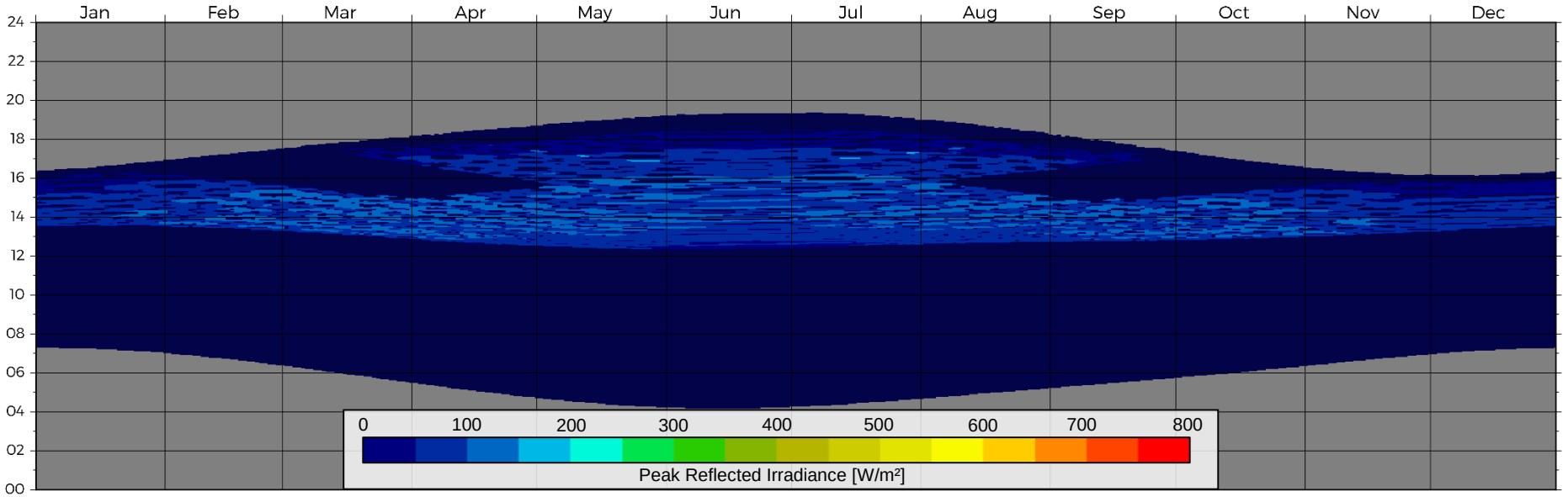


Receptor F17 Annual Thermal Impact

Receptor F17 is a receptor placed on the upper-half height of facade of Berklee College of Music Dorm to the southwest of the development.

Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.

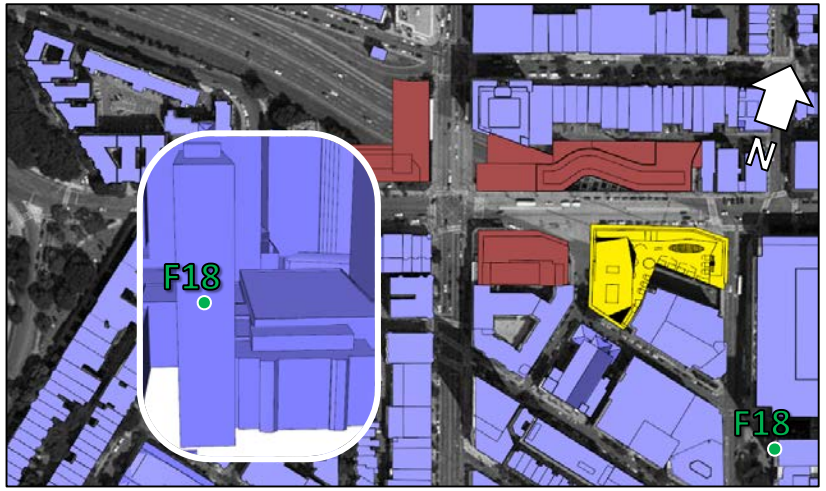


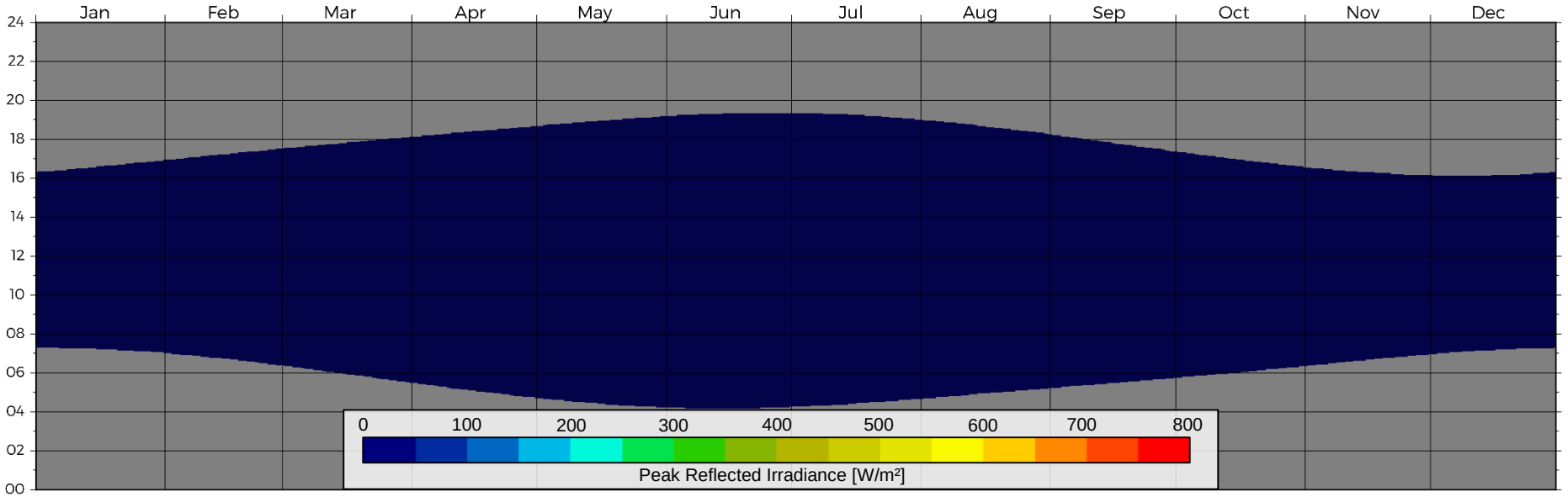


Receptor F18 Annual Thermal Impact

Receptor F18 is a receptor placed on the facade of Sheraton Boston Hotel to the southeast of the development.

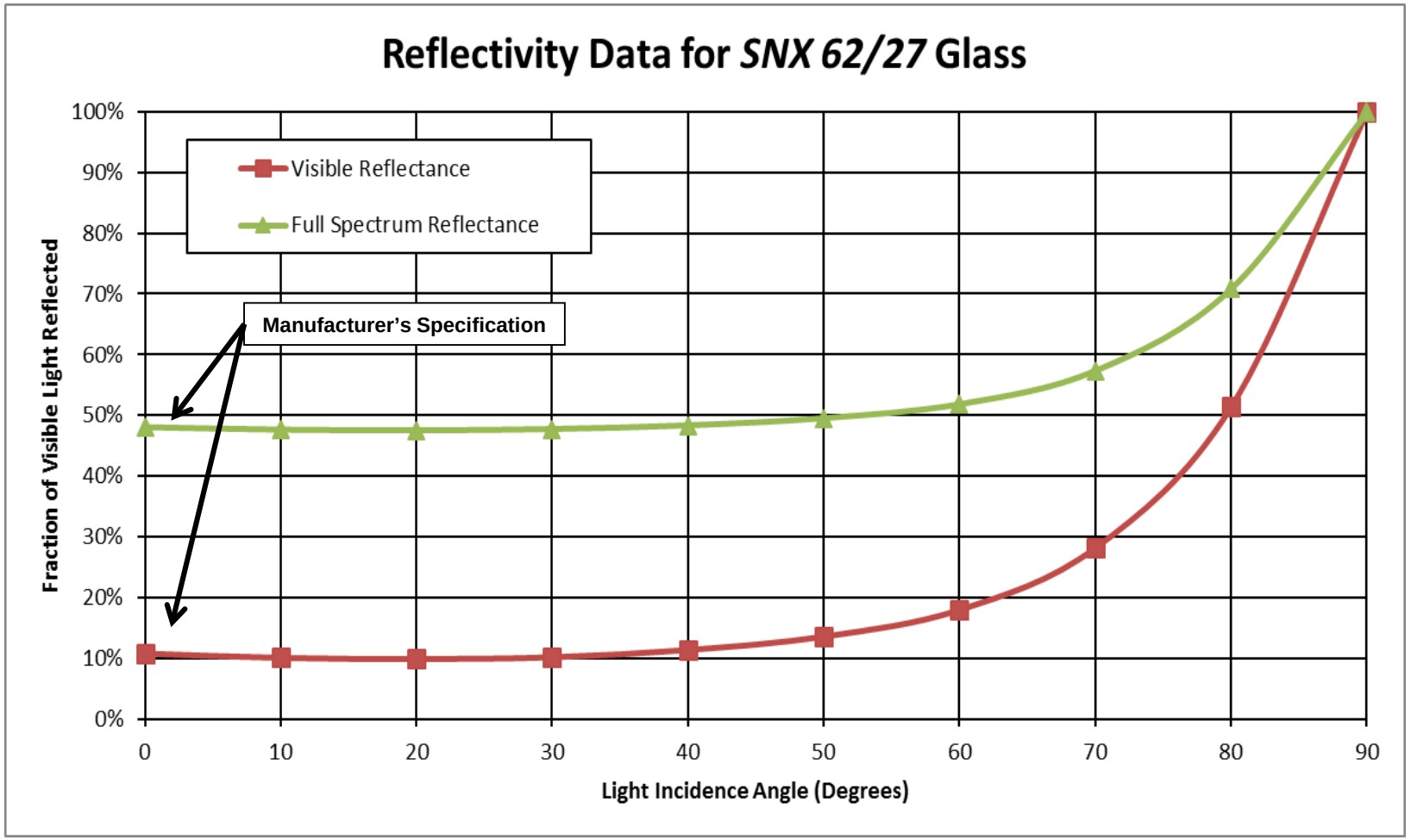
Please note that the referenced times are in **local standard time**, so in jurisdictions where Daylight Savings Time is used, the time should be shifted by an hour when appropriate.



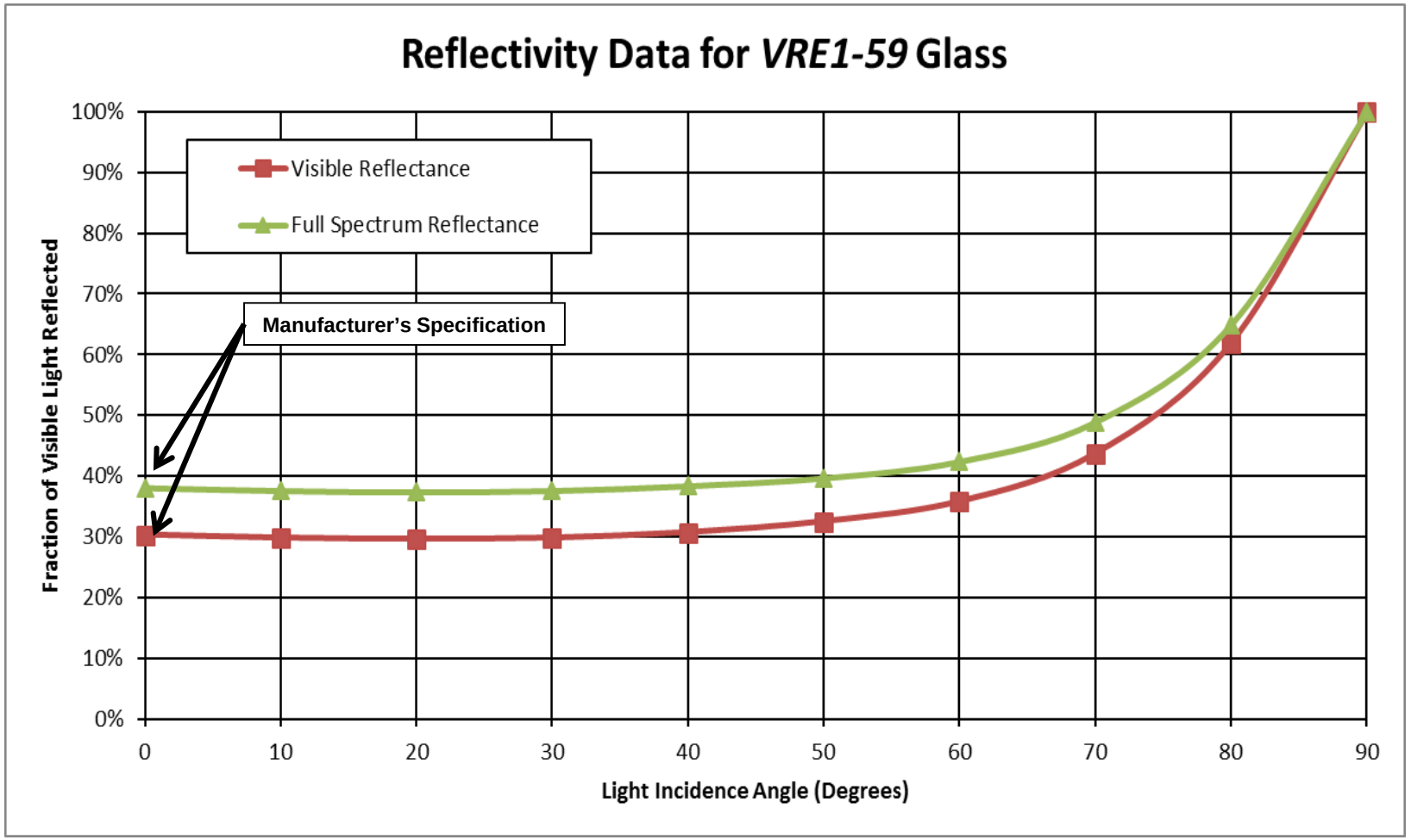


APPENDIX B - BUILDING FACADE GLASS PROPERTIES

B1. BUILDING FACADE GLASS PROPERTIES – SNX 62/27 Glass



B2. BUILDING FACADE GLASS PROPERTIES – VRE 1-59 Glass



APPENDIX C - THERMAL AND VISUAL GLARE CRITERIA

C1. CRITERIA – SOLAR THERMAL

Solar Focusing

Solar focusing is a phenomenon where more than one reflection falls on the same point. This can occur when reflection from multiple flat surfaces converge at a single point, but are more common on inward-curving (concave) facades. Although this feature is not present in the development, attention must be taken to ensure that the facade does not concentrate a significant amount of solar energy in sensitive areas.

There are currently no existing criteria or standards that define an "acceptable" level of reflected solar radiation from buildings. RWDI has conducted a literature review of available scientific sources to determine levels of solar radiation we would consider acceptable to an individual in the urban realm[1].

Irradiance Limits – People

The National Fire Protection Association (NFPA) sets thermal radiation criteria which define a tenable environment for people exiting a fire event in building or tunnel (NFPA 130). They set the upper limit for thermal radiation at 2,500 W/m². Irradiance levels at or below this value can be tolerated for at least several minutes without significantly affecting an individual's ability to escape from a fire event. That being said, skin damage (sun burns) and pain can occur at this 2,500 W/m² threshold. According to British fire standards[2], the onset of pain for ***bare*** skin can occur within 30 seconds at an irradiance of 2,500 W/m². This threshold closely matches the irradiance exposure guidelines published by the U.S. Federal Emergency Management Agency (FEMA), summarized in the table to the right. This table also includes the length of time required before the onset of a second degree burn due to thermal radiation. It should be noted that these numbers are guideline values only, and that in reality many factors (skin color, age, clothing choice, etc.) influence how a person reacts to thermal radiation. For our work RWDI have established **2,500 W/m² as a ceiling exposure limit**.

Due to the public nature of the development, the significant variability in both how individuals will respond to thermal irradiation exposure, and the fact that individuals may not fully appreciate the impact of the reflection until they are exposed, it is RWDI's opinion that a lower threshold value may be more appropriate for human thermal comfort.

Thus, we suggest that for ground level areas where the public will be present, reflected irradiance levels should not exceed 1,500 W/m². This threshold value is a conservative one, which is based around the potential for damage to human skin, requiring several minutes of exposure before damage or discomfort potentially occurs.

For these reasons, we have applied a **short-term exposure limit of 1,500 W/m²** for our work.

Table C1: Time for Physiological Effects on Bare Skin at Specific Thermal Radiation Levels[3]

Thermal Irradiance [W/m²]	Time To Onset of Pain [sec]	Time To Onset of Second Degree Burn [sec]
1,000	115	663
2,000	45	187
3,000	27	92
4,000	18	57
5,000	13	40
6,000	11	30
8,000	7	20
10,000	5	14
12,000	4	11

[1] Danks, Ryan, Joel Good, and Ray Sinclair. "Assessing Reflected Sunlight from Building Facades: A Literature Review and Proposed Criteria." Building and Environment, July 2016: 193-202.
[2] The application of fire safety engineering principles to fire safety design of buildings – Part 6: Human Factors' PD 7974-6:2004, British Standards Institution 2004.
[3] Federal Emergency Management Agency, U.S. Department of Transportation, and U.S. Environmental Protection Agency. 1988. Handbook of Chemical Hazard Analysis Procedures. Washington, D.C.: Federal Emergency Management Agency Publications Office.

C2. CRITERIA – VISUAL GLARE

To account for the high variability in how individuals experience bright light, RWDI would classify any reflection as "significant" if it is calculated to be least 50% as intense as one that would cause temporary flash blindness (i.e. the after images visible after one sees a camera flash in a dark room).

This is accomplished through the use of our computer model to determine the following information at each combination of location, date and time:

1. The maximum amount of radiation striking the back of the eye that a person would experience if looking directly at the source.
2. The size of the angle that the reflection subtends in the sky (i.e. how much of a viewer's field of vision that the glare takes up – Figure C1).

Using the above information, the maximum glare impact at a certain location can be identified using the methodology of Ho et al[1] (Figure C2) to determine the potential of the reflection to cause temporary flash-blindness.

As a reference, Figure C2 on the right illustrates where looking directly at the sun falls in terms of irradiance on the retina (on average about 8 W/cm²), and the size of the angle that the sun subtends in the sky (about 9.8 milliradians). This puts it just at the border of causing serious damage. This methodology assumes that the exposure time is equivalent to the length of an average person's blink response.

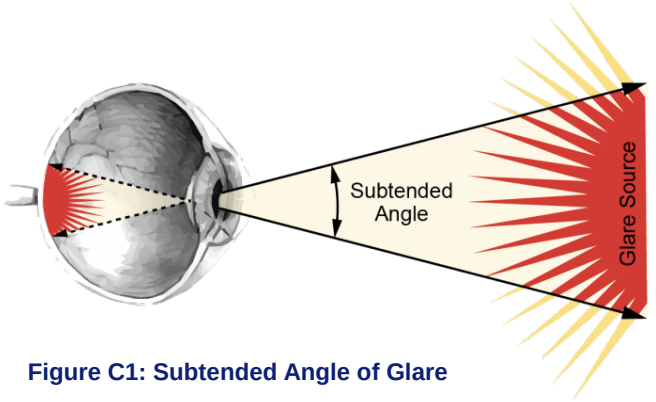


Figure C1: Subtended Angle of Glare

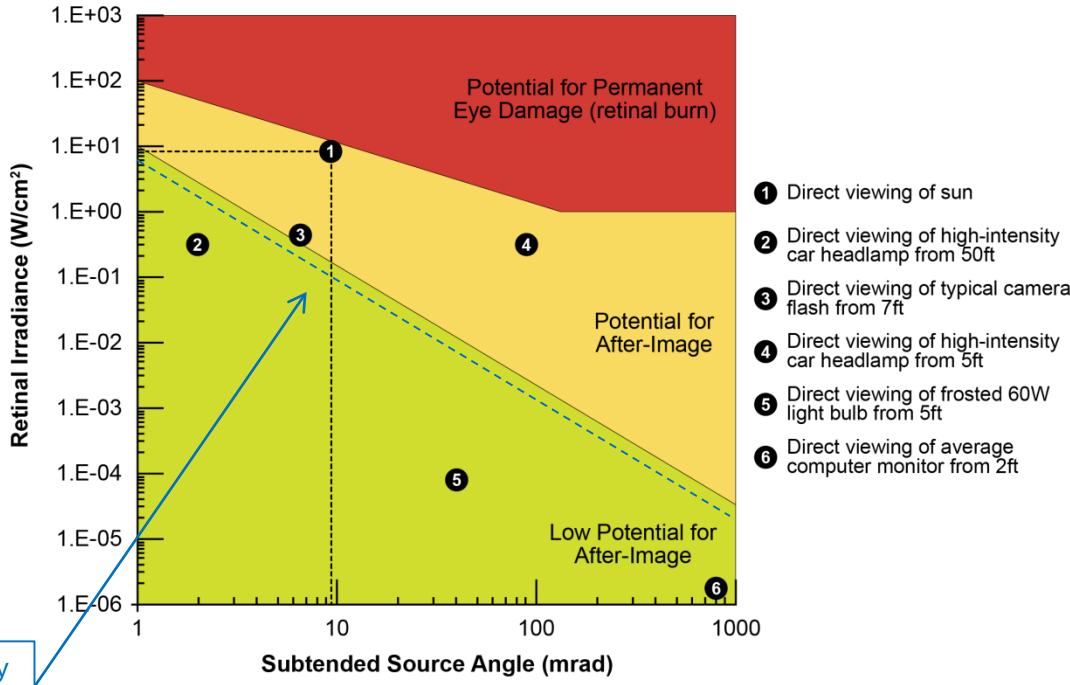


Figure C2: After-image potential plot [1]

RWDI Criteria – 50% of the intensity of a reflection with the potential of causing after-imaging

[1]C. Ho, C. Ghanbari and R. Diver, "Methodology to Assess Potential Glint and Glare Hazards From Concentrating Solar Power Plants: Analytical Models and Experimental Validation," *J. Sol. Energy Eng.*, vol. 133, no. 3, pp. 031021-1 - 031022-9, 2011. http://dx.doi.org/10.1115/1.4004349.

C3. CRITERIA – VISUAL GLARE IMPACT CATEGORIES

In the detailed phase of the study, visual glare was assessed at 1 minute intervals, over the course of a year. At each combination of date and time, the maximum glare impact from all surfaces was determined. RWDI combined the maximum glare impact with the assumed task(s) occurring at the location in question to derive an overall impact category:

- **Low** – Either no significant glare sources are found or the intensity of the brightest source is less than what is required to cause flash blindness. There is little impact on viewers.
- **Moderate** – The brightest glare source is capable of causing flash blindness according to the RWDI criteria explained in section C2, but is either falling on a point representing a pedestrian (who can easily look away), or emanating from a location that falls outside of the line-of-sight of someone who has limited ability to look away from a given direction (i.e. a vehicle driver). These can be thought of as “nuisance” reflections.
- **High** – The brightest glare source is capable of causing flash blindness according to the RWDI criteria explained in section C2, and is emanating from a surface within the line-of-sight of a driver, pilot or someone else who has limited ability to look away and is performing a “high risk” activity (Figure C3). Such situations pose a significant risk of distraction and can reduce visual acuity for those operating vehicles or performing other high-risk tasks.
- **Damaging** – The brightest glare source is bright enough to permanently damage the eye. Reflections of this magnitude pose a significant threat to the safety of those nearby.

RWDI assumes that the “line-of-sight” for vehicle drivers included all surfaces within 20° of the direction of travel (Figure C3), and that no sunglasses or other eye protection equipment are worn. The 20° field of view was selected because, opaque elements of cars tend to limit a driver’s vision beyond this angle [2].

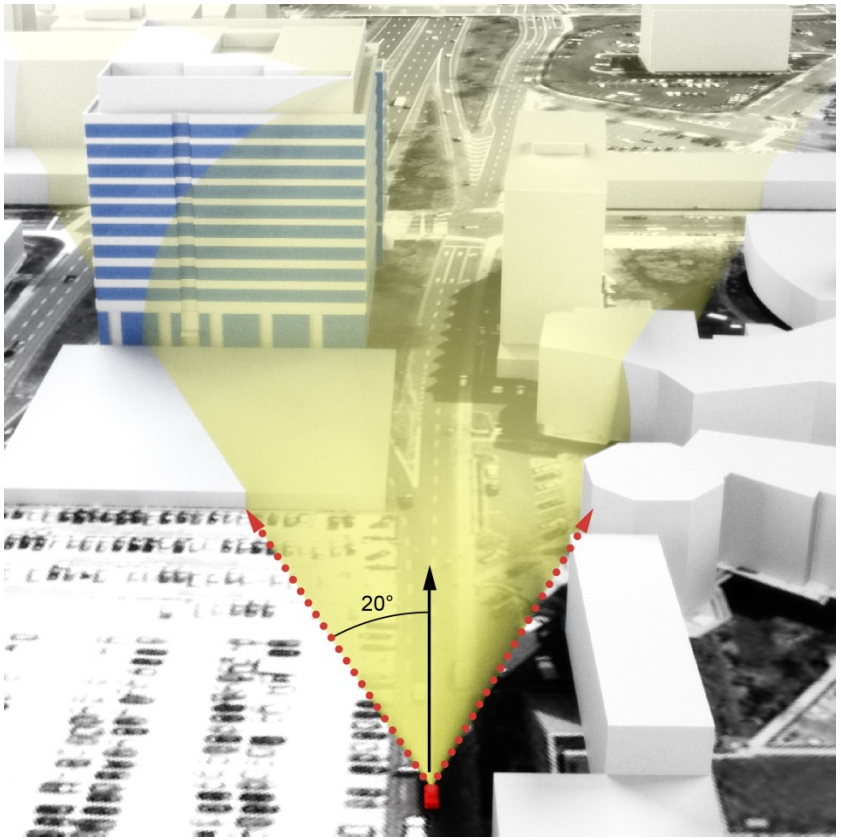


Figure C3: A driver’s 20° cone of vision

[2]F. Vargas-Martin and M. A. García-Pérez, "Visual fields at the wheel," *Optom. Vis. Sci.*, vol. 82, no. 8, pp. 675-681, 2005.

Appendix F: Air Quality/Greenhouse Gas Emissions

Mesoscale Air Quality Analysis Supporting Documentation

Garage Ventilation Analysis Supporting Documentation

Greenhouse Gas Emissions Assessment Supporting Documentation

Mesoscale Air Quality Analysis Supporting Documentation

1000 Boylston Mesoscale Emission Factors from MOVES2014a							
		2017 Emission Factors			2024 Emission Factors		
#	Link	NOx	VOC	CO2	NOx	VOC	CO2
1	Mass Ave (Columbus/Huntington)	0.28	0.42	490.8	0.12	0.30	404.8
2	Mass Ave (Huntington/St Stephen)	0.28	1.33	490.1	0.12	0.96	404.2
3	Mass Ave (Stephen/Belvidere)	0.28	0.41	490.6	0.12	0.29	404.6
4	Mass Ave (Belvidere/Boylston)	0.38	1.59	590.3	0.18	1.15	487.7
5	Mass Ave (Boylston/Newbury)	0.28	1.33	490.1	0.12	0.96	404.2
6	Mass Ave (Newbury/Commonwealth EB)	0.36	1.16	569.5	0.17	0.84	470.4
7	Mass Ave (Commonwealth WB/Marlborough)	0.32	1.16	534.7	0.15	0.83	441.3
8	Mass Ave (Marlborough/Beacon)	0.26	1.32	477.0	0.12	0.96	393.4
9	Mass Ave (Beacon/Back)	0.28	1.95	496.1	0.12	1.41	409.2
10	Huntington Ave (Gainsborough/Mass Ave)	0.35	0.72	557.2	0.16	0.51	460.1
11	Huntington Ave (Mass Ave/Cumberland)	0.33	0.59	536.5	0.15	0.42	442.8
12	Huntington Ave (Cumberland/West Newton)	0.27	0.83	484.9	0.12	0.59	399.9
13	Huntington Ave (West Newton/ Dartmouth)	0.27	0.30	488.3	0.12	0.20	402.7
14	St Stephen St (Symphony Rd/Mass Ave)	0.31	1.16	556.9	0.13	0.84	459.4
15	Falmouth St (Mass Ave/ End)	0.29	1.96	536.2	0.13	1.42	442.1
16	Belvidere St (Mass Ave/Dalton St)	0.31	0.56	563.8	0.14	0.40	465.2
17	Belvidere St (Dalton St/Huntington)	0.29	0.59	540.5	0.13	0.42	445.8
18	Haviland St (Mass Ave/ Hemenway St)	0.31	0.84	558.4	0.14	0.60	460.6
19	Boylston St (Hemenway St/ Mass Ave)	0.30	1.02	515.9	0.14	0.73	425.7
20	Boylston St (Mass Ave/ Dalton St)	0.27	0.83	484.9	0.12	0.59	399.9
21	Boylston St (Dalton St/ Hereford St)	0.35	3.82	557.2	0.16	2.79	460.1
22	Boylston St (Hereford St/ Gloucester)	0.32	0.84	534.1	0.15	0.60	440.9
23	Boylston St (Gloucester/Fairfield)	0.30	0.76	512.1	0.13	0.55	422.5
24	Newbury St (Mass Ave/ Charlesgate)	0.22	0.51	432.5	0.10	0.36	356.3
25	Newbury St (Mass Ave/ Hereford St)	0.32	0.62	534.7	0.15	0.44	441.3
26	Newbury St (Hereford St/ Gloucester)	0.28	1.02	496.1	0.12	0.73	409.2
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	0.30	0.55	511.3	0.13	0.39	421.8
28	Commonwealth Ave EB (Mass Ave/Hereford)	0.31	0.66	519.6	0.14	0.47	428.8
29	Commonwealth Ave EB (Hereford/Gloucester St)	0.26	1.01	477.0	0.12	0.73	393.4
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	0.27	0.76	484.1	0.12	0.54	399.3
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	0.30	0.55	511.3	0.13	0.39	421.8
32	Commonwealth Ave WB (Mass Ave/Hereford)	0.31	0.66	519.6	0.14	0.47	428.8
33	Commonwealth Ave WB (Hereford/Gloucester St)	0.26	1.01	477.0	0.12	0.73	393.4
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	0.27	0.76	484.1	0.12	0.54	399.3
35	Marborough St (Charlesgate/ Mass Ave)	0.28	0.66	489.3	0.12	0.47	403.6
36	Marlborouch St (Mass Ave/ Hereford St)	0.26	0.61	471.2	0.11	0.44	388.5
37	Beacon St (Charlesgate/ Mass Ave)	0.27	0.70	483.3	0.12	0.50	398.6
38	Beacon St (Mass Ave/ Hereford)	0.27	0.65	483.0	0.12	0.47	398.3
39	Hereford St (Marlborough/ Commonwealth WB)	0.26	1.32	477.0	0.12	0.96	393.4
40	Hereford St (Commonwealth EB/ Newbury St)	0.22	2.56	435.1	0.10	1.86	358.5
41	Hereford St (Newbury St/ Boylston)	0.17	1.31	377.1	0.07	0.95	310.4
42	Dalton St (Boylston/ Scotia St)	0.34	1.04	592.4	0.15	0.74	488.9
43	Dalton St (Scotia St/ Belvidere)	0.43	1.98	675.5	0.19	1.43	557.9
44	Scotia St (Dalton St/ St Cecilla St)	0.31	1.16	556.9	0.13	0.84	459.4
45	Gloucester St (Marlborough/ Commonwealth WB)	0.26	1.32	477.0	0.12	0.96	393.4
46	Gloucester St (Commonwealth EB/ Newbury St)	0.26	1.15	477.0	0.12	0.83	393.4
47	Gloucester St (Newbury St/ Boylston)	0.35	1.34	557.2	0.16	0.97	460.1
48	Westland Ave (Hemenway St/ Mass Ave)	0.27	0.42	480.6	0.12	0.30	396.3
49	Cumberland St (Huntington Ave/ St Botolph St)	0.28	1.33	490.1	0.12	0.96	404.2
50	W. Newton St (Huntington Ave/ St Botolph St)	0.30	1.33	515.9	0.14	0.96	425.7
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	0.32	2.58	530.0	0.14	1.87	437.5
52	Hereford St (Commonwealth EB/ Commonwealth WB)	0.29	2.57	502.1	0.13	1.87	414.2
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	0.29	2.57	502.1	0.13	1.87	414.2
54	I90 Ramp	0.14	0.88	300.7	0.06	0.64	247.8
55	Idle Link	1.92	1.11	4078.2	0.66	0.73	3345.5

2017 NOx MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits	Emission Factor
2017	7	5	16	25	25025	1	3	1	0.0607889	0.276313182	g	mi	
2017	7	5	16	25	25025	1	3	15	1.66138E-05	7.55173E-05	g	mi	0.276388699
2017	7	5	16	25	25025	2	3	1	0.016540799	0.275679994	g	mi	
2017	7	5	16	25	25025	2	3	15	4.51595E-06	7.52658E-05	g	mi	0.27575526
2017	7	5	16	25	25025	3	3	1	0.063494302	0.276062179	g	mi	
2017	7	5	16	25	25025	3	3	15	1.73385E-05	7.53848E-05	g	mi	0.276137564
2017	7	5	16	25	25025	4	3	1	0.019117299	0.382345984	g	mi	
2017	7	5	16	25	25025	4	3	15	5.25973E-06	0.000105195	g	mi	0.382451178
2017	7	5	16	25	25025	5	3	1	0.016540799	0.275679994	g	mi	
2017	7	5	16	25	25025	5	3	15	4.51595E-06	7.52658E-05	g	mi	0.27575526
2017	7	5	16	25	25025	6	3	1	0.0253425	0.36203571	g	mi	
2017	7	5	16	25	25025	6	3	15	6.95476E-06	9.93537E-05	g	mi	0.362135064
2017	7	5	16	25	25025	7	3	1	0.022679601	0.323994297	g	mi	
2017	7	5	16	25	25025	7	3	15	6.20333E-06	8.8619E-05	g	mi	0.324082916
2017	7	5	16	25	25025	8	3	1	0.015804101	0.263401686	g	mi	
2017	7	5	16	25	25025	8	3	15	4.3139E-06	7.18983E-05	g	mi	0.263473584
2017	7	5	16	25	25025	9	3	1	0.0112518	0.281295	g	mi	
2017	7	5	16	25	25025	9	3	15	3.07799E-06	7.69498E-05	g	mi	0.28137195
2017	7	5	16	25	25025	10	3	1	0.041966598	0.349721662	g	mi	
2017	7	5	16	25	25025	10	3	15	1.1499E-05	9.5825E-05	g	mi	0.349817487
2017	7	5	16	25	25025	11	3	1	0.0489127	0.326084655	g	mi	
2017	7	5	16	25	25025	11	3	15	1.33742E-05	8.91613E-05	g	mi	0.326173817
2017	7	5	16	25	25025	12	3	1	0.027077099	0.270770989	g	mi	
2017	7	5	16	25	25025	12	3	15	7.3946E-06	7.3946E-05	g	mi	0.270844935
2017	7	5	16	25	25025	13	3	1	0.095995799	0.274273715	g	mi	
2017	7	5	16	25	25025	13	3	15	2.62003E-05	7.4858E-05	g	mi	0.274348573
2017	7	5	16	25	25025	14	3	1	0.021491401	0.307020012	g	mi	
2017	7	5	16	25	25025	14	3	15	6.12506E-06	8.75009E-05	g	mi	0.307107512
2017	7	5	16	25	25025	15	3	1	0.0114405	0.286012499	g	mi	
2017	7	5	16	25	25025	15	3	15	3.2266E-06	8.0665E-05	g	mi	0.286093164
2017	7	5	16	25	25025	16	3	1	0.050332699	0.314579376	g	mi	
2017	7	5	16	25	25025	16	3	15	1.44074E-05	9.00463E-05	g	mi	0.314669422
2017	7	5	16	25	25025	17	3	1	0.043559499	0.290396649	g	mi	
2017	7	5	16	25	25025	17	3	15	1.23467E-05	8.23113E-05	g	mi	0.29047896
2017	7	5	16	25	25025	18	3	1	0.030847801	0.308478004	g	mi	
2017	7	5	16	25	25025	18	3	15	8.78771E-06	8.78771E-05	g	mi	0.308565881
2017	7	5	16	25	25025	19	3	1	0.024235699	0.302946248	g	mi	
2017	7	5	16	25	25025	19	3	15	6.63406E-06	8.29258E-05	g	mi	0.303029174
2017	7	5	16	25	25025	20	3	1	0.027077099	0.270770989	g	mi	
2017	7	5	16	25	25025	20	3	15	7.3946E-06	7.3946E-05	g	mi	0.270844935
2017	7	5	16	25	25025	21	3	1	0.00699444	0.349722019	g	mi	
2017	7	5	16	25	25025	21	3	15	1.91651E-06	9.58255E-05	g	mi	0.349817844
2017	7	5	16	25	25025	22	3	1	0.032344099	0.323440987	g	mi	
2017	7	5	16	25	25025	22	3	15	8.83507E-06	8.83507E-05	g	mi	0.323529337
2017	7	5	16	25	25025	23	3	1	0.032867499	0.298795444	g	mi	
2017	7	5	16	25	25025	23	3	15	8.96683E-06	8.15166E-05	g	mi	0.298876961
2017	7	5	16	25	25025	24	3	1	0.037417602	0.220103538	g	mi	
2017	7	5	16	25	25025	24	3	15	9.86167E-06	5.80098E-05	g	mi	0.220161547
2017	7	5	16	25	25025	25	3	1	0.045359101	0.323993578	g	mi	
2017	7	5	16	25	25025	25	3	15	1.24067E-05	8.86193E-05	g	mi	0.324082198
2017	7	5	16	25	25025	26	3	1	0.0225037	0.281296258	g	mi	
2017	7	5	16	25	25025	26	3	15	6.15597E-06	7.69496E-05	g	mi	0.281373207
2017	7	5	16	25	25025	27	3	1	0.047648299	0.297801878	g	mi	
2017	7	5	16	25	25025	27	3	15	1.29758E-05	8.10988E-05	g	mi	0.297882977
2017	7	5	16	25	25025	28	3	1	0.040001199	0.307701539	g	mi	
2017	7	5	16	25	25025	28	3	15	1.09064E-05	8.38954E-05	g	mi	0.307785435
2017	7	5	16	25	25025	29	3	1	0.021072101	0.263401266	g	mi	
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2017	7	5	16	25	25025	30	3	1	0.029674301	0.269766373	g	mi	
2017	7	5	16	25	25025	30	3	15	8.11574E-06	7.37795E-05	g	mi	0.269840153
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2017	7	5	16	25	25025	32	3	1	0.040001199	0.307701539	g	mi	
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2017	7	5	16	25	25025	33	3	1	0.021072101	0.263401266	g	mi	
2017	7	5	16	25	25025	33	3	15	5.75187E-06	7.18984E-05	g	mi	0.263473165
2017	7	5	16	25	25025	34	3	1	0.029674301	0.269766373	g	mi	
2017	7	5	16	25	25025	34	3	15	8.11574E-06	7.37795E-05	g	mi	0.269840153
2017	7	5	16	25	25025	35	3	1	0.035742201	0.274940017	g	mi	
2017	7	5	16	25	25025	35	3	15	9.75379E-06	7.50292E-05	g	mi	0.275015046
2017	7	5	16	25	25025	36	3	1	0.036109701	0.257926433	g	mi	
2017	7	5	16	25	25025	36	3	15	9.86799E-06	7.04856E-05	g	mi	0.257996919
2017	7	5	16	25	25025	37	3	1	0.032264501	0.268870846	g	mi	
2017	7	5	16	25	25025	37	3	15	8.81577E-06	7.34648E-05	g	mi	0.268944311
2017	7	5	16	25	25025	38	3	1	0.0349079	0.268522316	g	mi	
2017	7	5	16	25	25025	38	3	15	9.52979E-06	7.33061E-05	g	mi	0.268595622
2017	7	5	16	25	25025	39	3	1	0.015804101	0.263401686	g	mi	
2017	7	5	16	25	25025	39	3	15	4.3139E-06	7.18983E-05	g	mi	0.263473584
2017	7	5	16	25	25025	40	3	1	0.00666904	0.222301333	g	mi	
2017	7	5	16	25	25025	40	3	15	1.75823E-06	5.86077E-05	g	mi	0.222359941
2017	7	5	16	25	25025	41	3	1	0.0102214	0.170356675	g	mi	
2017	7	5	16	25	25025	41	3	15	2.59085E-06	4.31808E-05	g	mi	0.170399856
2017	7	5	16	25	25025	42	3	1	0.027517101	0.343963768	g	mi	
2017	7	5	16	25	25025	42	3	15	7.85403E-06	9.81754E-05	g	mi	0.344061943

2017	7	5	16	25	25025	43	3	1	0.0170408	0.426020017	g	mi	
2017	7	5	16	25	25025	43	3	15	4.85472E-06	0.000121368	g	mi	0.426141385
2017	7	5	16	25	25025	44	3	1	0.021491401	0.307020012	g	mi	
2017	7	5	16	25	25025	44	3	15	6.12506E-06	8.75009E-05	g	mi	0.307107512
2017	7	5	16	25	25025	45	3	1	0.015804101	0.263401686	g	mi	
2017	7	5	16	25	25025	45	3	15	4.3139E-06	7.18983E-05	g	mi	0.263473584
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2017	7	5	16	25	25025	49	3	1	0.016540799	0.275679994	g	mi	
2017	7	5	16	25	25025	49	3	15	4.51595E-06	7.52658E-05	g	mi	0.27575526
2017	7	5	16	25	25025	50	3	1	0.0181768	0.302946667	g	mi	
2017	7	5	16	25	25025	50	3	15	4.97555E-06	8.29258E-05	g	mi	0.303029593
2017	7	5	16	25	25025	51	3	1	0.00957742	0.319247327	g	mi	
2017	7	5	16	25	25025	51	3	15	2.61876E-06	8.7292E-05	g	mi	0.319334619
2017	7	5	16	25	25025	52	3	1	0.00863251	0.287750339	g	mi	
2017	7	5	16	25	25025	52	3	15	2.35941E-06	7.8647E-05	g	mi	0.287828986
2017	7	5	16	25	25025	53	3	1	0.00863251	0.287750339	g	mi	
2017	7	5	16	25	25025	53	3	15	2.35941E-06	7.8647E-05	g	mi	0.287828986
2017	7	5	16	25	25025	54	3	1	0.0125761	0.139734444	g	mi	
2017	7	5	16	25	25025	54	3	15	2.97867E-06	3.30963E-05	g	mi	0.13976754
2017	7	5	16	25	25025	55	3	1	1.923810005	NULL	g	mi	
2017	7	5	16	25	25025	55	3	15	0.000579087	NULL	g	mi	1.924389092

2017 VOC MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits	Emission Factor
2017	7	5	16	25	25025	1	87	1	0.0140518	0.063871817	g	mi	
2017	7	5	16	25	25025	1	87	11	0.046626098	0.211936812	g	mi	
2017	7	5	16	25	25025	1	87	13	0.0318445	0.14474773	g	mi	
2017	7	5	16	25	25025	1	87	15	0.000176585	0.000802659	g	mi	0.421359019
2017	7	5	16	25	25025	2	87	1	0.0038289	0.063815	g	mi	
2017	7	5	16	25	25025	2	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	2	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	2	87	15	4.81307E-05	0.000802178	g	mi	1.325505535
2017	7	5	16	25	25025	3	87	1	0.0146847	0.063846522	g	mi	
2017	7	5	16	25	25025	3	87	11	0.046631299	0.202744774	g	mi	
2017	7	5	16	25	25025	3	87	13	0.032015398	0.139197381	g	mi	
2017	7	5	16	25	25025	3	87	15	0.000184581	0.000802526	g	mi	0.406591204
2017	7	5	16	25	25025	4	87	1	0.00401335	0.080266994	g	mi	
2017	7	5	16	25	25025	4	87	11	0.0465382	0.930763991	g	mi	
2017	7	5	16	25	25025	4	87	13	0.0289391	0.578781991	g	mi	
2017	7	5	16	25	25025	4	87	15	5.04615E-05	0.00100923	g	mi	1.590822206
2017	7	5	16	25	25025	5	87	1	0.0038289	0.063815	g	mi	
2017	7	5	16	25	25025	5	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	5	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	5	87	15	4.81307E-05	0.000802178	g	mi	1.325505535
2017	7	5	16	25	25025	6	87	1	0.00542934	0.077562001	g	mi	
2017	7	5	16	25	25025	6	87	11	0.046548501	0.664978578	g	mi	
2017	7	5	16	25	25025	6	87	13	0.029280899	0.418298557	g	mi	
2017	7	5	16	25	25025	6	87	15	6.83022E-05	0.000975746	g	mi	1.161814881
2017	7	5	16	25	25025	7	87	1	0.00502101	0.071728715	g	mi	
2017	7	5	16	25	25025	7	87	11	0.046548501	0.664978578	g	mi	
2017	7	5	16	25	25025	7	87	13	0.029280899	0.418298557	g	mi	
2017	7	5	16	25	25025	7	87	15	6.31319E-05	0.000901884	g	mi	1.155907734
2017	7	5	16	25	25025	8	87	1	0.00371961	0.0619935	g	mi	
2017	7	5	16	25	25025	8	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	8	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	8	87	15	4.6798E-05	0.000779967	g	mi	1.323661823
2017	7	5	16	25	25025	9	87	1	0.00258173	0.064543252	g	mi	
2017	7	5	16	25	25025	9	87	11	0.046533	1.163325019	g	mi	
2017	7	5	16	25	25025	9	87	13	0.0287681	0.719202512	g	mi	
2017	7	5	16	25	25025	9	87	15	3.24439E-05	0.000811097	g	mi	1.947881881
2017	7	5	16	25	25025	10	87	1	0.00910385	0.075865422	g	mi	
2017	7	5	16	25	25025	10	87	11	0.046574399	0.388119999	g	mi	
2017	7	5	16	25	25025	10	87	13	0.030135401	0.251128344	g	mi	
2017	7	5	16	25	25025	10	87	15	0.000114525	0.000954375	g	mi	0.71606814
2017	7	5	16	25	25025	11	87	1	0.0108043	0.072028665	g	mi	
2017	7	5	16	25	25025	11	87	11	0.0465899	0.31059932	g	mi	
2017	7	5	16	25	25025	11	87	13	0.030648099	0.204320654	g	mi	
2017	7	5	16	25	25025	11	87	15	0.000135874	0.000905827	g	mi	0.587854465
2017	7	5	16	25	25025	12	87	1	0.00631472	0.063147199	g	mi	
2017	7	5	16	25	25025	12	87	11	0.046564098	0.465640978	g	mi	
2017	7	5	16	25	25025	12	87	13	0.0297936	0.297935992	g	mi	
2017	7	5	16	25	25025	12	87	15	7.94063E-05	0.000794063	g	mi	0.827518232
2017	7	5	16	25	25025	13	87	1	0.022277299	0.063649428	g	mi	
2017	7	5	16	25	25025	13	87	11	0.0466934	0.133409715	g	mi	
2017	7	5	16	25	25025	13	87	13	0.0340662	0.097332002	g	mi	
2017	7	5	16	25	25025	13	87	15	0.000280097	0.000800277	g	mi	0.295191423
2017	7	5	16	25	25025	14	87	1	0.00522822	0.074688857	g	mi	
2017	7	5	16	25	25025	14	87	11	0.046557602	0.665108591	g	mi	
2017	7	5	16	25	25025	14	87	13	0.029580001	0.422571438	g	mi	
2017	7	5	16	25	25025	14	87	15	6.62732E-05	0.00094676	g	mi	1.163315646
2017	7	5	16	25	25025	15	87	1	0.00289165	0.072291251	g	mi	
2017	7	5	16	25	25025	15	87	11	0.0465382	1.163455032	g	mi	
2017	7	5	16	25	25025	15	87	13	0.0289391	0.723477516	g	mi	
2017	7	5	16	25	25025	15	87	15	3.6714E-05	0.00091785	g	mi	1.960141648
2017	7	5	16	25	25025	16	87	1	0.012104	0.075650001	g	mi	
2017	7	5	16	25	25025	16	87	11	0.046615802	0.291348767	g	mi	
2017	7	5	16	25	25025	16	87	13	0.031502601	0.196891259	g	mi	
2017	7	5	16	25	25025	16	87	15	0.000153489	0.000959306	g	mi	0.564849334
2017	7	5	16	25	25025	17	87	1	0.010908	0.072719998	g	mi	
2017	7	5	16	25	25025	17	87	11	0.046609301	0.310728662	g	mi	
2017	7	5	16	25	25025	17	87	13	0.031289	0.208593325	g	mi	
2017	7	5	16	25	25025	17	87	15	0.000138465	0.0009231	g	mi	0.592965085
2017	7	5	16	25	25025	18	87	1	0.00749353	0.074935298	g	mi	
2017	7	5	16	25	25025	18	87	11	0.046576999	0.465769984	g	mi	
2017	7	5	16	25	25025	18	87	13	0.0302209	0.302208993	g	mi	
2017	7	5	16	25	25025	18	87	15	9.49921E-05	0.000949921	g	mi	0.843864196
2017	7	5	16	25	25025	19	87	1	0.00543938	0.067992254	g	mi	
2017	7	5	16	25	25025	19	87	11	0.046553701	0.581921278	g	mi	
2017	7	5	16	25	25025	19	87	13	0.029451801	0.368147515	g	mi	
2017	7	5	16	25	25025	19	87	15	6.84398E-05	0.000855497	g	mi	1.018916543
2017	7	5	16	25	25025	20	87	1	0.00631472	0.063147199	g	mi	
2017	7	5	16	25	25025	20	87	11	0.046564098	0.465640978	g	mi	
2017	7	5	16	25	25025	20	87	13	0.0297936	0.297935992	g	mi	
2017	7	5	16	25	25025	20	87	15	7.94063E-05	0.000794063	g	mi	0.827518232
2017	7	5	16	25	25025	21	87	1	0.00151731	0.075865504	g	mi	
2017	7	5	16	25	25025	21	87	11	0.046522699	2.326135017	g	mi	
2017	7	5	16	25	25025	21	87	13	0.028426399	1.421320004	g	mi	
2017	7	5	16	25	25025	21	87	15	1.90874E-05	0.00095437	g	mi	3.824274895

2017	7	5	16	25	25025	22	87	1	0.00716857	0.0716857 g	mi	
2017	7	5	16	25	25025	22	87	11	0.046564098	0.465640978 g	mi	
2017	7	5	16	25	25025	22	87	13	0.0297936	0.297935992 g	mi	
2017	7	5	16	25	25025	22	87	15	9.01519E-05	0.000901519 g	mi	0.836164188
2017	7	5	16	25	25025	23	87	1	0.00741652	0.067422908 g	mi	
2017	7	5	16	25	25025	23	87	11	0.046569198	0.423356351 g	mi	
2017	7	5	16	25	25025	23	87	13	0.029964499	0.272404539 g	mi	
2017	7	5	16	25	25025	23	87	15	9.32588E-05	0.000847807 g	mi	0.764031605
2017	7	5	16	25	25025	24	87	1	0.00960194	0.056482002 g	mi	
2017	7	5	16	25	25025	24	87	11	0.046600301	0.274119414 g	mi	
2017	7	5	16	25	25025	24	87	13	0.0309899	0.182293529 g	mi	
2017	7	5	16	25	25025	24	87	15	0.000121146	0.000712624 g	mi	0.513607568
2017	7	5	16	25	25025	25	87	1	0.010042	0.071728568 g	mi	
2017	7	5	16	25	25025	25	87	11	0.0465848	0.332748569 g	mi	
2017	7	5	16	25	25025	25	87	13	0.0304772	0.217694283 g	mi	
2017	7	5	16	25	25025	25	87	15	0.000126264	0.000901886 g	mi	0.623073306
2017	7	5	16	25	25025	26	87	1	0.00516345	0.064543124 g	mi	
2017	7	5	16	25	25025	26	87	11	0.046553701	0.581921278 g	mi	
2017	7	5	16	25	25025	26	87	13	0.029451801	0.368147515 g	mi	
2017	7	5	16	25	25025	26	87	15	6.48877E-05	0.000811096 g	mi	1.015423012
2017	7	5	16	25	25025	27	87	1	0.0107669	0.067293127 g	mi	
2017	7	5	16	25	25025	27	87	11	0.0465951	0.291219383 g	mi	
2017	7	5	16	25	25025	27	87	13	0.030819001	0.192618759 g	mi	
2017	7	5	16	25	25025	27	87	15	0.000135405	0.000846281 g	mi	0.551977551
2017	7	5	16	25	25025	28	87	1	0.00895954	0.068919542 g	mi	
2017	7	5	16	25	25025	28	87	11	0.046579599	0.358304624 g	mi	
2017	7	5	16	25	25025	28	87	13	0.0303063	0.233125394 g	mi	
2017	7	5	16	25	25025	28	87	15	0.000112802	0.000867708 g	mi	0.661217268
2017	7	5	16	25	25025	29	87	1	0.00495949	0.061993628 g	mi	
2017	7	5	16	25	25025	29	87	11	0.046553701	0.581921278 g	mi	
2017	7	5	16	25	25025	29	87	13	0.029451801	0.368147515 g	mi	
2017	7	5	16	25	25025	29	87	15	6.23974E-05	0.000779967 g	mi	1.012842388
2017	7	5	16	25	25025	30	87	1	0.00691863	0.062896638 g	mi	
2017	7	5	16	25	25025	30	87	11	0.046569198	0.423356351 g	mi	
2017	7	5	16	25	25025	30	87	13	0.029964499	0.272404539 g	mi	
2017	7	5	16	25	25025	30	87	15	8.69947E-05	0.000790861 g	mi	0.759448389
2017	7	5	16	25	25025	31	87	1	0.0107669	0.067293127 g	mi	
2017	7	5	16	25	25025	31	87	11	0.0465951	0.291219383 g	mi	
2017	7	5	16	25	25025	31	87	13	0.030819001	0.192618759 g	mi	
2017	7	5	16	25	25025	31	87	15	0.000135405	0.000846281 g	mi	0.551977551
2017	7	5	16	25	25025	32	87	1	0.00895954	0.068919542 g	mi	
2017	7	5	16	25	25025	32	87	11	0.046579599	0.358304624 g	mi	
2017	7	5	16	25	25025	32	87	13	0.0303063	0.233125394 g	mi	
2017	7	5	16	25	25025	32	87	15	0.000112802	0.000867708 g	mi	0.661217268
2017	7	5	16	25	25025	33	87	1	0.00495949	0.061993628 g	mi	
2017	7	5	16	25	25025	33	87	11	0.046553701	0.581921278 g	mi	
2017	7	5	16	25	25025	33	87	13	0.029451801	0.368147515 g	mi	
2017	7	5	16	25	25025	33	87	15	6.23974E-05	0.000779967 g	mi	1.012842388
2017	7	5	16	25	25025	34	87	1	0.00691863	0.062896638 g	mi	
2017	7	5	16	25	25025	34	87	11	0.046569198	0.423356351 g	mi	
2017	7	5	16	25	25025	34	87	13	0.029964499	0.272404539 g	mi	
2017	7	5	16	25	25025	34	87	15	8.69947E-05	0.000790861 g	mi	0.759448389
2017	7	5	16	25	25025	35	87	1	0.00828821	0.063755466 g	mi	
2017	7	5	16	25	25025	35	87	11	0.046579599	0.358304624 g	mi	
2017	7	5	16	25	25025	35	87	13	0.0303063	0.233125394 g	mi	
2017	7	5	16	25	25025	35	87	15	0.000104172	0.000801323 g	mi	0.655986807
2017	7	5	16	25	25025	36	87	1	0.00855136	0.061081143 g	mi	
2017	7	5	16	25	25025	36	87	11	0.0465848	0.332748569 g	mi	
2017	7	5	16	25	25025	36	87	13	0.0304772	0.217694283 g	mi	
2017	7	5	16	25	25025	36	87	15	0.000107494	0.000767814 g	mi	0.61229181
2017	7	5	16	25	25025	37	87	1	0.00753151	0.062762586 g	mi	
2017	7	5	16	25	25025	37	87	11	0.046574399	0.388119999 g	mi	
2017	7	5	16	25	25025	37	87	13	0.030135401	0.251128344 g	mi	
2017	7	5	16	25	25025	37	87	15	9.46861E-05	0.000789051 g	mi	0.70279998
2017	7	5	16	25	25025	38	87	1	0.00815447	0.062726691 g	mi	
2017	7	5	16	25	25025	38	87	11	0.046579599	0.358304624 g	mi	
2017	7	5	16	25	25025	38	87	13	0.0303063	0.233125394 g	mi	
2017	7	5	16	25	25025	38	87	15	0.000102537	0.000788746 g	mi	0.654945455
2017	7	5	16	25	25025	39	87	1	0.00371961	0.0619935 g	mi	
2017	7	5	16	25	25025	39	87	11	0.0465433	0.775721687 g	mi	
2017	7	5	16	25	25025	39	87	13	0.02911	0.48516667 g	mi	
2017	7	5	16	25	25025	39	87	15	4.6798E-05	0.000779967 g	mi	1.323661823
2017	7	5	16	25	25025	40	87	1	0.00170378	0.056792669 g	mi	
2017	7	5	16	25	25025	40	87	11	0.046527799	1.550926675 g	mi	
2017	7	5	16	25	25025	40	87	13	0.028597301	0.953243384 g	mi	
2017	7	5	16	25	25025	40	87	15	2.14714E-05	0.000715713 g	mi	2.561678441
2017	7	5	16	25	25025	41	87	1	0.00307221	0.051203499 g	mi	
2017	7	5	16	25	25025	41	87	11	0.0465433	0.775721687 g	mi	
2017	7	5	16	25	25025	41	87	13	0.02911	0.48516667 g	mi	
2017	7	5	16	25	25025	41	87	15	3.89059E-05	0.000648432 g	mi	1.312740287
2017	7	5	16	25	25025	42	87	1	0.00640725	0.080090629 g	mi	
2017	7	5	16	25	25025	42	87	11	0.046564098	0.582051244 g	mi	
2017	7	5	16	25	25025	42	87	13	0.0297936	0.372420004 g	mi	
2017	7	5	16	25	25025	42	87	15	8.1244E-05	0.00101555 g	mi	1.035577426
2017	7	5	16	25	25025	43	87	1	0.00366495	0.09162375 g	mi	
2017	7	5	16	25	25025	43	87	11	0.0465382	1.163455032 g	mi	

2017	7	5	16	25	25025	43	87	13	0.0289391	0.723477516	g	mi	
2017	7	5	16	25	25025	43	87	15	4.63726E-05	0.001159315	g	mi	1.979715612
2017	7	5	16	25	25025	44	87	1	0.00522822	0.074688857	g	mi	
2017	7	5	16	25	25025	44	87	11	0.046557602	0.665108591	g	mi	
2017	7	5	16	25	25025	44	87	13	0.029580001	0.422571438	g	mi	
2017	7	5	16	25	25025	44	87	15	6.62732E-05	0.00094676	g	mi	1.163315646
2017	7	5	16	25	25025	45	87	1	0.00371961	0.0619935	g	mi	
2017	7	5	16	25	25025	45	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	45	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	45	87	15	4.6798E-05	0.000779967	g	mi	1.323661823
2017	7	5	16	25	25025	46	87	1	0.00433955	0.061993573	g	mi	
2017	7	5	16	25	25025	46	87	11	0.046548501	0.664978578	g	mi	
2017	7	5	16	25	25025	46	87	13	0.029280899	0.418298557	g	mi	
2017	7	5	16	25	25025	46	87	15	5.45977E-05	0.000779967	g	mi	1.146050675
2017	7	5	16	25	25025	47	87	1	0.00455192	0.075865337	g	mi	
2017	7	5	16	25	25025	47	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	47	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	47	87	15	5.72623E-05	0.000954372	g	mi	1.337708065
2017	7	5	16	25	25025	48	87	1	0.0137586	0.06253909	g	mi	
2017	7	5	16	25	25025	48	87	11	0.046626098	0.211936812	g	mi	
2017	7	5	16	25	25025	48	87	13	0.0318445	0.14474773	g	mi	
2017	7	5	16	25	25025	48	87	15	0.000173079	0.000786723	g	mi	0.420010355
2017	7	5	16	25	25025	49	87	1	0.0038289	0.063815	g	mi	
2017	7	5	16	25	25025	49	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	49	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	49	87	15	4.81307E-05	0.000802178	g	mi	1.325505535
2017	7	5	16	25	25025	50	87	1	0.00407953	0.067992168	g	mi	
2017	7	5	16	25	25025	50	87	11	0.0465433	0.775721687	g	mi	
2017	7	5	16	25	25025	50	87	13	0.02911	0.48516667	g	mi	
2017	7	5	16	25	25025	50	87	15	5.13298E-05	0.000855497	g	mi	1.329736021
2017	7	5	16	25	25025	51	87	1	0.00212872	0.070957337	g	mi	
2017	7	5	16	25	25025	51	87	11	0.046527799	1.550926675	g	mi	
2017	7	5	16	25	25025	51	87	13	0.028597301	0.953243384	g	mi	
2017	7	5	16	25	25025	51	87	15	2.67717E-05	0.00089239	g	mi	2.576019786
2017	7	5	16	25	25025	52	87	1	0.0019648	0.065493337	g	mi	
2017	7	5	16	25	25025	52	87	11	0.046527799	1.550926675	g	mi	
2017	7	5	16	25	25025	52	87	13	0.028597301	0.953243384	g	mi	
2017	7	5	16	25	25025	52	87	15	2.46946E-05	0.000823153	g	mi	2.570486549
2017	7	5	16	25	25025	53	87	1	0.0019648	0.065493337	g	mi	
2017	7	5	16	25	25025	53	87	11	0.046527799	1.550926675	g	mi	
2017	7	5	16	25	25025	53	87	13	0.028597301	0.953243384	g	mi	
2017	7	5	16	25	25025	53	87	15	2.46946E-05	0.000823153	g	mi	2.570486549
2017	7	5	16	25	25025	54	87	1	0.00356254	0.039583777	g	mi	
2017	7	5	16	25	25025	54	87	11	0.046545599	0.517173298	g	mi	
2017	7	5	16	25	25025	54	87	13	0.0291832	0.324257761	g	mi	
2017	7	5	16	25	25025	54	87	15	4.47485E-05	0.000497206	g	mi	0.881512041
2017	7	5	16	25	25025	55	87	1	0.59275198	NULL	g	mi	
2017	7	5	16	25	25025	55	87	11	0.0594455	NULL	g	mi	
2017	7	5	16	25	25025	55	87	13	0.455347002	NULL	g	mi	
2017	7	5	16	25	25025	55	87	15	0.00734494	NULL	g	mi	1.114889422

2017 CO_2 MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits
2017	7	5	16	25	25025	1	90	1	107.9749985	490.7954503	g	mi
2017	7	5	16	25	25025	2	90	1	29.4048996	490.0816709	g	mi
2017	7	5	16	25	25025	3	90	1	112.8290024	490.560871	g	mi
2017	7	5	16	25	25025	4	90	1	29.51539993	590.3079899	g	mi
2017	7	5	16	25	25025	5	90	1	29.4048996	490.0816709	g	mi
2017	7	5	16	25	25025	6	90	1	39.86619949	569.5171332	g	mi
2017	7	5	16	25	25025	7	90	1	37.42660141	534.6657322	g	mi
2017	7	5	16	25	25025	8	90	1	28.62260056	477.0433533	g	mi
2017	7	5	16	25	25025	9	90	1	19.8423996	496.060001	g	mi
2017	7	5	16	25	25025	10	90	1	66.86329651	557.19415	g	mi
2017	7	5	16	25	25025	11	90	1	80.47090149	536.4726553	g	mi
2017	7	5	16	25	25025	12	90	1	48.49259949	484.9259876	g	mi
2017	7	5	16	25	25025	13	90	1	170.8959961	488.2742829	g	mi
2017	7	5	16	25	25025	14	90	1	38.98410034	556.9157168	g	mi
2017	7	5	16	25	25025	15	90	1	21.44790077	536.1975313	g	mi
2017	7	5	16	25	25025	16	90	1	90.21469879	563.84188	g	mi
2017	7	5	16	25	25025	17	90	1	81.07949829	540.5299671	g	mi
2017	7	5	16	25	25025	18	90	1	55.8368988	558.3689797	g	mi
2017	7	5	16	25	25025	19	90	1	41.26959991	515.8700105	g	mi
2017	7	5	16	25	25025	20	90	1	48.49259949	484.9259876	g	mi
2017	7	5	16	25	25025	21	90	1	11.14389992	557.1950083	g	mi
2017	7	5	16	25	25025	22	90	1	53.4137001	534.1369931	g	mi
2017	7	5	16	25	25025	23	90	1	56.3280983	512.0736237	g	mi
2017	7	5	16	25	25025	24	90	1	73.51650238	432.4500095	g	mi
2017	7	5	16	25	25025	25	90	1	74.85320282	534.6657322	g	mi
2017	7	5	16	25	25025	26	90	1	39.68470001	496.0587612	g	mi
2017	7	5	16	25	25025	27	90	1	81.80860138	511.30377	g	mi
2017	7	5	16	25	25025	28	90	1	67.5542984	519.6484683	g	mi
2017	7	5	16	25	25025	29	90	1	38.16339874	477.0424949	g	mi
2017	7	5	16	25	25025	30	90	1	53.25260162	484.1145628	g	mi
2017	7	5	16	25	25025	31	90	1	81.80860138	511.30377	g	mi
2017	7	5	16	25	25025	32	90	1	67.5542984	519.6484683	g	mi
2017	7	5	16	25	25025	33	90	1	38.16339874	477.0424949	g	mi
2017	7	5	16	25	25025	34	90	1	53.25260162	484.1145628	g	mi
2017	7	5	16	25	25025	35	90	1	63.6106987	489.3130849	g	mi
2017	7	5	16	25	25025	36	90	1	65.96260071	471.1614316	g	mi
2017	7	5	16	25	25025	37	90	1	58.00109863	483.3424994	g	mi
2017	7	5	16	25	25025	38	90	1	62.79259872	483.0200079	g	mi
2017	7	5	16	25	25025	39	90	1	28.62260056	477.0433533	g	mi
2017	7	5	16	25	25025	40	90	1	13.05270004	435.0900111	g	mi
2017	7	5	16	25	25025	41	90	1	22.62599945	377.0999993	g	mi
2017	7	5	16	25	25025	42	90	1	47.39450073	592.4312724	g	mi
2017	7	5	16	25	25025	43	90	1	27.01869965	675.4675062	g	mi
2017	7	5	16	25	25025	44	90	1	38.98410034	556.9157168	g	mi
2017	7	5	16	25	25025	45	90	1	28.62260056	477.0433533	g	mi
2017	7	5	16	25	25025	46	90	1	33.39300156	477.0428773	g	mi
2017	7	5	16	25	25025	47	90	1	33.43170166	557.1950401	g	mi
2017	7	5	16	25	25025	48	90	1	105.723999	480.5636345	g	mi
2017	7	5	16	25	25025	49	90	1	29.4048996	490.0816709	g	mi
2017	7	5	16	25	25025	50	90	1	30.95219994	515.8700105	g	mi
2017	7	5	16	25	25025	51	90	1	15.90079975	530.0266702	g	mi
2017	7	5	16	25	25025	52	90	1	15.0618	502.0600113	g	mi
2017	7	5	16	25	25025	53	90	1	15.0618	502.0600113	g	mi
2017	7	5	16	25	25025	54	90	1	27.0673008	300.7477747	g	mi
2017	7	5	16	25	25025	55	90	1	4078.169922	NULL	g	mi

2024 NOx MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits	Emission Factor
2024	7	5	16	25	25025	1	3	1	0.0268982	0.122264545	g	mi	
2024	7	5	16	25	25025	1	3	15	4.804E-06	2.18364E-05	g	mi	0.122286381
2024	7	5	16	25	25025	2	3	1	0.00731927	0.121987839	g	mi	
2024	7	5	16	25	25025	2	3	15	1.30593E-06	2.17655E-05	g	mi	0.122009604
2024	7	5	16	25	25025	3	3	1	0.028095501	0.122154348	g	mi	
2024	7	5	16	25	25025	3	3	15	5.01407E-06	2.18003E-05	g	mi	0.122176148
2024	7	5	16	25	25025	4	3	1	0.00880854	0.176170801	g	mi	
2024	7	5	16	25	25025	4	3	15	1.53076E-06	3.06152E-05	g	mi	0.176201416
2024	7	5	16	25	25025	5	3	1	0.00731927	0.121987839	g	mi	
2024	7	5	16	25	25025	5	3	15	1.30593E-06	2.17655E-05	g	mi	0.122009604
2024	7	5	16	25	25025	6	3	1	0.0116402	0.166288576	g	mi	
2024	7	5	16	25	25025	6	3	15	2.02465E-06	2.89236E-05	g	mi	0.1663175
2024	7	5	16	25	25025	7	3	1	0.0102863	0.146947149	g	mi	
2024	7	5	16	25	25025	7	3	15	1.80295E-06	2.57564E-05	g	mi	0.146972905
2024	7	5	16	25	25025	8	3	1	0.00695654	0.115942337	g	mi	
2024	7	5	16	25	25025	8	3	15	1.24601E-06	2.07668E-05	g	mi	0.115963104
2024	7	5	16	25	25025	9	3	1	0.0049833	0.1245825	g	mi	
2024	7	5	16	25	25025	9	3	15	8.89651E-07	2.22413E-05	g	mi	0.124604741
2024	7	5	16	25	25025	10	3	1	0.0192308	0.160256668	g	mi	
2024	7	5	16	25	25025	10	3	15	3.34763E-06	2.78969E-05	g	mi	0.160284565
2024	7	5	16	25	25025	11	3	1	0.0221956	0.147970661	g	mi	
2024	7	5	16	25	25025	11	3	15	3.88726E-06	2.59151E-05	g	mi	0.147996576
2024	7	5	16	25	25025	12	3	1	0.0119635	0.119634995	g	mi	
2024	7	5	16	25	25025	12	3	15	2.13782E-06	2.13782E-05	g	mi	0.119656374
2024	7	5	16	25	25025	13	3	1	0.0424814	0.121375431	g	mi	
2024	7	5	16	25	25025	13	3	15	7.57749E-06	2.165E-05	g	mi	0.121397081
2024	7	5	16	25	25025	14	3	1	0.00943717	0.134816712	g	mi	
2024	7	5	16	25	25025	14	3	15	1.76538E-06	2.52197E-05	g	mi	0.134841932
2024	7	5	16	25	25025	15	3	1	0.00500712	0.125177999	g	mi	
2024	7	5	16	25	25025	15	3	15	9.30363E-07	2.32591E-05	g	mi	0.125201258
2024	7	5	16	25	25025	16	3	1	0.022164101	0.138525633	g	mi	
2024	7	5	16	25	25025	16	3	15	4.15657E-06	2.59786E-05	g	mi	0.138551612
2024	7	5	16	25	25025	17	3	1	0.019070201	0.127134666	g	mi	
2024	7	5	16	25	25025	17	3	15	3.55912E-06	2.37275E-05	g	mi	0.127158393
2024	7	5	16	25	25025	18	3	1	0.0135579	0.135578995	g	mi	
2024	7	5	16	25	25025	18	3	15	2.53376E-06	2.53376E-05	g	mi	0.135604333
2024	7	5	16	25	25025	19	3	1	0.0108525	0.135656251	g	mi	
2024	7	5	16	25	25025	19	3	15	1.92229E-06	2.40286E-05	g	mi	0.13568028
2024	7	5	16	25	25025	20	3	1	0.0119635	0.119634995	g	mi	
2024	7	5	16	25	25025	20	3	15	2.13782E-06	2.13782E-05	g	mi	0.119656374
2024	7	5	16	25	25025	21	3	1	0.00320514	0.160256998	g	mi	
2024	7	5	16	25	25025	21	3	15	5.57939E-07	2.7897E-05	g	mi	0.160284895
2024	7	5	16	25	25025	22	3	1	0.0146716	0.146716002	g	mi	
2024	7	5	16	25	25025	22	3	15	2.5685E-06	2.5685E-05	g	mi	0.146741687
2024	7	5	16	25	25025	23	3	1	0.0147053	0.133684549	g	mi	
2024	7	5	16	25	25025	23	3	15	2.59848E-06	2.36225E-05	g	mi	0.133708172
2024	7	5	16	25	25025	24	3	1	0.0162609	0.09565235	g	mi	
2024	7	5	16	25	25025	24	3	15	2.84905E-06	1.67591E-05	g	mi	0.095669109
2024	7	5	16	25	25025	25	3	1	0.020572601	0.146947149	g	mi	
2024	7	5	16	25	25025	25	3	15	3.6059E-06	2.57564E-05	g	mi	0.146972905
2024	7	5	16	25	25025	26	3	1	0.00996659	0.124582383	g	mi	
2024	7	5	16	25	25025	26	3	15	1.7793E-06	2.22413E-05	g	mi	0.124604625
2024	7	5	16	25	25025	27	3	1	0.021314301	0.133214382	g	mi	
2024	7	5	16	25	25025	27	3	15	3.76045E-06	2.35028E-05	g	mi	0.133237885
2024	7	5	16	25	25025	28	3	1	0.017985901	0.138353089	g	mi	
2024	7	5	16	25	25025	28	3	15	3.16435E-06	2.43412E-05	g	mi	0.13837743
2024	7	5	16	25	25025	29	3	1	0.00927539	0.115942376	g	mi	
2024	7	5	16	25	25025	29	3	15	1.66135E-06	2.07669E-05	g	mi	0.115963142
2024	7	5	16	25	25025	30	3	1	0.0130896	0.118996364	g	mi	
2024	7	5	16	25	25025	30	3	15	2.34526E-06	2.13205E-05	g	mi	0.119017685
2024	7	5	16	25	25025	31	3	1	0.021314301	0.133214382	g	mi	
2024	7	5	16	25	25025	31	3	15	3.76045E-06	2.35028E-05	g	mi	0.133237885
2024	7	5	16	25	25025	32	3	1	0.017985901	0.138353089	g	mi	
2024	7	5	16	25	25025	32	3	15	3.16435E-06	2.43412E-05	g	mi	0.13837743
2024	7	5	16	25	25025	33	3	1	0.00927539	0.115942376	g	mi	
2024	7	5	16	25	25025	33	3	15	1.66135E-06	2.07669E-05	g	mi	0.115963142
2024	7	5	16	25	25025	34	3	1	0.0130896	0.118996364	g	mi	
2024	7	5	16	25	25025	34	3	15	2.34526E-06	2.13205E-05	g	mi	0.119017685
2024	7	5	16	25	25025	35	3	1	0.015817899	0.121676153	g	mi	
2024	7	5	16	25	25025	35	3	15	2.8208E-06	2.16985E-05	g	mi	0.121697851
2024	7	5	16	25	25025	36	3	1	0.015844399	0.113174279	g	mi	
2024	7	5	16	25	25025	36	3	15	2.84947E-06	2.03534E-05	g	mi	0.113194632
2024	7	5	16	25	25025	37	3	1	0.0142214	0.11851167	g	mi	
2024	7	5	16	25	25025	37	3	15	2.54676E-06	2.1223E-05	g	mi	0.118532893
2024	7	5	16	25	25025	38	3	1	0.0153869	0.118360773	g	mi	
2024	7	5	16	25	25025	38	3	15	2.7532E-06	2.11785E-05	g	mi	0.118381952
2024	7	5	16	25	25025	39	3	1	0.00695654	0.115942337	g	mi	
2024	7	5	16	25	25025	39	3	15	1.24601E-06	2.07668E-05	g	mi	0.115963104
2024	7	5	16	25	25025	40	3	1	0.00290043	0.096681002	g	mi	
2024	7	5	16	25	25025	40	3	15	5.07982E-07	1.69327E-05	g	mi	0.096697935
2024	7	5	16	25	25025	41	3	1	0.00443707	0.073951166	g	mi	
2024	7	5	16	25	25025	41	3	15	7.52603E-07	1.25434E-05	g	mi	0.07396371
2024	7	5	16	25	25025	42	3	1	0.0122486	0.153107502	g	mi	
2024	7	5	16	25	25025	42	3	15	2.26922E-06	2.83653E-05	g	mi	0.153135867

2024	7	5	16	25	25025	43	3	1	0.00771145	0.192786257	g	mi	
2024	7	5	16	25	25025	43	3	15	1.4064E-06	3.516E-05	g	mi	0.192821417
2024	7	5	16	25	25025	44	3	1	0.00943717	0.134816712	g	mi	
2024	7	5	16	25	25025	44	3	15	1.76538E-06	2.52197E-05	g	mi	0.134841932
2024	7	5	16	25	25025	45	3	1	0.00695654	0.115942337	g	mi	
2024	7	5	16	25	25025	45	3	15	1.24601E-06	2.07668E-05	g	mi	0.115963104
2024	7	5	16	25	25025	46	3	1	0.00811596	0.115942289	g	mi	
2024	7	5	16	25	25025	46	3	15	1.45368E-06	2.07669E-05	g	mi	0.115963056
2024	7	5	16	25	25025	47	3	1	0.00961542	0.16025701	g	mi	
2024	7	5	16	25	25025	47	3	15	1.67382E-06	2.7897E-05	g	mi	0.160284907
2024	7	5	16	25	25025	48	3	1	0.025876701	0.117621368	g	mi	
2024	7	5	16	25	25025	48	3	15	4.62479E-06	2.10218E-05	g	mi	0.11764239
2024	7	5	16	25	25025	49	3	1	0.00731927	0.121987839	g	mi	
2024	7	5	16	25	25025	49	3	15	1.30593E-06	2.17655E-05	g	mi	0.122009604
2024	7	5	16	25	25025	50	3	1	0.00813937	0.13565617	g	mi	
2024	7	5	16	25	25025	50	3	15	1.44171E-06	2.40285E-05	g	mi	0.135680198
2024	7	5	16	25	25025	51	3	1	0.00433403	0.144467677	g	mi	
2024	7	5	16	25	25025	51	3	15	7.60725E-07	2.53575E-05	g	mi	0.144493034
2024	7	5	16	25	25025	52	3	1	0.00383471	0.127823669	g	mi	
2024	7	5	16	25	25025	52	3	15	6.82481E-07	2.27494E-05	g	mi	0.127846419
2024	7	5	16	25	25025	53	3	1	0.00383471	0.127823669	g	mi	
2024	7	5	16	25	25025	53	3	15	6.82481E-07	2.27494E-05	g	mi	0.127846419
2024	7	5	16	25	25025	54	3	1	0.00561823	0.062424775	g	mi	
2024	7	5	16	25	25025	54	3	15	8.76939E-07	9.74377E-06	g	mi	0.062434519
2024	7	5	16	25	25025	55	3	1	0.664395988	NULL	g	mi	
2024	7	5	16	25	25025	55	3	15	0.000142964	NULL	g	mi	0.664538952

2024 VOC MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits	Emission Factor
2024	7	5	16	25	25025	1	87	1	0.0068371	0.031077726	g	mi	
2024	7	5	16	25	25025	1	87	11	0.0272815	0.124006821	g	mi	
2024	7	5	16	25	25025	1	87	13	0.0310109	0.140958636	g	mi	
2024	7	5	16	25	25025	1	87	15	6.60059E-05	0.000300027	g	mi	0.29634321
2024	7	5	16	25	25025	2	87	1	0.00186269	0.031044834	g	mi	
2024	7	5	16	25	25025	2	87	11	0.027236	0.453933339	g	mi	
2024	7	5	16	25	25025	2	87	13	0.028345101	0.472418354	g	mi	
2024	7	5	16	25	25025	2	87	15	1.79901E-05	0.000299835	g	mi	0.957696361
2024	7	5	16	25	25025	3	87	1	0.00714426	0.031062	g	mi	
2024	7	5	16	25	25025	3	87	11	0.0272843	0.118627389	g	mi	
2024	7	5	16	25	25025	3	87	13	0.031177601	0.135554784	g	mi	
2024	7	5	16	25	25025	3	87	15	6.89955E-05	0.00029998	g	mi	0.285544154
2024	7	5	16	25	25025	4	87	1	0.00212065	0.042412998	g	mi	
2024	7	5	16	25	25025	4	87	11	0.0272331	0.544661983	g	mi	
2024	7	5	16	25	25025	4	87	13	0.028178399	0.56356798	g	mi	
2024	7	5	16	25	25025	4	87	15	2.18762E-05	0.000437524	g	mi	1.151080485
2024	7	5	16	25	25025	5	87	1	0.00186269	0.031044834	g	mi	
2024	7	5	16	25	25025	5	87	11	0.027236	0.453933339	g	mi	
2024	7	5	16	25	25025	5	87	13	0.028345101	0.472418354	g	mi	
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2024	7	5	16	25	25025	6	87	13	0.028511699	0.407309988	g	mi	
2024	7	5	16	25	25025	6	87	15	2.91581E-05	0.000416544	g	mi	0.837484092
2024	7	5	16	25	25025	7	87	1	0.00256445	0.036635	g	mi	
2024	7	5	16	25	25025	7	87	11	0.027238799	0.389125702	g	mi	
2024	7	5	16	25	25025	7	87	13	0.028511699	0.407309988	g	mi	
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2024	7	5	16	25	25025	8	87	1	0.00179117	0.029852834	g	mi	
2024	7	5	16	25	25025	8	87	11	0.027236	0.453933339	g	mi	
2024	7	5	16	25	25025	8	87	13	0.028345101	0.472418354	g	mi	
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2024	7	5	16	25	25025	9	87	1	0.00125977	0.031494251	g	mi	
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2024	7	5	16	25	25025	11	87	1	0.00552487	0.036832465	g	mi	
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2024	7	5	16	25	25025	12	87	1	0.00306162	0.0306162	g	mi	
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2024	7	5	16	25	25025	12	87	13	0.029011499	0.290114987	g	mi	
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2024	7	5	16	25	25025	13	87	1	0.0108313	0.030946572	g	mi	
2024	7	5	16	25	25025	13	87	11	0.027318399	0.078052571	g	mi	
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2024	7	5	16	25	25025	14	87	11	0.0272438	0.389197148	g	mi	
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2024	7	5	16	25	25025	21	87	1	0.00079094	0.039547002	g	mi	
2024	7	5	16	25	25025	21	87	11	0.0272246	1.361230046	g	mi	
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2024	7	5	16	25	25025	22	87	1	0.00366124	0.036612399 g	mi	
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2024	7	5	16	25	25025	28	87	11	0.0272559	0.209660778 g	mi	
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2024	7	5	16	25	25025	32	87	11	0.0272559	0.209660778 g	mi	
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2024	7	5	16	25	25025	33	87	1	0.00238822	0.029852751 g	mi	
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2024	7	5	16	25	25025	33	87	13	0.0286783	0.358478756 g	mi	
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2024	7	5	16	25	25025	35	87	1	0.00403216	0.031016618 g	mi	
2024	7	5	16	25	25025	35	87	11	0.0272559	0.209660778 g	mi	
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2024	7	5	16	25	25025	35	87	15	3.89324E-05	0.00029948 g	mi	0.46798765
2024	7	5	16	25	25025	36	87	1	0.00409649	0.029260642 g	mi	
2024	7	5	16	25	25025	36	87	11	0.0272587	0.194704997 g	mi	
2024	7	5	16	25	25025	36	87	13	0.029678	0.211985714 g	mi	
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2024	7	5	16	25	25025	39	87	1	0.00179117	0.029852834 g	mi	
2024	7	5	16	25	25025	39	87	11	0.027236	0.453933339 g	mi	
2024	7	5	16	25	25025	39	87	13	0.028345101	0.472418354 g	mi	
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2024	7	5	16	25	25025	40	87	1	0.000798229	0.026607634 g	mi	
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2024	7	5	16	25	25025	42	87	1	0.00315911	0.039488875 g	mi	
2024	7	5	16	25	25025	42	87	11	0.0272473	0.340591262 g	mi	
2024	7	5	16	25	25025	42	87	13	0.029011499	0.362643747 g	mi	
2024	7	5	16	25	25025	42	87	15	3.12936E-05	0.00039117 g	mi	0.743115055
2024	7	5	16	25	25025	43	87	1	0.00187509	0.04687725 g	mi	
2024	7	5	16	25	25025	43	87	11	0.0272331	0.680827504 g	mi	

2024	7	5	16	25	25025	43	87	13	0.028178399	0.704460001	g	mi	
2024	7	5	16	25	25025	43	87	15	1.91368E-05	0.00047842	g	mi	1.432643176
2024	7	5	16	25	25025	44	87	1	0.0025116	0.03588	g	mi	
2024	7	5	16	25	25025	44	87	11	0.0272438	0.389197148	g	mi	
2024	7	5	16	25	25025	44	87	13	0.0288032	0.411474277	g	mi	
2024	7	5	16	25	25025	44	87	15	2.43192E-05	0.000347417	g	mi	0.836898842
2024	7	5	16	25	25025	45	87	1	0.00179117	0.029852834	g	mi	
2024	7	5	16	25	25025	45	87	11	0.027236	0.453933339	g	mi	
2024	7	5	16	25	25025	45	87	13	0.028345101	0.472418354	g	mi	
2024	7	5	16	25	25025	45	87	15	1.716E-05	0.000286	g	mi	0.956490526
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2024	7	5	16	25	25025	47	87	1	0.00237282	0.039547	g	mi	
2024	7	5	16	25	25025	47	87	11	0.027236	0.453933339	g	mi	
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2024	7	5	16	25	25025	48	87	13	0.0310109	0.140958636	g	mi	
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2024	7	5	16	25	25025	49	87	1	0.00186269	0.031044834	g	mi	
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2024	7	5	16	25	25025	50	87	1	0.00203416	0.033902669	g	mi	
2024	7	5	16	25	25025	50	87	11	0.027236	0.453933339	g	mi	
2024	7	5	16	25	25025	50	87	13	0.028345101	0.472418354	g	mi	
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2024	7	5	16	25	25025	51	87	1	0.0010822	0.036073333	g	mi	
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2024	7	5	16	25	25025	52	87	1	0.00096438	0.032146	g	mi	
2024	7	5	16	25	25025	52	87	11	0.0272274	0.907580016	g	mi	
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2024	7	5	16	25	25025	54	87	1	0.00165726	0.018413999	g	mi	
2024	7	5	16	25	25025	54	87	11	0.027237199	0.302635535	g	mi	
2024	7	5	16	25	25025	54	87	13	0.028416499	0.315738871	g	mi	
2024	7	5	16	25	25025	54	87	15	1.49393E-05	0.000165992	g	mi	0.636954397
2024	7	5	16	25	25025	55	87	1	0.249234006	NULL	g	mi	
2024	7	5	16	25	25025	55	87	11	0.034328502	NULL	g	mi	
2024	7	5	16	25	25025	55	87	13	0.443888009	NULL	g	mi	
2024	7	5	16	25	25025	55	87	15	0.00199516	NULL	g	mi	0.729445676

2024 CO_2 MOVES Output

yearID	monthID	dayID	hourID	stateID	countyID	linkID	pollutantID	processID	emissionQuant	emissionRate	massUnits	distanceUnits
2024	7	5	16	25	25025	1	90	1	89.05719757	404.8054457	g	mi
2024	7	5	16	25	25025	2	90	1	24.25289917	404.2149952	g	mi
2024	7	5	16	25	25025	3	90	1	93.05989838	404.6082465	g	mi
2024	7	5	16	25	25025	4	90	1	24.38339996	487.667992	g	mi
2024	7	5	16	25	25025	5	90	1	24.25289917	404.2149952	g	mi
2024	7	5	16	25	25025	6	90	1	32.92549896	470.3642689	g	mi
2024	7	5	16	25	25025	7	90	1	30.89349937	441.3357035	g	mi
2024	7	5	16	25	25025	8	90	1	23.6026001	393.3766771	g	mi
2024	7	5	16	25	25025	9	90	1	16.36700058	409.1750236	g	mi
2024	7	5	16	25	25025	10	90	1	55.2159996	460.1333403	g	mi
2024	7	5	16	25	25025	11	90	1	66.42610168	442.8406603	g	mi
2024	7	5	16	25	25025	12	90	1	39.99309921	399.9309862	g	mi
2024	7	5	16	25	25025	13	90	1	140.9499969	402.7142839	g	mi
2024	7	5	16	25	25025	14	90	1	32.15829849	459.4042622	g	mi
2024	7	5	16	25	25025	15	90	1	17.68510056	442.1275238	g	mi
2024	7	5	16	25	25025	16	90	1	74.4285965	465.1787385	g	mi
2024	7	5	16	25	25025	17	90	1	66.86289978	445.7526475	g	mi
2024	7	5	16	25	25025	18	90	1	46.06019974	460.6019905	g	mi
2024	7	5	16	25	25025	19	90	1	34.05270004	425.65876	g	mi
2024	7	5	16	25	25025	20	90	1	39.99309921	399.9309862	g	mi
2024	7	5	16	25	25025	21	90	1	9.202670097	460.1335152	g	mi
2024	7	5	16	25	25025	22	90	1	44.08909988	440.8909923	g	mi
2024	7	5	16	25	25025	23	90	1	46.47159958	422.4690894	g	mi
2024	7	5	16	25	25025	24	90	1	60.56700134	356.2764747	g	mi
2024	7	5	16	25	25025	25	90	1	61.78699875	441.3357035	g	mi
2024	7	5	16	25	25025	26	90	1	32.73389816	409.1737362	g	mi
2024	7	5	16	25	25025	27	90	1	67.49009705	421.813116	g	mi
2024	7	5	16	25	25025	28	90	1	55.74309921	428.7930866	g	mi
2024	7	5	16	25	25025	29	90	1	31.47019958	393.3775036	g	mi
2024	7	5	16	25	25025	30	90	1	43.91910172	399.2645632	g	mi
2024	7	5	16	25	25025	31	90	1	67.49009705	421.813116	g	mi
2024	7	5	16	25	25025	32	90	1	55.74309921	428.7930866	g	mi
2024	7	5	16	25	25025	33	90	1	31.47019958	393.3775036	g	mi
2024	7	5	16	25	25025	34	90	1	43.91910172	399.2645632	g	mi
2024	7	5	16	25	25025	35	90	1	52.46440125	403.5723321	g	mi
2024	7	5	16	25	25025	36	90	1	54.39170074	388.5121465	g	mi
2024	7	5	16	25	25025	37	90	1	47.83440018	398.6200104	g	mi
2024	7	5	16	25	25025	38	90	1	51.78499985	398.3461673	g	mi
2024	7	5	16	25	25025	39	90	1	23.6026001	393.3766771	g	mi
2024	7	5	16	25	25025	40	90	1	10.75370026	358.4566832	g	mi
2024	7	5	16	25	25025	41	90	1	18.6215992	310.3599936	g	mi
2024	7	5	16	25	25025	42	90	1	39.11489868	488.9362444	g	mi
2024	7	5	16	25	25025	43	90	1	22.31629944	557.9074984	g	mi
2024	7	5	16	25	25025	44	90	1	32.15829849	459.4042622	g	mi
2024	7	5	16	25	25025	45	90	1	23.6026001	393.3766771	g	mi
2024	7	5	16	25	25025	46	90	1	27.53639984	393.3771389	g	mi
2024	7	5	16	25	25025	47	90	1	27.6079998	460.1333403	g	mi
2024	7	5	16	25	25025	48	90	1	87.18710327	396.305017	g	mi
2024	7	5	16	25	25025	49	90	1	24.25289917	404.2149952	g	mi
2024	7	5	16	25	25025	50	90	1	25.53949928	425.6583309	g	mi
2024	7	5	16	25	25025	51	90	1	13.12390041	437.4633569	g	mi
2024	7	5	16	25	25025	52	90	1	12.42459965	414.1533308	g	mi
2024	7	5	16	25	25025	53	90	1	12.42459965	414.1533308	g	mi
2024	7	5	16	25	25025	54	90	1	22.30050087	247.7833332	g	mi
2024	7	5	16	25	25025	55	90	1	3345.51001	NULL	g	mi

1000 Boylston
Mesoscale Analysis

	2017 Existing	2024 No-Build	2024 Build	2024 Build-Mit
OXIDES OF NITROGEN (NOx)				
Emissions (kg/d)	18.39	8.64	8.68	8.57
Project Contribution (kg/d)			0.04	-0.11
VOLATILE ORGANIC COMPOUNDS (VOC)				
Emissions (kg/d)	38.22	29.24	29.45	29.31
Project Contribution (kg/d)			0.21	-0.14
GREENHOUSE GAS (CO_2)				
Emissions (short tons per year)	13,588.9	12,689.5	12,749.4	12,522.2
Project Contribution (short tons per year)			59.9	-227.2

1000 Boylston

2024 Build With Mitigation

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) NO_x	Emission Factor (g/mi) VOC	AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Peak Period Factor	Peak Traffic Data Period Volume (vehicles)	Peak Traffic Data Average Delay (sec)	Peak Traffic Data Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Off-Peak Traffic Data Average Delay (sec)	Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions NO_x (grams)	Link Emissions VOC (grams)
1	Mass Ave (Columbus/Huntington)	25	0.22	0.12	0.30	29,554	29,554	3,582	2,919	0.55	16,284	9	144,924	13,270	8	106,293	795	1,927
2	Mass Ave (Huntington/St Stephen)	25	0.06	0.12	0.96	27,584	27,584	912	743	0.55	15,199	105	1,589,006	12,386	94	1,165,436	202	1,585
3	Mass Ave (Stephen/Belvidere)	25	0.23	0.12	0.29	18,879	18,879	2,393	1,950	0.55	10,402	11	112,345	8,477	10	82,398	531	1,240
4	Mass Ave (Belvidere/Boylston)	25	0.05	0.18	1.15	19,336	19,336	533	434	0.55	10,654	39	419,231	8,682	35	307,480	170	1,113
5	Mass Ave (Boylston/Newbury)	25	0.06	0.12	0.96	23,503	23,503	777	633	0.55	12,950	66	854,040	10,553	59	626,385	172	1,351
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	0.17	0.84	22,019	22,019	849	692	0.55	12,132	21	252,954	9,887	19	185,526	256	1,291
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	0.15	0.83	22,575	22,575	871	710	0.55	12,439	8	94,534	10,137	7	69,335	232	1,317
8	Mass Ave (Marlborough/Beacon)	25	0.06	0.12	0.96	25,016	25,016	827	674	0.55	13,783	21	289,448	11,232	19	212,292	174	1,436
9	Mass Ave (Beacon/Back)	25	0.04	0.12	1.41	28,569	28,569	630	513	0.55	15,741	23	362,831	12,828	21	266,114	142	1,615
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	0.16	0.51	4,966	4,966	328	268	0.55	2,736	11	30,509	2,230	10	22,376	96	305
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	0.15	0.42	13,428	13,428	1,110	904	0.55	7,399	26	194,218	6,029	24	142,446	298	842
12	Huntington Ave (Cumberland/West Newton)	25	0.1	0.12	0.59	19,022	19,022	1,048	854	0.55	10,481	18	191,801	8,541	16	140,674	228	1,129
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	0.12	0.20	25,701	25,701	4,956	4,039	0.55	14,161	0	0	11,540	0	0	1,092	1,836
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	0.13	0.84	799	799	31	25	0.55	440	0	0	359	0	0	8	47
15	Falmouth St (Mass Ave/ End)	20	0.04	0.13	1.42	785	785	17	14	0.55	432	42	18,336	352	38	13,448	4	45
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	0.14	0.40	2,112	2,112	186	152	0.55	1,164	61	70,751	948	55	51,892	47	135
17	Belvidere St (Dalton St/Huntington)	20	0.15	0.13	0.42	13,842	13,842	1,144	932	0.55	7,627	20	154,061	6,215	18	112,994	264	872
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	0.14	0.60	1,541	1,541	85	69	0.55	849	0	0	692	0	0	21	93
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	0.14	0.73	11,545	11,545	509	415	0.55	6,361	19	122,129	5,184	17	89,574	125	677
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	0.12	0.59	15,840	15,840	873	711	0.55	8,728	30	260,518	7,112	27	191,073	190	940
21	Boylston St (Dalton St/ Hereford St)	25	0.02	0.16	2.79	13,043	13,043	144	117	0.55	7,186	0	0	5,856	0	0	42	727
22	Boylston St (Hereford St/ Gloucester)	25	0.1	0.15	0.60	8,676	8,676	478	390	0.55	4,780	19	92,742	3,896	17	68,020	127	520
23	Boylston St (Gloucester/Fairfield)	25	0.11	0.13	0.55	14,085	14,085	854	696	0.55	7,760	0	0	6,324	0	0	207	847
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	0.10	0.36	1,698	1,698	159	130	0.55	936	44	41,450	762	40	30,401	28	105
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	0.15	0.44	4,738	4,738	365	298	0.55	2,610	9	22,449	2,127	8	16,465	97	294
26	Newbury St (Hereford St/ Gloucester)	25	0.08	0.12	0.73	4,281	4,281	189	154	0.55	2,359	0	0	1,922	0	0	43	250
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	6,507	6,507	574	467	0.55	3,585	88	314,079	2,922	79	230,357	139	408
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	0.14	0.47	2,897	2,897	207	169	0.55	1,596	12	19,632	1,301	11	14,399	52	178
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	0.12	0.73	12,957	12,957	571	465	0.55	7,139	5	35,696	5,818	5	26,181	120	756
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	0.12	0.54	11,288	11,288	684	558	0.55	6,219	0	0	5,068	0	0	148	675
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	870	870	77	63	0.55	480	0	0	391	0	0	19	55
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	0.14	0.47	9,875	9,875	707	576	0.55	5,441	16	88,144	4,434	15	64,648	178	605
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	0.12	0.73	8,933	8,933	394	321	0.55	4,922	5	26,579	4,011	5	19,494	83	521
34	Commonwealth Ave WB (Gloucester St/ Fairfield St	25	0.11	0.12	0.54	9,946	9,946	603	491	0.55	5,480	7	38,910	4,466	6	28,538	130	595
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	0.12	0.47	2,255	2,255	161	132	0.55	1,242	49	60,873	1,012	44	44,646	36	137
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	0.11	0.44	2,026	2,026	156	127	0.55	1,116	0	0	910	0	0	32	124
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	0.12	0.50	10,745	10,745	710	579	0.55	5,921	0	0	4,825	0	0	153	648
							VMT (per day)	28,694	23,384								6.7	27.2
							VMT (per year)	10,473,484	8,535,158.8			Arterial	5,902,190			4,328,886	Daily Total (kg)	
																	NO_X	VOC

VMT Total (per year)	**19,008,643.09**

	NOx EF (g/s)	NOx Idle (g/day)	NOx Idle (kg/day)	VOC EF (g/s)	VOC Idle (g/day)	VOC Idle (kg/day)
Peak Period	0.0002	1,090	**1.09**	0.0002	1,196	**1.20**
Off-Peak Period	0.0002	799	**0.80**	0.0002	877	**0.88**
Total (Including Link)			**8.57**			**29.31**

1000 Boylston

2024 Build

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) NO_x	Emission Factor (g/mi) VOC	AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Peak Period Factor	Peak Traffic Data Period Volume (vehicles)	Peak Traffic Data Average Delay (sec)	Peak Traffic Data Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Off-Peak Traffic Data Average Delay (sec)	Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions NO_x (grams)	Link Emissions VOC (grams)
1	Mass Ave (Columbus/Huntington)	25	0.22	0.12	0.30	29,554	29,554	3,582	2,919	0.55	16,284	9	144,924	13,270	8	106,293	795	1,927
2	Mass Ave (Huntington/St Stephen)	25	0.06	0.12	0.96	27,584	27,584	912	743	0.55	15,199	105	1,589,006	12,386	94	1,165,436	202	1,585
3	Mass Ave (Stephen/Belvidere)	25	0.23	0.12	0.29	18,879	18,879	2,393	1,950	0.55	10,402	11	112,345	8,477	10	82,398	531	1,240
4	Mass Ave (Belvidere/Boylston)	25	0.05	0.18	1.15	19,336	19,336	533	434	0.55	10,654	39	419,231	8,682	35	307,480	170	1,113
5	Mass Ave (Boylston/Newbury)	25	0.06	0.12	0.96	23,503	23,503	777	633	0.55	12,950	66	854,040	10,553	59	626,385	172	1,351
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	0.17	0.84	22,019	22,019	849	692	0.55	12,132	21	257,807	9,887	19	189,085	256	1,291
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	0.15	0.83	22,575	22,575	871	710	0.55	12,439	9	111,949	10,137	8	82,107	232	1,317
8	Mass Ave (Marlborough/Beacon)	25	0.06	0.12	0.96	25,016	25,016	827	674	0.55	13,783	21	294,272	11,232	19	215,830	174	1,436
9	Mass Ave (Beacon/Back)	25	0.04	0.12	1.41	28,569	28,569	630	513	0.55	15,741	43	680,013	12,828	39	498,747	142	1,615
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	0.16	0.51	4,966	4,966	328	268	0.55	2,736	11	30,509	2,230	10	22,376	96	305
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	0.15	0.42	13,428	13,428	1,110	904	0.55	7,399	26	194,218	6,029	24	142,446	298	842
12	Huntington Ave (Cumberland/West Newton)	25	0.1	0.12	0.59	19,022	19,022	1,048	854	0.55	10,481	18	191,801	8,541	16	140,674	228	1,129
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	0.12	0.20	25,701	25,701	4,956	4,039	0.55	14,161	0	0	11,540	0	0	1,092	1,836
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	0.13	0.84	799	799	31	25	0.55	440	0	0	359	0	0	8	47
15	Falmouth St (Mass Ave/ End)	20	0.04	0.13	1.42	785	785	17	14	0.55	432	42	18,336	352	38	13,448	4	45
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	0.14	0.40	2,112	2,112	186	152	0.55	1,164	61	70,751	948	55	51,892	47	135
17	Belvidere St (Dalton St/Huntington)	20	0.15	0.13	0.42	13,842	13,842	1,144	932	0.55	7,627	20	154,061	6,215	18	112,994	264	872
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	0.14	0.60	1,541	1,541	85	69	0.55	849	0	0	692	0	0	21	93
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	0.14	0.73	11,545	11,545	509	415	0.55	6,361	19	122,129	5,184	17	89,574	125	677
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	0.12	0.59	16,083	16,083	886	722	0.55	8,861	30	264,507	7,221	27	194,000	192	954
21	Boylston St (Dalton St/ Hereford St)	25	0.02	0.16	2.79	13,043	13,043	144	117	0.55	7,186	0	0	5,856	0	0	42	727
22	Boylston St (Hereford St/ Gloucester)	25	0.1	0.15	0.60	8,676	8,676	478	390	0.55	4,780	19	92,742	3,896	17	68,020	127	520
23	Boylston St (Gloucester/Fairfield)	25	0.11	0.13	0.55	14,085	14,085	854	696	0.55	7,760	0	0	6,324	0	0	207	847
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	0.10	0.36	1,698	1,698	159	130	0.55	936	44	41,450	762	40	30,401	28	105
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	0.15	0.44	4,738	4,738	365	298	0.55	2,610	9	22,449	2,127	8	16,465	97	294
26	Newbury St (Hereford St/ Gloucester)	25	0.08	0.12	0.73	4,281	4,281	189	154	0.55	2,359	0	0	1,922	0	0	43	250
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	6,507	6,507	574	467	0.55	3,585	88	314,079	2,922	79	230,357	139	408
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	0.14	0.47	2,897	2,897	207	169	0.55	1,596	12	19,632	1,301	11	14,399	52	178
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	0.12	0.73	12,957	12,957	571	465	0.55	7,139	5	35,696	5,818	5	26,181	120	756
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	0.12	0.54	11,288	11,288	684	558	0.55	6,219	0	0	5,068	0	0	148	675
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	870	870	77	63	0.55	480	0	0	391	0	0	19	55
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	0.14	0.47	9,875	9,875	707	576	0.55	5,441	16	88,144	4,434	15	64,648	178	605
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	0.12	0.73	8,933	8,933	394	321	0.55	4,922	5	26,579	4,011	5	19,494	83	521
34	Commonwealth Ave WB (Gloucester St/ Fairfield St	25	0.11	0.12	0.54	9,946	9,946	603	491	0.55	5,480	7	38,910	4,466	6	28,538	130	595
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	0.12	0.47	2,255	2,255	161	132	0.55	1,242	49	61,245	1,012	44	44,920	36	137
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	0.11	0.44	2,026	2,026	156	127	0.55	1,116	0	0	910	0	0	32	124
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	0.12	0.50	10,745	10,745	710	579	0.55	5,921	0	0	4,825	0	0	153	648
							VMT (per day)	28,708	23,395								6.7	27.3
							VMT (per year)	10,478,363	8,539,134.7			Arterial	6,250,826			4,584,588	Daily Total (kg)	
																	NO_X	VOC

VMT Total (per year)	**19,017,497.74**

	NOx EF (g/s)	NOx Idle (g/day)	NOx Idle (kg/day)	VOC EF (g/s)	VOC Idle (g/day)	VOC Idle (kg/day)
Peak Period	0.0002	1,154	**1.15**	0.0002	1,267	**1.27**
Off-Peak Period	0.0002	846	**0.85**	0.0002	929	**0.93**
Total (Including Link)			**8.68**			**29.45**

1000 Boylston

2024 No Build

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) NO_x	Emission Factor (g/mi) VOC	AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Peak Period Factor	Peak Traffic Data Period Volume (vehicles)	Peak Traffic Data Average Delay (sec)	Peak Traffic Data Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Off-Peak Traffic Data Average Delay (sec)	Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions NO_x (grams)	Link Emissions VOC (grams)
1	Mass Ave (Columbus/Huntington)	25	0.22	0.12	0.30	29,525	29,525	3,579	2,917	0.55	16,268	9	144,784	13,257	8	106,190	794	1,925
2	Mass Ave (Huntington/St Stephen)	25	0.06	0.12	0.96	26,528	26,528	877	715	0.55	14,617	116	1,689,690	11,912	104	1,239,281	194	1,524
3	Mass Ave (Stephen/Belvidere)	25	0.23	0.12	0.29	18,794	18,794	2,382	1,941	0.55	10,355	12	120,119	8,439	10	88,100	528	1,234
4	Mass Ave (Belvidere/Boylston)	25	0.05	0.18	1.15	19,293	19,293	532	433	0.55	10,630	39	409,799	8,663	35	300,562	170	1,110
5	Mass Ave (Boylston/Newbury)	25	0.06	0.12	0.96	23,289	23,289	770	627	0.55	12,832	63	805,200	10,457	56	590,563	170	1,338
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	0.17	0.84	21,933	21,933	846	689	0.55	12,085	21	255,596	9,848	19	187,464	255	1,286
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	0.15	0.83	22,390	22,390	864	704	0.55	12,337	9	111,029	10,053	8	81,433	230	1,306
8	Mass Ave (Marlborough/Beacon)	25	0.06	0.12	0.96	24,944	24,944	825	672	0.55	13,744	21	288,623	11,200	19	211,687	174	1,432
9	Mass Ave (Beacon/Back)	25	0.04	0.12	1.41	28,498	28,498	628	512	0.55	15,702	43	668,109	12,796	38	490,016	142	1,611
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	0.16	0.51	5,408	5,408	358	291	0.55	2,980	11	32,630	2,428	10	23,932	104	332
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	0.15	0.42	13,385	13,385	1,106	902	0.55	7,375	26	193,230	6,010	24	141,722	297	839
12	Huntington Ave (Cumberland/West Newton)	25	0.1	0.12	0.59	18,922	18,922	1,043	850	0.55	10,426	18	189,751	8,496	16	139,171	226	1,123
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	0.12	0.20	25,558	25,558	4,929	4,017	0.55	14,082	0	0	11,476	0	0	1,086	1,826
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	0.13	0.84	799	799	31	25	0.55	440	0	0	359	0	0	8	47
15	Falmouth St (Mass Ave/ End)	20	0.04	0.13	1.42	785	785	17	14	0.55	432	43	18,422	352	38	13,512	4	45
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	0.14	0.40	1,755	1,755	155	126	0.55	967	62	59,574	788	55	43,694	39	112
17	Belvidere St (Dalton St/Huntington)	20	0.15	0.13	0.42	13,443	13,443	1,111	905	0.55	7,407	20	149,614	6,036	18	109,732	256	847
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	0.14	0.60	1,541	1,541	85	69	0.55	849	0	0	692	0	0	21	93
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	0.14	0.73	11,288	11,288	498	405	0.55	6,219	19	117,235	5,068	17	85,985	123	662
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	0.12	0.59	15,569	15,569	858	699	0.55	8,578	30	254,343	6,991	27	186,544	186	924
21	Boylston St (Dalton St/ Hereford St)	25	0.02	0.16	2.79	12,957	12,957	143	116	0.55	7,139	0	0	5,818	0	0	42	722
22	Boylston St (Hereford St/ Gloucester)	25	0.1	0.15	0.60	8,676	8,676	478	390	0.55	4,780	20	93,220	3,896	18	68,371	127	520
23	Boylston St (Gloucester/Fairfield)	25	0.11	0.13	0.55	14,085	14,085	854	696	0.55	7,760	0	0	6,324	0	0	207	847
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	0.10	0.36	1,698	1,698	159	130	0.55	936	44	41,075	762	40	30,126	28	105
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	0.15	0.44	4,738	4,738	365	298	0.55	2,610	9	22,449	2,127	8	16,465	97	294
26	Newbury St (Hereford St/ Gloucester)	25	0.08	0.12	0.73	4,281	4,281	189	154	0.55	2,359	0	0	1,922	0	0	43	250
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	6,507	6,507	574	467	0.55	3,585	88	314,437	2,922	79	230,620	139	408
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	0.14	0.47	2,897	2,897	207	169	0.55	1,596	12	19,632	1,301	11	14,399	52	178
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	0.12	0.73	12,943	12,943	571	465	0.55	7,131	5	35,657	5,812	5	26,152	120	755
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	0.12	0.54	11,302	11,302	685	558	0.55	6,227	0	0	5,075	0	0	148	676
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	0.13	0.39	799	799	70	57	0.55	440	0	0	359	0	0	17	50
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	0.14	0.47	9,789	9,789	701	571	0.55	5,394	16	84,682	4,396	14	62,109	176	600
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	0.12	0.73	8,919	8,919	393	320	0.55	4,914	5	26,536	4,005	5	19,463	83	520
34	Commonwealth Ave WB (Gloucester St/ Fairfield St	25	0.11	0.12	0.54	9,932	9,932	602	491	0.55	5,472	7	38,854	4,460	6	28,497	130	594
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	0.12	0.47	2,255	2,255	161	132	0.55	1,242	49	61,245	1,012	44	44,920	36	137
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	0.11	0.44	2,026	2,026	156	127	0.55	1,116	0	0	910	0	0	32	124
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	0.12	0.50	10,745	10,745	710	579	0.55	5,921	0	0	4,825	0	0	153	648
							VMT (per day)	28,510	23,234								6.6	27.0
							VMT (per year)	10,406,128	8,480,268.5			Arterial	6,245,537			4,580,709	Daily Total (kg)	
																	NO_X	VOC

VMT Total (per year)	18,886,396.83

	NOx EF (g/s)	NOx Idle (g/day)	NOx Idle (kg/day)	VOC EF (g/s)	VOC Idle (g/day)	VOC Idle (kg/day)
Peak Period	0.0002	1,153	**1.15**	0.0002	1,265	**1.27**
Off-Peak Period	0.0002	846	**0.85**	0.0002	928	**0.93**
Total (Including Link)			**8.64**			**29.24**

1000 Boylston

2017 Existing

Link No.	Description	Roadway Link Length Type	Roadway Link Length (miles)	Emission Factor (g/mi) NO_x	Emission Factor (g/mi) VOC	AADT (veh/day)	Seasonally Adjusted ADT (veh/day)	VMT Peak (veh-miles)	VMT Off-Peak (veh-miles)	Peak Period Factor	Peak Traffic Data Period Volume (vehicles)	Peak Traffic Data Average Delay (sec)	Peak Traffic Data Adjusted Delay (veh-sec)	Off-Peak Traffic Data Period Volume (vehicles)	Off-Peak Traffic Data Average Delay (sec)	Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions NO_x (grams)	Link Emissions VOC (grams)
1	Mass Ave (Columbus/Huntington)	25	0.22	0.28	0.42	27,684	27,684	3,356	2,735	0.55	15,254	8	122,029	12,431	7	89,500	1,683	2,566
2	Mass Ave (Huntington/St Stephen)	25	0.06	0.28	1.33	25,972	25,972	859	700	0.55	14,310	76	1,093,288	11,662	69	801,858	430	2,066
3	Mass Ave (Stephen/Belvidere)	25	0.23	0.28	0.41	17,909	17,909	2,270	1,850	0.55	9,868	10	100,650	8,041	9	73,820	1,137	1,675
4	Mass Ave (Belvidere/Boylston)	25	0.05	0.38	1.59	18,337	18,337	505	412	0.55	10,104	33	329,880	8,234	29	241,946	351	1,459
5	Mass Ave (Boylston/Newbury)	25	0.06	0.28	1.33	22,261	22,261	736	600	0.55	12,266	44	534,787	9,996	39	392,233	368	1,770
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	0.36	1.16	20,906	20,906	806	657	0.55	11,519	20	230,376	9,387	18	168,966	530	1,700
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	0.32	1.16	21,833	21,833	842	686	0.55	12,030	9	105,863	9,804	8	77,644	495	1,767
8	Mass Ave (Marlborough/Beacon)	25	0.06	0.26	1.32	23,974	23,974	793	646	0.55	13,209	17	228,520	10,765	16	167,605	379	1,904
9	Mass Ave (Beacon/Back)	25	0.04	0.28	1.95	27,470	27,470	605	493	0.55	15,136	36	538,828	12,334	32	395,197	309	2,140
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	0.35	0.72	4,566	4,566	302	246	0.55	2,516	10	25,538	2,050	9	18,730	192	392
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	0.33	0.59	11,273	11,273	932	759	0.55	6,212	21	131,373	5,062	19	96,354	552	994
12	Huntington Ave (Cumberland/West Newton)	25	0.1	0.27	0.83	16,625	16,625	916	746	0.55	9,160	19	170,376	7,465	17	124,960	450	1,376
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	0.27	0.30	23,118	23,118	4,458	3,633	0.55	12,738	0	0	10,380	0	0	2,220	2,388
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	0.31	1.16	785	785	30	25	0.55	432	0	0	352	0	0	17	64
15	Falmouth St (Mass Ave/ End)	20	0.04	0.29	1.96	785	785	17	14	0.55	432	45	19,244	352	40	14,114	9	62
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	0.31	0.56	1,712	1,712	151	123	0.55	944	63	59,064	769	56	43,320	86	155
17	Belvidere St (Dalton St/Huntington)	20	0.15	0.29	0.59	11,844	11,844	979	798	0.55	6,526	19	125,952	5,318	17	92,378	516	1,053
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	0.31	0.84	1,498	1,498	83	67	0.55	826	0	0	673	0	0	46	126
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	0.30	1.02	10,132	10,132	447	364	0.55	5,582	18	100,764	4,549	16	73,904	246	826
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	0.27	0.83	13,771	13,771	759	618	0.55	7,587	27	201,068	6,183	24	147,471	373	1,140
21	Boylston St (Dalton St/ Hereford St)	25	0.02	0.35	3.82	12,058	12,058	133	108	0.55	6,644	0	0	5,414	0	0	84	922
22	Boylston St (Hereford St/ Gloucester)	25	0.1	0.32	0.84	8,063	8,063	444	362	0.55	4,442	19	83,517	3,620	17	61,255	261	674
23	Boylston St (Gloucester/Fairfield)	25	0.11	0.30	0.76	13,271	13,271	804	655	0.55	7,312	0	0	5,959	0	0	436	1,115
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	0.22	0.51	1,641	1,641	154	125	0.55	904	41	37,072	737	37	27,190	61	143
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	0.32	0.62	4,566	4,566	352	287	0.55	2,516	0	0	2,050	0	0	207	398
26	Newbury St (Hereford St/ Gloucester)	25	0.08	0.28	1.02	4,210	4,210	186	151	0.55	2,319	9	19,716	1,890	8	14,460	95	342
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	0.30	0.55	6,350	6,350	560	456	0.55	3,499	85	297,755	2,851	77	218,385	303	561
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	0.31	0.66	2,854	2,854	204	167	0.55	1,573	12	19,028	1,282	11	13,956	114	245
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	0.26	1.01	12,700	12,700	560	456	0.55	6,998	5	34,289	5,703	4	25,149	268	1,029
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	0.27	0.76	11,059	11,059	670	546	0.55	6,094	0	0	4,966	0	0	328	924
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	0.30	0.55	785	785	69	56	0.55	432	0	0	352	0	0	37	69
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	0.31	0.66	9,561	9,561	685	558	0.55	5,268	15	81,127	4,293	14	59,502	383	822
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	0.26	1.01	8,705	8,705	384	313	0.55	4,796	5	25,420	3,909	5	18,644	183	705
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	0.11	0.27	0.76	9,704	9,704	588	479	0.55	5,347	7	37,426	4,357	6	27,450	288	811
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	0.28	0.66	2,212	2,212	158	129	0.55	1,219	49	59,595	993	44	43,709	79	189
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	0.26	0.61	1,998	1,998	154	126	0.55	1,101	0	0	897	0	0	72	171
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	0.27	0.70	10,560	10,560	698	569	0.55	5,818	0	0	4,742	0	0	341	891
							VMT (per day)	26,649	21,717								13.9	35.6
							VMT (per year)	9,726,715	7,926,593.8			Arterial	4,812,546			3,529,700	**Daily Total (kg)**	
																	NO_X	**VOC**

VMT Total (per year)	**17,653,308.60**

	NOx (g/s)	NOx (g/day)	NOx (kg/day)	VOC (g/s)	VOC (g/day)	VOC (kg/day)
Peak Period	0.0005	2,573	**2.57**	0.0003	1,490	**1.49**
Off-Peak Period	0.0005	1,887	**1.89**	0.0003	1,093	**1.09**
Total (Including Link)			**18.39**			**38.22**

1000 Boylston

Build With Mitgation

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) CO_2	AADT (veh/day)	Weekday Seasonally Adjusted ADT (veh/day)	Weekday VMT Peak (veh-miles)	Weekday VMT Off-Peak (veh-miles)	Weekend AADT (veh/day)	Weekend Seasonally Adjusted ADT (veh/day)	Weekend VMT Peak (veh-miles)	Weekend VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Annual Weekend Trips (veh/yr)	Peak Period Factor	Peak Period Factor
1	Mass Ave (Columbus/Huntington)	25	0.22	404.8	29,554	29,554	931,421	759,043	29,554	29,554	376,151	306,537	7,683,925	3,103,123	0.55	0.55
2	Mass Ave (Huntington/St Stephen)	25	0.06	404.2	27,584	27,584	237,097	193,218	27,584	27,584	95,751	78,030	7,171,910	2,896,348	0.55	0.55
3	Mass Ave (Stephen/Belvidere)	25	0.23	404.6	18,879	18,879	622,058	506,934	18,879	18,879	251,216	204,723	4,908,659	1,982,343	0.55	0.55
4	Mass Ave (Belvidere/Boylston)	25	0.05	487.7	19,336	19,336	138,501	112,869	19,336	19,336	55,933	45,582	5,027,387	2,030,291	0.55	0.55
5	Mass Ave (Boylston/Newbury)	25	0.06	404.2	23,503	23,503	202,017	164,630	23,503	23,503	81,584	66,485	6,110,779	2,467,815	0.55	0.55
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	470.4	22,019	22,019	220,804	179,940	22,019	22,019	89,171	72,668	5,724,913	2,311,984	0.55	0.55
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	441.3	22,575	22,575	226,385	184,488	22,575	22,575	91,425	74,505	5,869,613	2,370,421	0.55	0.55
8	Mass Ave (Marlborough/Beacon)	25	0.06	393.4	25,016	25,016	215,019	175,225	25,016	25,016	86,834	70,764	6,504,066	2,626,642	0.55	0.55
9	Mass Ave (Beacon/Back)	25	0.04	409.2	28,569	28,569	163,707	133,410	28,569	28,569	66,112	53,877	7,427,917	2,999,736	0.55	0.55
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	460.1	4,966	4,966	85,370	69,570	4,966	4,966	34,476	28,096	1,291,166	521,433	0.55	0.55
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	442.8	13,428	13,428	288,552	235,150	13,428	13,428	116,531	94,964	3,491,344	1,409,966	0.55	0.55
12	Huntington Ave (Cumberland/West Newton)	25	0.1	399.9	19,022	19,022	272,504	222,072	19,022	19,022	110,050	89,683	4,945,761	1,997,327	0.55	0.55
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	402.7	25,701	25,701	1,288,620	1,050,135	25,701	25,701	520,404	424,093	6,682,157	2,698,564	0.55	0.55
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	459.4	799	799	8,014	6,531	799	799	3,236	2,637	207,774	83,909	0.55	0.55
15	Falmouth St (Mass Ave/ End)	20	0.04	442.1	785	785	4,497	3,665	785	785	1,816	1,480	204,064	82,410	0.55	0.55
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	465.2	2,112	2,112	48,409	39,450	2,112	2,112	19,550	15,932	549,117	221,759	0.55	0.55
17	Belvidere St (Dalton St/Huntington)	20	0.15	445.8	13,842	13,842	297,445	242,397	13,842	13,842	120,122	97,891	3,598,941	1,453,418	0.55	0.55
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	460.6	1,541	1,541	22,078	17,992	1,541	1,541	8,916	7,266	400,707	161,824	0.55	0.55
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	425.7	11,545	11,545	132,307	107,821	11,545	11,545	53,432	43,543	3,001,591	1,212,181	0.55	0.55
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	399.9	15,840	15,840	226,916	184,921	15,840	15,840	91,639	74,680	4,118,376	1,663,190	0.55	0.55
21	Boylston St (Dalton St/ Hereford St)	25	0.02	460.1	13,043	13,043	37,370	30,454	13,043	13,043	15,092	12,299	3,391,167	1,369,510	0.55	0.55
22	Boylston St (Hereford St/ Gloucester)	25	0.1	440.9	8,676	8,676	124,293	101,290	8,676	8,676	50,195	40,906	2,255,831	911,009	0.55	0.55
23	Boylston St (Gloucester/Fairfield)	25	0.11	422.5	14,085	14,085	221,949	180,873	14,085	14,085	89,633	73,045	3,662,015	1,478,891	0.55	0.55
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	356.3	1,698	1,698	41,356	33,702	1,698	1,698	16,701	13,611	441,520	178,306	0.55	0.55
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	441.3	4,738	4,738	95,019	77,434	4,738	4,738	38,373	31,271	1,231,802	497,459	0.55	0.55
26	Newbury St (Hereford St/ Gloucester)	25	0.08	409.2	4,281	4,281	49,063	39,983	4,281	4,281	19,814	16,147	1,113,075	449,511	0.55	0.55
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	421.8	6,507	6,507	149,152	121,548	6,507	6,507	60,234	49,087	1,691,873	683,257	0.55	0.55
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	428.8	2,897	2,897	53,949	43,965	2,897	2,897	21,787	17,755	753,180	304,169	0.55	0.55
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	393.4	12,957	12,957	148,497	121,015	12,957	12,957	59,970	48,871	3,368,906	1,360,520	0.55	0.55
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	399.3	11,288	11,288	177,874	144,955	11,288	11,288	71,834	58,539	2,934,807	1,185,210	0.55	0.55
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	421.8	870	870	19,952	16,260	870	870	8,058	6,566	226,325	91,401	0.55	0.55
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	428.8	9,875	9,875	183,905	149,869	9,875	9,875	74,269	60,524	2,567,492	1,036,872	0.55	0.55
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	393.4	8,933	8,933	102,378	83,431	8,933	8,933	41,345	33,693	2,322,616	937,979	0.55	0.55
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	0.11	399.3	9,946	9,946	156,736	127,729	9,946	9,946	63,297	51,583	2,586,043	1,044,364	0.55	0.55
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	403.6	2,255	2,255	41,990	34,219	2,255	2,255	16,957	13,819	586,219	236,742	0.55	0.55
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	388.5	2,026	2,026	40,641	33,119	2,026	2,026	16,413	13,375	526,855	212,768	0.55	0.55
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	398.6	10,745	10,745	184,722	150,536	10,745	10,745	74,599	60,793	2,793,817	1,128,272	0.55	0.55
						VMT (per year)	7,460,564	6,079,839		VMT (per year)	3,012,920	2,455,320				

Link No.	Weekday Period Volume (vehicles)	Weekday Peak Traffic Data Average Delay (sec)	Weekday Peak Traffic Data Adjusted Delay (veh-sec)	Weekday Off-Peak Traffic Data Period Volume (vehicles)	Weekday Off-Peak Traffic Data Average Delay (sec)	Weekday Off-Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Period Volume (vehicles)	Weekend Peak Traffic Data Average Delay (sec)	Weekend Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Off-Peak Traffic Data Period Volume (vehicles)	Weekend Off-Peak Traffic Data Average Delay (sec)	Weekend Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions CO_2 (grams)
1	4,233,730	9	37,680,197	3,450,195	8	27,636,058	1,709,776	9	15,217,003	1,393,348	8	11,160,716	960,664,262
2	3,951,618	105	413,141,623	3,220,293	94	303,013,434	1,595,846	105	166,845,655	1,300,503	94	122,370,810	244,184,467
3	2,704,599	11	29,209,671	2,204,060	10	21,423,459	1,092,242	11	11,796,213	890,101	10	8,651,782	641,275,900
4	2,770,016	39	109,000,149	2,257,370	35	79,944,764	1,118,661	39	44,019,291	911,630	35	32,285,385	172,090,168
5	3,366,950	66	222,050,348	2,743,829	59	162,859,985	1,359,730	66	89,674,179	1,108,085	59	65,770,379	208,055,777
6	3,154,344	21	65,768,062	2,570,570	19	48,236,743	1,273,869	21	26,560,179	1,038,115	19	19,480,223	264,618,862
7	3,234,071	8	24,578,939	2,635,542	7	18,027,108	1,306,067	8	9,926,110	1,064,354	7	7,280,178	254,563,475
8	3,583,645	21	75,256,544	2,920,421	19	55,195,949	1,447,241	21	30,392,066	1,179,401	19	22,290,672	215,508,440
9	4,092,674	23	94,336,131	3,335,244	21	69,189,628	1,652,811	23	38,097,284	1,346,925	21	27,941,965	170,669,411
10	711,414	11	7,932,264	579,753	10	5,817,818	287,302	11	3,203,414	234,131	10	2,349,503	100,084,472
11	1,923,679	26	50,496,583	1,567,664	24	37,036,072	776,871	26	20,392,851	633,095	24	14,956,875	325,574,874
12	2,725,042	18	49,868,270	2,220,719	16	36,575,244	1,100,498	18	20,139,109	896,829	16	14,770,772	277,675,596
13	3,681,771	0	0	3,000,386	0	0	1,486,869	0	0	1,211,695	0	0	1,322,212,625
14	114,480	0	0	93,294	0	0	46,232	0	0	37,676	0	0	9,380,016
15	112,436	42	4,767,290	91,628	38	3,496,508	45,407	42	1,925,252	37,003	38	1,412,051	5,066,321
16	302,555	61	18,395,363	246,561	55	13,491,843	122,186	61	7,428,896	99,573	55	5,448,629	57,375,180
17	1,982,964	20	40,055,870	1,615,977	18	29,378,465	800,812	20	16,176,409	652,606	18	11,864,380	337,815,392
18	220,784	0	0	179,923	0	0	89,163	0	0	72,661	0	0	25,910,278
19	1,653,833	19	31,753,588	1,347,758	17	23,289,263	667,894	19	12,823,565	544,287	17	9,405,279	143,490,316
20	2,269,165	30	67,734,569	1,849,211	27	49,679,053	916,393	30	27,354,345	746,797	27	20,062,694	231,222,739
21	1,868,483	0	0	1,522,684	0	0	754,580	0	0	614,930	0	0	43,810,940
22	1,242,930	19	24,112,840	1,012,901	17	17,685,254	501,952	19	9,737,878	409,056	17	7,142,122	139,623,112
23	2,017,717	0	0	1,644,298	0	0	814,847	0	0	664,044	0	0	238,906,125
24	243,271	44	10,776,897	198,249	40	7,904,177	98,244	44	4,352,209	80,062	40	3,192,072	37,540,974
25	678,705	9	5,836,864	553,097	8	4,280,973	274,092	9	2,357,195	223,366	8	1,728,855	106,845,858
26	613,288	0	0	499,787	0	0	247,674	0	0	201,837	0	0	51,149,513
27	932,197	88	81,660,495	759,676	79	59,892,845	376,464	88	32,978,277	306,792	79	24,187,495	160,297,745
28	414,991	12	5,104,394	338,189	11	3,743,753	167,593	12	2,061,390	136,576	11	1,511,900	58,939,938
29	1,856,218	5	9,281,088	1,512,688	5	6,807,096	749,626	5	3,748,132	610,893	5	2,749,019	148,835,957
30	1,617,035	0	0	1,317,771	0	0	653,034	0	0	532,177	0	0	180,947,440
31	124,702	0	0	101,623	0	0	50,360	0	0	41,040	0	0	21,443,339
32	1,414,650	16	22,917,338	1,152,841	15	16,808,428	571,301	16	9,255,079	465,571	15	6,788,019	200,918,409
33	1,279,727	5	6,910,527	1,042,888	5	5,068,437	516,813	5	2,790,790	421,166	5	2,046,869	102,611,574
34	1,424,872	7	10,116,591	1,161,171	6	7,419,884	575,429	7	4,085,546	468,935	6	2,996,492	159,444,204
35	322,998	49	15,826,913	263,221	44	11,608,047	130,442	49	6,391,638	106,301	44	4,687,865	43,176,192
36	290,290	0	0	236,566	0	0	117,232	0	0	95,536	0	0	40,229,394
37	1,539,352	0	0	1,254,465	0	0	621,662	0	0	506,611	0	0	187,610,796
		Arterial	1,534,569,410			1,125,510,289		Arterial	619,729,954			454,533,001	8,696.84 Total (tons/year)

	Weekday	Weekend	Total
VMT per year	13,540,403.30	5,468,239.79	19,008,643.09

	Weekday Idle EF (g/s)	Weekday Idle Idle (g/year)	Weekday Idle Idle (tons/year)	Weekend Idle EF (g/s)	Weekend Idle Idle (g/year)	Weekend Idle Idle (tons/year)	Total Idle EF (g/s)	Total Idle Idle (g/year)	Total Idle Idle (tons/year)
Peak Period	0.9293	1,426,088,145	**1,571.97**	0.9293	575,920,213	**634.83**			**2,206.80**
Off-Peak Period	0.9293	1,045,946,094	**1,152.94**	0.9293	422,401,307	**465.61**			**1,618.55**
Total			**2,724.91**			**1,100.44**		Total (Including Link)	**12,522.18**

1000 Boylston

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) CO_2	AADT (veh/day)	Weekday Seasonally Adjusted ADT (veh/day)	Weekday VMT Peak (veh-miles)	Weekday VMT Off-Peak (veh-miles)	Weekend AADT (veh/day)	Weekend Seasonally Adjusted ADT (veh/day)	Weekend VMT Peak (veh-miles)	Weekend VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Annual Weekend Trips (veh/yr)	Peak Period Factor	Peak Period Factor
1	Mass Ave (Columbus/Huntington)	25	0.22	404.8	29,554	29,554	931,421	759,043	29,554	29,554	376,151	306,537	7,683,925	3,103,123	0.55	0.55
2	Mass Ave (Huntington/St Stephen)	25	0.06	404.2	27,584	27,584	237,097	193,218	27,584	27,584	95,751	78,030	7,171,910	2,896,348	0.55	0.55
3	Mass Ave (Stephen/Belvidere)	25	0.23	404.6	18,879	18,879	622,058	506,934	18,879	18,879	251,216	204,723	4,908,659	1,982,343	0.55	0.55
4	Mass Ave (Belvidere/Boylston)	25	0.05	487.7	19,336	19,336	138,501	112,869	19,336	19,336	55,933	45,582	5,027,387	2,030,291	0.55	0.55
5	Mass Ave (Boylston/Newbury)	25	0.06	404.2	23,503	23,503	202,017	164,630	23,503	23,503	81,584	66,485	6,110,779	2,467,815	0.55	0.55
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	470.4	22,019	22,019	220,804	179,940	22,019	22,019	89,171	72,668	5,724,913	2,311,984	0.55	0.55
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	441.3	22,575	22,575	226,385	184,488	22,575	22,575	91,425	74,505	5,869,613	2,370,421	0.55	0.55
8	Mass Ave (Marlborough/Beacon)	25	0.06	393.4	25,016	25,016	215,019	175,225	25,016	25,016	86,834	70,764	6,504,066	2,626,642	0.55	0.55
9	Mass Ave (Beacon/Back)	25	0.04	409.2	28,569	28,569	163,707	133,410	28,569	28,569	66,112	53,877	7,427,917	2,999,736	0.55	0.55
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	460.1	4,966	4,966	85,370	69,570	4,966	4,966	34,476	28,096	1,291,166	521,433	0.55	0.55
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	442.8	13,428	13,428	288,552	235,150	13,428	13,428	116,531	94,964	3,491,344	1,409,966	0.55	0.55
12	Huntington Ave (Cumberland/West Newton)	25	0.1	399.9	19,022	19,022	272,504	222,072	19,022	19,022	110,050	89,683	4,945,761	1,997,327	0.55	0.55
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	402.7	25,701	25,701	1,288,620	1,050,135	25,701	25,701	520,404	424,093	6,682,157	2,698,564	0.55	0.55
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	459.4	799	799	8,014	6,531	799	799	3,236	2,637	207,774	83,909	0.55	0.55
15	Falmouth St (Mass Ave/ End)	20	0.04	442.1	785	785	4,497	3,665	785	785	1,816	1,480	204,064	82,410	0.55	0.55
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	465.2	2,112	2,112	48,409	39,450	2,112	2,112	19,550	15,932	549,117	221,759	0.55	0.55
17	Belvidere St (Dalton St/Huntington)	20	0.15	445.8	13,842	13,842	297,445	242,397	13,842	13,842	120,122	97,891	3,598,941	1,453,418	0.55	0.55
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	460.6	1,541	1,541	22,078	17,992	1,541	1,541	8,916	7,266	400,707	161,824	0.55	0.55
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	425.7	11,545	11,545	132,307	107,821	11,545	11,545	53,432	43,543	3,001,591	1,212,181	0.55	0.55
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	399.9	16,083	16,083	230,392	187,753	16,083	16,083	93,043	75,823	4,181,450	1,688,663	0.55	0.55
21	Boylston St (Dalton St/ Hereford St)	25	0.02	460.1	13,043	13,043	37,370	30,454	13,043	13,043	15,092	12,299	3,391,167	1,369,510	0.55	0.55
22	Boylston St (Hereford St/ Gloucester)	25	0.1	440.9	8,676	8,676	124,293	101,290	8,676	8,676	50,195	40,906	2,255,831	911,009	0.55	0.55
23	Boylston St (Gloucester/Fairfield)	25	0.11	422.5	14,085	14,085	221,949	180,873	14,085	14,085	89,633	73,045	3,662,015	1,478,891	0.55	0.55
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	356.3	1,698	1,698	41,356	33,702	1,698	1,698	16,701	13,611	441,520	178,306	0.55	0.55
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	441.3	4,738	4,738	95,019	77,434	4,738	4,738	38,373	31,271	1,231,802	497,459	0.55	0.55
26	Newbury St (Hereford St/ Gloucester)	25	0.08	409.2	4,281	4,281	49,063	39,983	4,281	4,281	19,814	16,147	1,113,075	449,511	0.55	0.55
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	421.8	6,507	6,507	149,152	121,548	6,507	6,507	60,234	49,087	1,691,873	683,257	0.55	0.55
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	428.8	2,897	2,897	53,949	43,965	2,897	2,897	21,787	17,755	753,180	304,169	0.55	0.55
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	393.4	12,957	12,957	148,497	121,015	12,957	12,957	59,970	48,871	3,368,906	1,360,520	0.55	0.55
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	399.3	11,288	11,288	177,874	144,955	11,288	11,288	71,834	58,539	2,934,807	1,185,210	0.55	0.55
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	421.8	870	870	19,952	16,260	870	870	8,058	6,566	226,325	91,401	0.55	0.55
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	428.8	9,875	9,875	183,905	149,869	9,875	9,875	74,269	60,524	2,567,492	1,036,872	0.55	0.55
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	393.4	8,933	8,933	102,378	83,431	8,933	8,933	41,345	33,693	2,322,616	937,979	0.55	0.55
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	0.11	399.3	9,946	9,946	156,736	127,729	9,946	9,946	63,297	51,583	2,586,043	1,044,364	0.55	0.55
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	403.6	2,255	2,255	41,990	34,219	2,255	2,255	16,957	13,819	586,219	236,742	0.55	0.55
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	388.5	2,026	2,026	40,641	33,119	2,026	2,026	16,413	13,375	526,855	212,768	0.55	0.55
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	398.6	10,745	10,745	184,722	150,536	10,745	10,745	74,599	60,793	2,793,817	1,128,272	0.55	0.55
						VMT (per year)	7,464,039	6,082,671		VMT (per year)	3,014,324	2,456,463				

Link No.	Description	Weekday Period Volume (vehicles)	Weekday Peak Traffic Data Average Delay (sec)	Weekday Peak Traffic Data Adjusted Delay (veh-sec)	Weekday Off-Peak Traffic Data Period Volume (vehicles)	Weekday Off-Peak Traffic Data Average Delay (sec)	Weekday Off-Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Period Volume (vehicles)	Weekend Peak Traffic Data Average Delay (sec)	Weekend Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Off-Peak Traffic Data Period Volume (vehicles)	Weekend Off-Peak Traffic Data Average Delay (sec)	Weekend Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions CO_2 (grams)
1	Mass Ave (Columbus/Huntington)	4,233,730	9	37,680,197	3,450,195	8	27,636,058	1,709,776	9	15,217,003	1,393,348	8	11,160,716	960,664,262
2	Mass Ave (Huntington/St Stephen)	3,951,618	105	413,141,623	3,220,293	94	303,013,434	1,595,846	104	166,446,694	1,300,503	94	122,078,197	244,184,467
3	Mass Ave (Stephen/Belvidere)	2,704,599	11	29,209,671	2,204,060	10	21,423,459	1,092,242	11	11,741,601	890,101	10	8,611,727	641,275,900
4	Mass Ave (Belvidere/Boylston)	2,770,016	39	109,000,149	2,257,370	35	79,944,764	1,118,661	39	43,795,559	911,630	35	32,121,292	172,090,168
5	Mass Ave (Boylston/Newbury)	3,366,950	66	222,050,348	2,743,829	59	162,859,985	1,359,730	65	88,994,314	1,108,085	59	65,271,741	208,055,777
6	Mass Ave (Newbury/Commonwealth EB)	3,154,344	21	67,029,799	2,570,570	19	49,162,148	1,273,869	21	27,069,727	1,038,115	19	19,853,945	264,618,862
7	Mass Ave (Commonwealth WB/Marlborough)	3,234,071	9	29,106,638	2,635,542	8	21,347,891	1,306,067	9	11,754,604	1,064,354	8	8,621,264	254,563,475
8	Mass Ave (Marlborough/Beacon)	3,583,645	21	76,510,820	2,920,421	19	56,115,881	1,447,241	21	30,898,600	1,179,401	19	22,662,183	215,508,440
9	Mass Ave (Beacon/Back)	4,092,674	43	176,803,509	3,335,244	39	129,674,270	1,652,811	43	71,401,417	1,346,925	39	52,368,455	170,669,411
10	Huntington Ave (Gainsborough/Mass Ave)	711,414	11	7,932,264	579,753	10	5,817,818	287,302	11	3,174,684	234,131	10	2,328,431	100,084,472
11	Huntington Ave (Mass Ave/Cumberland)	1,923,679	26	50,496,583	1,567,664	24	37,036,072	776,871	26	20,392,851	633,095	24	14,956,875	325,574,874
12	Huntington Ave (Cumberland/West Newton)	2,725,042	18	49,868,270	2,220,719	16	36,575,244	1,100,498	18	20,139,109	896,829	16	14,770,772	277,675,596
13	Huntington Ave (West Newton/ Dartmouth)	3,681,771	0	0	3,000,386	0	0	1,486,869	0	0	1,211,695	0	0	1,322,212,625
14	St Stephen St (Symphony Rd/Mass Ave)	114,480	0	0	93,294	0	0	46,232	0	0	37,676	0	0	9,380,016
15	Falmouth St (Mass Ave/ End)	112,436	42	4,767,290	91,628	38	3,496,508	45,407	43	1,929,793	37,003	38	1,415,382	5,066,321
16	Belvidere St (Mass Ave/Dalton St)	302,555	61	18,395,363	246,561	55	13,491,843	122,186	61	7,441,115	99,573	55	5,457,591	57,375,180
17	Belvidere St (Dalton St/Huntington)	1,982,964	20	40,055,870	1,615,977	18	29,378,465	800,812	20	16,176,409	652,606	18	11,864,380	337,815,392
18	Haviland St (Mass Ave/ Hemenway St)	220,784	0	0	179,923	0	0	89,163	0	0	72,661	0	0	25,910,278
19	Boylston St (Hemenway St/ Mass Ave)	1,653,833	19	31,753,588	1,347,758	17	23,289,263	667,894	19	12,756,775	544,287	17	9,356,293	143,490,316
20	Boylston St (Mass Ave/ Dalton St)	2,303,918	30	68,771,946	1,877,532	27	50,439,903	930,428	30	27,726,764	758,234	27	20,335,840	234,763,988
21	Boylston St (Dalton St/ Hereford St)	1,868,483	0	0	1,522,684	0	0	754,580	0	0	614,930	0	0	43,810,940
22	Boylston St (Hereford St/ Gloucester)	1,242,930	19	24,112,840	1,012,901	17	17,685,254	501,952	19	9,737,878	409,056	17	7,142,122	139,623,112
23	Boylston St (Gloucester/Fairfield)	2,017,717	0	0	1,644,298	0	0	814,847	0	0	664,044	0	0	238,906,125
24	Newbury St (Mass Ave/ Charlesgate)	243,271	44	10,776,897	198,249	40	7,904,177	98,244	44	4,352,209	80,062	40	3,192,072	37,540,974
25	Newbury St (Mass Ave/ Hereford St)	678,705	9	5,836,864	553,097	8	4,280,973	274,092	9	2,357,195	223,366	8	1,728,855	106,845,858
26	Newbury St (Hereford St/ Gloucester)	613,288	0	0	499,787	0	0	247,674	0	0	201,837	0	0	51,149,513
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	932,197	88	81,660,495	759,676	79	59,892,845	376,464	88	32,978,277	306,792	79	24,187,495	160,297,745
28	Commonwealth Ave EB (Mass Ave/Hereford)	414,991	12	5,104,394	338,189	11	3,743,753	167,593	12	2,061,390	136,576	11	1,511,900	58,939,938
29	Commonwealth Ave EB (Hereford/Gloucester St)	1,856,218	5	9,281,088	1,512,688	5	6,807,096	749,626	5	3,748,132	610,893	5	2,749,019	148,835,957
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	1,617,035	0	0	1,317,771	0	0	653,034	0	0	532,177	0	0	180,947,440
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	124,702	0	0	101,623	0	0	50,360	0	0	41,040	0	0	21,443,339
32	Commonwealth Ave WB (Mass Ave/Hereford)	1,414,650	16	22,917,338	1,152,841	15	16,808,428	571,301	16	9,255,079	465,571	15	6,788,019	200,918,409
33	Commonwealth Ave WB (Hereford/Gloucester St)	1,279,727	5	6,910,527	1,042,888	5	5,068,437	516,813	5	2,790,790	421,166	5	2,046,869	102,611,574
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	1,424,872	7	10,116,591	1,161,171	6	7,419,884	575,429	7	4,085,546	468,935	6	2,996,492	159,444,204
35	Marborough St (Charlesgate/ Mass Ave)	322,998	49	15,923,813	263,221	44	11,679,117	130,442	49	6,430,771	106,301	44	4,716,566	43,176,192
36	Marlborouch St (Mass Ave/ Hereford St)	290,290	0	0	236,566	0	0	117,232	0	0	95,536	0	0	40,229,394
37	Beacon St (Charlesgate/ Mass Ave)	1,539,352	0	0	1,254,465	0	0	621,662	0	0	506,611	0	0	187,610,796
			Arterial	1,625,214,776			1,191,992,972		Arterial	654,854,284			480,294,491	8,700.74 Total (tons/year)

	Weekday	Weekend	Total
VMT per year	13,546,710.72	5,470,787.02	19,017,497.74

	Weekday Idle (g/s)	Weekday Idle (g/year)	Weekday Idle (tons/year)	Weekend Idle (g/s)	Weekend Idle (g/year)	Weekend Idle (tons/year)	Total Idle (g/s)	Total Idle (g/year)	Total Idle (tons/year)
Peak Period	0.9293	1,510,325,639	**1,664.82**	0.9293	608,561,545	**670.81**			**2,335.63**
Off-Peak Period	0.9293	1,107,729,005	**1,221.04**	0.9293	446,341,675	**492.00**			**1,713.04**
Total			**2,885.86**			**1,162.81**		Total (Including Link)	**12,749.41**

1000 Boylston

Link No.	Description	Roadway Link Length Speed	Roadway Link Length (miles)	Emission Factor (g/mi) CO_2	Weekday AADT (veh/day)	Weekday Seasonally Adjusted ADT (veh/day)	Weekday VMT Peak (veh-miles)	Weekday VMT Off-Peak (veh-miles)	Weekend AADT (veh/day)	Weekend Seasonally Adjusted ADT (veh/day)	Weekend VMT Peak (veh-miles)	Weekend VMT Off-Peak (veh-miles)	Annual Weekday Trips (veh/yr)	Annual Weekend Trips (veh/yr)	Peak Period Factor	Peak Period Factor
1	Mass Ave (Columbus/Huntington)	25	0.22	404.8	29,525	29,525	930,521	758,310	29,525	29,525	375,787	306,240	7,676,504	3,100,127	0.55	0.55
2	Mass Ave (Huntington/St Stephen)	25	0.06	404.2	26,528	26,528	228,020	185,821	26,528	26,528	92,085	75,043	6,897,352	2,785,469	0.55	0.55
3	Mass Ave (Stephen/Belvidere)	25	0.23	404.6	18,794	18,794	619,237	504,635	18,794	18,794	250,076	203,795	4,886,397	1,973,353	0.55	0.55
4	Mass Ave (Belvidere/Boylston)	25	0.05	487.7	19,293	19,293	138,194	112,619	19,293	19,293	55,809	45,481	5,016,256	2,025,796	0.55	0.55
5	Mass Ave (Boylston/Newbury)	25	0.06	404.2	23,289	23,289	200,177	163,130	23,289	23,289	80,841	65,880	6,055,125	2,445,339	0.55	0.55
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	470.4	21,933	21,933	219,945	179,240	21,933	21,933	88,824	72,385	5,702,652	2,302,994	0.55	0.55
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	441.3	22,390	22,390	224,525	182,972	22,390	22,390	90,673	73,893	5,821,380	2,350,942	0.55	0.55
8	Mass Ave (Marlborough/Beacon)	25	0.06	293.4	24,944	24,944	214,405	174,725	24,944	24,944	86,587	70,562	6,485,514	2,619,150	0.55	0.55
9	Mass Ave (Beacon/Back)	25	0.04	409.2	28,498	28,498	163,298	133,077	28,498	28,498	65,947	53,742	7,409,366	2,992,244	0.55	0.55
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	460.1	5,408	5,408	92,974	75,768	5,408	5,408	37,547	30,598	1,406,184	567,882	0.55	0.55
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	442.8	13,385	13,385	287,632	234,400	13,385	13,385	116,159	94,662	3,480,213	1,405,471	0.55	0.55
12	Huntington Ave (Cumberland/West Newton)	25	0.1	399.9	18,922	18,922	271,073	220,906	18,922	18,922	109,472	89,212	4,919,789	1,986,838	0.55	0.55
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	402.7	25,558	25,558	1,281,465	1,044,304	25,558	25,558	517,515	421,738	6,645,055	2,683,580	0.55	0.55
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	459.4	799	799	8,014	6,531	799	799	3,236	2,637	207,774	83,909	0.55	0.55
15	Falmouth St (Mass Ave/ End)	20	0.04	442.1	785	785	4,497	3,665	785	785	1,816	1,480	204,064	82,410	0.55	0.55
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	465.2	1,755	1,755	40,232	32,786	1,755	1,755	16,247	13,241	456,361	184,299	0.55	0.55
17	Belvidere St (Dalton St/Huntington)	20	0.15	445.8	13,443	13,443	288,859	235,400	13,443	13,443	116,654	95,065	3,495,054	1,411,464	0.55	0.55
18	Haviland St (Mass Ave/ Hemenway St)	20	0.1	460.6	1,541	1,541	22,078	17,992	1,541	1,541	8,916	7,266	400,707	161,824	0.55	0.55
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	425.7	11,288	11,288	129,363	105,422	11,288	11,288	52,243	42,574	2,934,807	1,185,210	0.55	0.55
20	Boylston St (Mass Ave/ Dalton St)	25	0.1	399.9	15,569	15,569	223,032	181,756	15,569	15,569	90,071	73,401	4,047,881	1,634,721	0.55	0.55
21	Boylston St (Dalton St/ Hereford St)	25	0.02	460.1	12,957	12,957	37,124	30,254	12,957	12,957	14,993	12,218	3,368,906	1,360,520	0.55	0.55
22	Boylston St (Hereford St/ Gloucester)	25	0.1	440.9	8,676	8,676	124,293	101,290	8,676	8,676	50,195	40,906	2,255,831	911,009	0.55	0.55
23	Boylston St (Gloucester/Fairfield)	25	0.11	422.5	14,085	14,085	221,949	180,873	14,042	14,042	89,361	72,823	3,662,515	1,474,396	0.55	0.55
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	356.3	1,698	1,698	41,356	33,702	1,698	1,698	16,701	13,611	441,520	178,306	0.55	0.55
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	441.3	4,738	4,738	95,019	77,434	4,738	4,738	38,373	31,271	1,231,802	497,459	0.55	0.55
26	Newbury St (Hereford St/ Gloucester)	25	0.08	409.2	4,281	4,281	49,063	39,983	4,281	4,281	19,814	16,147	1,113,075	449,511	0.55	0.55
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	421.8	6,507	6,507	149,152	121,548	6,507	6,507	60,234	49,087	1,691,873	683,257	0.55	0.55
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	428.8	2,897	2,897	53,949	43,965	2,897	2,897	21,787	17,755	753,180	304,169	0.55	0.55
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	393.4	12,943	12,943	148,334	120,882	12,943	12,943	59,904	48,818	3,365,195	1,359,021	0.55	0.55
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	399.3	11,302	11,302	178,099	145,138	11,302	11,302	71,925	58,613	2,938,517	1,186,709	0.55	0.55
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	421.8	799	799	18,317	14,927	799	799	7,397	6,028	207,774	83,909	0.55	0.55
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	428.8	9,789	9,789	182,310	148,570	9,789	9,789	73,625	59,999	2,545,230	1,027,882	0.55	0.55
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	393.4	8,919	8,919	102,215	83,298	8,919	8,919	41,279	33,639	2,318,905	936,481	0.55	0.55
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	0.11	399.3	9,932	9,932	156,511	127,546	10,189	10,189	64,841	52,841	2,582,333	1,069,836	0.55	0.55
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	403.6	2,255	2,255	41,990	34,219	2,255	2,255	16,957	13,819	586,219	236,742	0.55	0.55
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	388.5	2,026	2,026	40,641	33,119	2,026	2,026	16,413	13,375	526,855	212,768	0.55	0.55
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	398.6	10,745	10,745	184,722	150,536	10,745	10,745	74,599	60,793	2,793,817	1,128,272	0.55	0.55
						VMT (per year)	7,412,585	6,040,739		VMT (per year)	2,994,906	2,440,639				

Link No.	Weekday Period Volume (vehicles)	Weekday Peak Traffic Data Average Delay (sec)	Weekday Peak Traffic Data Adjusted Delay (veh-sec)	Weekday Off-Peak Traffic Data Period Volume (vehicles)	Weekday Off-Peak Traffic Data Average Delay (sec)	Weekday Off-Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Period Volume (vehicles)	Weekend Peak Traffic Data Average Delay (sec)	Weekend Peak Traffic Data Adjusted Delay (veh-sec)	Weekend Off-Peak Traffic Data Period Volume (vehicles)	Weekend Off-Peak Traffic Data Average Delay (sec)	Weekend Off-Peak Traffic Data Adjusted Delay (veh-sec)	Link Emissions CO_2 (grams)
1	4,229,641	9	37,643,809	3,446,863	8	27,609,370	1,708,124	9	15,202,307	1,392,002	8	11,149,938	959,736,532
2	3,800,340	116	439,319,301	3,097,012	104	322,213,117	1,534,753	116	177,417,410	1,250,716	104	130,124,528	234,836,484
3	2,692,333	12	31,231,067	2,194,064	10	22,906,026	1,087,288	12	12,612,546	886,064	10	9,250,511	638,367,619
4	2,763,884	39	106,547,713	2,252,372	35	78,146,056	1,116,184	39	43,028,884	909,612	35	31,558,984	171,709,157
5	3,336,286	63	209,351,918	2,718,840	56	153,546,484	1,347,346	63	84,545,967	1,097,993	56	62,009,157	206,160,915
6	3,142,078	21	66,454,944	2,560,574	19	48,740,528	1,268,916	21	26,837,574	1,034,078	19	19,683,675	263,589,884
7	3,207,495	9	28,867,456	2,613,885	8	21,172,466	1,295,335	9	11,658,011	1,055,607	8	8,550,419	252,471,613
8	3,573,423	21	75,041,893	2,912,091	19	55,038,516	1,443,113	21	30,305,380	1,176,037	19	22,227,093	214,893,755
9	4,082,452	43	173,708,348	3,326,914	38	127,404,164	1,648,683	43	70,151,448	1,343,561	38	51,451,682	170,243,164
10	774,787	11	8,483,917	631,397	10	6,222,420	312,895	11	3,426,197	254,987	10	2,512,900	109,000,042
11	1,917,546	26	50,239,718	1,562,667	24	36,847,678	774,394	26	20,289,117	631,077	24	14,880,793	324,536,909
12	2,710,732	18	49,335,323	2,209,057	16	36,184,361	1,094,719	18	19,923,880	892,119	16	14,612,915	276,217,434
13	3,661,328	0	0	2,983,727	0	0	1,478,613	0	0	1,204,967	0	0	1,314,871,077
14	114,480	0	0	93,294	0	0	46,232	0	0	37,676	0	0	9,380,016
15	112,436	43	4,789,778	91,628	38	3,513,001	45,407	43	1,934,333	37,003	38	1,410,712	5,066,321
16	251,448	62	15,489,196	204,913	55	11,360,353	101,546	62	6,255,252	82,753	55	4,587,835	47,683,427
17	1,925,724	20	38,899,618	1,569,330	18	28,530,427	777,696	20	15,709,461	633,768	18	11,521,903	328,064,019
18	220,784	0	0	179,923	0	0	89,163	0	0	72,661	0	0	25,910,278
19	1,617,035	19	30,481,118	1,317,771	17	22,355,986	653,034	19	12,309,682	532,177	17	9,028,379	140,297,701
20	2,230,323	30	66,129,084	1,817,558	27	48,501,530	900,707	30	26,705,976	734,014	27	19,587,156	227,264,872
21	1,856,218	0	0	1,512,688	0	0	749,626	0	0	610,893	0	0	43,523,340
22	1,242,930	20	24,237,133	1,012,901	18	17,776,415	501,952	20	9,788,073	409,056	18	7,178,937	139,623,112
23	2,017,717	0	0	1,644,298	0	0	812,370	0	0	662,025	0	0	238,697,230
24	243,271	44	10,679,589	198,249	40	7,832,808	98,244	44	4,312,911	80,062	40	3,163,249	37,540,974
25	678,705	9	5,836,864	553,097	8	4,280,973	274,092	9	2,357,195	223,366	8	1,728,855	106,845,858
26	613,288	0	0	499,787	0	0	247,674	0	0	201,837	0	0	51,149,513
27	932,197	88	81,753,715	759,676	79	59,961,216	376,464	88	33,015,923	306,792	79	24,215,106	160,297,745
28	414,991	12	5,104,394	338,189	11	3,743,753	167,593	12	2,061,390	136,576	11	1,511,900	58,939,938
29	1,854,173	5	9,270,867	1,511,022	5	6,799,599	748,801	5	3,744,004	610,220	5	2,745,992	148,672,041
30	1,619,080	0	0	1,319,437	0	0	653,859	0	0	532,850	0	0	181,176,190
31	114,480	0	0	93,294	0	0	46,232	0	0	37,676	0	0	19,685,688
32	1,402,385	16	22,017,440	1,142,846	14	16,148,410	566,348	16	8,891,659	461,534	14	6,521,473	199,176,342
33	1,277,683	5	6,899,488	1,041,222	5	5,060,341	515,987	5	2,786,332	420,494	5	2,043,599	102,447,658
34	1,422,828	7	10,102,076	1,159,505	6	7,409,239	589,464	7	4,185,194	480,372	6	3,069,577	160,399,973
35	322,998	49	15,923,813	263,221	44	11,679,117	130,442	49	6,430,771	106,301	44	4,716,566	43,176,192
36	290,290	0	0	236,566	0	0	117,232	0	0	95,536	0	0	40,229,394
37	1,539,352	0	0	1,254,465	0	0	621,662	0	0	506,611	0	0	187,610,796
													8,641.42
		Arterial	1,623,839,580			1,190,984,352		Arterial	655,886,878			481,051,834	**Total (tons/year)**

	Weekday	Weekend	Total
VMT per year	**13,453,323.77**	**5,435,545.37**	**18,888,869.14**

	Weekday Idle (g/s)	Weekday Idle (g/year)	Weekday Idle (tons/year)	Weekend Idle (g/s)	Weekend Idle (g/year)	Weekend Idle (tons/year)	Total Idle (g/s)	Total Idle (g/year)	Total Idle (tons/year)
Peak Period	0.9293	1,509,047,658	**1,663.41**	0.9293	609,521,143	**671.87**			**2,335.28**
Off-Peak Period	0.9293	1,106,791,687	**1,220.01**	0.9293	447,045,480	**492.77**			**1,712.78**
Total			**2,883.42**			**1,164.65**	Total (Including Link)		**12,689.48**

1000 Boylston

| Existing | | |

1000 Boylston

Weekend Traffic

Link No.	Roadway Description	2017 Roadway S.A.F.	2017 Roadway ADT (veh/day)	2017 Seasonal ADT (veh/day)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Traffic Increase (no-build)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Traffic Increase (no-build)
1	Mass Ave (Columbus/Huntington)	100%	27,684	27,684	29,525	29,525	7%	29,554	29,554	7%	0%	29,554	29,554	7%	0%
2	Mass Ave (Huntington/St Stephen)	100%	25,972	25,972	26,528	26,528	2%	27,584	27,584	6%	4%	27,584	27,584	6%	4%
3	Mass Ave (Stephen/Belvidere)	100%	17,909	17,909	18,794	18,794	5%	18,879	18,879	5%	0%	18,879	18,879	5%	0%
4	Mass Ave (Belvidere/Boylston)	100%	18,337	18,337	19,293	19,293	5%	19,336	19,336	5%	0%	19,336	19,336	5%	0%
5	Mass Ave (Boylston/Newbury)	100%	22,261	22,261	23,289	23,289	5%	23,503	23,503	6%	1%	23,503	23,503	6%	1%
6	Mass Ave (Newbury/Commonwealth EB)	100%	20,906	20,906	21,933	21,933	5%	22,019	22,019	5%	0%	22,019	22,019	5%	0%
7	Mass Ave (Commonwealth WB/Marlborough)	100%	21,833	21,833	22,390	22,390	3%	22,575	22,575	3%	1%	22,575	22,575	3%	1%
8	Mass Ave (Marlborough/Beacon)	100%	23,974	23,974	24,944	24,944	4%	25,016	25,016	4%	0%	25,016	25,016	4%	0%
9	Mass Ave (Beacon/Back)	100%	27,470	27,470	28,498	28,498	4%	28,569	28,569	4%	0%	28,569	28,569	4%	0%
10	Huntington Ave (Gainsborough/Mass Ave)	100%	4,566	4,566	5,408	5,408	18%	4,966	4,966	9%	-8%	4,966	4,966	9%	-8%
11	Huntington Ave (Mass Ave/Cumberland)	100%	11,273	11,273	13,385	13,385	19%	13,428	13,428	19%	0%	13,428	13,428	19%	0%
12	Huntington Ave (Cumberland/West Newton)	100%	16,625	16,625	18,922	18,922	14%	19,022	19,022	14%	1%	19,022	19,022	14%	1%
13	Huntington Ave (West Newton/ Dartmouth)	100%	23,118	23,118	25,558	25,558	11%	25,701	25,701	11%	1%	25,701	25,701	11%	1%
14	St Stephen St (Symphony Rd/Mass Ave)	100%	785	785	799	799	2%	799	799	2%	0%	799	799	2%	0%
15	Falmouth St (Mass Ave/ End)	100%	785	785	785	785	0%	785	785	0%	0%	785	785	0%	0%
16	Belvidere St (Mass Ave/Dalton St)	100%	1,712	1,712	1,755	1,755	3%	2,112	2,112	23%	20%	2,112	2,112	23%	20%
17	Belvidere St (Dalton St/Huntington)	100%	11,844	11,844	13,443	13,443	13%	13,842	13,842	17%	3%	13,842	13,842	17%	3%
18	Haviland St (Mass Ave/ Hemenway St)	100%	1,498	1,498	1,541	1,541	3%	1,541	1,541	3%	0%	1,541	1,541	3%	0%
19	Boylston St (Hemenway St/ Mass Ave)	100%	10,132	10,132	11,288	11,288	11%	11,545	11,545	14%	2%	11,545	11,545	14%	2%
20	Boylston St (Mass Ave/ Dalton St)	100%	13,771	13,771	15,569	15,569	13%	16,083	16,083	17%	3%	15,840	15,840	15%	2%
21	Boylston St (Dalton St/ Hereford St)	100%	12,058	12,058	12,957	12,957	7%	13,043	13,043	8%	1%	13,043	13,043	8%	1%
22	Boylston St (Hereford St/ Gloucester)	100%	8,063	8,063	8,676	8,676	8%	8,676	8,676	8%	0%	8,676	8,676	8%	0%
23	Boylston St (Gloucester/Fairfield)	100%	13,271	13,271	14,042	14,042	6%	14,085	14,085	6%	0%	14,085	14,085	6%	0%
24	Newbury St (Mass Ave/ Charlesgate)	100%	1,641	1,641	1,698	1,698	3%	1,698	1,698	3%	0%	1,698	1,698	3%	0%
25	Newbury St (Mass Ave/ Hereford St)	100%	4,566	4,566	4,738	4,738	4%	4,738	4,738	4%	0%	4,738	4,738	4%	0%
26	Newbury St (Hereford St/ Gloucester)	100%	4,210	4,210	4,281	4,281	2%	4,281	4,281	2%	0%	4,281	4,281	2%	0%
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	100%	6,350	6,350	6,507	6,507	2%	6,507	6,507	2%	0%	6,507	6,507	2%	0%
28	Commonwealth Ave EB (Mass Ave/Hereford)	100%	2,854	2,854	2,897	2,897	2%	2,897	2,897	2%	0%	2,897	2,897	2%	0%
29	Commonwealth Ave EB (Hereford/Gloucester St)	100%	12,700	12,700	12,943	12,943	2%	12,957	12,957	2%	0%	12,957	12,957	2%	0%
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	100%	11,059	11,059	11,302	11,302	2%	11,288	11,288	2%	0%	11,288	11,288	2%	0%
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	100%	785	785	799	799	2%	870	870	11%	9%	870	870	11%	9%
32	Commonwealth Ave WB (Mass Ave/Hereford)	100%	9,561	9,561	9,789	9,789	2%	9,875	9,875	3%	1%	9,875	9,875	3%	1%
33	Commonwealth Ave WB (Hereford/Gloucester St)	100%	8,705	8,705	8,919	8,919	2%	8,933	8,933	3%	0%	8,933	8,933	3%	0%
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	100%	9,704	9,704	10,189	10,189	5%	9,946	9,946	3%	-2%	9,946	9,946	3%	-2%
35	Marborough St (Charlesgate/ Mass Ave)	100%	2,212	2,212	2,255	2,255	2%	2,255	2,255	2%	0%	2,255	2,255	2%	0%
36	Marlborouch St (Mass Ave/ Hereford St)	100%	1,998	1,998	2,026	2,026	1%	2,026	2,026	1%	0%	2,026	2,026	1%	0%
37	Beacon St (Charlesgate/ Mass Ave)	100%	10,560	10,560	10,745	10,745	2%	10,745	10,745	2%	0%	10,745	10,745	2%	0%

1000 Boylston

Weekday Traffic

Link No.	Roadway Description	2017 Roadway S.A.F.	2017 Roadway ADT (veh/day)	2017 Seasonal ADT (veh/day)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Traffic Increase (no-build)	2024 Roadway ADT (veh/day)	2024 Seasonal ADT (veh/day)	2024 Traffic Increase (existing)	2024 Traffic Increase (no-build)
1	Mass Ave (Columbus/Huntington)	100%	27,684	27,684	29,525	29,525	7%	29,554	29,554	7%	0%	29,554	29,554	7%	0%
2	Mass Ave (Huntington/St Stephen)	100%	25,972	25,972	26,528	26,528	2%	27,584	27,584	6%	4%	27,584	27,584	6%	4%
3	Mass Ave (Stephen/Belvidere)	100%	17,909	17,909	18,794	18,794	5%	18,879	18,879	5%	0%	18,879	18,879	5%	0%
4	Mass Ave (Belvidere/Boylston)	100%	18,337	18,337	19,293	19,293	5%	19,336	19,336	5%	0%	19,336	19,336	5%	0%
5	Mass Ave (Boylston/Newbury)	100%	22,261	22,261	23,289	23,289	5%	23,503	23,503	6%	1%	23,503	23,503	6%	1%
6	Mass Ave (Newbury/Commonwealth EB)	100%	20,906	20,906	21,933	21,933	5%	22,019	22,019	5%	0%	22,019	22,019	5%	0%
7	Mass Ave (Commonwealth WB/Marlborough)	100%	21,833	21,833	22,390	22,390	3%	22,575	22,575	3%	1%	22,575	22,575	3%	1%
8	Mass Ave (Marlborough/Beacon)	100%	23,974	23,974	24,944	24,944	4%	25,016	25,016	4%	0%	25,016	25,016	4%	0%
9	Mass Ave (Beacon/Back)	100%	27,470	27,470	28,498	28,498	4%	28,569	28,569	4%	0%	28,569	28,569	4%	0%
10	Huntington Ave (Gainsborough/Mass Ave)	100%	4,566	4,566	5,408	5,408	18%	4,966	4,966	9%	-8%	4,966	4,966	9%	-8%
11	Huntington Ave (Mass Ave/Cumberland)	100%	11,273	11,273	13,385	13,385	19%	13,428	13,428	19%	0%	13,428	13,428	19%	0%
12	Huntington Ave (Cumberland/West Newton)	100%	16,625	16,625	18,922	18,922	14%	19,022	19,022	14%	1%	19,022	19,022	14%	1%
13	Huntington Ave (West Newton/ Dartmouth)	100%	23,118	23,118	25,558	25,558	11%	25,701	25,701	11%	1%	25,701	25,701	11%	1%
14	St Stephen St (Symphony Rd/Mass Ave)	100%	785	785	799	799	2%	799	799	2%	0%	799	799	2%	0%
15	Falmouth St (Mass Ave/ End)	100%	785	785	785	785	0%	785	785	0%	0%	785	785	0%	0%
16	Belvidere St (Mass Ave/Dalton St)	100%	1,712	1,712	1,755	1,755	3%	2,112	2,112	23%	20%	2,112	2,112	23%	20%
17	Belvidere St (Dalton St/Huntington)	100%	11,844	11,844	13,443	13,443	13%	13,842	13,842	17%	3%	13,842	13,842	17%	3%
18	Haviland St (Mass Ave/ Hemenway St)	100%	1,498	1,498	1,541	1,541	3%	1,541	1,541	3%	0%	1,541	1,541	3%	0%
19	Boylston St (Hemenway St/ Mass Ave)	100%	10,132	10,132	11,288	11,288	11%	11,545	11,545	14%	2%	11,545	11,545	14%	2%
20	Boylston St (Mass Ave/ Dalton St)	100%	13,771	13,771	15,569	15,569	13%	16,083	16,083	17%	3%	15,840	15,840	15%	2%
21	Boylston St (Dalton St/ Hereford St)	100%	12,058	12,058	12,957	12,957	7%	13,043	13,043	8%	1%	13,043	13,043	8%	1%
22	Boylston St (Hereford St/ Gloucester)	100%	8,063	8,063	8,676	8,676	8%	8,676	8,676	8%	0%	8,676	8,676	8%	0%
23	Boylston St (Gloucester/Fairfield)	100%	13,271	13,271	14,085	14,085	6%	14,085	14,085	6%	0%	14,085	14,085	6%	0%
24	Newbury St (Mass Ave/ Charlesgate)	100%	1,641	1,641	1,698	1,698	3%	1,698	1,698	3%	0%	1,698	1,698	3%	0%
25	Newbury St (Mass Ave/ Hereford St)	100%	4,566	4,566	4,738	4,738	4%	4,738	4,738	4%	0%	4,738	4,738	4%	0%
26	Newbury St (Hereford St/ Gloucester)	100%	4,210	4,210	4,281	4,281	2%	4,281	4,281	2%	0%	4,281	4,281	2%	0%
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	100%	6,350	6,350	6,507	6,507	2%	6,507	6,507	2%	0%	6,507	6,507	2%	0%
28	Commonwealth Ave EB (Mass Ave/Hereford)	100%	2,854	2,854	2,897	2,897	2%	2,897	2,897	2%	0%	2,897	2,897	2%	0%
29	Commonwealth Ave EB (Hereford/Gloucester St)	100%	12,700	12,700	12,943	12,943	2%	12,957	12,957	2%	0%	12,957	12,957	2%	0%
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	100%	11,059	11,059	11,302	11,302	2%	11,288	11,288	2%	0%	11,288	11,288	2%	0%
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	100%	785	785	799	799	2%	870	870	11%	9%	870	870	11%	9%
32	Commonwealth Ave WB (Mass Ave/Hereford)	100%	9,561	9,561	9,789	9,789	2%	9,875	9,875	3%	1%	9,875	9,875	3%	1%
33	Commonwealth Ave WB (Hereford/Gloucester St)	100%	8,705	8,705	8,919	8,919	2%	8,933	8,933	3%	0%	8,933	8,933	3%	0%
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	100%	9,704	9,704	9,932	9,932	2%	9,946	9,946	3%	0%	9,946	9,946	3%	0%
35	Marborough St (Charlesgate/ Mass Ave)	100%	2,212	2,212	2,255	2,255	2%	2,255	2,255	2%	0%	2,255	2,255	2%	0%
36	Marlborouch St (Mass Ave/ Hereford St)	100%	1,998	1,998	2,026	2,026	1%	2,026	2,026	1%	0%	2,026	2,026	1%	0%
37	Beacon St (Charlesgate/ Mass Ave)	100%	10,560	10,560	10,745	10,745	2%	10,745	10,745	2%	0%	10,745	10,745	2%	0%

1000 Boylston
Weekend Vehicle Delay

Link No.	Description	Directions	2017 Delay By Approach NB or EB (sec)	2017 Delay By Approach SB or WB (sec)	2017 Adjusted Delay * NB or EB (sec)	2017 Adjusted Delay * SB or WB (sec)	2017 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)
1	Mass Ave (Columbus/Huntington)	2	16	0	16	0	8	17.8	0	17.8	0	8.9	17.8	0	17.8	0	8.9	17.8	0	17.8	0	8.9
2	Mass Ave (Huntington/St Stephen)	2	33.5	119.3	33.5	119.3	76.4	67.9	163.3	67.9	163.3	115.6	43.2	165.4	43.2	165.4	104.3	43.2	165.9	43.2	165.9	104.55
3	Mass Ave (Stephen/Belvidere)	2	17.4	3	17.4	3	10.2	18.3	4.9	18.3	4.9	11.6	18.5	3	18.5	3	10.75	18.6	3	18.6	3	10.8
4	Mass Ave (Belvidere/Boylston)	2	46.2	19.1	46.2	19.1	32.65	57	20.1	57	20.1	38.55	58	20.3	58	20.3	39.15	58.4	20.3	58.4	20.3	39.35
5	Mass Ave (Boylston/Newbury)	2	52.5	34.7	52.5	34.7	43.6	63.5	62	63.5	62	62.75	67.5	63.4	67.5	63.4	65.45	68.5	63.4	68.5	63.4	65.95
6	Mass Ave (Newbury/Commonwealth EB)	2	20.7	19.3	20.7	19.3	20	20.1	22.2	20.1	22.2	21.15	20	22.5	20	22.5	21.25	20	21.7	20	21.7	20.85
7	Mass Ave (Commonwealth WB/Marlborough)	2	6.7	10.9	6.7	10.9	8.8	6.4	11.6	6.4	11.6	9	6.3	11.7	6.3	11.7	9	6.2	9	6.2	9	7.6
8	Mass Ave (Marlborough/Beacon)	2	31.5	3.1	31.5	3.1	17.3	37.9	4.1	37.9	4.1	21	38.5	4.2	38.5	4.2	21.35	39.9	2.1	39.9	2.1	21
9	Mass Ave (Beacon/Back)	2	0	71.2	0	71.2	35.6	0	85.1	0	85.1	42.55	0	86.4	0	86.4	43.2	0	46.1	0	46.1	23.05
10	Huntington Ave (Gainsborough/Mass Ave)	2	20.3	0	20.3	0	10.15	21.9	0	21.9	0	10.95	22.1	0	22.1	0	11.05	22.3	0	22.3	0	11.15
11	Huntington Ave (Mass Ave/Cumberland)	2	3.3	39	3.3	39	21.15	3.3	49.1	3.3	49.1	26.2	3.4	49.1	3.4	49.1	26.25	3.4	49.1	3.4	49.1	26.25
12	Huntington Ave (Cumberland/West Newton)	2	35.9	1.3	35.9	1.3	18.6	34.9	1.5	34.9	1.5	18.2	35.1	1.5	35.1	1.5	18.3	35.1	1.5	35.1	1.5	18.3
13	Huntington Ave (West Newton/ Dartmouth)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	St Stephen St (Symphony Rd/Mass Ave)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Falmouth St (Mass Ave/ End)	1	0	44.5	0	44.5	44.5	0	42.6	0	42.6	42.6	0	42.5	0	42.5	42.5	0	42.4	0	42.4	42.4
16	Belvidere St (Mass Ave/Dalton St)	1	0	62.6	0	62.6	62.6	0	61.6	0	61.6	61.6	0	60.9	0	60.9	60.9	0	60.8	0	60.8	60.8
17	Belvidere St (Dalton St/Huntington)	2	0	38.6	0	38.6	19.3	0	40.4	0	40.4	20.2	0	40.4	0	40.4	20.2	0	40.4	0	40.4	20.2
18	Haviland St (Mass Ave/ Hemenway St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Boylston St (Hemenway St/ Mass Ave)	2	36.1	0	36.1	0	18.05	37.7	0	37.7	0	18.85	38.2	0	38.2	0	19.1	38.4	0	38.4	0	19.2
20	Boylston St (Mass Ave/ Dalton St)	2	38.4	14.6	38.4	14.6	26.5	45.2	14.1	45.2	14.1	29.65	45.2	14.4	45.2	14.4	29.8	45.2	14.5	45.2	14.5	29.85
21	Boylston St (Dalton St/ Hereford St)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Boylston St (Hereford St/ Gloucester)	1	18.8	0	18.8	0	18.8	19.5	0	19.5	0	19.5	19.4	0	19.4	0	19.4	19.4	0	19.4	0	19.4
23	Boylston St (Gloucester/Fairfield)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Newbury St (Mass Ave/ Charlesgate)	1	0	41	0	41	41	0	43.9	0	43.9	43.9	0	44.3	0	44.3	44.3	0	44.3	0	44.3	44.3
25	Newbury St (Mass Ave/ Hereford St)	1	0	0	0	0	0	0	8.6	0	8.6	8.6	0	8.6	0	8.6	8.6	0	8.6	0	8.6	8.6
26	Newbury St (Hereford St/ Gloucester)	1	8.5	0	8.5	0	8.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	1	85.1	0	85.1	0	85.1	87.7	0	87.7	0	87.7	87.6	0	87.6	0	87.6	87.6	0	87.6	0	87.6
28	Commonwealth Ave EB (Mass Ave/Hereford)	1	12.1	0	12.1	0	12.1	12.3	0	12.3	0	12.3	12.3	0	12.3	0	12.3	12.3	0	12.3	0	12.3
29	Commonwealth Ave EB (Hereford/Gloucester St)	1	4.9	0	4.9	0	4.9	5	0	5	0	5	5	0	5	0	5	5	0	5	0	5
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Commonwealth Ave WB (Mass Ave/Hereford)	1	0	15.4	0	15.4	15.4	0	15.7	0	15.7	15.7	0	16.2	0	16.2	16.2	0	16.2	0	16.2	16.2
33	Commonwealth Ave WB (Hereford/Gloucester St)	1	0	5.3	0	5.3	5.3	0	5.4	0	5.4	5.4	0	5.4	0	5.4	5.4	0	5.4	0	5.4	5.4
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	1	0	7	0	7	7	0	7.1	0	7.1	7.1	0	7.1	0	7.1	7.1	0	7.1	0	7.1	7.1
35	Marborough St (Charlesgate/ Mass Ave)	1	48.9	0	48.9	0	48.9	49.3	0	49.3	0	49.3	49.3	0	49.3	0	49.3	49	0	49	0	49
36	Marlborouch St (Mass Ave/ Hereford St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Beacon St (Charlesgate/ Mass Ave)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Beacon St (Mass Ave/ Hereford)	2	0	53.1	0	53.1	26.55	0	54	0	54	27	0	54	0	54	27	0	64.1	0	64.1	32.05
39	Hereford St (Marlborough/ Commonwealth WB)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Hereford St (Commonwealth EB/ Newbury St)	1	15.4	0	15.4	0	15.4	15.8	0	15.8	0	15.8	15.9	0	15.9	0	15.9	15.9	0	15.9	0	15.9
41	Hereford St (Newbury St/ Boylston)	1	9	0	9	0	9	9.3	0	9.3	0	9.3	9.3	0	9.3	0	9.3	9.3	0	9.3	0	9.3
42	Dalton St (Boylston/ Scotia St)	2	90.8	0	90.8	0	45.4	101.8	0	101.8	0	50.9	106	0	106	0	53	105.7	0	105.7	0	52.85
43	Dalton St (Scotia St/ Belvidere)	2	0	25	0	25	12.5	0	29.3	0	29.3	14.65	0	33.7	0	33.7	16.85	0	33.8	0	33.8	16.9
44	Scotia St (Dalton St/ Site Driveway)	1	14.4	0	14.4	0	14.4	15.5	0	15.5	0	15.5	17.9	0	17.9	0	17.9	16.5	0	16.5	0	16.5
45	Gloucester St (Marlborough/ Commonwealth WB)	1	0	23.3	0	23.3	23.3	0	24	0	24	24	0	24	0	24	24	0	24	0	24	24
46	Gloucester St (Commonwealth EB/ Newbury St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Gloucester St (Newbury St/ Boylston)	1	0	8.3	0	8.3	8.3	0	9.8	0	9.8	9.8	0	9.8	0	9.8	9.8	0	9.8	0	9.8	9.8
48	Westland Ave (Hemenway St/ Mass Ave)	2	0	36.9	0	36.9	18.45	0	37	0	37	18.5	0	36.8	0	36.8	18.4	0	36.8	0	36.8	18.4
49	Cumberland St (Huntington Ave/ St Botolph St)	2	2.1	0	2.1	0	1.05	2.4	0	2.4	0	1.2	2.5	0	2.5	0	1.25	2.5	0	2.5	0	1.25
50	W. Newton St (Huntington Ave/ St Botolph St)	2	50	0	50	0	25	53.7	0	53.7	0	26.85	56	0	56	0	28	56	0	56	0	28
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	2	7.5	3.9	7.5	3.9	5.7	7.2	4.6	7.2	4.6	5.9	7.2	4.8	7.2	4.8	6	7.2	4.6	7.2	4.6	5.9
52	Hereford St (Commonwealth EB/ Commonwealth WB)	1	9	0	9	0	9	8.9	0	8.9	0	8.9	8.5	0	8.5	0	8.5	8.5	0	8.5	0	8.5
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	1	0	21.8	0	21.8	21.8	0	21.5	0	21.5	21.5	0	21.5	0	21.5	21.5	0	21.5	0	21.5	21.5
54	I90 Ramp	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Scotia St (Site Driveway/ St Cecilla St)	1	0	0	0	0	0	0	0	0	0	0	1.5	0	1.5	0	1.5	1.6	0	1.6	0	1.6
56	Site Driveway	2	0	0	0	0	0	0	0	0	0	0	0	10.4	0	10.4	5.2	0	9.5	0	9.5	4.75

MD PEAK CONDITION
DELAY BY APPROACH (seconds)

		2017 Existing EB	2017 Existing WB	2017 Existing NB	2017 Existing SB	2024 No Build EB	2024 No Build WB	2024 No Build NB	2024 No Build SB	2024 Build EB	2024 Build WB	2024 Build NB	2024 Build SB	2024 Build-Mit EB	2024 Build-Mit WB	2024 Build-Mit NB	2024 Build-Mit SB
Int 1	Mass Ave & Beacon St		53.1	31.5	71.2		54	37.9	85.1		54	38.5	86.4		64.1	39.9	46.1
Int 2	Mass Ave & Marlborough St	48.9		6.7	3.1	49.3		6.4	4.1	49.3		6.3	4.2	49		6.2	2.1
Int 3	Mass Ave & Commonwealth Ave WB		15.4	7.5	10.9		15.7	7.2	11.6		16.2	7.2	11.7		16.2	7.2	9
Int 4	Mass Ave & Commonwealth Ave EB	85.1		20.7	3.9	87.7		20.1	4.6	87.6		20	4.8	87.6		20	4.6
Int 5	Hereford St & Commonwealth Ave WB		5.3	9			5.4	8.9			5.4	8.5			5.4	8.5	
Int 6	Hereford St & Commonwealth Ave EB	12.1		15.4		12.3		15.8		12.3		15.9		12.3		15.9	
Int 7	Gloucester St & Commonwealth Ave WB		7		23.3		7.1		24		7.1		24		7.1		24
Int 8	Gloucester St & Commonwealth Ave EB	4.9			21.8	5			21.5	5			21.5	5			21.5
Int 9	I90 On-Ramp & Mass Ave & Newbury St		41	52.5	19.3		43.9	63.5	22.2		44.3	67.5	22.5		44.3	68.5	21.7
Int 10	Hereford St & Newbury St	8.5		9			8.6	9.3			8.6	9.3			8.6	9.3	
Int 11	Mass Ave & Boylston St	36.1	14.6	46.2	34.7	37.7	14.1	57	62	38.2	14.4	58	63.4	38.4	14.5	58.4	63.4
Int 12	Dalton St & Boylston St	38.4		90.8		45.2		101.8		45.2		106		45.2		105.7	
Int 13	Boylston St & Hereford St																
Int 14	Boylston St & Gloucester St	18.8			8.3	19.5			9.8	19.4			9.8	19.4			9.8
Int 15	Mass Ave & Belvidere St		62.6	17.4	19.1		61.6	18.3	20.1		60.9	18.5	20.3		60.8	18.6	20.3
Int 16	Dalton St & Scotia St	14.4		0	0	15.5		0	0	17.9		0	0	16.5		0	0
Int 17	Belvidere St & Dalton St		0		25		0		29.3		0		33.7		0		33.8
Int 18	St Stephen St/Falmouth St & Mass Ave & Westland St	36.9	44.5	33.5	3	37	42.6	67.9	4.9	36.8	42.5	43.2	3	36.8	42.4	43.2	3
Int 19	Huntington Ave & Mass Ave		39	16	119.3		49.1	17.8	163.3		49.1	17.8	165.4		49.1	17.8	165.9
Int 20	Huntington Ave & Mass Ave	20.3		20	1.2	21.9		21.5	1.4	22.1		21.5	1.4	22.3		21.6	1.4
Int 21	Huntington Ave & Cumberland St	3.3	1.3	2.1		3.3	1.5	2.4		3.4	1.5	2.5		3.4	1.5	2.5	
Int 22	Huntington Ave & W Newton St/Belvidere St	35.9		50	38.6	34.9		53.7	40.4	35.1		56	40.4	35.1		56	40.4

1000 Boylston

Weekend Average Daily Traffic (ADT) for Mesoscale Roadway Network

	Roadway Segments	Speed Limit (mph)	2017 Existing Volume (ADT)	2024 No-Build Volume (ADT)	2024 Build Volume (ADT)	2024 Build-Mit Volume (ADT)	K Factor	S.A.F.	Unadjusted PM Peak Hour 2017 Existing	2024 No Build	2024 Build	2024 Build-Mit
							7.0%	1.00				
1	Mass Ave (Columbus/Huntington)	25	27,684	29,525	29,554	29,554			1,940	2,069	2,071	2,071
2	Mass Ave (Huntington/St Stephen)	25	25,972	26,528	27,584	27,584			1,820	1,859	1,933	1,933
3	Mass Ave (Stephen/Belvidere)	25	17,909	18,794	18,879	18,879			1,255	1,317	1,323	1,323
4	Mass Ave (Belvidere/Boylston)	25	18,337	19,293	19,336	19,336			1,285	1,352	1,355	1,355
5	Mass Ave (Boylston/Newbury)	25	22,261	23,289	23,503	23,503			1,560	1,632	1,647	1,647
6	Mass Ave (Newbury/Commonwealth EB)	25	20,906	21,933	22,019	22,019			1,465	1,537	1,543	1,543
7	Mass Ave (Commonwealth WB/Marlborough)	25	21,833	22,390	22,575	22,575			1,530	1,569	1,582	1,582
8	Mass Ave (Marlborough/Beacon)	25	23,974	24,944	25,016	25,016			1,680	1,748	1,753	1,753
9	Mass Ave (Beacon/Back)	25	27,470	28,498	28,569	28,569			1,925	1,997	2,002	2,002
10	Huntington Ave (Gainsborough/Mass Ave)	25	4,566	5,408	4,966	4,966			320	379	348	348
11	Huntington Ave (Mass Ave/Cumberland)	25	11,273	13,385	13,428	13,428			790	938	941	941
12	Huntington Ave (Cumberland/West Newton)	25	16,625	18,922	19,022	19,022			1,165	1,326	1,333	1,333
13	Huntington Ave (West Newton/ Dartmouth)	25	23,118	25,558	25,701	25,701			1,620	1,791	1,801	1,801
14	St Stephen St (Symphony Rd/Mass Ave)	20	785	799	799	799			55	56	56	56
15	Falmouth St (Mass Ave/ End)	20	785	785	785	785			55	55	55	55
16	Belvidere St (Mass Ave/Dalton St)	20	1,712	1,755	2,112	2,112			120	123	148	148
17	Belvidere St (Dalton St/Huntington)	20	11,844	13,443	13,842	13,842			830	942	970	970
18	Haviland St (Mass Ave/ Hemenway St)	20	1,498	1,541	1,541	1,541			105	108	108	108
19	Boylston St (Hemenway St/ Mass Ave)	25	10,132	11,288	11,545	11,545			710	791	809	809
20	Boylston St (Mass Ave/ Dalton St)	25	13,771	15,569	16,083	15,840			965	1,091	1,127	1,110
21	Boylston St (Dalton St/ Hereford St)	25	12,058	12,957	13,043	13,043			845	908	914	914
22	Boylston St (Hereford St/ Gloucester)	25	8,063	8,676	8,676	8,676			565	608	608	608
23	Boylston St (Gloucester/Fairfield)	25	13,271	14,042	14,085	14,085			930	984	987	987
24	Newbury St (Mass Ave/ Charlesgate)	25	1,641	1,698	1,698	1,698			115	119	119	119
25	Newbury St (Mass Ave/ Hereford St)	25	4,566	4,738	4,738	4,738			320	332	332	332
26	Newbury St (Hereford St/ Gloucester)	25	4,210	4,281	4,281	4,281			295	300	300	300
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	6,350	6,507	6,507	6,507			445	456	456	456
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	2,854	2,897	2,897	2,897			200	203	203	203
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	12,700	12,943	12,957	12,957			890	907	908	908
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	11,059	11,302	11,288	11,288			775	792	791	791
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	785	799	870	870			55	56	61	61
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	9,561	9,789	9,875	9,875			670	686	692	692
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	8,705	8,919	8,933	8,933			610	625	626	626
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	9,704	10,189	9,946	9,946			680	714	697	697
35	Marborough St (Charlesgate/ Mass Ave)	25	2,212	2,255	2,255	2,255			155	158	158	158
36	Marlborouch St (Mass Ave/ Hereford St)	25	1,998	2,026	2,026	2,026			140	142	142	142
37	Beacon St (Charlesgate/ Mass Ave)	25	10,560	10,745	10,745	10,745			740	753	753	753
38	Beacon St (Mass Ave/ Hereford)	25	7,064	7,192	7,192	7,192			495	504	504	504
39	Hereford St (Marlborough/ Commonwealth WB)	25	2,212	2,369	2,369	2,369			155	166	166	166
40	Hereford St (Commonwealth EB/ Newbury St)	25	3,639	3,824	3,910	3,910			255	268	274	274
41	Hereford St (Newbury St/ Boylston)	25	3,996	4,281	4,367	4,367			280	300	306	306
42	Dalton St (Boylston/ Scotia St)	20	7,706	10,360	9,261	9,019			540	726	649	632
43	Dalton St (Scotia St/ Belvidere)	20	9,846	11,116	11,288	11,288			690	779	791	791
44	Scotia St (Dalton St/ Site Driveway)	20	2,355	2,397	2,968	2,726			165	168	208	191
45	Gloucester St (Marlborough/ Commonwealth WB)	25	1,998	2,155	2,155	2,155			140	151	151	151
46	Gloucester St (Commonwealth EB/ Newbury St)	25	4,638	4,838	4,838	4,838			325	339	339	339
47	Gloucester St (Newbury St/ Boylston)	25	5,209	5,408	5,408	5,408			365	379	379	379
48	Westland Ave (Hemenway St/ Mass Ave)	25	10,489	10,660	10,660	10,660			735	747	747	747
49	Cumberland St (Huntington Ave/ St Botolph St)	25	1,498	1,527	1,527	1,527			105	107	107	107
50	W. Newton St (Huntington Ave/ St Botolph St)	25	9,204	9,504	9,704	9,704			645	666	680	680
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	25	20,406	21,391	21,477	21,477			1,430	1,499	1,505	1,505
52	Hereford St (Commonwealth EB/ Commonwealth WB)	25	3,068	3,239	3,311	3,311			215	227	232	232
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	25	2,997	3,168	3,168	3,168			210	222	222	222
54	I90 Ramp	35	7,563	7,934	8,063	8,063			530	556	565	565
55	Scotia St (Site Driveway/ St Cecilla St)	20	2,355	2,397	3,068	3,311			165	168	215	232
56	Site Driveway	20	0	0	1,099	499			0	0	77	35

1000 Boylston

Weekend ATR Volumes

Huntington Ave					Mass Ave					Weekend Average				
			Peak Period Data					Peak Period Data					Peak Period Data	
Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume
12:00 AM	220	0.07	0	0	12:00 AM	379	0.12	0	0	12:00 AM	300	0.10	0	0
1:00 AM	156	0.05	0	0	1:00 AM	279	0.09	0	0	1:00 AM	218	0.07	0	0
2:00 AM	119	0.04	0	0	2:00 AM	145	0.05	0	0	2:00 AM	132	0.04	0	0
3:00 AM	58	0.02	0	0	3:00 AM	93	0.03	0	0	3:00 AM	76	0.02	0	0
4:00 AM	99	0.03	0	0	4:00 AM	122	0.04	0	0	4:00 AM	111	0.04	0	0
5:00 AM	266	0.08	0	0	5:00 AM	381	0.12	0	0	5:00 AM	324	0.10	0	0
6:00 AM	707	0.23	0	0	6:00 AM	874	0.28	0	0	6:00 AM	791	0.25	0	0
7:00 AM	1,127	0.36	1	1,127	7:00 AM	1,256	0.40	1	1,256	7:00 AM	1,192	0.38	1	1,192
8:00 AM	1,316	0.42	1	1,316	8:00 AM	1,444	0.46	1	1,444	8:00 AM	1,380	0.44	1	1,380
9:00 AM	1,279	0.41	1	1,279	9:00 AM	1,288	0.41	1	1,288	9:00 AM	1,284	0.41	1	1,284
10:00 AM	1,055	0.34	0	0	10:00 AM	1,112	0.35	0	0	10:00 AM	1,084	0.35	0	0
11:00 AM	1,035	0.33	0	0	11:00 AM	1,175	0.37	0	0	11:00 AM	1,105	0.35	0	0
12:00 PM	1,028	0.33	0	0	12:00 PM	1,147	0.37	0	0	12:00 PM	1,088	0.35	0	0
1:00 PM	1,057	0.34	0	0	1:00 PM	1,230	0.39	1	1,230	1:00 PM	1,144	0.36	1	1,144
2:00 PM	1,057	0.34	0	0	2:00 PM	1,299	0.41	1	1,299	2:00 PM	1,178	0.38	1	1,178
3:00 PM	1,118	0.36	1	1,118	3:00 PM	1,353	0.43	1	1,353	3:00 PM	1,236	0.39	1	1,236
4:00 PM	1,224	0.39	1	1,224	4:00 PM	1,372	0.44	1	1,372	4:00 PM	1,298	0.41	1	1,298
5:00 PM	1,375	0.44	1	1,375	5:00 PM	1,523	0.49	1	1,523	5:00 PM	1,449	0.46	1	1,449
6:00 PM	1,173	0.37	1	1,173	6:00 PM	1,295	0.41	1	1,295	6:00 PM	1,234	0.39	1	1,234
7:00 PM	923	0.29	0	0	7:00 PM	1,161	0.37	0	0	7:00 PM	1,042	0.33	0	0
8:00 PM	749	0.24	0	0	8:00 PM	1,021	0.33	0	0	8:00 PM	885	0.28	0	0
9:00 PM	680	0.22	0	0	9:00 PM	1,046	0.33	0	0	9:00 PM	863	0.27	0	0
10:00 PM	604	0.19	0	0	10:00 PM	943	0.30	0	0	10:00 PM	774	0.25	0	0
11:00 PM	327	0.10	0	0	11:00 PM	665	0.21	0	0	11:00 PM	496	0.16	0	0
Total	**18,752**		**7**	**8,612**	**Total**	**22,603**		**9**	**12,060**	**Total**	**20,678**		**9**	**11,393**

Roadway Capacity	Crit. V/C	Critical Capacity	Roadway Capacity	Crit. V/C	Critical Capacity	Roadway Capacity	Crit. V/C	Critical Capacity
3,140	34%	1,068	3,140	38%	1,193	3140	36%	1,130
Peak Hour (K) Factor	**0.073**		**Peak Hour (K) Factor**	**0.067**		**Peak Hour (K) Factor**	**0.070**	
Peak Period Volume Factor	**0.459**		**Peak Period Volume Factor**	**0.534**		**Peak Period Volume Factor**	**0.551**	

1000 Boylston
Weekday Vehicle Delay

Link No.	Description	Directions	2017 Delay By Approach NB or EB (sec)	2017 Delay By Approach SB or WB (sec)	2017 Adjusted Delay * NB or EB (sec)	2017 Adjusted Delay * SB or WB (sec)	2017 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)	2024 Delay By Approach NB or EB (sec)	2024 Delay By Approach SB or WB (sec)	2024 Adjusted Delay * NB or EB (sec)	2024 Adjusted Delay * SB or WB (sec)	2024 Combined Delay (sec)
1	Mass Ave (Columbus/Huntington)	2	16	0	16	0	8	17.8	0	17.8	0	8.9	17.8	0	17.8	0	8.9	17.8	0	17.8	0	8.9
2	Mass Ave (Huntington/St Stephen)	2	33.5	119.3	33.5	119.3	76.4	67.9	163.3	67.9	163.3	115.6	43.2	165.9	43.2	165.9	104.55	43.2	165.9	43.2	165.9	104.55
3	Mass Ave (Stephen/Belvidere)	2	17.4	3	17.4	3	10.2	18.3	4.9	18.3	4.9	11.6	18.6	3	18.6	3	10.8	18.6	3	18.6	3	10.8
4	Mass Ave (Belvidere/Boylston)	2	46.2	19.1	46.2	19.1	32.65	57	20.1	57	20.1	38.55	58.4	20.3	58.4	20.3	39.35	58.4	20.3	58.4	20.3	39.35
5	Mass Ave (Boylston/Newbury)	2	52.5	34.7	52.5	34.7	43.6	63.5	62	63.5	62	62.75	68.5	63.4	68.5	63.4	65.95	68.5	63.4	68.5	63.4	65.95
6	Mass Ave (Newbury/Commonwealth EB)	2	20.7	19.3	20.7	19.3	20	20.1	22.2	20.1	22.2	21.15	20	22.5	20	22.5	21.25	20	21.7	20	21.7	20.85
7	Mass Ave (Commonwealth WB/Marlborough)	2	6.7	10.9	6.7	10.9	8.8	6.4	11.6	6.4	11.6	9	6.3	11.7	6.3	11.7	9	6.2	9	6.2	9	7.6
8	Mass Ave (Marlborough/Beacon)	2	31.5	3.1	31.5	3.1	17.3	37.9	4.1	37.9	4.1	21	38.5	4.2	38.5	4.2	21.35	39.9	2.1	39.9	2.1	21
9	Mass Ave (Beacon/Back)	2	0	71.2	0	71.2	35.6	0	85.1	0	85.1	42.55	0	86.4	0	86.4	43.2	0	46.1	0	46.1	23.05
10	Huntington Ave (Gainsborough/Mass Ave)	2	20.3	0	20.3	0	10.15	21.9	0	21.9	0	10.95	22.3	0	22.3	0	11.15	22.3	0	22.3	0	11.15
11	Huntington Ave (Mass Ave/Cumberland)	2	3.3	39	3.3	39	21.15	3.3	49.1	3.3	49.1	26.2	3.4	49.1	3.4	49.1	26.25	3.4	49.1	3.4	49.1	26.25
12	Huntington Ave (Cumberland/West Newton)	2	35.9	1.3	35.9	1.3	18.6	34.9	1.5	34.9	1.5	18.2	35.1	1.5	35.1	1.5	18.3	35.1	1.5	35.1	1.5	18.3
13	Huntington Ave (West Newton/ Dartmouth)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	St Stephen St (Symphony Rd/Mass Ave)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Falmouth St (Mass Ave/ End)	1	0	44.5	0	44.5	44.5	0	42.6	0	42.6	42.6	0	42.4	0	42.4	42.4	0	42.4	0	42.4	42.4
16	Belvidere St (Mass Ave/Dalton St)	1	0	62.6	0	62.6	62.6	0	61.6	0	61.6	61.6	0	60.8	0	60.8	60.8	0	60.8	0	60.8	60.8
17	Belvidere St (Dalton St/Huntington)	2	0	38.6	0	38.6	19.3	0	40.4	0	40.4	20.2	0	40.4	0	40.4	20.2	0	40.4	0	40.4	20.2
18	Haviland St (Mass Ave/ Hemenway St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Boylston St (Hemenway St/ Mass Ave)	2	36.1	0	36.1	0	18.05	37.7	0	37.7	0	18.85	38.4	0	38.4	0	19.2	38.4	0	38.4	0	19.2
20	Boylston St (Mass Ave/ Dalton St)	2	38.4	14.6	38.4	14.6	26.5	45.2	14.1	45.2	14.1	29.65	45.2	14.5	45.2	14.5	29.85	45.2	14.5	45.2	14.5	29.85
21	Boylston St (Dalton St/ Hereford St)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	Boylston St (Hereford St/ Gloucester)	1	18.8	0	18.8	0	18.8	19.5	0	19.5	0	19.5	19.4	0	19.4	0	19.4	19.4	0	19.4	0	19.4
23	Boylston St (Gloucester/Fairfield)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Newbury St (Mass Ave/ Charlesgate)	1	0	41	0	41	41	0	43.9	0	43.9	43.9	0	44.3	0	44.3	44.3	0	44.3	0	44.3	44.3
25	Newbury St (Mass Ave/ Hereford St)	1	0	0	0	0	0	0	8.6	0	8.6	8.6	0	8.6	0	8.6	8.6	0	8.6	0	8.6	8.6
26	Newbury St (Hereford St/ Gloucester)	1	8.5	0	8.5	0	8.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	1	85.1	0	85.1	0	85.1	87.7	0	87.7	0	87.7	87.6	0	87.6	0	87.6	87.6	0	87.6	0	87.6
28	Commonwealth Ave EB (Mass Ave/Hereford)	1	12.1	0	12.1	0	12.1	12.3	0	12.3	0	12.3	12.3	0	12.3	0	12.3	12.3	0	12.3	0	12.3
29	Commonwealth Ave EB (Hereford/Gloucester St)	1	4.9	0	4.9	0	4.9	5	0	5	0	5	5	0	5	0	5	5	0	5	0	5
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Commonwealth Ave WB (Mass Ave/Hereford)	1	0	15.4	0	15.4	15.4	0	15.7	0	15.7	15.7	0	16.2	0	16.2	16.2	0	16.2	0	16.2	16.2
33	Commonwealth Ave WB (Hereford/Gloucester St)	1	0	5.3	0	5.3	5.3	0	5.4	0	5.4	5.4	0	5.4	0	5.4	5.4	0	5.4	0	5.4	5.4
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	1	0	7	0	7	7	0	7.1	0	7.1	7.1	0	7.1	0	7.1	7.1	0	7.1	0	7.1	7.1
35	Marborough St (Charlesgate/ Mass Ave)	1	48.9	0	48.9	0	48.9	49.3	0	49.3	0	49.3	49.3	0	49.3	0	49.3	49	0	49	0	49
36	Marlborouch St (Mass Ave/ Hereford St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	Beacon St (Charlesgate/ Mass Ave)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	Beacon St (Mass Ave/ Hereford)	2	0	53.1	0	53.1	26.55	0	54	0	54	27	0	54	0	54	27	0	64.1	0	64.1	32.05
39	Hereford St (Marlborough/ Commonwealth WB)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Hereford St (Commonwealth EB/ Newbury St)	1	15.4	0	15.4	0	15.4	15.8	0	15.8	0	15.8	15.9	0	15.9	0	15.9	15.9	0	15.9	0	15.9
41	Hereford St (Newbury St/ Boylston)	1	9	0	9	0	9	9.3	0	9.3	0	9.3	9.3	0	9.3	0	9.3	9.3	0	9.3	0	9.3
42	Dalton St (Boylston/ Scotia St)	2	90.8	0	90.8	0	45.4	101.8	0	101.8	0	50.9	106.1	0	106.1	0	53.05	105.7	0	105.7	0	52.85
43	Dalton St (Scotia St/ Belvidere)	2	0	25	0	25	12.5	0	29.3	0	29.3	14.65	0	33.8	0	33.8	16.9	0	33.8	0	33.8	16.9
44	Scotia St (Dalton St/ Site Driveway)	1	14.4	0	14.4	0	14.4	15.5	0	15.5	0	15.5	18.1	0	18.1	0	18.1	16.5	0	16.5	0	16.5
45	Gloucester St (Marlborough/ Commonwealth WB)	1	0	23.3	0	23.3	23.3	0	24	0	24	24	0	24	0	24	24	0	24	0	24	24
46	Gloucester St (Commonwealth EB/ Newbury St)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	Gloucester St (Newbury St/ Boylston)	1	0	8.3	0	8.3	8.3	0	9.8	0	9.8	9.8	0	9.8	0	9.8	9.8	0	9.8	0	9.8	9.8
48	Westland Ave (Hemenway St/ Mass Ave)	2	0	36.9	0	36.9	18.45	0	37	0	37	18.5	0	36.8	0	36.8	18.4	0	36.8	0	36.8	18.4
49	Cumberland St (Huntington Ave/ St Botolph St)	2	2.1	0	2.1	0	1.05	2.4	0	2.4	0	1.2	2.5	0	2.5	0	1.25	2.5	0	2.5	0	1.25
50	W. Newton St (Huntington Ave/ St Botolph St)	2	50	0	50	0	25	53.7	0	53.7	0	26.85	56	0	56	0	28	56	0	56	0	28
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	2	7.5	3.9	7.5	3.9	5.7	7.2	4.6	7.2	4.6	5.9	7.2	4.8	7.2	4.8	6	7.2	4.6	7.2	4.6	5.9
52	Hereford St (Commonwealth EB/ Commonwealth WB)	1	9	0	9	0	9	8.9	0	8.9	0	8.9	8.5	0	8.5	0	8.5	8.5	0	8.5	0	8.5
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	1	0	21.8	0	21.8	21.8	0	21.5	0	21.5	21.5	0	21.5	0	21.5	21.5	0	21.5	0	21.5	21.5
54	I90 Ramp	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55	Scotia St (Site Driveway/ St Cecilla St)	1	0	0	0	0	0	0	0	0	0	0	1.6	0	1.6	0	1.6	1.6	0	1.6	0	1.6
56	Site Driveway	2	0	0	0	0	0	0	0	0	0	0	0	10.5	0	10.5	5.25	0	9.5	0	9.5	4.75

PM PEAK CONDITION
DELAY BY APPROACH (seconds)

			2017 Existing EB	2017 Existing WB	2017 Existing NB	2017 Existing SB		2024 No Build EB	2024 No Build WB	2024 No Build NB	2024 No Build SB		2024 Build EB	2024 Build WB	2024 Build NB	2024 Build SB		2024 Build-Mit EB	2024 Build-Mit WB	2024 Build-Mit NB	2024 Build-Mit SB
Int 1	Mass Ave & Beacon St			53.1	31.5	71.2			54	37.9	85.1			54	38.5	86.4			64.1	39.9	46.1
Int 2	Mass Ave & Marlborough St		48.9		6.7	3.1		49.3		6.4	4.1		49.3		6.3	4.2		49		6.2	2.1
Int 3	Mass Ave & Commonwealth Ave WB			15.4	7.5	10.9			15.7	7.2	11.6			16.2	7.2	11.7			16.2	7.2	9
Int 4	Mass Ave & Commonwealth Ave EB		85.1		20.7	3.9		87.7		20.1	4.6		87.6		20	4.8		87.6		20	4.6
Int 5	Hereford St & Commonwealth Ave WB			5.3	9				5.4	8.9				5.4	8.5				5.4	8.5	
Int 6	Hereford St & Commonwealth Ave EB		12.1		15.4			12.3		15.8			12.3		15.9			12.3		15.9	
Int 7	Gloucester St & Commonwealth Ave WB			7		23.3			7.1		24			7.1		24			7.1		24
Int 8	Gloucester St & Commonwealth Ave EB		4.9			21.8		5			21.5		5			21.5		5			21.5
Int 9	I90 On-Ramp & Mass Ave & Newbury St			41	52.5	19.3			43.9	63.5	22.2			44.3	68.5	22.5			44.3	68.5	21.7
Int 10	Hereford St & Newbury St		8.5		9				8.6	9.3				8.6	9.3				8.6	9.3	
Int 11	Mass Ave & Boylston St		36.1	14.6	46.2	34.7		37.7	14.1	57	62		38.4	14.5	58.4	63.4		38.4	14.5	58.4	63.4
Int 12	Dalton St & Boylston St		38.4		90.8			45.2		101.8			45.2		106.1			45.2		105.7	
Int 13	Boylston St & Hereford St																				
Int 14	Boylston St & Gloucester St		18.8			8.3		19.5			9.8		19.4			9.8		19.4			9.8
Int 15	Mass Ave & Belvidere St			62.6	17.4	19.1			61.6	18.3	20.1			60.8	18.6	20.3			60.8	18.6	20.3
Int 16	Dalton St & Scotia St		14.4		0	0		15.5		0	0		18.1		0	0		16.5		0	0
Int 17	Belvidere St & Dalton St			0		25			0		29.3			0		33.8			0		33.8
Int 18	St Stephen St/Falmouth St & Mass Ave & Westland St		36.9	44.5	33.5	3		37	42.6	67.9	4.9		36.8	42.4	43.2	3		36.8	42.4	43.2	3
Int 19	Huntington Ave & Mass Ave	x		39	16	119.3			49.1	17.8	163.3			49.1	17.8	165.9			49.1	17.8	165.9
Int 20	Huntington Ave & Mass Ave	x	20.3		20	1.2		21.9		21.5	1.4		22.3		21.6	1.4		22.3		21.6	1.4
Int 21	Huntington Ave & Cumberland St	x	3.3	1.3	2.1			3.3	1.5	2.4			3.4	1.5	2.5			3.4	1.5	2.5	
Int 22	Huntington Ave & W Newton St/Belvidere St	x	35.9		50	38.6		34.9		53.7	40.4		35.1		56	40.4		35.1		56	40.4
Int 23	Scotia St & Site Driveway												1.6			10.5		1.6			9.5

1000 Boylston

Weekday Average Daily Traffic (ADT) for Mesoscale Roadway Network

	Roadway Segments	Speed Limit (mph)	2017 Existing Volume (ADT)	2024 No-Build Volume (ADT)	2024 Build Volume (ADT)	2024 Build-Mit Volume (ADT)	K Factor	S.A.F.	Unadjusted PM Peak Hour 2017 Existing	2024 No-Build	2024 Build	2024 Build-Mit
							7.0%	1.00				
1	Mass Ave (Columbus/Huntington)	25	27,684	29,525	29,554	29,554			1,940	2,069	2,071	2,071
2	Mass Ave (Huntington/St Stephen)	25	25,972	26,528	27,584	27,584			1,820	1,859	1,933	1,933
3	Mass Ave (Stephen/Belvidere)	25	17,909	18,794	18,879	18,879			1,255	1,317	1,323	1,323
4	Mass Ave (Belvidere/Boylston)	25	18,337	19,293	19,336	19,336			1,285	1,352	1,355	1,355
5	Mass Ave (Boylston/Newbury)	25	22,261	23,289	23,503	23,503			1,560	1,632	1,647	1,647
6	Mass Ave (Newbury/Commonwealth EB)	25	20,906	21,933	22,019	22,019			1,465	1,537	1,543	1,543
7	Mass Ave (Commonwealth WB/Marlborough)	25	21,833	22,390	22,575	22,575			1,530	1,569	1,582	1,582
8	Mass Ave (Marlborough/Beacon)	25	23,974	24,944	25,016	25,016			1,680	1,748	1,753	1,753
9	Mass Ave (Beacon/Back)	25	27,470	28,498	28,569	28,569			1,925	1,997	2,002	2,002
10	Huntington Ave (Gainsborough/Mass Ave)	25	4,566	5,408	4,966	4,966			320	379	348	348
11	Huntington Ave (Mass Ave/Cumberland)	25	11,273	13,385	13,428	13,428			790	938	941	941
12	Huntington Ave (Cumberland/West Newton)	25	16,625	18,922	19,022	19,022			1,165	1,326	1,333	1,333
13	Huntington Ave (West Newton/ Dartmouth)	25	23,118	25,558	25,701	25,701			1,620	1,791	1,801	1,801
14	St Stephen St (Symphony Rd/Mass Ave)	20	785	799	799	799			55	56	56	56
15	Falmouth St (Mass Ave/ End)	20	785	785	785	785			55	55	55	55
16	Belvidere St (Mass Ave/Dalton St)	20	1,712	1,755	2,112	2,112			120	123	148	148
17	Belvidere St (Dalton St/Huntington)	20	11,844	13,443	13,842	13,842			830	942	970	970
18	Haviland St (Mass Ave/ Hemenway St)	20	1,498	1,541	1,541	1,541			105	108	108	108
19	Boylston St (Hemenway St/ Mass Ave)	25	10,132	11,288	11,545	11,545			710	791	809	809
20	Boylston St (Mass Ave/ Dalton St)	25	13,771	15,569	16,083	15,840			965	1,091	1,127	1,110
21	Boylston St (Dalton St/ Hereford St)	25	12,058	12,957	13,043	13,043			845	908	914	914
22	Boylston St (Hereford St/ Gloucester)	25	8,063	8,676	8,676	8,676			565	608	608	608
23	Boylston St (Gloucester/Fairfield)	25	13,271	14,085	14,085	14,085			930	987	987	987
24	Newbury St (Mass Ave/ Charlesgate)	25	1,641	1,698	1,698	1,698			115	119	119	119
25	Newbury St (Mass Ave/ Hereford St)	25	4,566	4,738	4,738	4,738			320	332	332	332
26	Newbury St (Hereford St/ Gloucester)	25	4,210	4,281	4,281	4,281			295	300	300	300
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	6,350	6,507	6,507	6,507			445	456	456	456
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	2,854	2,897	2,897	2,897			200	203	203	203
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	12,700	12,943	12,957	12,957			890	907	908	908
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	11,059	11,302	11,288	11,288			775	792	791	791
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	785	799	870	870			55	56	61	61
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	9,561	9,789	9,875	9,875			670	686	692	692
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	8,705	8,919	8,933	8,933			610	625	626	626
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	9,704	9,932	9,946	9,946			680	696	697	697
35	Marborough St (Charlesgate/ Mass Ave)	25	2,212	2,255	2,255	2,255			155	158	158	158
36	Marlborouch St (Mass Ave/ Hereford St)	25	1,998	2,026	2,026	2,026			140	142	142	142
37	Beacon St (Charlesgate/ Mass Ave)	25	10,560	10,745	10,745	10,745			740	753	753	753
38	Beacon St (Mass Ave/ Hereford)	25	7,064	7,192	7,192	7,192			495	504	504	504
39	Hereford St (Marlborough/ Commonwealth WB)	25	2,212	2,369	2,369	2,369			155	166	166	166
40	Hereford St (Commonwealth EB/ Newbury St)	25	3,639	3,824	3,910	3,910			255	268	274	274
41	Hereford St (Newbury St/ Boylston)	25	3,996	4,281	4,367	4,367			280	300	306	306
42	Dalton St (Boylston/ Scotia St)	20	7,706	8,933	9,261	9,019			540	626	649	632
43	Dalton St (Scotia St/ Belvidere)	20	9,846	11,116	11,288	11,288			690	779	791	791
44	Scotia St (Dalton St/ Site Driveway)	20	2,355	2,397	2,968	2,726			165	168	208	191
45	Gloucester St (Marlborough/ Commonwealth WB)	25	1,998	2,155	2,155	2,155			140	151	151	151
46	Gloucester St (Commonwealth EB/ Newbury St)	25	4,638	4,838	4,838	4,838			325	339	339	339
47	Gloucester St (Newbury St/ Boylston)	25	5,209	5,408	5,408	5,408			365	379	379	379
48	Westland Ave (Hemenway St/ Mass Ave)	25	10,489	10,660	10,660	10,660			735	747	747	747
49	Cumberland St (Huntington Ave/ St Botolph St)	25	1,498	1,527	1,527	1,527			105	107	107	107
50	W. Newton St (Huntington Ave/ St Botolph St)	25	9,204	9,504	9,704	9,704			645	666	680	680
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	25	20,406	21,391	21,477	21,477			1,430	1,499	1,505	1,505
52	Hereford St (Commonwealth EB/ Commonwealth WB)	25	3,068	3,239	3,311	3,311			215	227	232	232
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	25	2,997	3,168	3,168	3,168			210	222	222	222
54	I90 Ramp	35	7,563	7,934	8,063	8,063			530	556	565	565
55	Scotia St (Site Driveway/ St Cecilla St)	20	2,355	2,397	3,068	3,311			165	168	215	232
56	Site Driveway	20	0	0	1,099	499			0	0	77	35

1000 Boylston

Weekday ATR Volumes

Huntington Ave					Mass Ave					Weekday Average				
			Peak Period Data					Peak Period Data					Peak Period Data	
Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume	Begin Time	Volume	V/C Ratio	Hours	Volume
12:00 AM	220	0.07	0	0	12:00 AM	379	0.12	0	0	12:00 AM	300	0.10	0	0
1:00 AM	156	0.05	0	0	1:00 AM	279	0.09	0	0	1:00 AM	218	0.07	0	0
2:00 AM	119	0.04	0	0	2:00 AM	145	0.05	0	0	2:00 AM	132	0.04	0	0
3:00 AM	58	0.02	0	0	3:00 AM	93	0.03	0	0	3:00 AM	76	0.02	0	0
4:00 AM	99	0.03	0	0	4:00 AM	122	0.04	0	0	4:00 AM	111	0.04	0	0
5:00 AM	266	0.08	0	0	5:00 AM	381	0.12	0	0	5:00 AM	324	0.10	0	0
6:00 AM	707	0.23	0	0	6:00 AM	874	0.28	0	0	6:00 AM	791	0.25	0	0
7:00 AM	1,127	0.36	1	1,127	7:00 AM	1,256	0.40	1	1,256	7:00 AM	1,192	0.38	1	1,192
8:00 AM	1,316	0.42	1	1,316	8:00 AM	1,444	0.46	1	1,444	8:00 AM	1,380	0.44	1	1,380
9:00 AM	1,279	0.41	1	1,279	9:00 AM	1,288	0.41	1	1,288	9:00 AM	1,284	0.41	1	1,284
10:00 AM	1,055	0.34	0	0	10:00 AM	1,112	0.35	0	0	10:00 AM	1,084	0.35	0	0
11:00 AM	1,035	0.33	0	0	11:00 AM	1,175	0.37	0	0	11:00 AM	1,105	0.35	0	0
12:00 PM	1,028	0.33	0	0	12:00 PM	1,147	0.37	0	0	12:00 PM	1,088	0.35	0	0
1:00 PM	1,057	0.34	0	0	1:00 PM	1,230	0.39	1	1,230	1:00 PM	1,144	0.36	1	1,144
2:00 PM	1,057	0.34	0	0	2:00 PM	1,299	0.41	1	1,299	2:00 PM	1,178	0.38	1	1,178
3:00 PM	1,118	0.36	1	1,118	3:00 PM	1,353	0.43	1	1,353	3:00 PM	1,236	0.39	1	1,236
4:00 PM	1,224	0.39	1	1,224	4:00 PM	1,372	0.44	1	1,372	4:00 PM	1,298	0.41	1	1,298
5:00 PM	1,375	0.44	1	1,375	5:00 PM	1,523	0.49	1	1,523	5:00 PM	1,449	0.46	1	1,449
6:00 PM	1,173	0.37	1	1,173	6:00 PM	1,295	0.41	1	1,295	6:00 PM	1,234	0.39	1	1,234
7:00 PM	923	0.29	0	0	7:00 PM	1,161	0.37	0	0	7:00 PM	1,042	0.33	0	0
8:00 PM	749	0.24	0	0	8:00 PM	1,021	0.33	0	0	8:00 PM	885	0.28	0	0
9:00 PM	680	0.22	0	0	9:00 PM	1,046	0.33	0	0	9:00 PM	863	0.27	0	0
10:00 PM	604	0.19	0	0	10:00 PM	943	0.30	0	0	10:00 PM	774	0.25	0	0
11:00 PM	327	0.10	0	0	11:00 PM	665	0.21	0	0	11:00 PM	496	0.16	0	0
Total	**18,752**		**7**	**8,612**	**Total**	**22,603**		**9**	**12,060**	**Total**	**20,678**		**9**	**11,393**

Roadway Capacity	Crit. V/C	Critical Capacity	Roadway Capacity	Crit. V/C	Critical Capacity	Roadway Capacity	Crit. V/C	Critical Capacity
3,140	34%	1,068	3,140	38%	1,193	3140	36%	1,130
Peak Hour (K) Factor	**0.073**		**Peak Hour (K) Factor**	**0.067**		**Peak Hour (K) Factor**	**0.070**	
Peak Period Volume Factor	**0.459**		**Peak Period Volume Factor**	**0.534**		**Peak Period Volume Factor**	**0.551**	

1000 Boylston

Emissions Factors By Link (g/mi)

Emission Factors From MOVES2014a

	Roadway Segments	2017 Existing			2024 No Build			2024 Build			2024 Build-Mit		
		NO_x	VOC	CO_2	NO_x	VOC	CO_2	NO_x	VOC	CO_2	NO_x	VOC	CO_2
1	Mass Ave (Columbus/Huntington)	0.28	0.42	490.80	0.12	0.30	404.81	0.12	0.30	404.81	0.12	0.30	404.81
2	Mass Ave (Huntington/St Stephen)	0.28	1.33	490.08	0.12	0.96	404.21	0.12	0.96	404.21	0.12	0.96	404.21
3	Mass Ave (Stephen/Belvidere)	0.28	0.41	490.56	0.12	0.29	404.61	0.12	0.29	404.61	0.12	0.29	404.61
4	Mass Ave (Belvidere/Boylston)	0.38	1.59	590.31	0.18	1.15	487.67	0.18	1.15	487.67	0.18	1.15	487.67
5	Mass Ave (Boylston/Newbury)	0.28	1.33	490.08	0.12	0.96	404.21	0.12	0.96	404.21	0.12	0.96	404.21
6	Mass Ave (Newbury/Commonwealth EB)	0.36	1.16	569.52	0.17	0.84	470.36	0.17	0.84	470.36	0.17	0.84	470.36
7	Mass Ave (Commonwealth WB/Marlborough)	0.32	1.16	534.67	0.15	0.83	441.34	0.15	0.83	441.34	0.15	0.83	441.34
8	Mass Ave (Marlborough/Beacon)	0.26	1.32	477.04	0.12	0.96	393.38	0.12	0.96	393.38	0.12	0.96	393.38
9	Mass Ave (Beacon/Back)	0.28	1.95	496.06	0.12	1.41	409.18	0.12	1.41	409.18	0.12	1.41	409.18
10	Huntington Ave (Gainsborough/Mass Ave)	0.35	0.72	557.19	0.16	0.51	460.13	0.16	0.51	460.13	0.16	0.51	460.13
11	Huntington Ave (Mass Ave/Cumberland)	0.33	0.59	536.47	0.15	0.42	442.84	0.15	0.42	442.84	0.15	0.42	442.84
12	Huntington Ave (Cumberland/West Newton)	0.27	0.83	484.93	0.12	0.59	399.93	0.12	0.59	399.93	0.12	0.59	399.93
13	Huntington Ave (West Newton/ Dartmouth)	0.27	0.30	488.27	0.12	0.20	402.71	0.12	0.20	402.71	0.12	0.20	402.71
14	St Stephen St (Symphony Rd/Mass Ave)	0.31	1.16	556.92	0.13	0.84	459.40	0.13	0.84	459.40	0.13	0.84	459.40
15	Falmouth St (Mass Ave/ End)	0.29	1.96	536.20	0.13	1.42	442.13	0.13	1.42	442.13	0.13	1.42	442.13
16	Belvidere St (Mass Ave/Dalton St)	0.31	0.56	563.84	0.14	0.40	465.18	0.14	0.40	465.18	0.14	0.40	465.18
17	Belvidere St (Dalton St/Huntington)	0.29	0.59	540.53	0.13	0.42	445.75	0.13	0.42	445.75	0.13	0.42	445.75
18	Haviland St (Mass Ave/ Hemenway St)	0.31	0.84	558.37	0.14	0.60	460.60	0.14	0.60	460.60	0.14	0.60	460.60
19	Boylston St (Hemenway St/ Mass Ave)	0.30	1.02	515.87	0.14	0.73	425.66	0.14	0.73	425.66	0.14	0.73	425.66
20	Boylston St (Mass Ave/ Dalton St)	0.27	0.83	484.93	0.12	0.59	399.93	0.12	0.59	399.93	0.12	0.59	399.93
21	Boylston St (Dalton St/ Hereford St)	0.35	3.82	557.20	0.16	2.79	460.13	0.16	2.79	460.13	0.16	2.79	460.13
22	Boylston St (Hereford St/ Gloucester)	0.32	0.84	534.14	0.15	0.60	440.89	0.15	0.60	440.89	0.15	0.60	440.89
23	Boylston St (Gloucester/Fairfield)	0.30	0.76	512.07	0.13	0.55	422.47	0.13	0.55	422.47	0.13	0.55	422.47
24	Newbury St (Mass Ave/ Charlesgate)	0.22	0.51	432.45	0.10	0.36	356.28	0.10	0.36	356.28	0.10	0.36	356.28
25	Newbury St (Mass Ave/ Hereford St)	0.32	0.62	534.67	0.15	0.44	441.34	0.15	0.44	441.34	0.15	0.44	441.34
26	Newbury St (Hereford St/ Gloucester)	0.28	1.02	496.06	0.12	0.73	409.17	0.12	0.73	409.17	0.12	0.73	409.17
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	0.30	0.55	511.30	0.13	0.39	421.81	0.13	0.39	421.81	0.13	0.39	421.81
28	Commonwealth Ave EB (Mass Ave/Hereford)	0.31	0.66	519.65	0.14	0.47	428.79	0.14	0.47	428.79	0.14	0.47	428.79
29	Commonwealth Ave EB (Hereford/Gloucester St)	0.26	1.01	477.04	0.12	0.73	393.38	0.12	0.73	393.38	0.12	0.73	393.38
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	0.27	0.76	484.11	0.12	0.54	399.26	0.12	0.54	399.26	0.12	0.54	399.26
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	0.30	0.55	511.30	0.13	0.39	421.81	0.13	0.39	421.81	0.13	0.39	421.81
32	Commonwealth Ave WB (Mass Ave/Hereford)	0.31	0.66	519.65	0.14	0.47	428.79	0.14	0.47	428.79	0.14	0.47	428.79
33	Commonwealth Ave WB (Hereford/Gloucester St)	0.26	1.01	477.04	0.12	0.73	393.38	0.12	0.73	393.38	0.12	0.73	393.38
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	0.27	0.76	484.11	0.12	0.54	399.26	0.12	0.54	399.26	0.12	0.54	399.26
35	Marborough St (Charlesgate/ Mass Ave)	0.28	0.66	489.31	0.12	0.47	403.57	0.12	0.47	403.57	0.12	0.47	403.57
36	Marlborouch St (Mass Ave/ Hereford St)	0.26	0.61	471.16	0.11	0.44	388.51	0.11	0.44	388.51	0.11	0.44	388.51
37	Beacon St (Charlesgate/ Mass Ave)	0.27	0.70	483.34	0.12	0.50	398.62	0.12	0.50	398.62	0.12	0.50	398.62
38	Beacon St (Mass Ave/ Hereford)	0.27	0.65	483.02	0.12	0.47	398.35	0.12	0.47	398.35	0.12	0.47	398.35
39	Hereford St (Marlborough/ Commonwealth WB)	0.26	1.32	477.04	0.12	0.96	393.38	0.12	0.96	393.38	0.12	0.96	393.38
40	Hereford St (Commonwealth EB/ Newbury St)	0.22	2.56	435.09	0.10	1.86	358.46	0.10	1.86	358.46	0.10	1.86	358.46
41	Hereford St (Newbury St/ Boylston)	0.17	1.31	377.10	0.07	0.95	310.36	0.07	0.95	310.36	0.07	0.95	310.36
42	Dalton St (Boylston/ Scotia St)	0.34	1.04	592.43	0.15	0.74	488.94	0.15	0.74	488.94	0.15	0.74	488.94
43	Dalton St (Scotia St/ Belvidere)	0.43	1.98	675.47	0.19	1.43	557.91	0.19	1.43	557.91	0.19	1.43	557.91
44	Scotia St (Dalton St/ Site Driveway)	0.31	1.16	556.92	0.13	0.84	459.40	0.13	0.84	459.40	0.13	0.84	459.40
45	Gloucester St (Marlborough/ Commonwealth WB)	0.26	1.32	477.04	0.12	0.96	393.38	0.12	0.96	393.38	0.12	0.96	393.38
46	Gloucester St (Commonwealth EB/ Newbury St)	0.26	1.15	477.04	0.12	0.83	393.38	0.12	0.83	393.38	0.12	0.83	393.38
47	Gloucester St (Newbury St/ Boylston)	0.35	1.34	557.20	0.16	0.97	460.13	0.16	0.97	460.13	0.16	0.97	460.13
48	Westland Ave (Hemenway St/ Mass Ave)	0.27	0.42	480.56	0.12	0.30	396.31	0.12	0.30	396.31	0.12	0.30	396.31
49	Cumberland St (Huntington Ave/ St Botolph St)	0.28	1.33	490.08	0.12	0.96	404.21	0.12	0.96	404.21	0.12	0.96	404.21
50	W. Newton St (Huntington Ave/ St Botolph St)	0.30	1.33	515.87	0.14	0.96	425.66	0.14	0.96	425.66	0.14	0.96	425.66
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	0.32	2.58	530.03	0.14	1.87	437.46	0.14	1.87	437.46	0.14	1.87	437.46
52	Hereford St (Commonwealth EB/ Commonwealth WB)	0.29	2.57	502.06	0.13	1.87	414.15	0.13	1.87	414.15	0.13	1.87	414.15
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	0.29	2.57	502.06	0.13	1.87	414.15	0.13	1.87	414.15	0.13	1.87	414.15
54	I90 Ramp	0.14	0.88	300.75	0.06	0.64	247.78	0.06	0.64	247.78	0.06	0.64	247.78
55	Scotia St (Site Driveway/ St Cecilla St)	0.31	1.16	556.92	0.13	0.84	459.40	0.13	0.84	459.40	0.13	0.84	459.40
56	Site Driveway	0.31	1.16	556.92	0.13	0.84	459.40	0.13	0.84	459.40	0.13	0.84	459.40
57	0	1.92	1.11	4078.17	0.66	0.73	3,345.51	0.66	0.73	3,345.51	0.66	0.73	3,345.51

1000 Boylston

Mesoscale Roadway Data

Link No.	Description	Speed Limit (mph)	Link Length (miles)	Grade (%)	Directions
1	Mass Ave (Columbus/Huntington)	25	0.22	0.3	2
2	Mass Ave (Huntington/St Stephen)	25	0.06	0.3	2
3	Mass Ave (Stephen/Belvidere)	25	0.23	0.3	2
4	Mass Ave (Belvidere/Boylston)	25	0.05	2.7	2
5	Mass Ave (Boylston/Newbury)	25	0.06	0.3	2
6	Mass Ave (Newbury/Commonwealth EB)	25	0.07	2.2	2
7	Mass Ave (Commonwealth WB/Marlborough)	25	0.07	1.4	2
8	Mass Ave (Marlborough/Beacon)	25	0.06	0.0	2
9	Mass Ave (Beacon/Back)	25	0.04	0.5	2
10	Huntington Ave (Gainsborough/Mass Ave)	25	0.12	1.9	2
11	Huntington Ave (Mass Ave/Cumberland)	25	0.15	1.4	2
12	Huntington Ave (Cumberland/West Newton)	25	0.10	0.2	2
13	Huntington Ave (West Newton/ Dartmouth)	25	0.35	0.3	2
14	St Stephen St (Symphony Rd/Mass Ave)	20	0.07	0.5	1
15	Falmouth St (Mass Ave/ End)	20	0.04	0.0	1
16	Belvidere St (Mass Ave/Dalton St)	20	0.16	0.7	1
17	Belvidere St (Dalton St/Huntington)	20	0.15	0.1	2
18	Haviland St (Mass Ave/ Hemenway St)	20	0.10	0.6	1
19	Boylston St (Hemenway St/ Mass Ave)	25	0.08	0.9	2
20	Boylston St (Mass Ave/ Dalton St)	25	0.10	0.2	2
21	Boylston St (Dalton St/ Hereford St)	25	0.02	1.9	2
22	Boylston St (Hereford St/ Gloucester)	25	0.10	1.3	1
23	Boylston St (Gloucester/Fairfield)	25	0.11	0.9	1
24	Newbury St (Mass Ave/ Charlesgate)	25	0.17	-1.3	1
25	Newbury St (Mass Ave/ Hereford St)	25	0.14	1.4	1
26	Newbury St (Hereford St/ Gloucester)	25	0.08	0.5	1
27	Commonwealth Ave EB (Charlesgate/ Mass Ave)	25	0.16	0.8	1
28	Commonwealth Ave EB (Mass Ave/Hereford)	25	0.13	1.0	1
29	Commonwealth Ave EB (Hereford/Gloucester St)	25	0.08	0.0	1
30	Commonwealth Ave EB (Gloucester St/ Fairfield St)	25	0.11	0.2	1
31	Commonwealth Ave WB (Charlesgate/ Mass Ave)	25	0.16	0.8	1
32	Commonwealth Ave WB (Mass Ave/Hereford)	25	0.13	1.0	1
33	Commonwealth Ave WB (Hereford/Gloucester St)	25	0.08	0.0	1
34	Commonwealth Ave WB (Gloucester St/ Fairfield St)	25	0.11	0.2	1
35	Marborough St (Charlesgate/ Mass Ave)	25	0.13	0.3	1
36	Marlborouch St (Mass Ave/ Hereford St)	25	0.14	-0.1	1
37	Beacon St (Charlesgate/ Mass Ave)	25	0.12	0.2	2
38	Beacon St (Mass Ave/ Hereford)	25	0.13	0.1	2
39	Hereford St (Marlborough/ Commonwealth WB)	25	0.06	0.0	1
40	Hereford St (Commonwealth EB/ Newbury St)	25	0.03	-1.3	1
41	Hereford St (Newbury St/ Boylston)	25	0.06	-3.2	1
42	Dalton St (Boylston/ Scotia St)	20	0.08	1.4	2
43	Dalton St (Scotia St/ Belvidere)	20	0.04	3.3	2
44	Scotia St (Dalton St/ Site Driveway)	20	0.05	0.8	1
45	Gloucester St (Marlborough/ Commonwealth WB)	25	0.06	0.0	1
46	Gloucester St (Commonwealth EB/ Newbury St)	25	0.07	0.0	1
47	Gloucester St (Newbury St/ Boylston)	25	0.06	1.9	1
48	Westland Ave (Hemenway St/ Mass Ave)	25	0.22	0.1	2
49	Cumberland St (Huntington Ave/ St Botolph St)	25	0.06	0.3	2
50	W. Newton St (Huntington Ave/ St Botolph St)	25	0.06	0.9	2
51	Mass Ave (Commonwealth EB/ Commonwealth WB)	25	0.03	1.3	2
52	Hereford St (Commonwealth EB/ Commonwealth WB)	25	0.03	0.6	1
53	Gloucester St (Commonwealth EB/ Commonwealth WB)	25	0.03	0.6	1
54	I90 Ramp	35	0.09	-2.9	1
55	Scotia St (Site Driveway/ St Cecilla St)	20	0.01	0.0	1
56	Site Driveway	20	0.02	0.0	2

Project Data

TRAFFIC DATA

Project Name	1000 Boylston
Existing Year	2017
No-Build Year	2024
Build Year	2024
Build with Mitigation Year	2024
Seasonal Adjustment Factor	1.00
K-Factor	7.0%

Idle Emission Factors

Year	NOx (g/hr)	VOC (g/hr)	CO2 (g/hr)
2017	1.92	1.11	4,078.17
2024	0.66	0.73	3,345.51

Garage Ventilation Analysis Supporting Documentation

MOVES Emission Factor Output

MOVESRunID	iterationID	yearID	monthID	dayID	hourID	stateID	countyID	zoneID	linkID	pollutantID	processID	emissionQuant
1	1	2024	1	5	9	25	25025	250250	1	2	15	0.0013
1	1	2024	1	5	9	25	25025	250250	1	2	1	2.4812
1	1	2024	1	5	9	25	25025	250250	2	2	15	0.0017
1	1	2024	1	5	9	25	25025	250250	2	2	1	3.2261
1	1	2024	1	5	9	25	25025	250250	3	2	16	0.0120
1	1	2024	1	5	9	25	25025	250250	3	2	2	23.0498

Link	Description	Emissions	Unit
1	5 mph	2.5	g/mi
2	Idle	3.2	g/hr
3	Start	23.1	g/start

Garage Emission Rates Calculation Worksheet

From MOVES Output

Link	Description	Emissions	Unit
1	5 mph	2.5	g/mi
2	Idle	3.2	g/hr
3	Start	23.1	g/start

Vehicle Out Emission Rates per Vehicle

	Rate	Unit	Quantity	Unit	Total Emissions
Start Emissions	23.1	g/start	1	Start	23.06
Idle Emissions	0.05	g/mins	2	Mins	0.11
Travel to Elevator Emissions	2.5	g/mi	0.06	Miles	0.15
Elevator Idle Emissions	0.05	g/mins	2	Mins	0.11
			Emissions per vehicle out		23.43 g/veh

Vehicle In Emission Rates per Vehicle

	Rate	Unit	Quantity	Unit	Total Emissions
Elevator Idle Emissions	0.05	g/mins	2	Mins	0.11
Travel to Elevator Emissions	2.5	g/mi	0.06	Miles	0.15
Parking Idle Emissions	0.05	g/mins	1	Mins	0.05
			Emissions per vehicle in		0.31 g/veh

AM Peak Emissions

	Vehicles	Emissions	Unit
In	10	3.1	g/hr
Out	13	304.6	g/hr
Total	**23**	**307.7**	**g/hr**

PM Peak Emissions

	Vehicles	Emissions	Unit	
In	42	13.1	g/hr	
Out	35	819.9	g/hr	
Total	**77**	**833.0**	**g/hr**	<-Use PM Peak Emission Rate
	Per Exhaust	**416.5**	**g/hr**	
		0.11570	**g/s**	

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** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  2011 1000 Boylston Garage
CO TITLETWO  CO
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  1  8
CO URBANOPT  4766755  BOSTONMSA  1
CO POLLUTID  CO
CO FLAGPOLE  0
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  PZA36001  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl3 Vent
SO LOCATION  PZA36002  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl4 Vent
SO SRCPARAM  PZA36001  0.11570  24.10358  18.98904  2.19456
SO SRCPARAM  PZA36002  0.11570  29.81858  18.98904  3.10896
SO URBANSRC  PZA36001  PZA36002
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDPOLR G02A2005 STA
RE GRIDPOLR G02A2005 ORIG  328207.0  4690452.3
RE GRIDPOLR  G02A2005 DIST  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100
RE GRIDPOLR  G02A2005 DIST  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
RE GRIDPOLR G02A2005 GDIR  36  0  10.0
RE GRIDPOLR G02A2005 ELEV  1  0.6  0.9  1.1  1.4  1.3  1.4  2.7  3.9  5.2  6.4  7.2  7.0  6.8  5.1  4.4
RE GRIDPOLR G02A2005 ELEV  1  3.4  3.5  3.6  3.6  3.6  3.8  4.1  4.2  3.9  3.7  3.5  3.6  3.5  3.3  3.1
RE GRIDPOLR G02A2005 ELEV  1  2.2  2.7  3.1  3.3  3.0
RE GRIDPOLR G02A2005 ELEV  2  0.7  0.8  1.0  1.4  1.3  1.3  2.5  3.7  4.9  6.2  7.3  7.1  6.9  6.3  5.0
RE GRIDPOLR G02A2005 ELEV  2  4.5  4.9  5.0  4.7  4.8  4.6  4.4  4.1  3.7  3.8  3.5  3.5  2.3  1.9  1.8
RE GRIDPOLR G02A2005 ELEV  2  2.1  2.1  2.1  2.5  3.2
RE GRIDPOLR G02A2005 ELEV  3  0.6  0.9  1.0  1.4  1.3  1.2  2.3  3.5  4.8  6.1  7.3  7.2  7.0  6.8  6.7
RE GRIDPOLR G02A2005 ELEV  3  6.3  6.0  5.8  5.6  5.3  4.9  3.6  2.9  1.5  1.8  2.1  3.4  3.3  3.3  3.6
RE GRIDPOLR G02A2005 ELEV  3  2.8  2.1  1.8  1.6  1.9
RE GRIDPOLR G02A2005 ELEV  4  0.6  0.9  1.0  1.3  1.3  2.2  3.2  4.2  5.3  6.5  7.7  7.5  7.3  7.0  6.9
RE GRIDPOLR G02A2005 ELEV  4  6.7  6.5  6.4  6.4  6.0  3.9  2.3  1.9  1.8  1.8  1.8  1.9  2.0  3.4  3.0
RE GRIDPOLR G02A2005 ELEV  4  3.1  3.0  3.1  3.0  3.1
RE GRIDPOLR G02A2005 ELEV  5  0.7  0.9  0.9  1.2  1.7  2.5  3.4  4.2  5.0  5.9  6.7  7.5  7.5  7.2  7.0
RE GRIDPOLR G02A2005 ELEV  5  6.7  6.6  6.5  6.5  6.3  6.1  5.6  4.2  2.8  2.9  3.0  2.5  2.1  2.3  2.3
RE GRIDPOLR G02A2005 ELEV  5  3.2  3.2  3.2  3.5  3.6
RE GRIDPOLR G02A2005 ELEV  6  0.7  0.8  0.9  1.0  1.8  2.6  3.6  4.6  5.7  6.7  7.8  8.4  8.1  7.7  7.4
RE GRIDPOLR G02A2005 ELEV  6  7.1  6.9  6.6  6.5  6.3  5.9  5.7  5.6  5.5  5.3  5.4  5.1  4.6  4.3  4.3
RE GRIDPOLR G02A2005 ELEV  6  4.2  3.4  2.1  2.3  2.5
RE GRIDPOLR G02A2005 ELEV  7  1.1  0.8  0.9  1.0  2.1  3.3  4.5  5.6  6.8  8.0  8.2  7.8  7.5  7.2  7.1
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RE GRIDPOLR G02A2005 ELEV 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 ELEV 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 ELEV 8 1.7 0.9 0.7 1.2 2.6 3.8 5.1 6.4 7.7 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 ELEV 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 6.9 6.2
RE GRIDPOLR G02A2005 ELEV 8 5.2 5.1 5.1 5.1 5.1
RE GRIDPOLR G02A2005 ELEV 9 2.3 1.4 0.8 1.6 2.8 4.2 5.5 6.8 8.1 7.9 7.7 7.4 7.4 7.1 6.8
RE GRIDPOLR G02A2005 ELEV 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 ELEV 9 9.1 9.3 9.5 9.5 9.5
RE GRIDPOLR G02A2005 ELEV 10 2.5 2.3 2.0 1.8 3.1 4.3 5.6 7.0 8.1 7.9 7.6 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 ELEV 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 ELEV 11 2.5 2.2 1.9 1.7 3.2 4.6 5.5 6.8 8.0 8.0 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 ELEV 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 ELEV 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 12 2.5 2.2 1.8 1.7 2.2 5.3 7.3 8.0 7.8 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 8.8 9.0
RE GRIDPOLR G02A2005 ELEV 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 13 2.5 2.1 1.8 1.6 1.7 7.3 7.8 7.8 7.6 7.4 7.3 7.6 7.3 7.0 6.7
RE GRIDPOLR G02A2005 ELEV 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 ELEV 13 7.9 8.3 8.9 8.9 8.0
RE GRIDPOLR G02A2005 ELEV 14 2.5 2.1 1.8 2.2 3.5 4.8 6.1 7.4 7.4 7.3 7.0 6.7 6.5 6.2 6.1
RE GRIDPOLR G02A2005 ELEV 14 5.9 5.7 5.4 5.2 5.0 3.9 3.8 4.1 4.3 4.3 4.6 4.8 5.1 5.3 5.3
RE GRIDPOLR G02A2005 ELEV 14 5.1 5.1 4.1 2.3 3.3
RE GRIDPOLR G02A2005 ELEV 15 2.5 2.1 2.1 2.9 3.8 4.8 5.7 6.7 6.6 6.6 6.6 6.3 6.1 6.0 5.7
RE GRIDPOLR G02A2005 ELEV 15 5.4 5.0 4.8 4.5 4.2 3.9 3.8 3.8 3.9 3.9 4.0 3.8 3.4 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 15 3.1 3.3 3.3 3.2 2.1
RE GRIDPOLR G02A2005 ELEV 16 2.5 2.1 2.4 2.4 3.2 4.0 4.8 5.6 5.8 5.7 5.6 5.5 5.3 5.2 5.1
RE GRIDPOLR G02A2005 ELEV 16 5.0 4.9 4.7 4.5 4.3 3.8 3.6 3.5 3.2 3.1 3.1 3.0 3.2 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 16 3.1 3.1 3.1 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 17 2.5 2.3 2.4 2.5 2.6 3.1 3.8 4.4 5.0 4.8 4.5 4.3 4.2 4.3 4.6
RE GRIDPOLR G02A2005 ELEV 17 4.7 4.7 4.5 4.3 4.1 3.8 3.4 3.5 3.0 2.9 2.9 2.7 2.0 2.0 3.0
RE GRIDPOLR G02A2005 ELEV 17 3.0 3.3 2.2 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 18 2.5 2.4 2.6 2.7 2.7 2.8 2.9 3.1 3.6 4.0 3.7 3.5 3.7 3.8 3.8
RE GRIDPOLR G02A2005 ELEV 18 3.9 3.9 3.9 3.9 3.8 3.9 3.4 3.0 3.1 2.8 1.8 1.3 2.6 3.1 3.5
RE GRIDPOLR G02A2005 ELEV 18 2.5 1.6 2.3 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 19 2.6 2.5 2.8 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.2 3.3 3.4 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 19 3.5 3.5 3.4 3.4 3.3 3.2 3.2 3.1 2.8 2.0 1.5 3.0 3.2 3.3 2.4
RE GRIDPOLR G02A2005 ELEV 19 1.7 2.6 3.0 3.2 3.4
RE GRIDPOLR G02A2005 ELEV 20 2.6 2.6 2.9 2.9 3.0 3.1 3.1 3.2 3.3 3.4 3.2 3.3 3.3 3.2 3.0
RE GRIDPOLR G02A2005 ELEV 20 2.9 3.0 2.9 2.8 2.8 2.8 3.1 3.2 2.6 1.8 2.0 3.4 3.0 2.7 1.7
RE GRIDPOLR G02A2005 ELEV 20 2.1 3.3 3.1 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 21 2.7 2.7 2.9 3.0 3.2 3.3 3.5 3.4 3.5 3.5 3.5 3.4 3.4 3.2 2.9
RE GRIDPOLR G02A2005 ELEV 21 2.6 2.5 2.4 2.2 2.3 2.7 3.3 3.4 2.8 2.1 2.2 3.5 3.1 2.8 1.4
RE GRIDPOLR G02A2005 ELEV 21 2.3 3.2 3.2 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 22 2.8 2.7 3.1 3.3 3.5 3.6 3.6 3.7 3.7 3.6 3.6 3.6 3.7 3.7 2.8
RE GRIDPOLR G02A2005 ELEV 22 1.9 2.0 2.0 2.0 2.2 3.0 3.6 3.4 3.2 2.3 2.5 3.1 3.6 3.6 3.6
RE GRIDPOLR G02A2005 ELEV 22 3.6 3.6 3.5 3.5 3.0
RE GRIDPOLR G02A2005 ELEV 23 2.8 2.8 3.4 3.5 3.6 3.7 3.8 3.9 3.7 3.7 3.7 3.9 3.8 3.9 3.6
RE GRIDPOLR G02A2005 ELEV 23 3.2 2.9 2.9 2.9 2.9 3.7 3.7 3.6 3.9 4.1 4.2 4.3 4.0 4.2 3.9
RE GRIDPOLR G02A2005 ELEV 23 3.3 2.6 1.8 1.2 1.6
RE GRIDPOLR G02A2005 ELEV 24 2.9 2.9 3.1 3.6 3.7 3.8 3.9 4.0 4.5 4.7 4.2 4.3 4.2 4.0 4.1
RE GRIDPOLR G02A2005 ELEV 24 4.3 4.4 4.1 4.2 4.0 4.2 4.4 4.5 4.6 4.5 4.8 4.9 4.6 4.2 3.1
RE GRIDPOLR G02A2005 ELEV 24 1.9 1.2 2.0 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 25 2.9 3.1 3.1 3.4 3.9 4.4 4.0 4.3 4.8 4.4 4.4 4.5 4.6 4.7 4.3

RE GRIDPOLR G02A2005 ELEV 25 4.5 4.5 4.1 3.7 3.9 4.4 4.9 5.3 5.6 5.7 5.6 5.5 5.4 5.3 4.5
RE GRIDPOLR G02A2005 ELEV 25 3.5 2.8 4.2 3.9 3.7
RE GRIDPOLR G02A2005 ELEV 26 3.0 3.2 3.3 3.5 3.7 4.1 4.2 4.2 4.5 4.6 4.6 4.7 4.7 5.0 4.9
RE GRIDPOLR G02A2005 ELEV 26 5.0 4.4 3.6 3.2 3.4 3.9 4.1 4.4 5.5 6.2 6.2 6.0 5.4 4.5 4.0
RE GRIDPOLR G02A2005 ELEV 26 4.6 6.3 4.9 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 27 3.0 3.2 3.5 3.7 4.0 4.2 4.5 4.7 5.0 5.3 5.6 5.2 5.3 5.9 5.9
RE GRIDPOLR G02A2005 ELEV 27 6.0 2.2 2.0 1.0 1.6 1.8 3.2 4.5 5.7 6.7 6.6 6.5 6.8 6.8 6.7
RE GRIDPOLR G02A2005 ELEV 27 6.7 6.8 6.7 6.4 6.1
RE GRIDPOLR G02A2005 ELEV 28 3.0 3.3 3.6 3.9 4.2 4.5 4.7 5.1 5.3 5.7 5.9 6.2 6.4 6.6 6.8
RE GRIDPOLR G02A2005 ELEV 28 6.9 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.9 7.0 7.1 7.1 7.0 7.1 6.1
RE GRIDPOLR G02A2005 ELEV 28 6.0 5.8 5.6 5.4 5.4
RE GRIDPOLR G02A2005 ELEV 29 2.9 2.4 1.4 0.8 0.7 0.7 0.7 0.9 0.9 0.8 0.8 0.8 0.9 1.8 3.1
RE GRIDPOLR G02A2005 ELEV 29 4.3 5.3 5.2 4.9 4.6 3.7 2.6 1.7 1.7 1.6 1.6 1.5 1.6 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 29 1.7 1.7 1.8 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 30 2.3 1.1 0.8 0.8 0.9 0.7 0.8 0.8 1.2 1.3 1.5 1.5 1.5 1.5 1.1
RE GRIDPOLR G02A2005 ELEV 30 1.1 1.3 1.8 1.8 1.4 1.3 1.2 1.1 1.1 1.5 1.9 2.6 4.8 7.2 7.1
RE GRIDPOLR G02A2005 ELEV 30 7.1 6.8 6.5 6.4 6.2
RE GRIDPOLR G02A2005 ELEV 31 1.6 0.9 0.9 0.8 0.9 1.1 1.4 1.3 1.4 1.4 1.5 1.4 1.4 1.2 1.4
RE GRIDPOLR G02A2005 ELEV 31 1.3 1.3 1.2 1.2 1.1 1.9 2.0 2.4 3.3 4.4 5.3 5.9 6.3 6.4 6.5
RE GRIDPOLR G02A2005 ELEV 31 6.6 6.6 6.2 6.2 6.0
RE GRIDPOLR G02A2005 ELEV 32 0.9 0.9 0.8 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.4 1.5 1.3
RE GRIDPOLR G02A2005 ELEV 32 1.4 1.5 2.1 2.3 2.2 2.0 2.3 3.3 4.4 5.4 5.4 5.5 5.7 4.6 3.5
RE GRIDPOLR G02A2005 ELEV 32 2.3 2.2 2.6 1.9 2.9
RE GRIDPOLR G02A2005 ELEV 33 0.8 0.9 0.9 1.1 1.4 1.3 1.3 1.9 1.6 1.5 1.5 1.5 1.5 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 33 2.4 2.8 2.9 3.0 2.3 2.0 2.7 4.2 5.3 4.9 5.0 4.5 3.6 2.8 1.7
RE GRIDPOLR G02A2005 ELEV 33 1.6 2.1 3.2 4.5 4.2
RE GRIDPOLR G02A2005 ELEV 34 0.7 0.9 0.9 1.3 1.3 1.3 1.5 2.6 3.8 5.0 6.2 6.6 3.7 3.4 3.1
RE GRIDPOLR G02A2005 ELEV 34 3.0 3.0 3.0 3.2 1.8 1.9 2.1 2.2 4.6 4.4 4.8 3.4 2.2 1.7 1.8
RE GRIDPOLR G02A2005 ELEV 34 2.2 3.5 4.1 3.7 3.8
RE GRIDPOLR G02A2005 ELEV 35 0.7 0.8 1.0 1.3 1.3 1.2 2.2 3.3 4.5 5.7 6.9 7.4 5.1 2.8 2.4
RE GRIDPOLR G02A2005 ELEV 35 2.1 2.1 2.0 1.9 1.9 1.8 1.7 1.9 4.3 4.5 3.5 2.2 1.6 1.6 1.7
RE GRIDPOLR G02A2005 ELEV 35 2.3 3.3 3.5 3.4 3.6
RE GRIDPOLR G02A2005 ELEV 36 0.7 0.9 1.0 1.3 1.3 1.3 2.6 3.8 5.0 6.2 7.1 7.3 6.4 5.3 4.1
RE GRIDPOLR G02A2005 ELEV 36 2.9 2.8 2.9 2.6 2.6 2.7 2.5 3.8 4.0 4.1 1.5 1.5 1.6 2.0 1.9
RE GRIDPOLR G02A2005 ELEV 36 2.3 3.0 3.4 3.0 3.2
RE GRIDPOLR G02A2005 HILL 1 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 7.6 7.3 7.2 7.0 7.2 7.4 7.5
RE GRIDPOLR G02A2005 HILL 1 7.8 7.6 7.4 7.3 7.0 3.8 4.1 4.2 4.2 3.7 3.5 3.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 1 3.3 3.2 3.3 3.5 3.0
RE GRIDPOLR G02A2005 HILL 2 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.5 7.3 7.1 6.9 7.1 7.5
RE GRIDPOLR G02A2005 HILL 2 7.6 7.1 5.9 5.9 5.5 4.6 4.4 4.2 4.4 3.8 3.5 3.5 3.7 4.6 2.3
RE GRIDPOLR G02A2005 HILL 2 2.1 2.1 2.1 2.8 3.2
RE GRIDPOLR G02A2005 HILL 3 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.4 7.2 7.0 6.8 6.7
RE GRIDPOLR G02A2005 HILL 3 6.6 6.0 5.8 5.6 5.9 5.5 5.9 5.5 6.5 4.3 4.3 4.3 3.5 3.3 3.6
RE GRIDPOLR G02A2005 HILL 3 3.6 4.5 4.6 4.6 1.9
RE GRIDPOLR G02A2005 HILL 4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.8 7.8 7.3 7.0 6.9
RE GRIDPOLR G02A2005 HILL 4 6.7 6.5 6.4 6.4 6.4 6.7 8.4 6.7 6.5 6.3 1.8 4.0 3.8 3.7 3.7
RE GRIDPOLR G02A2005 HILL 4 3.1 4.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 5 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4
RE GRIDPOLR G02A2005 HILL 5 8.4 6.6 6.5 6.5 6.3 6.1 6.2 6.3 6.3 6.1 5.6 5.6 2.1 2.3 3.4
RE GRIDPOLR G02A2005 HILL 5 3.3 3.2 3.2 3.5 3.6
RE GRIDPOLR G02A2005 HILL 6 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.4
RE GRIDPOLR G02A2005 HILL 6 7.1 6.9 6.6 6.5 6.3 5.9 5.7 5.6 5.5 5.3 5.4 5.4 5.2 4.3 4.3
RE GRIDPOLR G02A2005 HILL 6 4.2 4.4 4.9 4.8 2.5
RE GRIDPOLR G02A2005 HILL 7 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 7.8 7.5 7.2 7.1

RE GRIDPOLR G02A2005 HILL 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 HILL 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 HILL 8 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 HILL 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 7.2 9.2
RE GRIDPOLR G02A2005 HILL 8 9.6 9.7 9.7 9.7 9.7
RE GRIDPOLR G02A2005 HILL 9 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.1 7.9 7.7 7.6 7.4 7.1 6.8
RE GRIDPOLR G02A2005 HILL 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 HILL 9 9.1 9.5 9.5 9.5 9.5
RE GRIDPOLR G02A2005 HILL 10 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 8.1 7.9 7.8 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 HILL 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 HILL 11 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 8.1 8.1 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 HILL 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 HILL 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 HILL 12 8.4 8.4 8.4 8.4 8.4 8.2 8.0 8.0 8.0 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 9.1 9.0
RE GRIDPOLR G02A2005 HILL 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 HILL 13 8.4 8.4 8.4 8.4 8.4 8.0 7.8 7.8 7.6 8.1 8.1 7.7 7.3 7.0 6.7
RE GRIDPOLR G02A2005 HILL 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 HILL 13 7.9 9.0 8.9 8.9 9.0
RE GRIDPOLR G02A2005 HILL 14 8.4 8.4 8.4 8.4 8.3 8.2 8.0 7.4 7.4 7.3 7.0 6.8 7.3 7.3 6.9
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ME SURFDATA  14739 2011 KBOS
ME UAIRDATA  54762 2011 KGYX
ME PROFBASE  4  METERS
ME FINISHED

OU STARTING
OU RECTABLE  1  SECOND
OU RECTABLE  8  SECOND
OU FILEFORM  FIX
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** It is recommended that the user not edit any data below this line
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** BUILDING CRN 328168.6 4690409.2
** BUILDING CRN 328146.7 4690414.2

** TERRFILE \\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GIS\SHP\LIDARMERGE1.TIF 2 0 WGS84 19 0 327810.0 4690154.5 327810.0 4690827.5 328687.0 4690827.5 328687.0 4690154.5
** AMPTYPE NED
** AMPDATUM 3
** AMPZONE 19
** AMPHEMISPHERE N

** PROJECTION UTM
** DATUM NAR-D
** UNITS METER
** ZONE 19
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE Regulatory,0
** AERMODEXE AERMOD_EPA_16216.exe
** AERMAPEXE AERMAP_EPA_11103.EXE

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** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  2012 1000 Boylston Garage
CO TITLETWO  CO
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  1  8
CO URBANOPT  4766755  BOSTONMSA  1
CO POLLUTID  CO
CO FLAGPOLE  0
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  PZA36001  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl3 Vent
SO LOCATION  PZA36002  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl4 Vent
SO SRCPARAM  PZA36001  0.11570  24.10358  18.98904  2.19456
SO SRCPARAM  PZA36002  0.11570  29.81858  18.98904  3.10896
SO URBANSRC  PZA36001  PZA36002
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDPOLR G02A2005 STA
RE GRIDPOLR G02A2005 ORIG  328207.0  4690452.3
RE GRIDPOLR  G02A2005 DIST  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100
RE GRIDPOLR  G02A2005 DIST  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
RE GRIDPOLR G02A2005 GDIR  36  0  10.0
RE GRIDPOLR G02A2005 ELEV  1  0.6  0.9  1.1  1.4  1.3  1.4  2.7  3.9  5.2  6.4  7.2  7.0  6.8  5.1  4.4
RE GRIDPOLR G02A2005 ELEV  1  3.4  3.5  3.6  3.6  3.6  3.8  4.1  4.2  3.9  3.7  3.5  3.6  3.5  3.3  3.1
RE GRIDPOLR G02A2005 ELEV  1  2.2  2.7  3.1  3.3  3.0
RE GRIDPOLR G02A2005 ELEV  2  0.7  0.8  1.0  1.4  1.3  1.3  2.5  3.7  4.9  6.2  7.3  7.1  6.9  6.3  5.0
RE GRIDPOLR G02A2005 ELEV  2  4.5  4.9  5.0  4.7  4.8  4.6  4.4  4.1  3.7  3.8  3.5  3.5  2.3  1.9  1.8
RE GRIDPOLR G02A2005 ELEV  2  2.1  2.1  2.1  2.5  3.2
RE GRIDPOLR G02A2005 ELEV  3  0.6  0.9  1.0  1.4  1.3  1.2  2.3  3.5  4.8  6.1  7.3  7.2  7.0  6.8  6.7
RE GRIDPOLR G02A2005 ELEV  3  6.3  6.0  5.8  5.6  5.3  4.9  3.6  2.9  1.5  1.8  2.1  3.4  3.3  3.3  3.6
RE GRIDPOLR G02A2005 ELEV  3  2.8  2.1  1.8  1.6  1.9
RE GRIDPOLR G02A2005 ELEV  4  0.6  0.9  1.0  1.3  1.3  2.2  3.2  4.2  5.3  6.5  7.7  7.5  7.3  7.0  6.9
RE GRIDPOLR G02A2005 ELEV  4  6.7  6.5  6.4  6.4  6.0  3.9  2.3  1.9  1.8  1.8  1.8  1.9  2.0  3.4  3.0
RE GRIDPOLR G02A2005 ELEV  4  3.1  3.0  3.1  3.0  3.1
RE GRIDPOLR G02A2005 ELEV  5  0.7  0.9  0.9  1.2  1.7  2.5  3.4  4.2  5.0  5.9  6.7  7.5  7.5  7.2  7.0
RE GRIDPOLR G02A2005 ELEV  5  6.7  6.6  6.5  6.5  6.3  6.1  5.6  4.2  2.8  2.9  3.0  2.5  2.1  2.3  2.3
RE GRIDPOLR G02A2005 ELEV  5  3.2  3.2  3.2  3.5  3.6
RE GRIDPOLR G02A2005 ELEV  6  0.7  0.8  0.9  1.0  1.8  2.6  3.6  4.6  5.7  6.7  7.8  8.4  8.1  7.7  7.4
RE GRIDPOLR G02A2005 ELEV  6  7.1  6.9  6.6  6.5  6.3  5.9  5.7  5.6  5.5  5.3  5.4  5.1  4.6  4.3  4.3
RE GRIDPOLR G02A2005 ELEV  6  4.2  3.4  2.1  2.3  2.5
RE GRIDPOLR G02A2005 ELEV  7  1.1  0.8  0.9  1.0  2.1  3.3  4.5  5.6  6.8  8.0  8.2  7.8  7.5  7.2  7.1
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RE GRIDPOLR G02A2005 ELEV 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 ELEV 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 ELEV 8 1.7 0.9 0.7 1.2 2.6 3.8 5.1 6.4 7.7 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 ELEV 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 6.9 6.2
RE GRIDPOLR G02A2005 ELEV 8 5.2 5.1 5.1 5.1 5.1
RE GRIDPOLR G02A2005 ELEV 9 2.3 1.4 0.8 1.6 2.8 4.2 5.5 6.8 8.1 7.9 7.7 7.4 7.4 7.1 6.8
RE GRIDPOLR G02A2005 ELEV 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 ELEV 9 9.1 9.3 9.5 9.5 9.5
RE GRIDPOLR G02A2005 ELEV 10 2.5 2.3 2.0 1.8 3.1 4.3 5.6 7.0 8.1 7.9 7.6 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 ELEV 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 ELEV 11 2.5 2.2 1.9 1.7 3.2 4.6 5.5 6.8 8.0 8.0 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 ELEV 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 ELEV 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 12 2.5 2.2 1.8 1.7 2.2 5.3 7.3 8.0 7.8 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 8.8 9.0
RE GRIDPOLR G02A2005 ELEV 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 13 2.5 2.1 1.8 1.6 1.7 7.3 7.8 7.8 7.6 7.4 7.3 7.6 7.3 7.0 6.7
RE GRIDPOLR G02A2005 ELEV 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 ELEV 13 7.9 8.3 8.9 8.9 8.0
RE GRIDPOLR G02A2005 ELEV 14 2.5 2.1 1.8 2.2 3.5 4.8 6.1 7.4 7.4 7.3 7.0 6.7 6.5 6.2 6.1
RE GRIDPOLR G02A2005 ELEV 14 5.9 5.7 5.4 5.2 5.0 3.9 3.8 4.1 4.3 4.3 4.6 4.8 5.1 5.3 5.3
RE GRIDPOLR G02A2005 ELEV 14 5.1 5.1 4.1 2.3 3.3
RE GRIDPOLR G02A2005 ELEV 15 2.5 2.1 2.1 2.9 3.8 4.8 5.7 6.7 6.6 6.6 6.6 6.3 6.1 6.0 5.7
RE GRIDPOLR G02A2005 ELEV 15 5.4 5.0 4.8 4.5 4.2 3.9 3.8 3.8 3.9 3.9 4.0 3.8 3.4 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 15 3.1 3.3 3.3 3.2 2.1
RE GRIDPOLR G02A2005 ELEV 16 2.5 2.1 2.4 2.4 3.2 4.0 4.8 5.6 5.8 5.7 5.6 5.5 5.3 5.2 5.1
RE GRIDPOLR G02A2005 ELEV 16 5.0 4.9 4.7 4.5 4.3 3.8 3.6 3.5 3.2 3.1 3.1 3.0 3.2 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 16 3.1 3.1 3.1 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 17 2.5 2.3 2.4 2.5 2.6 3.1 3.8 4.4 5.0 4.8 4.5 4.3 4.2 4.3 4.6
RE GRIDPOLR G02A2005 ELEV 17 4.7 4.7 4.5 4.3 4.1 3.8 3.4 3.5 3.0 2.9 2.9 2.7 2.0 2.0 3.0
RE GRIDPOLR G02A2005 ELEV 17 3.0 3.3 2.2 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 18 2.5 2.4 2.6 2.7 2.7 2.8 2.9 3.1 3.6 4.0 3.7 3.5 3.7 3.8 3.8
RE GRIDPOLR G02A2005 ELEV 18 3.9 3.9 3.9 3.9 3.8 3.9 3.4 3.0 3.1 2.8 1.8 1.3 2.6 3.1 3.5
RE GRIDPOLR G02A2005 ELEV 18 2.5 1.6 2.3 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 19 2.6 2.5 2.8 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.2 3.3 3.4 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 19 3.5 3.5 3.4 3.4 3.3 3.2 3.2 3.1 2.8 2.0 1.5 3.0 3.2 3.3 2.4
RE GRIDPOLR G02A2005 ELEV 19 1.7 2.6 3.0 3.2 3.4
RE GRIDPOLR G02A2005 ELEV 20 2.6 2.6 2.9 2.9 3.0 3.1 3.1 3.2 3.3 3.4 3.2 3.3 3.3 3.2 3.0
RE GRIDPOLR G02A2005 ELEV 20 2.9 3.0 2.9 2.8 2.8 2.8 3.1 3.2 2.6 1.8 2.0 3.4 3.0 2.7 1.7
RE GRIDPOLR G02A2005 ELEV 20 2.1 3.3 3.1 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 21 2.7 2.7 2.9 3.0 3.2 3.3 3.5 3.4 3.5 3.5 3.5 3.4 3.4 3.2 2.9
RE GRIDPOLR G02A2005 ELEV 21 2.6 2.5 2.4 2.2 2.3 2.7 3.3 3.4 2.8 2.1 2.2 3.5 3.1 2.8 1.4
RE GRIDPOLR G02A2005 ELEV 21 2.3 3.2 3.2 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 22 2.8 2.7 3.1 3.3 3.5 3.6 3.6 3.7 3.7 3.6 3.6 3.6 3.7 3.7 2.8
RE GRIDPOLR G02A2005 ELEV 22 1.9 2.0 2.0 2.0 2.2 3.0 3.6 3.4 3.2 2.3 2.5 3.1 3.6 3.6 3.6
RE GRIDPOLR G02A2005 ELEV 22 3.6 3.6 3.5 3.5 3.0
RE GRIDPOLR G02A2005 ELEV 23 2.8 2.8 3.4 3.5 3.6 3.7 3.8 3.9 3.7 3.7 3.7 3.9 3.8 3.9 3.6
RE GRIDPOLR G02A2005 ELEV 23 3.2 2.9 2.9 2.9 2.9 3.7 3.7 3.6 3.9 4.1 4.2 4.3 4.0 4.2 3.9
RE GRIDPOLR G02A2005 ELEV 23 3.3 2.6 1.8 1.2 1.6
RE GRIDPOLR G02A2005 ELEV 24 2.9 2.9 3.1 3.6 3.7 3.8 3.9 4.0 4.5 4.7 4.2 4.3 4.2 4.0 4.1
RE GRIDPOLR G02A2005 ELEV 24 4.3 4.4 4.1 4.2 4.0 4.2 4.4 4.5 4.6 4.5 4.8 4.9 4.6 4.2 3.1
RE GRIDPOLR G02A2005 ELEV 24 1.9 1.2 2.0 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 25 2.9 3.1 3.1 3.4 3.9 4.4 4.0 4.3 4.8 4.4 4.4 4.5 4.6 4.7 4.3

RE GRIDPOLR G02A2005 ELEV 25 4.5 4.5 4.1 3.7 3.9 4.4 4.9 5.3 5.6 5.7 5.6 5.5 5.4 5.3 4.5
RE GRIDPOLR G02A2005 ELEV 25 3.5 2.8 4.2 3.9 3.7
RE GRIDPOLR G02A2005 ELEV 26 3.0 3.2 3.3 3.5 3.7 4.1 4.2 4.2 4.5 4.6 4.6 4.7 4.7 5.0 4.9
RE GRIDPOLR G02A2005 ELEV 26 5.0 4.4 3.6 3.2 3.4 3.9 4.1 4.4 5.5 6.2 6.2 6.0 5.4 4.5 4.0
RE GRIDPOLR G02A2005 ELEV 26 4.6 6.3 4.9 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 27 3.0 3.2 3.5 3.7 4.0 4.2 4.5 4.7 5.0 5.3 5.6 5.2 5.3 5.9 5.9
RE GRIDPOLR G02A2005 ELEV 27 6.0 2.2 2.0 1.0 1.6 1.8 3.2 4.5 5.7 6.7 6.6 6.5 6.8 6.8 6.7
RE GRIDPOLR G02A2005 ELEV 27 6.7 6.8 6.7 6.4 6.1
RE GRIDPOLR G02A2005 ELEV 28 3.0 3.3 3.6 3.9 4.2 4.5 4.7 5.1 5.3 5.7 5.9 6.2 6.4 6.6 6.8
RE GRIDPOLR G02A2005 ELEV 28 6.9 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.9 7.0 7.1 7.1 7.0 7.1 6.1
RE GRIDPOLR G02A2005 ELEV 28 6.0 5.8 5.6 5.4 5.4
RE GRIDPOLR G02A2005 ELEV 29 2.9 2.4 1.4 0.8 0.7 0.7 0.7 0.9 0.9 0.8 0.8 0.8 0.9 1.8 3.1
RE GRIDPOLR G02A2005 ELEV 29 4.3 5.3 5.2 4.9 4.6 3.7 2.6 1.7 1.7 1.6 1.6 1.5 1.6 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 29 1.7 1.7 1.8 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 30 2.3 1.1 0.8 0.8 0.9 0.7 0.8 0.8 1.2 1.3 1.5 1.5 1.5 1.5 1.1
RE GRIDPOLR G02A2005 ELEV 30 1.1 1.3 1.8 1.8 1.4 1.3 1.2 1.1 1.1 1.5 1.9 2.6 4.8 7.2 7.1
RE GRIDPOLR G02A2005 ELEV 30 7.1 6.8 6.5 6.4 6.2
RE GRIDPOLR G02A2005 ELEV 31 1.6 0.9 0.9 0.8 0.9 1.1 1.4 1.3 1.4 1.4 1.5 1.4 1.4 1.2 1.4
RE GRIDPOLR G02A2005 ELEV 31 1.3 1.3 1.2 1.2 1.1 1.9 2.0 2.4 3.3 4.4 5.3 5.9 6.3 6.4 6.5
RE GRIDPOLR G02A2005 ELEV 31 6.6 6.6 6.2 6.2 6.0
RE GRIDPOLR G02A2005 ELEV 32 0.9 0.9 0.8 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.4 1.5 1.3
RE GRIDPOLR G02A2005 ELEV 32 1.4 1.5 2.1 2.3 2.2 2.0 2.3 3.3 4.4 5.4 5.4 5.5 5.7 4.6 3.5
RE GRIDPOLR G02A2005 ELEV 32 2.3 2.2 2.6 1.9 2.9
RE GRIDPOLR G02A2005 ELEV 33 0.8 0.9 0.9 1.1 1.4 1.3 1.3 1.9 1.6 1.5 1.5 1.5 1.5 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 33 2.4 2.8 2.9 3.0 2.3 2.0 2.7 4.2 5.3 4.9 5.0 4.5 3.6 2.8 1.7
RE GRIDPOLR G02A2005 ELEV 33 1.6 2.1 3.2 4.5 4.2
RE GRIDPOLR G02A2005 ELEV 34 0.7 0.9 0.9 1.3 1.3 1.3 1.5 2.6 3.8 5.0 6.2 6.6 3.7 3.4 3.1
RE GRIDPOLR G02A2005 ELEV 34 3.0 3.0 3.0 3.2 1.8 1.9 2.1 2.2 4.6 4.4 4.8 3.4 2.2 1.7 1.8
RE GRIDPOLR G02A2005 ELEV 34 2.2 3.5 4.1 3.7 3.8
RE GRIDPOLR G02A2005 ELEV 35 0.7 0.8 1.0 1.3 1.3 1.2 2.2 3.3 4.5 5.7 6.9 7.4 5.1 2.8 2.4
RE GRIDPOLR G02A2005 ELEV 35 2.1 2.1 2.0 1.9 1.9 1.8 1.7 1.9 4.3 4.5 3.5 2.2 1.6 1.6 1.7
RE GRIDPOLR G02A2005 ELEV 35 2.3 3.3 3.5 3.4 3.6
RE GRIDPOLR G02A2005 ELEV 36 0.7 0.9 1.0 1.3 1.3 1.3 2.6 3.8 5.0 6.2 7.1 7.3 6.4 5.3 4.1
RE GRIDPOLR G02A2005 ELEV 36 2.9 2.8 2.9 2.6 2.6 2.7 2.5 3.8 4.0 4.1 1.5 1.5 1.6 2.0 1.9
RE GRIDPOLR G02A2005 ELEV 36 2.3 3.0 3.4 3.0 3.2
RE GRIDPOLR G02A2005 HILL 1 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 7.6 7.3 7.2 7.0 7.2 7.4 7.5
RE GRIDPOLR G02A2005 HILL 1 7.8 7.6 7.4 7.3 7.0 3.8 4.1 4.2 4.2 3.7 3.5 3.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 1 3.3 3.2 3.3 3.5 3.0
RE GRIDPOLR G02A2005 HILL 2 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.5 7.3 7.1 6.9 7.1 7.5
RE GRIDPOLR G02A2005 HILL 2 7.6 7.1 5.9 5.9 5.5 4.6 4.4 4.2 4.4 3.8 3.5 3.5 3.7 4.6 2.3
RE GRIDPOLR G02A2005 HILL 2 2.1 2.1 2.1 2.8 3.2
RE GRIDPOLR G02A2005 HILL 3 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.4 7.2 7.0 6.8 6.7
RE GRIDPOLR G02A2005 HILL 3 6.6 6.0 5.8 5.6 5.9 5.5 5.9 5.5 6.5 4.3 4.3 4.3 3.5 3.3 3.6
RE GRIDPOLR G02A2005 HILL 3 3.6 4.5 4.6 4.6 1.9
RE GRIDPOLR G02A2005 HILL 4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.8 7.8 7.3 7.0 6.9
RE GRIDPOLR G02A2005 HILL 4 6.7 6.5 6.4 6.4 6.4 6.7 8.4 6.7 6.5 6.3 1.8 4.0 3.8 3.7 3.7
RE GRIDPOLR G02A2005 HILL 4 3.1 4.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 5 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4
RE GRIDPOLR G02A2005 HILL 5 8.4 6.6 6.5 6.5 6.3 6.1 6.2 6.3 6.3 6.1 5.6 5.6 2.1 2.3 3.4
RE GRIDPOLR G02A2005 HILL 5 3.3 3.2 3.2 3.5 3.6
RE GRIDPOLR G02A2005 HILL 6 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.4
RE GRIDPOLR G02A2005 HILL 6 7.1 6.9 6.6 6.5 6.3 5.9 5.7 5.6 5.5 5.3 5.4 5.4 5.2 4.3 4.3
RE GRIDPOLR G02A2005 HILL 6 4.2 4.4 4.9 4.8 2.5
RE GRIDPOLR G02A2005 HILL 7 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 7.8 7.5 7.2 7.1

RE GRIDPOLR G02A2005 HILL 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 HILL 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 HILL 8 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 HILL 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 7.2 9.2
RE GRIDPOLR G02A2005 HILL 8 9.6 9.7 9.7 9.7 9.7
RE GRIDPOLR G02A2005 HILL 9 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.1 7.9 7.7 7.6 7.4 7.1 6.8
RE GRIDPOLR G02A2005 HILL 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 HILL 9 9.1 9.5 9.5 9.5 9.5
RE GRIDPOLR G02A2005 HILL 10 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 8.1 7.9 7.8 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 HILL 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 HILL 11 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 8.1 8.1 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 HILL 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 HILL 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 HILL 12 8.4 8.4 8.4 8.4 8.4 8.2 8.0 8.0 8.0 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 9.1 9.0
RE GRIDPOLR G02A2005 HILL 12 9.1 9.2 9.3 9.2 9.3
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ME SURFDATA  14739 2012 KBOS
ME UAIRDATA  54762 2012 KGYX
ME PROFBASE  4  METERS
ME FINISHED

OU STARTING
OU RECTABLE  1  SECOND
OU RECTABLE  8  SECOND
OU FILEFORM  FIX
OU FINISHED

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** It is recommended that the user not edit any data below this line
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** BUILDING CRN 328176.8 4690423.2
** BUILDING CRN 328173.3 4690412.9
** BUILDING CRN 328173.4 4690408.5
** BUILDING BLD 0 0 39.2684 170.2562 9
** BUILDING IDN XG0SG003
** BUILDING CRN 328146.7 4690414.2
** BUILDING CRN 328138.9 4690436.7
** BUILDING CRN 328139 4690443.6
** BUILDING CRN 328140.5 4690443.4
** BUILDING CRN 328140.4 4690455.8
** BUILDING CRN 328159.1 4690455.7
** BUILDING CRN 328169.9 4690416.9
** BUILDING CRN 328168.6 4690409.2
** BUILDING CRN 328146.7 4690414.2

** TERRFILE \\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GIS\SHP\LIDARMERGE1.TIF 2 0 WGS84 19 0 327810.0 4690154.5 327810.0 4690827.5 328687.0 4690827.5 328687.0 4690154.5
** AMPTYPE NED
** AMPDATUM 3
** AMPZONE 19
** AMPHEMISPHERE N

** PROJECTION UTM
** DATUM NAR-D
** UNITS METER
** ZONE 19
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE Regulatory,0
** AERMODEXE AERMOD_EPA_16216.exe
** AERMAPEXE AERMAP_EPA_11103.EXE

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** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  2013 1000 Boylston Garage
CO TITLETWO  CO
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  1  8
CO URBANOPT  4766755  BOSTONMSA  1
CO POLLUTID  CO
CO FLAGPOLE  0
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  PZA36001  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl3 Vent
SO LOCATION  PZA36002  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl4 Vent
SO SRCPARAM  PZA36001  0.11570  24.10358  18.98904  2.19456
SO SRCPARAM  PZA36002  0.11570  29.81858  18.98904  3.10896
SO URBANSRC  PZA36001  PZA36002
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDPOLR G02A2005 STA
RE GRIDPOLR G02A2005 ORIG  328207.0  4690452.3
RE GRIDPOLR  G02A2005 DIST  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100
RE GRIDPOLR  G02A2005 DIST  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
RE GRIDPOLR G02A2005 GDIR  36  0  10.0
RE GRIDPOLR G02A2005 ELEV  1  0.6  0.9  1.1  1.4  1.3  1.4  2.7  3.9  5.2  6.4  7.2  7.0  6.8  5.1  4.4
RE GRIDPOLR G02A2005 ELEV  1  3.4  3.5  3.6  3.6  3.6  3.8  4.1  4.2  3.9  3.7  3.5  3.6  3.5  3.3  3.1
RE GRIDPOLR G02A2005 ELEV  1  2.2  2.7  3.1  3.3  3.0
RE GRIDPOLR G02A2005 ELEV  2  0.7  0.8  1.0  1.4  1.3  1.3  2.5  3.7  4.9  6.2  7.3  7.1  6.9  6.3  5.0
RE GRIDPOLR G02A2005 ELEV  2  4.5  4.9  5.0  4.7  4.8  4.6  4.4  4.1  3.7  3.8  3.5  3.5  2.3  1.9  1.8
RE GRIDPOLR G02A2005 ELEV  2  2.1  2.1  2.1  2.5  3.2
RE GRIDPOLR G02A2005 ELEV  3  0.6  0.9  1.0  1.4  1.3  1.2  2.3  3.5  4.8  6.1  7.3  7.2  7.0  6.8  6.7
RE GRIDPOLR G02A2005 ELEV  3  6.3  6.0  5.8  5.6  5.3  4.9  3.6  2.9  1.5  1.8  2.1  3.4  3.3  3.3  3.6
RE GRIDPOLR G02A2005 ELEV  3  2.8  2.1  1.8  1.6  1.9
RE GRIDPOLR G02A2005 ELEV  4  0.6  0.9  1.0  1.3  1.3  2.2  3.2  4.2  5.3  6.5  7.7  7.5  7.3  7.0  6.9
RE GRIDPOLR G02A2005 ELEV  4  6.7  6.5  6.4  6.4  6.0  3.9  2.3  1.9  1.8  1.8  1.8  1.9  2.0  3.4  3.0
RE GRIDPOLR G02A2005 ELEV  4  3.1  3.0  3.1  3.0  3.1
RE GRIDPOLR G02A2005 ELEV  5  0.7  0.9  0.9  1.2  1.7  2.5  3.4  4.2  5.0  5.9  6.7  7.5  7.5  7.2  7.0
RE GRIDPOLR G02A2005 ELEV  5  6.7  6.6  6.5  6.5  6.3  6.1  5.6  4.2  2.8  2.9  3.0  2.5  2.1  2.3  2.3
RE GRIDPOLR G02A2005 ELEV  5  3.2  3.2  3.2  3.5  3.6
RE GRIDPOLR G02A2005 ELEV  6  0.7  0.8  0.9  1.0  1.8  2.6  3.6  4.6  5.7  6.7  7.8  8.4  8.1  7.7  7.4
RE GRIDPOLR G02A2005 ELEV  6  7.1  6.9  6.6  6.5  6.3  5.9  5.7  5.6  5.5  5.3  5.4  5.1  4.6  4.3  4.3
RE GRIDPOLR G02A2005 ELEV  6  4.2  3.4  2.1  2.3  2.5
RE GRIDPOLR G02A2005 ELEV  7  1.1  0.8  0.9  1.0  2.1  3.3  4.5  5.6  6.8  8.0  8.2  7.8  7.5  7.2  7.1
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RE GRIDPOLR G02A2005 ELEV 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 ELEV 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 ELEV 8 1.7 0.9 0.7 1.2 2.6 3.8 5.1 6.4 7.7 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 ELEV 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 6.9 6.2
RE GRIDPOLR G02A2005 ELEV 8 5.2 5.1 5.1 5.1 5.1
RE GRIDPOLR G02A2005 ELEV 9 2.3 1.4 0.8 1.6 2.8 4.2 5.5 6.8 8.1 7.9 7.7 7.4 7.4 7.1 6.8
RE GRIDPOLR G02A2005 ELEV 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 ELEV 9 9.1 9.3 9.5 9.5 9.5
RE GRIDPOLR G02A2005 ELEV 10 2.5 2.3 2.0 1.8 3.1 4.3 5.6 7.0 8.1 7.9 7.6 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 ELEV 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 ELEV 11 2.5 2.2 1.9 1.7 3.2 4.6 5.5 6.8 8.0 8.0 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 ELEV 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 ELEV 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 12 2.5 2.2 1.8 1.7 2.2 5.3 7.3 8.0 7.8 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 8.8 9.0
RE GRIDPOLR G02A2005 ELEV 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 13 2.5 2.1 1.8 1.6 1.7 7.3 7.8 7.8 7.6 7.4 7.3 7.6 7.3 7.0 6.7
RE GRIDPOLR G02A2005 ELEV 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 ELEV 13 7.9 8.3 8.9 8.9 8.0
RE GRIDPOLR G02A2005 ELEV 14 2.5 2.1 1.8 2.2 3.5 4.8 6.1 7.4 7.4 7.3 7.0 6.7 6.5 6.2 6.1
RE GRIDPOLR G02A2005 ELEV 14 5.9 5.7 5.4 5.2 5.0 3.9 3.8 4.1 4.3 4.3 4.6 4.8 5.1 5.3 5.3
RE GRIDPOLR G02A2005 ELEV 14 5.1 5.1 4.1 2.3 3.3
RE GRIDPOLR G02A2005 ELEV 15 2.5 2.1 2.1 2.9 3.8 4.8 5.7 6.7 6.6 6.6 6.6 6.3 6.1 6.0 5.7
RE GRIDPOLR G02A2005 ELEV 15 5.4 5.0 4.8 4.5 4.2 3.9 3.8 3.8 3.9 3.9 4.0 3.8 3.4 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 15 3.1 3.3 3.3 3.2 2.1
RE GRIDPOLR G02A2005 ELEV 16 2.5 2.1 2.4 2.4 3.2 4.0 4.8 5.6 5.8 5.7 5.6 5.5 5.3 5.2 5.1
RE GRIDPOLR G02A2005 ELEV 16 5.0 4.9 4.7 4.5 4.3 3.8 3.6 3.5 3.2 3.1 3.1 3.0 3.2 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 16 3.1 3.1 3.1 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 17 2.5 2.3 2.4 2.5 2.6 3.1 3.8 4.4 5.0 4.8 4.5 4.3 4.2 4.3 4.6
RE GRIDPOLR G02A2005 ELEV 17 4.7 4.7 4.5 4.3 4.1 3.8 3.4 3.5 3.0 2.9 2.9 2.7 2.0 2.0 3.0
RE GRIDPOLR G02A2005 ELEV 17 3.0 3.3 2.2 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 18 2.5 2.4 2.6 2.7 2.7 2.8 2.9 3.1 3.6 4.0 3.7 3.5 3.7 3.8 3.8
RE GRIDPOLR G02A2005 ELEV 18 3.9 3.9 3.9 3.9 3.8 3.9 3.4 3.0 3.1 2.8 1.8 1.3 2.6 3.1 3.5
RE GRIDPOLR G02A2005 ELEV 18 2.5 1.6 2.3 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 19 2.6 2.5 2.8 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.2 3.3 3.4 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 19 3.5 3.5 3.4 3.4 3.3 3.2 3.2 3.1 2.8 2.0 1.5 3.0 3.2 3.3 2.4
RE GRIDPOLR G02A2005 ELEV 19 1.7 2.6 3.0 3.2 3.4
RE GRIDPOLR G02A2005 ELEV 20 2.6 2.6 2.9 2.9 3.0 3.1 3.1 3.2 3.3 3.4 3.2 3.3 3.3 3.2 3.0
RE GRIDPOLR G02A2005 ELEV 20 2.9 3.0 2.9 2.8 2.8 2.8 3.1 3.2 2.6 1.8 2.0 3.4 3.0 2.7 1.7
RE GRIDPOLR G02A2005 ELEV 20 2.1 3.3 3.1 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 21 2.7 2.7 2.9 3.0 3.2 3.3 3.5 3.4 3.5 3.5 3.5 3.4 3.4 3.2 2.9
RE GRIDPOLR G02A2005 ELEV 21 2.6 2.5 2.4 2.2 2.3 2.7 3.3 3.4 2.8 2.1 2.2 3.5 3.1 2.8 1.4
RE GRIDPOLR G02A2005 ELEV 21 2.3 3.2 3.2 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 22 2.8 2.7 3.1 3.3 3.5 3.6 3.6 3.7 3.7 3.6 3.6 3.6 3.7 3.7 2.8
RE GRIDPOLR G02A2005 ELEV 22 1.9 2.0 2.0 2.0 2.2 3.0 3.6 3.4 3.2 2.3 2.5 3.1 3.6 3.6 3.6
RE GRIDPOLR G02A2005 ELEV 22 3.6 3.6 3.5 3.5 3.0
RE GRIDPOLR G02A2005 ELEV 23 2.8 2.8 3.4 3.5 3.6 3.7 3.8 3.9 3.7 3.7 3.7 3.9 3.8 3.9 3.6
RE GRIDPOLR G02A2005 ELEV 23 3.2 2.9 2.9 2.9 2.9 3.7 3.7 3.6 3.9 4.1 4.2 4.3 4.0 4.2 3.9
RE GRIDPOLR G02A2005 ELEV 23 3.3 2.6 1.8 1.2 1.6
RE GRIDPOLR G02A2005 ELEV 24 2.9 2.9 3.1 3.6 3.7 3.8 3.9 4.0 4.5 4.7 4.2 4.3 4.2 4.0 4.1
RE GRIDPOLR G02A2005 ELEV 24 4.3 4.4 4.1 4.2 4.0 4.2 4.4 4.5 4.6 4.5 4.8 4.9 4.6 4.2 3.1
RE GRIDPOLR G02A2005 ELEV 24 1.9 1.2 2.0 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 25 2.9 3.1 3.1 3.4 3.9 4.4 4.0 4.3 4.8 4.4 4.4 4.5 4.6 4.7 4.3

RE GRIDPOLR G02A2005 ELEV 25 4.5 4.5 4.1 3.7 3.9 4.4 4.9 5.3 5.6 5.7 5.6 5.5 5.4 5.3 4.5
RE GRIDPOLR G02A2005 ELEV 25 3.5 2.8 4.2 3.9 3.7
RE GRIDPOLR G02A2005 ELEV 26 3.0 3.2 3.3 3.5 3.7 4.1 4.2 4.2 4.5 4.6 4.6 4.7 4.7 5.0 4.9
RE GRIDPOLR G02A2005 ELEV 26 5.0 4.4 3.6 3.2 3.4 3.9 4.1 4.4 5.5 6.2 6.2 6.0 5.4 4.5 4.0
RE GRIDPOLR G02A2005 ELEV 26 4.6 6.3 4.9 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 27 3.0 3.2 3.5 3.7 4.0 4.2 4.5 4.7 5.0 5.3 5.6 5.2 5.3 5.9 5.9
RE GRIDPOLR G02A2005 ELEV 27 6.0 2.2 2.0 1.0 1.6 1.8 3.2 4.5 5.7 6.7 6.6 6.5 6.8 6.8 6.7
RE GRIDPOLR G02A2005 ELEV 27 6.7 6.8 6.7 6.4 6.1
RE GRIDPOLR G02A2005 ELEV 28 3.0 3.3 3.6 3.9 4.2 4.5 4.7 5.1 5.3 5.7 5.9 6.2 6.4 6.6 6.8
RE GRIDPOLR G02A2005 ELEV 28 6.9 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.9 7.0 7.1 7.1 7.0 7.1 6.1
RE GRIDPOLR G02A2005 ELEV 28 6.0 5.8 5.6 5.4 5.4
RE GRIDPOLR G02A2005 ELEV 29 2.9 2.4 1.4 0.8 0.7 0.7 0.7 0.9 0.9 0.8 0.8 0.8 0.9 1.8 3.1
RE GRIDPOLR G02A2005 ELEV 29 4.3 5.3 5.2 4.9 4.6 3.7 2.6 1.7 1.7 1.6 1.6 1.5 1.6 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 29 1.7 1.7 1.8 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 30 2.3 1.1 0.8 0.8 0.9 0.7 0.8 0.8 1.2 1.3 1.5 1.5 1.5 1.5 1.1
RE GRIDPOLR G02A2005 ELEV 30 1.1 1.3 1.8 1.8 1.4 1.3 1.2 1.1 1.1 1.5 1.9 2.6 4.8 7.2 7.1
RE GRIDPOLR G02A2005 ELEV 30 7.1 6.8 6.5 6.4 6.2
RE GRIDPOLR G02A2005 ELEV 31 1.6 0.9 0.9 0.8 0.9 1.1 1.4 1.3 1.4 1.4 1.5 1.4 1.4 1.2 1.4
RE GRIDPOLR G02A2005 ELEV 31 1.3 1.3 1.2 1.2 1.1 1.9 2.0 2.4 3.3 4.4 5.3 5.9 6.3 6.4 6.5
RE GRIDPOLR G02A2005 ELEV 31 6.6 6.6 6.2 6.2 6.0
RE GRIDPOLR G02A2005 ELEV 32 0.9 0.9 0.8 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.4 1.5 1.3
RE GRIDPOLR G02A2005 ELEV 32 1.4 1.5 2.1 2.3 2.2 2.0 2.3 3.3 4.4 5.4 5.4 5.5 5.7 4.6 3.5
RE GRIDPOLR G02A2005 ELEV 32 2.3 2.2 2.6 1.9 2.9
RE GRIDPOLR G02A2005 ELEV 33 0.8 0.9 0.9 1.1 1.4 1.3 1.3 1.9 1.6 1.5 1.5 1.5 1.5 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 33 2.4 2.8 2.9 3.0 2.3 2.0 2.7 4.2 5.3 4.9 5.0 4.5 3.6 2.8 1.7
RE GRIDPOLR G02A2005 ELEV 33 1.6 2.1 3.2 4.5 4.2
RE GRIDPOLR G02A2005 ELEV 34 0.7 0.9 0.9 1.3 1.3 1.3 1.5 2.6 3.8 5.0 6.2 6.6 3.7 3.4 3.1
RE GRIDPOLR G02A2005 ELEV 34 3.0 3.0 3.0 3.2 1.8 1.9 2.1 2.2 4.6 4.4 4.8 3.4 2.2 1.7 1.8
RE GRIDPOLR G02A2005 ELEV 34 2.2 3.5 4.1 3.7 3.8
RE GRIDPOLR G02A2005 ELEV 35 0.7 0.8 1.0 1.3 1.3 1.2 2.2 3.3 4.5 5.7 6.9 7.4 5.1 2.8 2.4
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RE GRIDPOLR G02A2005 ELEV 35 2.3 3.3 3.5 3.4 3.6
RE GRIDPOLR G02A2005 ELEV 36 0.7 0.9 1.0 1.3 1.3 1.3 2.6 3.8 5.0 6.2 7.1 7.3 6.4 5.3 4.1
RE GRIDPOLR G02A2005 ELEV 36 2.9 2.8 2.9 2.6 2.6 2.7 2.5 3.8 4.0 4.1 1.5 1.5 1.6 2.0 1.9
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RE GRIDPOLR G02A2005 HILL 1 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 7.6 7.3 7.2 7.0 7.2 7.4 7.5
RE GRIDPOLR G02A2005 HILL 1 7.8 7.6 7.4 7.3 7.0 3.8 4.1 4.2 4.2 3.7 3.5 3.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 1 3.3 3.2 3.3 3.5 3.0
RE GRIDPOLR G02A2005 HILL 2 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.5 7.3 7.1 6.9 7.1 7.5
RE GRIDPOLR G02A2005 HILL 2 7.6 7.1 5.9 5.9 5.5 4.6 4.4 4.2 4.4 3.8 3.5 3.5 3.7 4.6 2.3
RE GRIDPOLR G02A2005 HILL 2 2.1 2.1 2.1 2.8 3.2
RE GRIDPOLR G02A2005 HILL 3 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.4 7.2 7.0 6.8 6.7
RE GRIDPOLR G02A2005 HILL 3 6.6 6.0 5.8 5.6 5.9 5.5 5.9 5.5 6.5 4.3 4.3 4.3 3.5 3.3 3.6
RE GRIDPOLR G02A2005 HILL 3 3.6 4.5 4.6 4.6 1.9
RE GRIDPOLR G02A2005 HILL 4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.8 7.8 7.3 7.0 6.9
RE GRIDPOLR G02A2005 HILL 4 6.7 6.5 6.4 6.4 6.4 6.7 8.4 6.7 6.5 6.3 1.8 4.0 3.8 3.7 3.7
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RE GRIDPOLR G02A2005 HILL 5 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4
RE GRIDPOLR G02A2005 HILL 5 8.4 6.6 6.5 6.5 6.3 6.1 6.2 6.3 6.3 6.1 5.6 5.6 2.1 2.3 3.4
RE GRIDPOLR G02A2005 HILL 5 3.3 3.2 3.2 3.5 3.6
RE GRIDPOLR G02A2005 HILL 6 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.4
RE GRIDPOLR G02A2005 HILL 6 7.1 6.9 6.6 6.5 6.3 5.9 5.7 5.6 5.5 5.3 5.4 5.4 5.2 4.3 4.3
RE GRIDPOLR G02A2005 HILL 6 4.2 4.4 4.9 4.8 2.5
RE GRIDPOLR G02A2005 HILL 7 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 7.8 7.5 7.2 7.1

RE GRIDPOLR G02A2005 HILL 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 HILL 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 HILL 8 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 HILL 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 7.2 9.2
RE GRIDPOLR G02A2005 HILL 8 9.6 9.7 9.7 9.7 9.7
RE GRIDPOLR G02A2005 HILL 9 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.1 7.9 7.7 7.6 7.4 7.1 6.8
RE GRIDPOLR G02A2005 HILL 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 HILL 9 9.1 9.5 9.5 9.5 9.5
RE GRIDPOLR G02A2005 HILL 10 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 8.1 7.9 7.8 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 HILL 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 HILL 11 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 8.1 8.1 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 HILL 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 HILL 11 8.9 9.0 9.1 9.2 9.3
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VENTILATION\AERMOD\MET\BOS2013.PFL"
ME SURFDATA  14739 2013 KBOS
ME UAIRDATA  54762 2013 KGYX
ME PROFBASE  4  METERS
ME FINISHED

OU STARTING
OU RECTABLE  1  SECOND
OU RECTABLE  8  SECOND
OU FILEFORM  FIX
OU FINISHED

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** It is recommended that the user not edit any data below this line
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** BUILDING CRN 328173.4 4690408.5
** BUILDING CRN 328146.6 4690414.2
** BUILDING CRN 328139 4690437
** BUILDING CRN 328137.6 4690467.7
** BUILDING CRN 328181.6 4690482.6
** BUILDING CRN 328215.7 4690482.6
** BUILDING CRN 328225.7 4690454.1
** BUILDING CRN 328177.9 4690455.4
** BUILDING CRN 328177 4690440.5
** BUILDING CRN 328176.8 4690423.2
** BUILDING CRN 328173.3 4690412.9
** BUILDING CRN 328173.4 4690408.5
** BUILDING BLD 0 0 39.2684 170.2562 9
** BUILDING IDN XG0SG003
** BUILDING CRN 328146.7 4690414.2
** BUILDING CRN 328138.9 4690436.7
** BUILDING CRN 328139 4690443.6
** BUILDING CRN 328140.5 4690443.4
** BUILDING CRN 328140.4 4690455.8
** BUILDING CRN 328159.1 4690455.7
** BUILDING CRN 328169.9 4690416.9
** BUILDING CRN 328168.6 4690409.2
** BUILDING CRN 328146.7 4690414.2

** TERRFILE \\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GIS\SHP\LIDARMERGE1.TIF 2 0 WGS84 19 0 327810.0 4690154.5 327810.0 4690827.5 328687.0 4690827.5 328687.0 4690154.5
** AMPTYPE NED
** AMPDATUM 3
** AMPZONE 19
** AMPHEMISPHERE N

** PROJECTION UTM
** DATUM NAR-D
** UNITS METER
** ZONE 19
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE Regulatory,0
** AERMODEXE AERMOD_EPA_16216.exe
** AERMAPEXE AERMAP_EPA_11103.EXE

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** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  2014 1000 Boylston Garage
CO TITLETWO  CO
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  1  8
CO URBANOPT  4766755  BOSTONMSA  1
CO POLLUTID  CO
CO FLAGPOLE  0
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  PZA36001  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl3 Vent
SO LOCATION  PZA36002  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl4 Vent
SO SRCPARAM  PZA36001  0.11570  24.10358  18.98904  2.19456
SO SRCPARAM  PZA36002  0.11570  29.81858  18.98904  3.10896
SO URBANSRC  PZA36001  PZA36002
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDPOLR G02A2005 STA
RE GRIDPOLR G02A2005 ORIG  328207.0  4690452.3
RE GRIDPOLR  G02A2005 DIST  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100
RE GRIDPOLR  G02A2005 DIST  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
RE GRIDPOLR G02A2005 GDIR  36  0  10.0
RE GRIDPOLR G02A2005 ELEV  1  0.6  0.9  1.1  1.4  1.3  1.4  2.7  3.9  5.2  6.4  7.2  7.0  6.8  5.1  4.4
RE GRIDPOLR G02A2005 ELEV  1  3.4  3.5  3.6  3.6  3.6  3.8  4.1  4.2  3.9  3.7  3.5  3.6  3.5  3.3  3.1
RE GRIDPOLR G02A2005 ELEV  1  2.2  2.7  3.1  3.3  3.0
RE GRIDPOLR G02A2005 ELEV  2  0.7  0.8  1.0  1.4  1.3  1.3  2.5  3.7  4.9  6.2  7.3  7.1  6.9  6.3  5.0
RE GRIDPOLR G02A2005 ELEV  2  4.5  4.9  5.0  4.7  4.8  4.6  4.4  4.1  3.7  3.8  3.5  3.5  2.3  1.9  1.8
RE GRIDPOLR G02A2005 ELEV  2  2.1  2.1  2.1  2.5  3.2
RE GRIDPOLR G02A2005 ELEV  3  0.6  0.9  1.0  1.4  1.3  1.2  2.3  3.5  4.8  6.1  7.3  7.2  7.0  6.8  6.7
RE GRIDPOLR G02A2005 ELEV  3  6.3  6.0  5.8  5.6  5.3  4.9  3.6  2.9  1.5  1.8  2.1  3.4  3.3  3.3  3.6
RE GRIDPOLR G02A2005 ELEV  3  2.8  2.1  1.8  1.6  1.9
RE GRIDPOLR G02A2005 ELEV  4  0.6  0.9  1.0  1.3  1.3  2.2  3.2  4.2  5.3  6.5  7.7  7.5  7.3  7.0  6.9
RE GRIDPOLR G02A2005 ELEV  4  6.7  6.5  6.4  6.4  6.0  3.9  2.3  1.9  1.8  1.8  1.8  1.9  2.0  3.4  3.0
RE GRIDPOLR G02A2005 ELEV  4  3.1  3.0  3.1  3.0  3.1
RE GRIDPOLR G02A2005 ELEV  5  0.7  0.9  0.9  1.2  1.7  2.5  3.4  4.2  5.0  5.9  6.7  7.5  7.5  7.2  7.0
RE GRIDPOLR G02A2005 ELEV  5  6.7  6.6  6.5  6.5  6.3  6.1  5.6  4.2  2.8  2.9  3.0  2.5  2.1  2.3  2.3
RE GRIDPOLR G02A2005 ELEV  5  3.2  3.2  3.2  3.5  3.6
RE GRIDPOLR G02A2005 ELEV  6  0.7  0.8  0.9  1.0  1.8  2.6  3.6  4.6  5.7  6.7  7.8  8.4  8.1  7.7  7.4
RE GRIDPOLR G02A2005 ELEV  6  7.1  6.9  6.6  6.5  6.3  5.9  5.7  5.6  5.5  5.3  5.4  5.1  4.6  4.3  4.3
RE GRIDPOLR G02A2005 ELEV  6  4.2  3.4  2.1  2.3  2.5
RE GRIDPOLR G02A2005 ELEV  7  1.1  0.8  0.9  1.0  2.1  3.3  4.5  5.6  6.8  8.0  8.2  7.8  7.5  7.2  7.1
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RE GRIDPOLR G02A2005 ELEV 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 ELEV 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 ELEV 8 1.7 0.9 0.7 1.2 2.6 3.8 5.1 6.4 7.7 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 ELEV 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 6.9 6.2
RE GRIDPOLR G02A2005 ELEV 8 5.2 5.1 5.1 5.1 5.1
RE GRIDPOLR G02A2005 ELEV 9 2.3 1.4 0.8 1.6 2.8 4.2 5.5 6.8 8.1 7.9 7.7 7.4 7.4 7.1 6.8
RE GRIDPOLR G02A2005 ELEV 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 ELEV 9 9.1 9.3 9.5 9.5 9.5
RE GRIDPOLR G02A2005 ELEV 10 2.5 2.3 2.0 1.8 3.1 4.3 5.6 7.0 8.1 7.9 7.6 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 ELEV 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 ELEV 11 2.5 2.2 1.9 1.7 3.2 4.6 5.5 6.8 8.0 8.0 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 ELEV 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 ELEV 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 12 2.5 2.2 1.8 1.7 2.2 5.3 7.3 8.0 7.8 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 8.8 9.0
RE GRIDPOLR G02A2005 ELEV 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 13 2.5 2.1 1.8 1.6 1.7 7.3 7.8 7.8 7.6 7.4 7.3 7.6 7.3 7.0 6.7
RE GRIDPOLR G02A2005 ELEV 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 ELEV 13 7.9 8.3 8.9 8.9 8.0
RE GRIDPOLR G02A2005 ELEV 14 2.5 2.1 1.8 2.2 3.5 4.8 6.1 7.4 7.4 7.3 7.0 6.7 6.5 6.2 6.1
RE GRIDPOLR G02A2005 ELEV 14 5.9 5.7 5.4 5.2 5.0 3.9 3.8 4.1 4.3 4.3 4.6 4.8 5.1 5.3 5.3
RE GRIDPOLR G02A2005 ELEV 14 5.1 5.1 4.1 2.3 3.3
RE GRIDPOLR G02A2005 ELEV 15 2.5 2.1 2.1 2.9 3.8 4.8 5.7 6.7 6.6 6.6 6.6 6.3 6.1 6.0 5.7
RE GRIDPOLR G02A2005 ELEV 15 5.4 5.0 4.8 4.5 4.2 3.9 3.8 3.8 3.9 3.9 4.0 3.8 3.4 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 15 3.1 3.3 3.3 3.2 2.1
RE GRIDPOLR G02A2005 ELEV 16 2.5 2.1 2.4 2.4 3.2 4.0 4.8 5.6 5.8 5.7 5.6 5.5 5.3 5.2 5.1
RE GRIDPOLR G02A2005 ELEV 16 5.0 4.9 4.7 4.5 4.3 3.8 3.6 3.5 3.2 3.1 3.1 3.0 3.2 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 16 3.1 3.1 3.1 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 17 2.5 2.3 2.4 2.5 2.6 3.1 3.8 4.4 5.0 4.8 4.5 4.3 4.2 4.3 4.6
RE GRIDPOLR G02A2005 ELEV 17 4.7 4.7 4.5 4.3 4.1 3.8 3.4 3.5 3.0 2.9 2.9 2.7 2.0 2.0 3.0
RE GRIDPOLR G02A2005 ELEV 17 3.0 3.3 2.2 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 18 2.5 2.4 2.6 2.7 2.7 2.8 2.9 3.1 3.6 4.0 3.7 3.5 3.7 3.8 3.8
RE GRIDPOLR G02A2005 ELEV 18 3.9 3.9 3.9 3.9 3.8 3.9 3.4 3.0 3.1 2.8 1.8 1.3 2.6 3.1 3.5
RE GRIDPOLR G02A2005 ELEV 18 2.5 1.6 2.3 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 19 2.6 2.5 2.8 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.2 3.3 3.4 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 19 3.5 3.5 3.4 3.4 3.3 3.2 3.2 3.1 2.8 2.0 1.5 3.0 3.2 3.3 2.4
RE GRIDPOLR G02A2005 ELEV 19 1.7 2.6 3.0 3.2 3.4
RE GRIDPOLR G02A2005 ELEV 20 2.6 2.6 2.9 2.9 3.0 3.1 3.1 3.2 3.3 3.4 3.2 3.3 3.3 3.2 3.0
RE GRIDPOLR G02A2005 ELEV 20 2.9 3.0 2.9 2.8 2.8 2.8 3.1 3.2 2.6 1.8 2.0 3.4 3.0 2.7 1.7
RE GRIDPOLR G02A2005 ELEV 20 2.1 3.3 3.1 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 21 2.7 2.7 2.9 3.0 3.2 3.3 3.5 3.4 3.5 3.5 3.5 3.4 3.4 3.2 2.9
RE GRIDPOLR G02A2005 ELEV 21 2.6 2.5 2.4 2.2 2.3 2.7 3.3 3.4 2.8 2.1 2.2 3.5 3.1 2.8 1.4
RE GRIDPOLR G02A2005 ELEV 21 2.3 3.2 3.2 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 22 2.8 2.7 3.1 3.3 3.5 3.6 3.6 3.7 3.7 3.6 3.6 3.6 3.7 3.7 2.8
RE GRIDPOLR G02A2005 ELEV 22 1.9 2.0 2.0 2.0 2.2 3.0 3.6 3.4 3.2 2.3 2.5 3.1 3.6 3.6 3.6
RE GRIDPOLR G02A2005 ELEV 22 3.6 3.6 3.5 3.5 3.0
RE GRIDPOLR G02A2005 ELEV 23 2.8 2.8 3.4 3.5 3.6 3.7 3.8 3.9 3.7 3.7 3.7 3.9 3.8 3.9 3.6
RE GRIDPOLR G02A2005 ELEV 23 3.2 2.9 2.9 2.9 2.9 3.7 3.7 3.6 3.9 4.1 4.2 4.3 4.0 4.2 3.9
RE GRIDPOLR G02A2005 ELEV 23 3.3 2.6 1.8 1.2 1.6
RE GRIDPOLR G02A2005 ELEV 24 2.9 2.9 3.1 3.6 3.7 3.8 3.9 4.0 4.5 4.7 4.2 4.3 4.2 4.0 4.1
RE GRIDPOLR G02A2005 ELEV 24 4.3 4.4 4.1 4.2 4.0 4.2 4.4 4.5 4.6 4.5 4.8 4.9 4.6 4.2 3.1
RE GRIDPOLR G02A2005 ELEV 24 1.9 1.2 2.0 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 25 2.9 3.1 3.1 3.4 3.9 4.4 4.0 4.3 4.8 4.4 4.4 4.5 4.6 4.7 4.3

RE GRIDPOLR G02A2005 ELEV 25 4.5 4.5 4.1 3.7 3.9 4.4 4.9 5.3 5.6 5.7 5.6 5.5 5.4 5.3 4.5
RE GRIDPOLR G02A2005 ELEV 25 3.5 2.8 4.2 3.9 3.7
RE GRIDPOLR G02A2005 ELEV 26 3.0 3.2 3.3 3.5 3.7 4.1 4.2 4.2 4.5 4.6 4.6 4.7 4.7 5.0 4.9
RE GRIDPOLR G02A2005 ELEV 26 5.0 4.4 3.6 3.2 3.4 3.9 4.1 4.4 5.5 6.2 6.2 6.0 5.4 4.5 4.0
RE GRIDPOLR G02A2005 ELEV 26 4.6 6.3 4.9 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 27 3.0 3.2 3.5 3.7 4.0 4.2 4.5 4.7 5.0 5.3 5.6 5.2 5.3 5.9 5.9
RE GRIDPOLR G02A2005 ELEV 27 6.0 2.2 2.0 1.0 1.6 1.8 3.2 4.5 5.7 6.7 6.6 6.5 6.8 6.8 6.7
RE GRIDPOLR G02A2005 ELEV 27 6.7 6.8 6.7 6.4 6.1
RE GRIDPOLR G02A2005 ELEV 28 3.0 3.3 3.6 3.9 4.2 4.5 4.7 5.1 5.3 5.7 5.9 6.2 6.4 6.6 6.8
RE GRIDPOLR G02A2005 ELEV 28 6.9 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.9 7.0 7.1 7.1 7.0 7.1 6.1
RE GRIDPOLR G02A2005 ELEV 28 6.0 5.8 5.6 5.4 5.4
RE GRIDPOLR G02A2005 ELEV 29 2.9 2.4 1.4 0.8 0.7 0.7 0.7 0.9 0.9 0.8 0.8 0.8 0.9 1.8 3.1
RE GRIDPOLR G02A2005 ELEV 29 4.3 5.3 5.2 4.9 4.6 3.7 2.6 1.7 1.7 1.6 1.6 1.5 1.6 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 29 1.7 1.7 1.8 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 30 2.3 1.1 0.8 0.8 0.9 0.7 0.8 0.8 1.2 1.3 1.5 1.5 1.5 1.5 1.1
RE GRIDPOLR G02A2005 ELEV 30 1.1 1.3 1.8 1.8 1.4 1.3 1.2 1.1 1.1 1.5 1.9 2.6 4.8 7.2 7.1
RE GRIDPOLR G02A2005 ELEV 30 7.1 6.8 6.5 6.4 6.2
RE GRIDPOLR G02A2005 ELEV 31 1.6 0.9 0.9 0.8 0.9 1.1 1.4 1.3 1.4 1.4 1.5 1.4 1.4 1.2 1.4
RE GRIDPOLR G02A2005 ELEV 31 1.3 1.3 1.2 1.2 1.1 1.9 2.0 2.4 3.3 4.4 5.3 5.9 6.3 6.4 6.5
RE GRIDPOLR G02A2005 ELEV 31 6.6 6.6 6.2 6.2 6.0
RE GRIDPOLR G02A2005 ELEV 32 0.9 0.9 0.8 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.4 1.5 1.3
RE GRIDPOLR G02A2005 ELEV 32 1.4 1.5 2.1 2.3 2.2 2.0 2.3 3.3 4.4 5.4 5.4 5.5 5.7 4.6 3.5
RE GRIDPOLR G02A2005 ELEV 32 2.3 2.2 2.6 1.9 2.9
RE GRIDPOLR G02A2005 ELEV 33 0.8 0.9 0.9 1.1 1.4 1.3 1.3 1.9 1.6 1.5 1.5 1.5 1.5 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 33 2.4 2.8 2.9 3.0 2.3 2.0 2.7 4.2 5.3 4.9 5.0 4.5 3.6 2.8 1.7
RE GRIDPOLR G02A2005 ELEV 33 1.6 2.1 3.2 4.5 4.2
RE GRIDPOLR G02A2005 ELEV 34 0.7 0.9 0.9 1.3 1.3 1.3 1.5 2.6 3.8 5.0 6.2 6.6 3.7 3.4 3.1
RE GRIDPOLR G02A2005 ELEV 34 3.0 3.0 3.0 3.2 1.8 1.9 2.1 2.2 4.6 4.4 4.8 3.4 2.2 1.7 1.8
RE GRIDPOLR G02A2005 ELEV 34 2.2 3.5 4.1 3.7 3.8
RE GRIDPOLR G02A2005 ELEV 35 0.7 0.8 1.0 1.3 1.3 1.2 2.2 3.3 4.5 5.7 6.9 7.4 5.1 2.8 2.4
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RE GRIDPOLR G02A2005 ELEV 35 2.3 3.3 3.5 3.4 3.6
RE GRIDPOLR G02A2005 ELEV 36 0.7 0.9 1.0 1.3 1.3 1.3 2.6 3.8 5.0 6.2 7.1 7.3 6.4 5.3 4.1
RE GRIDPOLR G02A2005 ELEV 36 2.9 2.8 2.9 2.6 2.6 2.7 2.5 3.8 4.0 4.1 1.5 1.5 1.6 2.0 1.9
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RE GRIDPOLR G02A2005 HILL 1 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 7.6 7.3 7.2 7.0 7.2 7.4 7.5
RE GRIDPOLR G02A2005 HILL 1 7.8 7.6 7.4 7.3 7.0 3.8 4.1 4.2 4.2 3.7 3.5 3.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 1 3.3 3.2 3.3 3.5 3.0
RE GRIDPOLR G02A2005 HILL 2 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.5 7.3 7.1 6.9 7.1 7.5
RE GRIDPOLR G02A2005 HILL 2 7.6 7.1 5.9 5.9 5.5 4.6 4.4 4.2 4.4 3.8 3.5 3.5 3.7 4.6 2.3
RE GRIDPOLR G02A2005 HILL 2 2.1 2.1 2.1 2.8 3.2
RE GRIDPOLR G02A2005 HILL 3 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.4 7.2 7.0 6.8 6.7
RE GRIDPOLR G02A2005 HILL 3 6.6 6.0 5.8 5.6 5.9 5.5 5.9 5.5 6.5 4.3 4.3 4.3 3.5 3.3 3.6
RE GRIDPOLR G02A2005 HILL 3 3.6 4.5 4.6 4.6 1.9
RE GRIDPOLR G02A2005 HILL 4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.8 7.8 7.3 7.0 6.9
RE GRIDPOLR G02A2005 HILL 4 6.7 6.5 6.4 6.4 6.4 6.7 8.4 6.7 6.5 6.3 1.8 4.0 3.8 3.7 3.7
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RE GRIDPOLR G02A2005 HILL 5 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4
RE GRIDPOLR G02A2005 HILL 5 8.4 6.6 6.5 6.5 6.3 6.1 6.2 6.3 6.3 6.1 5.6 5.6 2.1 2.3 3.4
RE GRIDPOLR G02A2005 HILL 5 3.3 3.2 3.2 3.5 3.6
RE GRIDPOLR G02A2005 HILL 6 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.4
RE GRIDPOLR G02A2005 HILL 6 7.1 6.9 6.6 6.5 6.3 5.9 5.7 5.6 5.5 5.3 5.4 5.4 5.2 4.3 4.3
RE GRIDPOLR G02A2005 HILL 6 4.2 4.4 4.9 4.8 2.5
RE GRIDPOLR G02A2005 HILL 7 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 7.8 7.5 7.2 7.1

RE GRIDPOLR G02A2005 HILL 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 HILL 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 HILL 8 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 HILL 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 7.2 9.2
RE GRIDPOLR G02A2005 HILL 8 9.6 9.7 9.7 9.7 9.7
RE GRIDPOLR G02A2005 HILL 9 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.1 7.9 7.7 7.6 7.4 7.1 6.8
RE GRIDPOLR G02A2005 HILL 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 HILL 9 9.1 9.5 9.5 9.5 9.5
RE GRIDPOLR G02A2005 HILL 10 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 8.1 7.9 7.8 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 HILL 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 HILL 10 9.1 9.1 9.2 9.3 9.4
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ME UAIRDATA 54762 2014 KGYX
ME PROFBASE 4 METERS
ME FINISHED

OU STARTING
OU RECTABLE 1 SECOND
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** It is recommended that the user not edit any data below this line

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** BUILDING BLD 0 0 16.256 39.2684 12
** BUILDING IDN XG0SG002
** BUILDING CRN 328173.4 4690408.5
** BUILDING CRN 328146.6 4690414.2
** BUILDING CRN 328139 4690437
** BUILDING CRN 328137.6 4690467.7
** BUILDING CRN 328181.6 4690482.6
** BUILDING CRN 328215.7 4690482.6
** BUILDING CRN 328225.7 4690454.1
** BUILDING CRN 328177.9 4690455.4
** BUILDING CRN 328177 4690440.5
** BUILDING CRN 328176.8 4690423.2
** BUILDING CRN 328173.3 4690412.9
** BUILDING CRN 328173.4 4690408.5
** BUILDING BLD 0 0 39.2684 170.2562 9
** BUILDING IDN XG0SG003
** BUILDING CRN 328146.7 4690414.2
** BUILDING CRN 328138.9 4690436.7
** BUILDING CRN 328139 4690443.6
** BUILDING CRN 328140.5 4690443.4
** BUILDING CRN 328140.4 4690455.8
** BUILDING CRN 328159.1 4690455.7
** BUILDING CRN 328169.9 4690416.9
** BUILDING CRN 328168.6 4690409.2
** BUILDING CRN 328146.7 4690414.2

** TERRFILE \\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GIS\SHP\LIDARMERGE1.TIF 2 0 WGS84 19 0 327810.0 4690154.5 327810.0 4690827.5 328687.0 4690827.5 328687.0 4690154.5
** AMPTYPE NED
** AMPDATUM 3
** AMPZONE 19
** AMPHEMISPHERE N

** PROJECTION UTM
** DATUM NAR-D
** UNITS METER
** ZONE 19
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE REGULATORY,0
** AERMODEXE AERMOD_EPA_16216.EXE
** AERMAPEXE AERMAP_EPA_11103.EXE

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** BREEZE AERMOD
** Trinity Consultants
** VERSION  7.12

CO STARTING
CO TITLEONE  2015 1000 Boylston Garage
CO TITLETWO  CO
CO MODELOPT  DFAULT  CONC
CO RUNORNOT  RUN
CO AVERTIME  1  8
CO URBANOPT  4766755  BOSTONMSA  1
CO POLLUTID  CO
CO FLAGPOLE  0
CO FINISHED

SO STARTING
SO ELEVUNIT  METERS
SO LOCATION  PZA36001  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl3 Vent
SO LOCATION  PZA36002  VOLUME    328207.0  4690452.6  6.16
** SRCDESCR  Lvl4 Vent
SO SRCPARAM  PZA36001  0.11570  24.10358  18.98904  2.19456
SO SRCPARAM  PZA36002  0.11570  29.81858  18.98904  3.10896
SO URBANSRC  PZA36001  PZA36002
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDPOLR G02A2005 STA
RE GRIDPOLR G02A2005 ORIG  328207.0  4690452.3
RE GRIDPOLR  G02A2005 DIST  5  10  15  20  25  30  35  40  45  50  55  60  65  70  75  80  85  90  95  100
RE GRIDPOLR  G02A2005 DIST  110  120  130  140  150  160  170  180  190  200  210  220  230  240  250
RE GRIDPOLR G02A2005 GDIR  36  0  10.0
RE GRIDPOLR G02A2005 ELEV  1  0.6  0.9  1.1  1.4  1.3  1.4  2.7  3.9  5.2  6.4  7.2  7.0  6.8  5.1  4.4
RE GRIDPOLR G02A2005 ELEV  1  3.4  3.5  3.6  3.6  3.6  3.8  4.1  4.2  3.9  3.7  3.5  3.6  3.5  3.3  3.1
RE GRIDPOLR G02A2005 ELEV  1  2.2  2.7  3.1  3.3  3.0
RE GRIDPOLR G02A2005 ELEV  2  0.7  0.8  1.0  1.4  1.3  1.3  2.5  3.7  4.9  6.2  7.3  7.1  6.9  6.3  5.0
RE GRIDPOLR G02A2005 ELEV  2  4.5  4.9  5.0  4.7  4.8  4.6  4.4  4.1  3.7  3.8  3.5  3.5  2.3  1.9  1.8
RE GRIDPOLR G02A2005 ELEV  2  2.1  2.1  2.1  2.5  3.2
RE GRIDPOLR G02A2005 ELEV  3  0.6  0.9  1.0  1.4  1.3  1.2  2.3  3.5  4.8  6.1  7.3  7.2  7.0  6.8  6.7
RE GRIDPOLR G02A2005 ELEV  3  6.3  6.0  5.8  5.6  5.3  4.9  3.6  2.9  1.5  1.8  2.1  3.4  3.3  3.3  3.6
RE GRIDPOLR G02A2005 ELEV  3  2.8  2.1  1.8  1.6  1.9
RE GRIDPOLR G02A2005 ELEV  4  0.6  0.9  1.0  1.3  1.3  2.2  3.2  4.2  5.3  6.5  7.7  7.5  7.3  7.0  6.9
RE GRIDPOLR G02A2005 ELEV  4  6.7  6.5  6.4  6.4  6.0  3.9  2.3  1.9  1.8  1.8  1.8  1.9  2.0  3.4  3.0
RE GRIDPOLR G02A2005 ELEV  4  3.1  3.0  3.1  3.0  3.1
RE GRIDPOLR G02A2005 ELEV  5  0.7  0.9  0.9  1.2  1.7  2.5  3.4  4.2  5.0  5.9  6.7  7.5  7.5  7.2  7.0
RE GRIDPOLR G02A2005 ELEV  5  6.7  6.6  6.5  6.5  6.3  6.1  5.6  4.2  2.8  2.9  3.0  2.5  2.1  2.3  2.3
RE GRIDPOLR G02A2005 ELEV  5  3.2  3.2  3.2  3.5  3.6
RE GRIDPOLR G02A2005 ELEV  6  0.7  0.8  0.9  1.0  1.8  2.6  3.6  4.6  5.7  6.7  7.8  8.4  8.1  7.7  7.4
RE GRIDPOLR G02A2005 ELEV  6  7.1  6.9  6.6  6.5  6.3  5.9  5.7  5.6  5.5  5.3  5.4  5.1  4.6  4.3  4.3
RE GRIDPOLR G02A2005 ELEV  6  4.2  3.4  2.1  2.3  2.5
RE GRIDPOLR G02A2005 ELEV  7  1.1  0.8  0.9  1.0  2.1  3.3  4.5  5.6  6.8  8.0  8.2  7.8  7.5  7.2  7.1
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RE GRIDPOLR G02A2005 ELEV 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 ELEV 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 ELEV 8 1.7 0.9 0.7 1.2 2.6 3.8 5.1 6.4 7.7 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 ELEV 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 6.9 6.2
RE GRIDPOLR G02A2005 ELEV 8 5.2 5.1 5.1 5.1 5.1
RE GRIDPOLR G02A2005 ELEV 9 2.3 1.4 0.8 1.6 2.8 4.2 5.5 6.8 8.1 7.9 7.7 7.4 7.4 7.1 6.8
RE GRIDPOLR G02A2005 ELEV 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 ELEV 9 9.1 9.3 9.5 9.5 9.5
RE GRIDPOLR G02A2005 ELEV 10 2.5 2.3 2.0 1.8 3.1 4.3 5.6 7.0 8.1 7.9 7.6 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 10 6.2 5.9 5.5 5.2 5.0 5.8 6.5 7.2 8.0 7.9 7.9 8.4 8.8 9.1 9.2
RE GRIDPOLR G02A2005 ELEV 10 9.1 9.1 9.2 9.3 9.4
RE GRIDPOLR G02A2005 ELEV 11 2.5 2.2 1.9 1.7 3.2 4.6 5.5 6.8 8.0 8.0 7.9 7.6 7.2 6.9 6.5
RE GRIDPOLR G02A2005 ELEV 11 6.1 5.8 5.4 5.1 4.7 5.2 5.9 6.6 7.3 7.9 8.6 9.0 9.1 8.9 8.9
RE GRIDPOLR G02A2005 ELEV 11 8.9 9.0 9.1 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 12 2.5 2.2 1.8 1.7 2.2 5.3 7.3 8.0 7.8 8.0 8.0 7.6 7.3 6.9 6.6
RE GRIDPOLR G02A2005 ELEV 12 6.3 5.9 5.6 5.2 4.9 4.4 5.0 5.6 6.2 6.9 7.5 8.0 8.4 8.8 9.0
RE GRIDPOLR G02A2005 ELEV 12 9.1 9.2 9.3 9.2 9.3
RE GRIDPOLR G02A2005 ELEV 13 2.5 2.1 1.8 1.6 1.7 7.3 7.8 7.8 7.6 7.4 7.3 7.6 7.3 7.0 6.7
RE GRIDPOLR G02A2005 ELEV 13 6.4 6.1 5.8 5.5 5.2 4.5 3.9 4.6 5.2 5.8 6.1 6.5 6.8 7.2 7.5
RE GRIDPOLR G02A2005 ELEV 13 7.9 8.3 8.9 8.9 8.0
RE GRIDPOLR G02A2005 ELEV 14 2.5 2.1 1.8 2.2 3.5 4.8 6.1 7.4 7.4 7.3 7.0 6.7 6.5 6.2 6.1
RE GRIDPOLR G02A2005 ELEV 14 5.9 5.7 5.4 5.2 5.0 3.9 3.8 4.1 4.3 4.3 4.6 4.8 5.1 5.3 5.3
RE GRIDPOLR G02A2005 ELEV 14 5.1 5.1 4.1 2.3 3.3
RE GRIDPOLR G02A2005 ELEV 15 2.5 2.1 2.1 2.9 3.8 4.8 5.7 6.7 6.6 6.6 6.6 6.3 6.1 6.0 5.7
RE GRIDPOLR G02A2005 ELEV 15 5.4 5.0 4.8 4.5 4.2 3.9 3.8 3.8 3.9 3.9 4.0 3.8 3.4 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 15 3.1 3.3 3.3 3.2 2.1
RE GRIDPOLR G02A2005 ELEV 16 2.5 2.1 2.4 2.4 3.2 4.0 4.8 5.6 5.8 5.7 5.6 5.5 5.3 5.2 5.1
RE GRIDPOLR G02A2005 ELEV 16 5.0 4.9 4.7 4.5 4.3 3.8 3.6 3.5 3.2 3.1 3.1 3.0 3.2 3.2 3.1
RE GRIDPOLR G02A2005 ELEV 16 3.1 3.1 3.1 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 17 2.5 2.3 2.4 2.5 2.6 3.1 3.8 4.4 5.0 4.8 4.5 4.3 4.2 4.3 4.6
RE GRIDPOLR G02A2005 ELEV 17 4.7 4.7 4.5 4.3 4.1 3.8 3.4 3.5 3.0 2.9 2.9 2.7 2.0 2.0 3.0
RE GRIDPOLR G02A2005 ELEV 17 3.0 3.3 2.2 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 18 2.5 2.4 2.6 2.7 2.7 2.8 2.9 3.1 3.6 4.0 3.7 3.5 3.7 3.8 3.8
RE GRIDPOLR G02A2005 ELEV 18 3.9 3.9 3.9 3.9 3.8 3.9 3.4 3.0 3.1 2.8 1.8 1.3 2.6 3.1 3.5
RE GRIDPOLR G02A2005 ELEV 18 2.5 1.6 2.3 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 19 2.6 2.5 2.8 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.2 3.3 3.4 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 19 3.5 3.5 3.4 3.4 3.3 3.2 3.2 3.1 2.8 2.0 1.5 3.0 3.2 3.3 2.4
RE GRIDPOLR G02A2005 ELEV 19 1.7 2.6 3.0 3.2 3.4
RE GRIDPOLR G02A2005 ELEV 20 2.6 2.6 2.9 2.9 3.0 3.1 3.1 3.2 3.3 3.4 3.2 3.3 3.3 3.2 3.0
RE GRIDPOLR G02A2005 ELEV 20 2.9 3.0 2.9 2.8 2.8 2.8 3.1 3.2 2.6 1.8 2.0 3.4 3.0 2.7 1.7
RE GRIDPOLR G02A2005 ELEV 20 2.1 3.3 3.1 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 21 2.7 2.7 2.9 3.0 3.2 3.3 3.5 3.4 3.5 3.5 3.5 3.4 3.4 3.2 2.9
RE GRIDPOLR G02A2005 ELEV 21 2.6 2.5 2.4 2.2 2.3 2.7 3.3 3.4 2.8 2.1 2.2 3.5 3.1 2.8 1.4
RE GRIDPOLR G02A2005 ELEV 21 2.3 3.2 3.2 3.3 3.3
RE GRIDPOLR G02A2005 ELEV 22 2.8 2.7 3.1 3.3 3.5 3.6 3.6 3.7 3.7 3.6 3.6 3.6 3.7 3.7 2.8
RE GRIDPOLR G02A2005 ELEV 22 1.9 2.0 2.0 2.0 2.2 3.0 3.6 3.4 3.2 2.3 2.5 3.1 3.6 3.6 3.6
RE GRIDPOLR G02A2005 ELEV 22 3.6 3.6 3.5 3.5 3.0
RE GRIDPOLR G02A2005 ELEV 23 2.8 2.8 3.4 3.5 3.6 3.7 3.8 3.9 3.7 3.7 3.7 3.9 3.8 3.9 3.6
RE GRIDPOLR G02A2005 ELEV 23 3.2 2.9 2.9 2.9 2.9 3.7 3.7 3.6 3.9 4.1 4.2 4.3 4.0 4.2 3.9
RE GRIDPOLR G02A2005 ELEV 23 3.3 2.6 1.8 1.2 1.6
RE GRIDPOLR G02A2005 ELEV 24 2.9 2.9 3.1 3.6 3.7 3.8 3.9 4.0 4.5 4.7 4.2 4.3 4.2 4.0 4.1
RE GRIDPOLR G02A2005 ELEV 24 4.3 4.4 4.1 4.2 4.0 4.2 4.4 4.5 4.6 4.5 4.8 4.9 4.6 4.2 3.1
RE GRIDPOLR G02A2005 ELEV 24 1.9 1.2 2.0 3.3 3.2
RE GRIDPOLR G02A2005 ELEV 25 2.9 3.1 3.1 3.4 3.9 4.4 4.0 4.3 4.8 4.4 4.4 4.5 4.6 4.7 4.3

RE GRIDPOLR G02A2005 ELEV 25 4.5 4.5 4.1 3.7 3.9 4.4 4.9 5.3 5.6 5.7 5.6 5.5 5.4 5.3 4.5
RE GRIDPOLR G02A2005 ELEV 25 3.5 2.8 4.2 3.9 3.7
RE GRIDPOLR G02A2005 ELEV 26 3.0 3.2 3.3 3.5 3.7 4.1 4.2 4.2 4.5 4.6 4.6 4.7 4.7 5.0 4.9
RE GRIDPOLR G02A2005 ELEV 26 5.0 4.4 3.6 3.2 3.4 3.9 4.1 4.4 5.5 6.2 6.2 6.0 5.4 4.5 4.0
RE GRIDPOLR G02A2005 ELEV 26 4.6 6.3 4.9 3.5 3.6
RE GRIDPOLR G02A2005 ELEV 27 3.0 3.2 3.5 3.7 4.0 4.2 4.5 4.7 5.0 5.3 5.6 5.2 5.3 5.9 5.9
RE GRIDPOLR G02A2005 ELEV 27 6.0 2.2 2.0 1.0 1.6 1.8 3.2 4.5 5.7 6.7 6.6 6.5 6.8 6.8 6.7
RE GRIDPOLR G02A2005 ELEV 27 6.7 6.8 6.7 6.4 6.1
RE GRIDPOLR G02A2005 ELEV 28 3.0 3.3 3.6 3.9 4.2 4.5 4.7 5.1 5.3 5.7 5.9 6.2 6.4 6.6 6.8
RE GRIDPOLR G02A2005 ELEV 28 6.9 7.0 7.0 7.0 7.0 7.0 7.0 7.0 6.9 7.0 7.1 7.1 7.0 7.1 6.1
RE GRIDPOLR G02A2005 ELEV 28 6.0 5.8 5.6 5.4 5.4
RE GRIDPOLR G02A2005 ELEV 29 2.9 2.4 1.4 0.8 0.7 0.7 0.7 0.9 0.9 0.8 0.8 0.8 0.9 1.8 3.1
RE GRIDPOLR G02A2005 ELEV 29 4.3 5.3 5.2 4.9 4.6 3.7 2.6 1.7 1.7 1.6 1.6 1.5 1.6 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 29 1.7 1.7 1.8 1.8 1.8
RE GRIDPOLR G02A2005 ELEV 30 2.3 1.1 0.8 0.8 0.9 0.7 0.8 0.8 1.2 1.3 1.5 1.5 1.5 1.5 1.1
RE GRIDPOLR G02A2005 ELEV 30 1.1 1.3 1.8 1.8 1.4 1.3 1.2 1.1 1.1 1.5 1.9 2.6 4.8 7.2 7.1
RE GRIDPOLR G02A2005 ELEV 30 7.1 6.8 6.5 6.4 6.2
RE GRIDPOLR G02A2005 ELEV 31 1.6 0.9 0.9 0.8 0.9 1.1 1.4 1.3 1.4 1.4 1.5 1.4 1.4 1.2 1.4
RE GRIDPOLR G02A2005 ELEV 31 1.3 1.3 1.2 1.2 1.1 1.9 2.0 2.4 3.3 4.4 5.3 5.9 6.3 6.4 6.5
RE GRIDPOLR G02A2005 ELEV 31 6.6 6.6 6.2 6.2 6.0
RE GRIDPOLR G02A2005 ELEV 32 0.9 0.9 0.8 0.9 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.4 1.4 1.5 1.3
RE GRIDPOLR G02A2005 ELEV 32 1.4 1.5 2.1 2.3 2.2 2.0 2.3 3.3 4.4 5.4 5.4 5.5 5.7 4.6 3.5
RE GRIDPOLR G02A2005 ELEV 32 2.3 2.2 2.6 1.9 2.9
RE GRIDPOLR G02A2005 ELEV 33 0.8 0.9 0.9 1.1 1.4 1.3 1.3 1.9 1.6 1.5 1.5 1.5 1.5 1.6 2.1
RE GRIDPOLR G02A2005 ELEV 33 2.4 2.8 2.9 3.0 2.3 2.0 2.7 4.2 5.3 4.9 5.0 4.5 3.6 2.8 1.7
RE GRIDPOLR G02A2005 ELEV 33 1.6 2.1 3.2 4.5 4.2
RE GRIDPOLR G02A2005 ELEV 34 0.7 0.9 0.9 1.3 1.3 1.3 1.5 2.6 3.8 5.0 6.2 6.6 3.7 3.4 3.1
RE GRIDPOLR G02A2005 ELEV 34 3.0 3.0 3.0 3.2 1.8 1.9 2.1 2.2 4.6 4.4 4.8 3.4 2.2 1.7 1.8
RE GRIDPOLR G02A2005 ELEV 34 2.2 3.5 4.1 3.7 3.8
RE GRIDPOLR G02A2005 ELEV 35 0.7 0.8 1.0 1.3 1.3 1.2 2.2 3.3 4.5 5.7 6.9 7.4 5.1 2.8 2.4
RE GRIDPOLR G02A2005 ELEV 35 2.1 2.1 2.0 1.9 1.9 1.8 1.7 1.9 4.3 4.5 3.5 2.2 1.6 1.6 1.7
RE GRIDPOLR G02A2005 ELEV 35 2.3 3.3 3.5 3.4 3.6
RE GRIDPOLR G02A2005 ELEV 36 0.7 0.9 1.0 1.3 1.3 1.3 2.6 3.8 5.0 6.2 7.1 7.3 6.4 5.3 4.1
RE GRIDPOLR G02A2005 ELEV 36 2.9 2.8 2.9 2.6 2.6 2.7 2.5 3.8 4.0 4.1 1.5 1.5 1.6 2.0 1.9
RE GRIDPOLR G02A2005 ELEV 36 2.3 3.0 3.4 3.0 3.2
RE GRIDPOLR G02A2005 HILL 1 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 7.6 7.3 7.2 7.0 7.2 7.4 7.5
RE GRIDPOLR G02A2005 HILL 1 7.8 7.6 7.4 7.3 7.0 3.8 4.1 4.2 4.2 3.7 3.5 3.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 1 3.3 3.2 3.3 3.5 3.0
RE GRIDPOLR G02A2005 HILL 2 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.5 7.3 7.1 6.9 7.1 7.5
RE GRIDPOLR G02A2005 HILL 2 7.6 7.1 5.9 5.9 5.5 4.6 4.4 4.2 4.4 3.8 3.5 3.5 3.7 4.6 2.3
RE GRIDPOLR G02A2005 HILL 2 2.1 2.1 2.1 2.8 3.2
RE GRIDPOLR G02A2005 HILL 3 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.4 7.2 7.0 6.8 6.7
RE GRIDPOLR G02A2005 HILL 3 6.6 6.0 5.8 5.6 5.9 5.5 5.9 5.5 6.5 4.3 4.3 4.3 3.5 3.3 3.6
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RE GRIDPOLR G02A2005 HILL 4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.8 7.8 7.8 7.3 7.0 6.9
RE GRIDPOLR G02A2005 HILL 4 6.7 6.5 6.4 6.4 6.4 6.7 8.4 6.7 6.5 6.3 1.8 4.0 3.8 3.7 3.7
RE GRIDPOLR G02A2005 HILL 4 3.1 4.6 4.6 4.6 3.1
RE GRIDPOLR G02A2005 HILL 5 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4
RE GRIDPOLR G02A2005 HILL 5 8.4 6.6 6.5 6.5 6.3 6.1 6.2 6.3 6.3 6.1 5.6 5.6 2.1 2.3 3.4
RE GRIDPOLR G02A2005 HILL 5 3.3 3.2 3.2 3.5 3.6
RE GRIDPOLR G02A2005 HILL 6 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 7.4
RE GRIDPOLR G02A2005 HILL 6 7.1 6.9 6.6 6.5 6.3 5.9 5.7 5.6 5.5 5.3 5.4 5.4 5.2 4.3 4.3
RE GRIDPOLR G02A2005 HILL 6 4.2 4.4 4.9 4.8 2.5
RE GRIDPOLR G02A2005 HILL 7 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 7.8 7.5 7.2 7.1

RE GRIDPOLR G02A2005 HILL 7 6.9 6.7 6.6 6.6 6.3 6.0 6.0 5.6 5.2 4.9 4.8 4.6 4.7 4.6 4.5
RE GRIDPOLR G02A2005 HILL 7 4.5 4.4 4.3 4.2 4.2
RE GRIDPOLR G02A2005 HILL 8 8.4 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.2 7.8 7.5 7.4 7.1 7.1
RE GRIDPOLR G02A2005 HILL 8 6.8 6.5 6.2 5.9 5.6 6.1 6.7 6.4 6.1 5.8 6.0 6.4 6.7 7.2 9.2
RE GRIDPOLR G02A2005 HILL 8 9.6 9.7 9.7 9.7 9.7
RE GRIDPOLR G02A2005 HILL 9 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.3 8.1 7.9 7.7 7.6 7.4 7.1 6.8
RE GRIDPOLR G02A2005 HILL 9 6.5 6.1 5.8 5.4 5.3 6.1 6.8 7.3 6.9 6.8 7.1 7.5 7.9 8.3 8.8
RE GRIDPOLR G02A2005 HILL 9 9.1 9.5 9.5 9.5 9.5
RE GRIDPOLR G02A2005 HILL 10 8.4 8.4 8.4 8.4 8.4 8.4 8.3 8.2 8.1 7.9 7.8 7.6 7.3 6.9 6.6
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VENTILATION\AERMOD\MET\BOS2015.SFC"
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VENTILATION\AERMOD\MET\BOS2015.SFC"
ME PROFFILE  "\\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GARAGE
VENTILATION\AERMOD\MET\BOS2015.PFL"
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VENTILATION\AERMOD\MET\BOS2015.PFL"
ME SURFDATA  14739 2015 KBOS
ME UAIRDATA  54762 2015 KGYX
ME PROFBASE  4  METERS
ME FINISHED

OU STARTING
OU RECTABLE  1  SECOND
OU RECTABLE  8  SECOND
OU FILEFORM  FIX
OU FINISHED

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** It is recommended that the user not edit any data below this line
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** BUILDING CRN 328146.6 4690414.1
** BUILDING CRN 328138.9 4690437
** BUILDING CRN 328142.1 4690441.4
** BUILDING CRN 328177.1 4690440.8
** BUILDING CRN 328176.7 4690423.4
** BUILDING CRN 328173.4 4690412.3
** BUILDING CRN 328173.3 4690408.5
** BUILDING BLD 0 0 7.0104 16.256 6
** BUILDING IDN XG0SG001
** BUILDING CRN 328137.9 4690456
** BUILDING CRN 328225.6 4690454.1
** BUILDING CRN 328215.7 4690482.7
** BUILDING CRN 328181.4 4690482.7
** BUILDING CRN 328137.7 4690467.7
** BUILDING CRN 328137.9 4690456
** BUILDING BLD 0 0 16.256 39.2684 12
** BUILDING IDN XG0SG002
** BUILDING CRN 328173.4 4690408.5
** BUILDING CRN 328146.6 4690414.2
** BUILDING CRN 328139 4690437
** BUILDING CRN 328137.6 4690467.7
** BUILDING CRN 328181.6 4690482.6
** BUILDING CRN 328215.7 4690482.6
** BUILDING CRN 328225.7 4690454.1
** BUILDING CRN 328177.9 4690455.4
** BUILDING CRN 328177 4690440.5
** BUILDING CRN 328176.8 4690423.2
** BUILDING CRN 328173.3 4690412.9
** BUILDING CRN 328173.4 4690408.5
** BUILDING BLD 0 0 39.2684 170.2562 9
** BUILDING IDN XG0SG003
** BUILDING CRN 328146.7 4690414.2
** BUILDING CRN 328138.9 4690436.7
** BUILDING CRN 328139 4690443.6
** BUILDING CRN 328140.5 4690443.4
** BUILDING CRN 328140.4 4690455.8
** BUILDING CRN 328159.1 4690455.7
** BUILDING CRN 328169.9 4690416.9
** BUILDING CRN 328168.6 4690409.2
** BUILDING CRN 328146.7 4690414.2

** TERRFILE \\VHB\PROJ\BOSTON\13148.00\TECH\AQ_GHG\GIS\SHP\LIDARMERGE1.TIF 2 0 WGS84 19 0 327810.0 4690154.5 327810.0 4690827.5 328687.0 4690827.5 328687.0 4690154.5
** AMPTYPE NED
** AMPDATUM 3
** AMPZONE 19
** AMPHEMISPHERE N

** PROJECTION UTM
** DATUM NAR-D
** UNITS METER
** ZONE 19
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE Regulatory,0
** AERMODEXE AERMOD_EPA_16216.exe
** AERMAPEXE AERMAP_EPA_11103.EXE

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	2ND	Avg. Conc.	15.54846	ug/m**3	11052107	328245.97	4690474.80	6.80	8.40	0.00	GP	G02A2005
8-HR	ALL	2ND	Avg. Conc.	5.90409	ug/m**3	11012816	328145.94	4690525.07	3.00	7.60	0.00	GP	G02A2005

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
2	Warning Message(s)
36	Informational Message(s)
8760	Hours Were Processed
14	Calm Hours Identified
22	Missing Hours Identified (0.25 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	RE	W216	FLAG Input Inconsistent With Option: Defaults Used G02A2005
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	2ND	Avg. Conc.	17.43326	ug/m**3	12102509	328245.97	4690474.80	6.80	8.40	0.00	GP	G02A2005
8-HR	ALL	2ND	Avg. Conc.	7.40832	ug/m**3	12120216	328157.76	4690443.62	5.30	5.40	0.00	GP	G02A2005

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
2	Warning Message(s)
22	Informational Message(s)
8784	Hours Were Processed
15	Calm Hours Identified
7	Missing Hours Identified (0.08 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	RE	W216	FLAG Input Inconsistent With Option: Defaults Used G02A2005
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	2ND	Avg. Conc.	18.22053	ug/m**3	13122611	328245.97	4690474.80	6.80	8.40	0.00	GP	G02A2005
8-HR	ALL	2ND	Avg. Conc.	6.31815	ug/m**3	13011116	328146.38	4690417.30	4.70	4.70	0.00	GP	G02A2005

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
2	Warning Message(s)
17	Informational Message(s)
8760	Hours Were Processed
10	Calm Hours Identified
7	Missing Hours Identified (0.08 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	RE	W216	FLAG Input Inconsistent With Option: Defaults Used G02A2005
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	2ND	Avg. Conc.	14.04066	ug/m**3	14110410	328186.48	4690508.68	7.40	7.40	0.00	GP	G02A2005
8-HR	ALL	2ND	Avg. Conc.	5.35216	ug/m**3	14112916	328300.56	4690435.80	5.10	5.10	0.00	GP	G02A2005

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
2	Warning Message(s)
28	Informational Message(s)
8760	Hours Were Processed
10	Calm Hours Identified
18	Missing Hours Identified (0.21 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	RE	W216	FLAG Input Inconsistent With Option: Defaults Used G02A2005
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

BREEZE AERMOD Model Results

Highest Results of Pollutant: CO

Avg. Per.	Grp ID	High	Type	Val	Units	Date	UTM		Elev.	Hill Ht.	Flag Ht.	Rec. Type	Grid ID
						YYMMDDHH	East (m)	North (m)	(m)	(m)	(m)		
1-HR	ALL	2ND	Avg. Conc.	14.61288	ug/m**3	15031008	328235.93	4690417.83	6.60	7.30	0.00	GP	G02A2005
8-HR	ALL	2ND	Avg. Conc.	6.36098	ug/m**3	15012916	328267.62	4690417.30	7.00	7.00	0.00	GP	G02A2005

Summary of Total Messages

#	Message Type
0	Fatal Error Message(s)
2	Warning Message(s)
23	Informational Message(s)
8760	Hours Were Processed
11	Calm Hours Identified
12	Missing Hours Identified (0.14 Percent)

Error & Warning Messages

Msg. Type	Pathway	Ref. #	Description
WARNING	RE	W216	FLAG Input Inconsistent With Option: Defaults Used G02A2005
WARNING	ME	W186	THRESH_1MIN 1-min ASOS wind speed threshold used 0.50

Greenhouse Gas Emissions Assessment Supporting Documentation

1,000 Boylston

Revised: 8-14-17

Energy Savings vs ASHRAE 2013: 12.4%

Summary of Assumptions for Energy Model	ASHRAE 90.1-2013 Baseline	Design
General Building Information		
Space use type	Condominiums Retail Parking	Condominiums Retail Parking
Conditioned Square Feet	553,000	553,000
Operating Schedule (HVAC Fans)	24 Hours	24 Hours
Temperature Setpoints	Cooling - 75°F Heating - 70°F	Cooling - 75°F Heating - 70°F
Building Envelope (Construction Assemblies)		
Roofs	R20ci Above Deck (U-0.048)	R30ci Above Deck (U-0.033)
Walls	60% Steel Framed (U-0.064)	Precast Panels and Rainscreen (Average 0.039)
Fenestration and Shading		
Vertical fenestration area (of Wall area)	40%	67%
Vertical Glazing U-factor	U-0.55 (operable)	U-0.36 (operable)
Vertical Glazing SHGC	0.4	0.29
Fenestraion Visual Light Transmittance	N/A	N/A
HVAC (Air-side)		
Primary HVAC Type (All spaces except for guest rooms	System 7 - VAV With Reheat - System Per Floor	100% Outside Air Packaged Rooftop Units
Secondary HVAC Type (Apartments & Condos)	PTAC with hot water heat	Fan Coil Units (Condos)
Unitary Efficiency	PTACs: 14 SEER	N/A
Fan System Operation	Guestrooms - On continuously during occupied hours. Cycled to meet load during unoccupied hours. Common Areas - On 24 Hours	Apartments & Condos - Cycled to meet load. Common Areas - On 24 Hours
Outdoor Air Design Min. Ventilation	Per ASHRAE 62.1-2013	Per ASHRAE 62.1-2007
Economizer High-Limit Shutoff	Outdoor Air Temperature 70F	Outdoor Air Temperature 70F
Design Airflow Rates (Conditioned Spaces)	Autosized based on 20F supply air to room air delta-T	Autosized based on 20F supply air to room air delta-T
Total System Fan Power (Conditioned)	Per ASHRAE 90.1-2013 G3.1.2.10	Per ASHRAE 90.1-2007 G3.1.2.9
Exhaust Air Energy Recovery	Yes (see below)	Yes (see below)
Demand Control Ventilation	N/A	N/A
Supply Air Temperature Reset Parameters	Load Reset on VAV systems from 55F-60F	Constant
HVAC (Water-side)		
Number of Chillers	2	2 (For Condo CHW Loop)
Chiller Part-Load Controls	No VSD	VSD
Chiller Capacity (Per Chiller)	>300 Tons	769 Tons Each
Chiller Efficiency	.576 kW/Ton	0.514 kW/Ton
Chilled Water Loop Supply Temperature	44	44
Chilled Water (CHW) Loop Delta-T	12	10
CHW Loop Temp Reset Parameters	54F @ 60F OA, 44F @ 80F OA	N/A
CHW Loop Configuration	Primary/Secondary	Primary Only
Number of Primary CHW Pumps	1	1
Primary CHW Pump Power	22 W/GPM	22 W/GPM
Primary CHW Pump Speed Control	Variable Speed	Variable Speed
Secondary CHW Pump Power	22 W/GPM	N/A
Secondary CHW Pump Speed Control	Variable Speed	N/A
Number of Cooling Towers / Fluid Coolers	2	2
Cooling Tower Fan Control	Variable Speed	Variable Speed
Condenser Water Leaving Temperature	85	85
Condenser Water (CW) Loop Delta-T	10	10
CW Loop Temp Reset Parameters	Fixed	65F @ 65F OA, 85F @ 80F
CW Loop Configuration	Primary Only	Primary Only
Number of CW Pumps	1	1
CW Pump Power	19 W/GPM	19 W/GPM
CW Pump Speed Control	One Speed	Variable Speed
Water-side Economizer for Free Cooling	No	No
Number of Boilers	2	5
Boiler Part-Load Controls	Staged	Staged
Boiler Capacity (Per Boiler)	N/A	3 @ 5,670 MBH 2 @ 3,800 MBH
Boiler Efficiency	82% Natural Draft	92% Condensing
Boiler Water Loop Supply Temperature	180F	160F
Hot Water (HW) Loop Delta-T	50F	40F
HW Loop Reset Parameters	150F @ 50F OA, 180F @ 20F OA	N/A
HW Loop Configuration	Primary Only	Primary Only
Number of Primary HHW Pumps	1	1
Primary HW Pump Power	19W/GPM	19W/GPM
Primary HW Pump Speed Control	Variable Speed	Variable Speed
Energy Recovery Ventilator		
ERV Installed	Yes	Yes
ERV Device Type	Enthalpy Wheel	Enthalpy Wheel
Effectiveness	50%	70%
Operation Control	Outside Air Exhaust Temperature Differential	Outside Air Exhaust Temperature Differential
Outside/Exhaust Air Delta T	5-F	5-F
Domestic Water Heating		
DHW Equipment Type	Gas Storage	Gas Storage
Equipment Efficiency	80%	92%
Temperature Controls	120F Constant	120F Constant
Lighting		
Automatic Lighting Shutoff Method	Scheduled off during unoccupied hours	Scheduled off during unoccupied hours
Gross Lighted Floor Area	553,000	553,000
Interior Lighting Power Calc Method	Space By Space	Space By Space
Interior LPD (By Space by Space Method)	Cafe - 0.65 Conference - 1.23 Corridor - 0.66 Fitness - 0.72 Kitchen - 1.21 Loading - 0.19 Lobby - 0.9 Lounge -0.73 Mechanical - 0.42 Parking - 0.19 Residential - 0.7 Retail - 1.1 Stair - 0.69 Storage - 0.64	Cafe - 0.52 Conference - 0.98 Corridor - 0.53 Fitness - 0.58 Kitchen - 0.97 Loading - 0.15 Lobby - 0.72 Lounge -0.58 Mechanical - 0.34 Parking - 0.15 Residential - 0.7 Retail - 1.1 Stair - 0.55 Storage - 0.50
Miscellaneous		
Receptacle Equipment	0.75 W/sf	0.75 W/sf

Electric Rate	0.16	$/kWh
Natural Gas Rate	1.25	$/Therm

1000 Boylston - DPIR Energy Model

ASHRAE 90.1-2013 Baseline		
	Electrical (kWh)	**Natural Gas (kBtu)**
Space Cool	2,406,300	0
Heat Reject.	2,400	0
Refrigeration	0	0
Space Heat	0	11,580,000
HP Supp.	0	0
Hot Water	0	2,610,000
Vent. Fans	931,700	0
Pumps & Aux.	674,600	0
Ext. Usage	0	0
Misc. Equip.	2,990,100	0
Task Lights	0	0
Area Lights	1,074,100	0
Total	8,079,200	14,190,000

Design		
	Electrical (kWh)	**Natural Gas (kBtu)**
Space Cool	1,492,500	0
Heat Reject.	65,700	0
Refrigeration	0	0
Space Heat	0	10,890,000
HP Supp.	0	0
Hot Water	0	2,290,000
Vent. Fans	1,140,000	0
Pumps & Aux.	457,200	0
Ext. Usage	0	0
Misc. Equip.	2,990,100	0
Task Lights	0	0
Area Lights	923,100	0
Total	7,068,600	13,180,000

Williams College Inn Brainstorming			
	Electrical (MMBtu)	**Natural Gas (MMBtu)**	**ASHRAE 2013 (MMBtu)**
Space Cool	8,213	0	8,213
Heat Reject.	8	0	8
Refrigeration	0	0	0
Space Heat	0	11,580	11,580
HP Supp.	0	0	0
Hot Water	0	2,610	2,610
Vent. Fans	3,180	0	3,180
Pumps & Aux.	2,302	0	2,302
Ext. Usage	0	0	0
Misc. Equip.	10,205	0	10,205
Task Lights	0	0	0
Area Lights	3,666	0	3,666
Total	27,574	14,190	41,764

Design			
	Electrical (MMBtu)	**Natural Gas (MMBtu)**	**Design (MMBtu)**
Space Cool	5,094	0	5,094
Heat Reject.	224	0	224
Refrigeration	0	0	0
Space Heat	0	10,890	10,890
HP Supp.	0	0	0
Hot Water	0	2,290	2,290
Vent. Fans	3,891	0	3,891
Pumps & Aux.	1,560	0	1,560
Ext. Usage	0	0	0
Misc. Equip.	10,205	0	10,205
Task Lights	0	0	0
Area Lights	3,151	0	3,151
Total	24,125	13,180	37,305

ASHRAE 90.1-2013 Baseline Cost			
	Electrical ($)	**Natural Gas ($)**	**Total ($)**
Space Cool	$385,008	$0	$385,008
Heat Reject.	$384	$0	$384
Refrigeration	$0	$0	$0
Space Heat	$0	$144,750	$144,750
HP Supp.	$0	$0	$0
Hot Water	$0	$32,625	$32,625
Vent. Fans	$149,072	$0	$149,072
Pumps & Aux.	$107,936	$0	$107,936
Ext. Usage	$0	$0	$0
Misc. Equip.	$478,416	$0	$478,416
Task Lights	$0	$0	$0
Area Lights	$171,856	$0	$171,856
Total	$1,292,672	$177,375	$1,470,047

Design Cost			
	Electrical ($)	**Natural Gas ($)**	**Total ($)**
Space Cool	$238,800	$0	$238,800
Heat Reject.	$10,512	$0	$10,512
Refrigeration	$0	$0	$0
Space Heat	$0	$136,125	$136,125
HP Supp.	$0	$0	$0
Hot Water	$0	$28,625	$28,625
Vent. Fans	$182,400	$0	$182,400
Pumps & Aux.	$73,152	$0	$73,152
Ext. Usage	$0	$0	$0
Misc. Equip.	$478,416	$0	$478,416
Task Lights	$0	$0	$0
Area Lights	$147,696	$0	$147,696
Total	$1,130,976	$164,750	$1,295,726

REPORT- BEPS Building Energy Performance WEATHER FILE- Boston MA TMY2

	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
Resi ELECTRICITY													
MBTU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reta ELECTRICITY													
MBTU	244.6	0.0	552.5	0.0	153.9	0.0	2.2	1998.8	0.0	0.0	0.0	0.0	2952.0
Cece ELECTRICITY													
MBTU	3335.8	0.0	9563.8	0.0	8058.8	8.0	2300.1	1181.2	0.0	0.0	0.0	0.0	24447.6
Pru ELECTRICITY													
MBTU	85.5	0.0	88.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	174.4
Resi NATURAL-GAS													
MBTU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reta NATURAL-GAS													
MBTU	0.0	0.0	0.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0
Cece NATURAL-GAS													
MBTU	0.0	0.0	0.0	11525.7	0.0	0.0	0.0	0.0	0.0	0.0	2610.3	0.0	14136.0
Pru NATURAL-GAS													
MBTU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MBTU	3666.0	0.0	10205.2	11576.6	8212.7	8.0	2302.3	3180.0	0.0	0.0	2610.3	0.0	41761.0

TOTAL SITE ENERGY 41760.98 MBTU 76.0 KBTU/SQFT-YR GROSS-AREA 76.0 KBTU/SQFT-YR NET-AREA
TOTAL SOURCE ENERGY 96909.10 MBTU 176.3 KBTU/SQFT-YR GROSS-AREA 176.3 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 2.56
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 3
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 221

NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

REPORT- BEPU Building Utility Performance WEATHER FILE- Boston MA TMY2

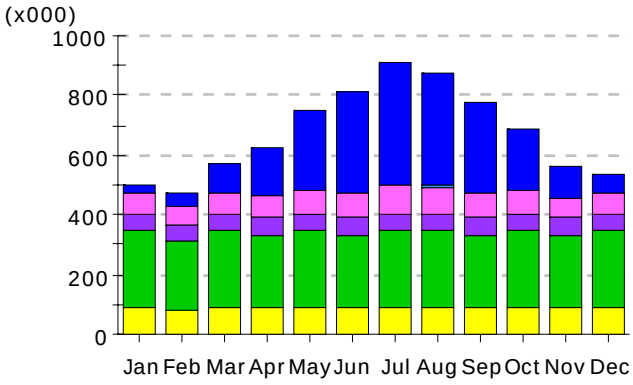
	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
Resi ELECTRICITY													
KWH	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Reta ELECTRICITY													
KWH	71666.	0.	161872.	0.	45090.	0.	650.	585653.	0.	0.	0.	0.	864937.
Cece ELECTRICITY													
KWH	977398.	0.	2802206.	0.	2361219.	2354.	673920.	346082.	0.	0.	0.	0.	7163158.
Pru ELECTRICITY													
KWH	25059.	0.	26033.	0.	0.	0.	0.	0.	0.	0.	0.	0.	51091.
Resi NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Reta NATURAL-GAS													
THERM	0.	0.	0.	510.	0.	0.	0.	0.	0.	0.	0.	0.	510.
Cece NATURAL-GAS													
THERM	0.	0.	0.	115257.	0.	0.	0.	0.	0.	0.	26103.	0.	141360.
Pru NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL ELECTRICITY 8079186. KWH 14.695 KWH /SQFT-YR GROSS-AREA 14.695 KWH /SQFT-YR NET-AREA
TOTAL NATURAL-GAS 141870. THERM 0.258 THERM /SQFT-YR GROSS-AREA 0.258 THERM /SQFT-YR NET-AREA

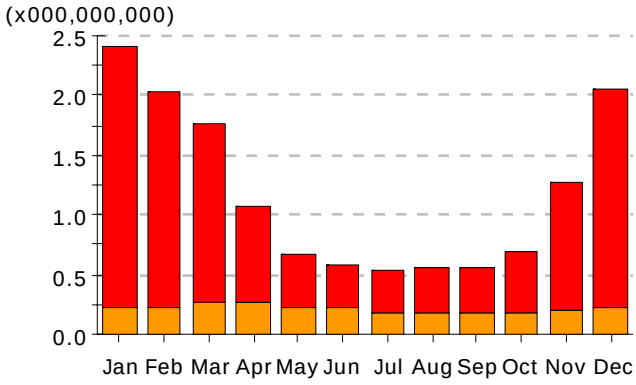
PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 2.56
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 3
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 221

NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

Electric Consumption (kWh)



Gas Consumption (Btu)





Electric Consumption (kWh x000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	31.9	50.1	96.4	161.0	265.8	334.7	407.2	375.4	303.0	212.6	105.0	63.2	2,406.3
Heat Reject.	-	-	-	0.0	0.1	0.4	0.9	0.6	0.3	0.0	0.0	0.0	2.4
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	-	-	-	-	-	-	-	-	-	-	-	-	-
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Vent. Fans	69.1	63.6	72.6	74.4	81.7	85.8	94.4	91.5	82.1	77.1	69.3	70.2	931.7
Pumps & Aux.	57.0	51.5	57.0	55.1	57.0	55.7	58.7	58.2	55.3	56.9	55.1	57.0	674.6
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	254.0	229.4	254.0	245.8	254.0	245.8	254.0	254.0	245.8	254.0	245.8	254.0	2,990.1
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	91.0	82.4	91.4	88.4	91.1	88.4	91.3	91.3	88.3	91.1	88.2	91.1	1,074.1
Total	502.9	476.9	571.4	624.8	749.7	810.8	906.4	871.0	774.7	691.7	563.3	535.5	8,079.2

Gas Consumption (Btu x000,000,000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	2.18	1.79	1.49	0.81	0.45	0.37	0.34	0.36	0.39	0.51	1.06	1.82	11.58
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	0.23	0.23	0.28	0.26	0.22	0.21	0.19	0.19	0.18	0.19	0.20	0.23	2.61
Vent. Fans	-	-	-	-	-	-	-	-	-	-	-	-	-
Pumps & Aux.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	-	-	-	-	-	-	-	-	-	-	-	-	-
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2.41	2.02	1.77	1.07	0.67	0.59	0.53	0.55	0.57	0.69	1.26	2.05	14.19

REPORT- BEPS Building Energy Performance WEATHER FILE- Boston MA TMY2

	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
Resi ELECTRICITY													
MBTU	850.6	0.0	6647.5	0.0	0.0	0.0	3.3	556.9	0.0	0.0	0.0	0.0	8058.3
Reta ELECTRICITY													
MBTU	360.0	0.0	738.8	0.0	160.3	0.0	3.5	2319.4	0.0	0.0	0.0	0.0	3582.0
Cece ELECTRICITY													
MBTU	1871.4	0.0	2730.0	0.0	5084.9	222.7	1533.6	1013.0	0.0	0.0	0.0	0.0	12455.5
Pru ELECTRICITY													
MBTU	68.4	0.0	88.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	157.3
Resi NATURAL-GAS													
MBTU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reta NATURAL-GAS													
MBTU	0.0	0.0	0.0	60.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.3
Cece NATURAL-GAS													
MBTU	0.0	0.0	0.0	9998.4	0.0	0.0	0.0	0.0	0.0	0.0	2282.8	0.0	12281.2
Pru NATURAL-GAS													
MBTU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MBTU	3150.4	0.0	10205.2	10058.7	5245.2	222.7	1540.4	3889.2	0.0	0.0	2282.8	0.0	36594.5

TOTAL SITE ENERGY 36594.49 MBTU 66.6 KBTU/SQFT-YR GROSS-AREA 66.6 KBTU/SQFT-YR NET-AREA
TOTAL SOURCE ENERGY 85100.59 MBTU 154.8 KBTU/SQFT-YR GROSS-AREA 154.8 KBTU/SQFT-YR NET-AREA

PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 1.64
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 0
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 144

NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

REPORT- BEPU Building Utility Performance WEATHER FILE- Boston MA TMY2

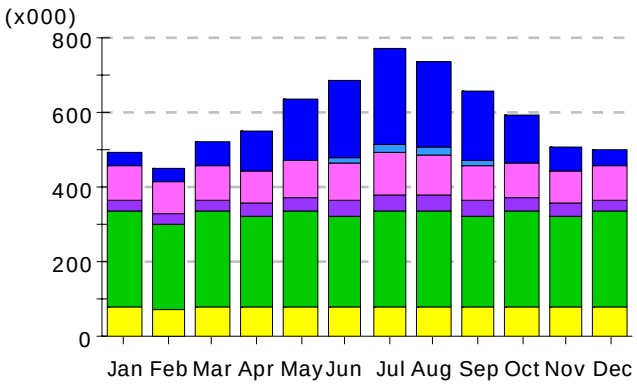
	LIGHTS	TASK LIGHTS	MISC EQUIP	SPACE HEATING	SPACE COOLING	HEAT REJECT	PUMPS & AUX	VENT FANS	REFRIG DISPLAY	HT PUMP SUPPLEM	DOMEST HOT WTR	EXT USAGE	TOTAL
Resi ELECTRICITY													
KWH	249231.	0.	1947718.	0.	0.	0.	971.	163168.	0.	0.	0.	0.	2361073.
Reta ELECTRICITY													
KWH	105478.	0.	216469.	0.	46970.	0.	1022.	679576.	0.	0.	0.	0.	1049518.
Cece ELECTRICITY													
KWH	548309.	0.	799891.	0.	1489882.	65243.	449345.	296797.	0.	0.	0.	0.	3649461.
Pru ELECTRICITY													
KWH	20047.	0.	26033.	0.	0.	0.	0.	0.	0.	0.	0.	0.	46080.
Resi NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
Reta NATURAL-GAS													
THERM	0.	0.	0.	603.	0.	0.	0.	0.	0.	0.	0.	0.	603.
Cece NATURAL-GAS													
THERM	0.	0.	0.	99984.	0.	0.	0.	0.	0.	0.	22828.	0.	122812.
Pru NATURAL-GAS													
THERM	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

TOTAL ELECTRICITY 7106132. KWH 12.925 KWH /SQFT-YR GROSS-AREA 12.925 KWH /SQFT-YR NET-AREA
TOTAL NATURAL-GAS 123415. THERM 0.224 THERM /SQFT-YR GROSS-AREA 0.224 THERM /SQFT-YR NET-AREA

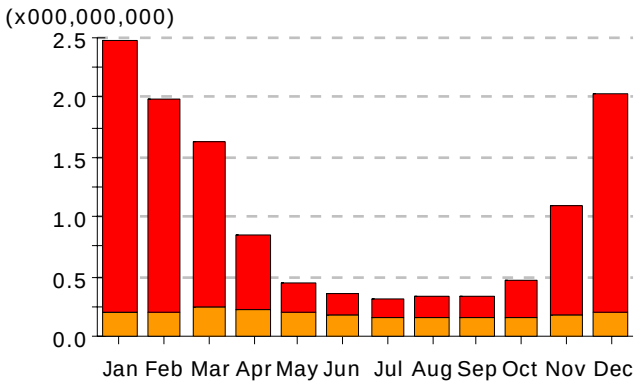
PERCENT OF HOURS ANY SYSTEM ZONE OUTSIDE OF THROTTLING RANGE = 1.64
PERCENT OF HOURS ANY PLANT LOAD NOT SATISFIED = 0.00
HOURS ANY ZONE ABOVE COOLING THROTTLING RANGE = 0
HOURS ANY ZONE BELOW HEATING THROTTLING RANGE = 144

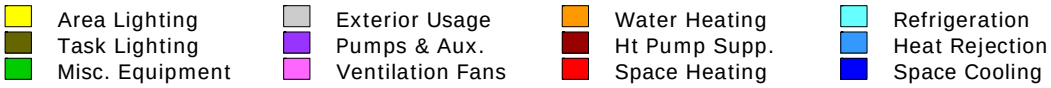
NOTE: ENERGY IS APPORTIONED HOURLY TO ALL END-USE CATEGORIES.

Electric Consumption (kWh)



Gas Consumption (Btu)





Electric Consumption (kWh x000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	36.6	40.4	64.5	100.4	161.4	205.6	261.7	235.4	185.2	131.5	67.1	47.2	1,536.9
Heat Reject.	0.0	0.0	0.1	0.5	5.1	11.4	20.6	16.5	8.8	1.9	0.3	0.1	65.2
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	-	-	-	-	-	-	-	-	-	-	-	-	-
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Vent. Fans	89.2	80.5	89.5	89.5	98.5	103.4	113.2	110.3	99.6	92.9	84.6	88.3	1,139.5
Pumps & Aux.	35.2	31.7	35.1	34.3	38.2	40.8	46.9	44.4	39.3	36.4	34.1	35.1	451.3
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	254.0	229.4	254.0	245.8	254.0	245.8	254.0	254.0	245.8	254.0	245.8	254.0	2,990.1
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	78.2	70.8	78.6	76.0	78.3	76.0	78.4	78.4	75.9	78.3	75.8	78.3	923.1
Total	493.1	452.8	521.7	546.5	635.4	682.9	774.8	739.0	654.5	595.0	507.6	502.9	7,106.1

Gas Consumption (Btu x000,000,000)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	2.28	1.79	1.39	0.63	0.25	0.17	0.15	0.16	0.18	0.31	0.92	1.82	10.06
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	0.20	0.20	0.24	0.23	0.19	0.19	0.17	0.16	0.16	0.16	0.18	0.20	2.28
Vent. Fans	-	-	-	-	-	-	-	-	-	-	-	-	-
Pumps & Aux.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	-	-	-	-	-	-	-	-	-	-	-	-	-
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2.48	2.00	1.63	0.86	0.44	0.36	0.32	0.33	0.34	0.47	1.10	2.03	12.34

Appendix G: Construction Supporting Documentation

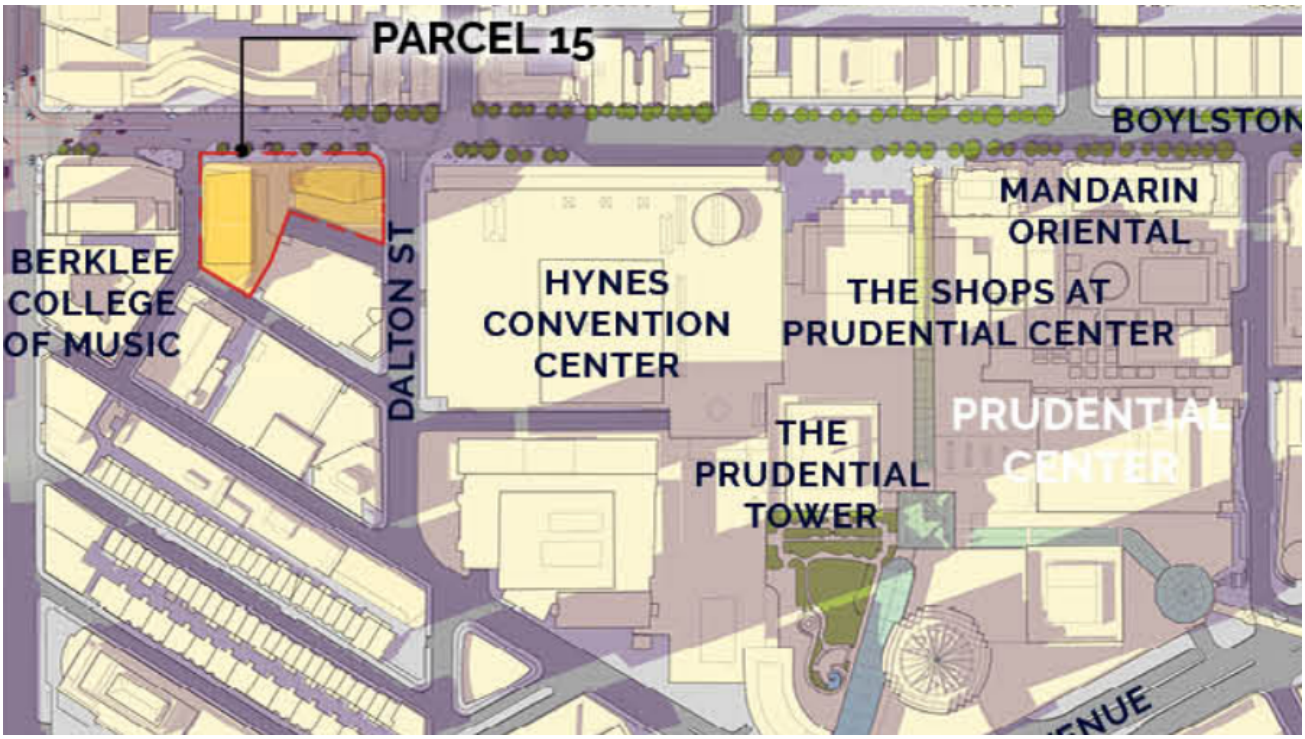
Draft Construction Management Plan

Draft Construction Logistics Plans

CONSTRUCTION MANAGEMENT PLAN
St Cecilia's – Parcel 15
1000 Boylston St, Boston Ma
Mixed-use Development

Boston, Massachusetts

10% SUBMISSION



Suffolk Construction Co., Inc.

Vanasse Hangen Brustlin

March 31, 2017

General Information

ADG Scotia II LLC (The Developer), and Suffolk Construction Company, Inc. (Construction Manager), in collaboration with Vanasse Hangen Brustlin, Inc. (VHB), have developed the attached Construction Management Plan (CMP) review and approval. This CMP includes the following:

- Written agreement describing construction activities
- Construction Management Plans
- Construction Schedule: TBD (rough start 2018Q1)
- Construction Plans dated: TBD

Project Description

Located at the Southwest corner of Boylston Street and St. Cecilia Street, the proposed mixed-use, multistory development is planned to cover the turnpike/railroad corridor in its entirety. The proposed project is comprised of: 23,000 square feet of new decking over the Turnpike and Railroad; a "podium" serving as the common base for retail use, parking (4 levels), and two distinct residential buildings; the East Building with up to 182 apartment units and the West Building with up to 160 condominiums. The West Building will be founded on a load bearing element (LBE) foundation with a cast-in-place structure, while the East Building will be founded on minipiles with a steel structure.

Developer:	ADG Scotia II LLC 200 Clarendon Street, Floor 50 Boston, Ma 02116 (617) 236-0200
Owner's Representative	TBD
Construction Manager:	Suffolk Construction Company 65 Allerton Street Boston, MA 02119 (617) 445-3500

Construction Phasing and Scheduling

To minimize impacts on the surrounding roadway network and to provide a safe pedestrian environment, it is expected that construction will occur in five (5) phases:

1. Site Setup / Prep Work
2. Foundation Elements
3. Concrete & Steel / Vertical Construction
4. Façade Erection / Interior Construction
5. Site improvement

SEE *APPENDIX A* FOR MassDOT APPLICATION FOR PERMIT TO ACCESS STATE HIGHWAY

Work Hours:

Work Period	Time Period
REGULAR WORK HOURS [unless otherwise noted]	7:00 AM – 7:00 PM
NIGHT WORK HOURS [unless otherwise noted]	8:00 PM – 4:00 AM

Total Project Duration: Approx. 36 Months

Phase I: Site Setup/Prep Work

Duration: 1 month

In order to provide a safe pedestrian environment, the site will be surrounded by fencing on jersey barriers, a 6-foot-high construction fence, and augmented by signage and police details as needed. The construction fence, along with gates, jersey barriers, cones and signage will create the approved work zones for which all construction activity will take place in. The staging of the fence, gates and signs will remain in place throughout the duration of construction. Fence screening will be removed where pedestrian and vehicle sight lines may be impacted.

After the site has been properly prepared for public safety, the site will be lowered by one foot below street level prior to the installation of foundation elements. For this process, an excavator will be working in the site loading trucks that will be entering and exiting the site throughout the day.

Phase II: Installation of Foundation Elements

Duration: 9 months

Phase II-A: Within the St. Cecilia's lot, which will be lowered by one foot, foundation elements will be installed. The foundation elements consist of load bearing elements and minipiles. Concurrent with this work, minipiles will be installed in two locations: (1) between Cambria St and the railroad and (2) between the Eastbound lane of the Mass Turnpike and the railroad. The first minipile operation between Cambria St and the railroad will occur during the day with extended hours to limit the impact to this area. MBTA Flagmen will be required during this operation to facilitate safe operations with the abutting railroad. The second minipile operation between the Mass Turnpike and the railroad will require a right lane closure of the Eastbound Mass Turnpike at night. The workzone will be lined with anchored jersey barriers. This work will be done during the night hours of 8PM to 4AM. The duration of this lane closure is approximately 6 months.

Phase II-B: Subsequently, the minipile operation will shift from the Eastbound side of the Mass Turnpike to the median between the East and Westbound lanes of the Mass Turnpike. The left lane of the Eastbound Turnpike, along with the left lane of the Westbound Turnpike, will require lane closures at night with signage and marking installed to establish the workzone. The workzone will be lined with anchored jersey barriers. This will be done during the night hours of 8PM to 4AM. The duration of this lane closure is approximately 3 months.

This phase includes the completion of foundation elements and structural concrete cap beams that will support the vertical structure of the towers.

Phase III: Concrete & Steel / Start of Vertical Construction

Duration: 11 Months

Phase III-A: This phase included the installation of structural steel and precast plank across the railroad tracks. This work is planned to occur during the hours of 10PM to 4AM for approximately 5 nights. The work hours will need to be better defined with the MBTA as this plan develops, as the trains will need to be shutdown for those work hours. During each shift, the steel will progress from Cambria St to the foundation elements between the Mass Turnpike and the Railroad (installed in the previous phase). As the steel is installed, precast plank will be installed concurrently to create a cap over the railroad tracks. Upon completion of this work, mechanical elements and fireproofing of the structure will be installed.

Phase III-B: Once the previous phase is complete, the structural steel and precast plank will be installed across the Mass Turnpike Eastbound. This work is planned to occur during the hours of 8PM to 4AM for approximately 5 nights. During each shift, the steel will progress from the foundation elements between the railroad tracks and the Mass Turnpike to the foundation elements between the East and Westbound lanes of the Mass Turnpike (installed in previous phases), covering the Eastbound lanes. As the steel is installed, precast plank will be installed concurrently to complete the cap over the entirety of the Eastbound lanes. To install the structural steel and precast elements safely, all lanes of the Mass Turnpike Eastbound will have to be closed down for the duration of each night shift. To maintain access Eastbound, traffic will have to be diverted to a single lane on the Westbound side of the Mass Turnpike and then rerouted back to the Eastbound side further east beyond the construction project. Cutouts will need to be created, if they do not already exist, to allow vehicles to pass through the median. At the end of each night shift, the crossover to the Westbound side will be shutdown and all lanes will be reopened on the Eastbound side. Upon completion of this work, mechanical elements and fireproofing of the structure will be installed.

Once capped with structural steel and precast plank, the Mass Turnpike and railroad tracks will no longer be affected by construction activities associated with this project.

Phase III-C: Once the steel and precast cap have been installed over the railroad tracks and the Mass Turnpike, the structure will continue on normal hours with the erection of the 40-story cast-in-place concrete structure and the erection of the 14-story structural steel mid-rise along Boylston Street. Fencing, pedestrian signage, and traffic flow will remain unchanged from Phase I. During this phase, a tower crane will be erected in a location yet to be determined. Moreover, two construction man and material hoists will be erected as the structure ascends vertically. The locations of these hoist are yet to be determined.

Phase IV: Façade installation and Interior Construction

Duration: 10 Months

Phase IV involves installation of the façade and roof to insure that the building is weather tight. This phase also includes the installation of mechanical, electrical, plumbing, drywall, carpentry and other miscellaneous interior finishes. Fencing, pedestrian signage, and traffic flow will remain unchanged from Phase III.

Phase V: Site Improvements

Duration: 5 Months

Phase V is the final phase of construction, in which all site improvements, landscaping, and re-curbing will

be complete. During this phase any truck traffic will be reduced to approximately two (2) to five (5) trucks per day. Trucks will be smaller and have greater maneuverability.

Consideration of adjacent MassDOT Projects

Potential impacts to this project from adjacent MassDOT projects need to be explored and taken into consideration as this plan develops. This project will need lane closures of both eastbound and westbound drives lanes of the Mass Turnpike detailed in the CMP drawings. These lane closures will need to be coordinated with other projects involving the Mass Turnpike, particularly the Commonwealth Ave bridge work.

Overall Schedule

Key construction activities and approximate time periods are summarized below and on the attached CMP.

Phase	Time Period
Phase 1 - Site Setup / Prep Work	1 Month
Phase 2 – Foundation Elements	9 Months
Phase 3 – Concrete & Steel / Vertical Construction	11 Months
Phase 4 – Façade and Interior Construction	10 Months
Phase 5 – Site Improvements	5 Months

Street Occupancies/Highway Closures

BTD: The street occupancies will be needed on St. Cecilia St, Scotia St, Cambria St, Dalton St and Boylston St.

- Construction Equipment
  - Construction Fencing
  - Delivery Trucks
  - Mobile Cranes
- Street Surface Work
  - Temporary / Permanent Traffic Markings
  - Pedestrian Handicap Ramps
  - Curb and Sidewalk Construction
  - Utility Connections
  - Temporary Relocation of parking spaces

MassDOT: The Mass Turnpike Eastbound and Westbound will need lane closures detailed above

- Construction Equipment
  - Minipile rigs
  - Flatbed trucks
  - 10-Wheeler Dump Trucks

- Workzone Support
  - Mill existing and/or conflicting striping as needed
  - Anchored barriers around the workzone with reflectors
  - Signage as needed to comply with all MassDOT and MUTCD requirements
  - Police Details

Perimeter Protection/Public Safety

While working on the Mass Turnpike, Suffolk will ensure the workzones are fully compliant and meet all the requirements of MassDOT. State police details will be provided during all lane closures to facilitate traffic flow and ensure a smooth operation. All work that requires lane closures will be neat, clean and safe prior to MassDOT re-opening traffic lanes.

While working on the City of Boston streets, Suffolk will work to ensure the staging areas minimize the impact to pedestrian and vehicular flow. Secure fencing and barricades will be used to isolate construction areas from pedestrian traffic around the site. In addition, sidewalk areas and walkways near construction activities will be well marked to protect pedestrians and ensure their safety. Proper signage, as required by BTD, will be installed and regularly updated as site conditions change during the construction process. Police details will be provided during all construction activities to facilitate traffic flow and pedestrian safety. Construction procedures will be designed to meet all Occupational Safety and Health Administration (OSHA) safety standards for specific site construction activities.

Signage and Distribution of Information

All signage, posted and electronic, required by MassDOT for lane closures will be noted on Construction Management Plans and installed in the designated locations prior to lane closures. All signage will be compliant with MUTCD.

Signage will direct pedestrians around the site as well as direct truck traffic and deliveries. Proper signage will be placed at every corner of the site as well as in those areas that may be confusing to pedestrians and automobile traffic. Construction and regulatory signage will be provided as shown on the CMP.

The construction site will have a sign installed that will list the name and contact information, including the phone number, for Suffolk Construction's designated contact. This sign will be clearly visible to enable the public to call with any questions or concerns.

Abutter and Agency Coordination

Suffolk Construction recognizes the challenges of building construction in an urban setting and the importance of responding to the needs of adjacent businesses and residents. The abutting properties will be informed of the scheduled start of construction, and will be updated on the development during its construction as needed.

As appropriate, Suffolk Construction will coordinate construction activities with all abutters, BTD, MassDOT, MBTA and any other on-going construction projects in the area to help minimize the impacts to the community.

Material Handling/Construction Waste

All construction material delivery trucks will be loaded and unloaded inside the construction fence throughout the course of the project. Trucks and equipment will follow the designated truck route and will be staged at the designated areas on the CMP.

Suffolk Construction takes an active role in regards to the processing and recycling of construction waste and will have a specific Construction Waste Management Plan (CWMP) for the project. The CWMP requires Suffolk Construction to contract with a licensed waste hauler that has off-site sorting capabilities. All construction debris will be taken off site by the waste hauler, sorted as either recycled debris or waste debris, and sent to the proper recycling center or waste facility. As required, construction debris will be wetted and covered to minimize air born dust particles.

Emergency Vehicle Access

Access to the site for emergency vehicles will be maintained at all times. The proposed staging plan is designed to isolate the construction while providing safe access for pedestrians and automobiles during normal day to day activities and emergencies. In the event an emergency vehicle needs to access the construction site and/or pass through the site during off hours a Knox Box will be located at both construction gates.

Truck Activity During Construction

Trucks are needed to remove debris and excavated material from the site, and to deliver new construction materials as the project proceeds. Truck traffic related to this construction site will vary considerably throughout the construction period.

Trucking routes and details TBD.

Construction Employee Trip Generation

Trip generation by construction workers is directly related to the number of workers on site at a given time. The number of workers per day will vary as construction proceeds.

The project has access to public transportation and most workers will be encouraged to use one of the many public transit options. The site is convenient to the MBTA Green Line, the Back Bay Station via Copley Square, and a number of bus routes. The project will allow for storage of tools and equipment to facilitate worker's use of the "T". In addition to these factors, construction workers generally travel before the morning peak hour (working 6:00 AM to 7:00 PM) further lessening the impact that these workers will have on the adjacent street network during the morning and evening peak hours.

Construction Worker and Staff Parking

There will be no on-site parking for construction workers. Due to the proximity of public transit systems, employees will be encouraged to use the MBTA. If means of public transportation are not utilized, construction workers will be encouraged to car pool. Workers will also be directed to one of many public garages around the area.

Street Cleaning

Street cleaning will take place as required both on the City of Boston streets and the Mass Turnpike (see dust control section below for more information).

Dust

Construction activities generate dust that will result in localized increases in airborne particulate levels. To reduce emissions of fugitive dust and minimize impacts on the local environment, strictly enforced mitigation measures will be employed, including:

- Wetting agents will be used regularly to control and suppress dust that may come from construction activities.
- Trucks used for the transportation of construction debris will be covered before exiting the project site.
- Streets and sidewalks will be cleaned regularly using mechanical street sweepers to minimize accumulations.
- Trucks' tires shall be washed down prior to entering public streets at wheel wash stations as indicated on the CMP plans.

Rodent Control

The City of Boston has declared that the infestation of rodents in the City is a serious problem. In order to control this infestation, the City enforces the requirements established under the Massachusetts State Sanitary Code, Chapter 11, 105 CMR 410.550 and the State Building Code, Section 108.6. Policy Number 87-4 (City of Boston) established that extermination of rodents shall be required for issuance of permits for demolition, excavation, foundation, and basement rehabilitation.

Suffolk Construction will implement a rodent control program to be administered by a licensed pest control contractor. Rodent control measures will be in-place prior to, during, and following construction activities. The program will include performance of extermination and control procedures on a bi-weekly basis, and the placement of tamper resistant bait boxes around the perimeter of the site.

Noise and Odor Control

A significant effort will be made to minimize the noise impact of the Project's construction activities. Mitigation measures to be undertaken will include:

- Using mufflers on equipment and ongoing maintenance of intake and exhaust mufflers.
- Use of low sulfur fuels.
- Using less noisy specific construction operations and techniques where feasible (e.g., mixing concrete off-site instead of on-site.)
- Scheduling equipment operations to keep average levels low, to synchronize noisiest operations with times of highest ambient levels, and to maintain relatively uniform noise levels.
- Turning off idling equipment.
- Utilize saw-cutting methods in lieu of jack hammering where feasible.
- Use of a crane for concrete construction and steel erection to reduce street noise associated with truck-mounted equipment, where practical. Possible off hours loading only if required of the project to reduce traffic during the day. All off-hour work will be per City of Boston

requirements and permitted as required. ISD, BTD, and the Office of Neighborhood Services (ONS) will be notified of all off-hour work.

On-site Dewatering

Site dewatering is expected to be limited and will be in accordance with the applicable storm water pollution prevention plan (SWPPP) or National Pollutant Discharge Elimination System (NPDES) requirements for sedimentation control. Groundwater levels will be monitored during the construction process.

Emergency Contacts

A 24-hour emergency contact list will be provided to all parties involved in the project prior to start of construction and maintained throughout construction.

- TBD

Special Conditions

- Community Outreach: Suffolk Construction and ownership will provide notices and updates on progress and upcoming expectations for the construction activities. At all times during construction activity, there will management staff on-site and available for assistance. Proper 24-hour emergency contacts and information will be provided.
- Suffolk will replace, in kind, any pavement markings, signage, loop detectors, and/or other traffic signal control equipment damaged as part of construction activities.
- All local, state and federal laws governing the work will be strictly adhered to at all times.

Signatures and Approvals

Submitted By:
Dave Fenton
Suffolk Construction Company

Signature

Date:

Approved By:

massDOT Massachusetts Department of Transportation Highway Division

APPENDIX A

TO BE FILLED OUT PRIOR TO START OF WORK

Application for Permit to Access State Highway

This Access Permit Application, including the attached Access Permit Submittal Checklist, must be completed in full by the Applicant. Instructions for this page are located on page 2. Descriptions of the two types of access permits and related categories are located on page 6. MassDOT will make the final determination regarding Access Permit Application type and category.

1. Town/City: _____
2. State Highway route number and/or name: _____
3. Locus/Property Address: _____
4. **Description of property and/or facility for which access is sought** (attach additional sheets if necessary):

_____

_____

_____

5. **Description of work to be performed within State Highway Layout** (attach additional sheets if necessary):

_____

_____

_____

☐ **Telecommunications** (wireless or wireline) or **Renewable Energy** (Solar, Wind, etc) – Agreement Process and OREAD* coordination required. (*see pg 2 Instruction)

6. **Dig Safe number:** _____

7. **Applicant Information** [1] (See footnote below.)

Name _____

_____

Mailing Address _____

_____

Telephone _____

Fax _____

E-Mail _____

Signature _____

Print Name _____

Date _____

8. **Property Owner**

Name _____

_____

Mailing address _____

_____

Telephone _____

Fax _____

E-Mail _____

Signature _____

Print Name _____

Date _____

Return completed application, including Submittal Checklist, to the District Highway Director for your town/city. Refer to reverse side for appropriate address.

For office use only. Do not write below this line.

1. Application number: _____
2. Date received: _____
3. Fee amount (non-refundable) : _____
4. Completeness Pre-Review date: _____
5. MEPA required (yes or no): _____

ENF-EOEEA Cert. # _____

EIR-EOEEA Cert. # _____

Other-EOEEA Cert. # _____

6. Section 61 Finding date: _____
7. Mass. Historic Action (yes or no): _____
8. Plans returned to DHD: _____
9. Permit Type/Category: _____
10. Application complete date: _____
11. Permit written date: _____
12. Permit issued date: _____
13. Permit denied: _____
14. Permit Recording date at Registry of Deeds _____

[1] If an agent is representing an Applicant, the application must include a notarized letter from the Applicant outlining the specified duties and responsibilities of the agent. Where work is proposed on a utility, the utility department must sign the application as the Applicant(s).

Instructions for Completing
Application for Permit to Access State Highway

General Instructions

MassDOT's Highway Division is granted authority to issue **State Highway Access** Permits by M.G.L. Chapter 81, Sec. 21. MassDOT adopted 720 CMR 13.00 under the authority of M.G.L. c. 81, § 21 and M.G.L. c.85 §2. 720 CMR 13.00 supersedes the Standard Operating Procedures for Review of State Highway Access Permits dated November 30, 1971, and board vote of September 17, 1991.

ACCESS is generally defined, but not limited to:
Any physical work performed within the State Highway Layout.

This Application governs issuance of the two types of access permit Applications, Non-Vehicular and Vehicular, which are issued under three categories:

Category I	Minor Vehicle Access Permits
Category II	Major Vehicular Access Permits
Category III	Complex Vehicular Access Permits

Please refer to the **MassDOT Highway Access Permit Submittal Checklist** for details regarding permit types and submittals required.

FEES:
A Check payable to **MassDOT** for the appropriate permit application fee must accompany the permit application. Fees are non-refundable.

Fee schedule for access and Utility Payments:

Residential Access Permits

5 Units or less	$25.00
From 6 to 49 Units	$100.00
Greater than 49 Units	$2000.00

Non-Residential Access Permits

Less than 25,000 square feet	$500.00
From 25,000 to 300,000 square feet	$1000.00
From 300,000 to 750,000 square feet	$2000.00
Greater than 750,000 square feet	$3000.00

Non-Municipal Utility Permits not in conjunction With Access Permits:

Annual blanket utility permit	$500.00
Capital improvements to a utility	$500.00

Specific Instructions (print or type)

Line 1:
List name of municipality in which access is sought.

Line 2:
List name or number of State Highway Route(s) to which access is sought.

Line 3:
List Locus/Property address.

Line 4:
Describe property and/or facility. If access is sought under Category II above, briefly describe facility for which access is sought,

> ***Example 1:*** Private single family residence at 100 State Road. Approximate size of proposed building 2,500 s.f. Approximate lot size 0.75 acres.
>
> ***Example 2:*** 500,000 s.f. enclosed shopping mall adjacent to State Route I-290 and Route 20. Approx. lot size 67 acres.

Line 5:
Briefly describe the proposed work to be performed within the State Highway Layout.
*Office of Real Estate and Development (**OREAD**)

> ***Example 1:*** Remove 50 feet of existing granite curb on south side of highway in order to construct driveway access and modify the roadway geometry to accommodate left-hand turn.
>
> ***Example 2:*** Excavate 10 foot x 10 foot section of roadway at Station 100+00 in westbound lane in order to install water service to residence at 100 State Street.

Line 6:
A Dig Safe number must be provided if the work will commence within 30 days of the filing of the permit. **NOTE:** A Dig Safe number must be obtained by calling **1-888-DIG-SAFE** (1-888-344-7233). If construction within the State Highway Layout does not commence within the period allowed by Dig Safe, a new number must be obtained prior to beginning construction. (www.digsafe.com)

Line 7:
Individual or business making application must complete the required information, including application date and signature.

Line 8:
Complete this section only if the individual or business making application is other than the property owner of the land for which the permit applies.

Return completed application, submittal checklist and fee to appropriate District Office listed below. Please contact the Permit Engineer at this address if additional information is required.

District One
270 Main Street
Lenox, MA 01240
Tel. (413) 637-5700
Fax. (413) 637-0309

District Two
811 North King Street
Northampton, MA 01060
Tel. (413) 582-0599
Fax. (413) 582-0596

District Three
403 Belmont Street
Worcester, MA 01604
Tel. (508) 929-3800
Fax. (508) 799-9763

District Four
519 Appleton Street
Arlington, MA 02174
Tel. (781) 641-8300
Fax. (781) 646-5115

District Five
1000 County Street
Taunton, MA 02780
Tel. (508) 824-6633
Fax. (508) 880-6102

District Six
185 Kneeland Street
Boston, MA 02111
Tel. (857) 368-6100
Fax. (857) 368-0106

Highway Division Website:

www.massdot.state.ma.us/highway

massDOT
Massachusetts Department of Transportation
Highway Division

Access Permit Submittal Checklist

GREY: DOT USE ONLY

This checklist provides the Applicant with a list of required submittals to obtain an Access Permit. However, additional submittals may be required to issue an Access Permit. All Applicants must fill out Part A and one additional part that correlates to the selected application type. To help identify the application type, please see the descriptions on page 6. Check each box that pertains to your application. MassDOT will make the final determination regarding Access Permit Application type and category.

PART A: ALL APPLICANTS MUST FILL OUT

1. APPLICATION TYPE – CHECK ONE

☐ **NON-VEHICULAR:**

- ☐ Non-Vehicular – Fill out Part B

☐ **VEHICULAR**

- ☐ **Category I** – Minor Vehicle Access Permits: Fill out Part C-1
- ☐ **Category II** – Major Vehicle Access Permits: Fill out Part C-1 and Part C-II
- ☐ **Category III** – Complex Vehicle Access Permits: Fill out Part C-1 and Part C-III

2. APPLICATION TYPE (Check all applicable boxes)

- ☐ Application Complete
- ☐ Permit corresponds to appropriate MassDOT District
- ☐ Non-refundable check or money order on correct amount payable to: **MassDOT**
- ☐ Evidence certifying property owner(s) consent
- ☐ Notarized Applicant Letter outlining agent's duties and responsibilities (if applicable)
- ☐ Utility department sign-off as the Applicant(s) (if applicable)

PART B: NON-VEHICULAR PERMITS

☐ **IF NO PHYSICAL MODIFICATION** *to state highway layout – i.e. parade, road race, traffic counts, etc.*

Required submittals:

- ☐ Map of route
- ☐ Traffic Management Plan (designed in accordance with the Road Flagger & Police Regulations: 701 CMR 7.00)
- ☐ Detour Plan(s) with municipal approval (if applicable)

☐ **IF DRAINAGE:**

- ☐ If requesting connection or discharge to any MassDOT drainage system, contact District Personnel for additional information regarding required submittals.

☐ **IF CONSTRUCTION, RELOCATION OR REPAIR OF UTILITIES:**

Required submittals:

- ☐ **EXISTING PROJECT:** reference(s) to the documents and plans already filed with MassDOT for the affected project
- ☐ **NEW PROJECT/UTILITY WORK:**

Required submittals:

- ☐ Engineered Plan(s) including method of crossing Highway
- ☐ Traffic Management Plan (if applicable)
  (Designed in accordance with the Road Flagger & Police Regulations: 701 CMR 7.00)
- ☐ Detour Plan(s) with municipal approval (if applicable)
- ☐ Tree Cutting or Landscaping Plan (if applicable)
- ☐ Vegetative Plan including plant species and maturity size (if applicable)
- ☐ Blasting Plan (contact District Personnel for additional information)

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PART C-I: VEHICULAR PERMITS

CATEGORY I – Minor Vehicular Access Permits

Required submittals:

- ☐ ☐ Engineering Plans
- ☐ ☐ ENF - (Environmental Notification Form) Certificate (if applicable)

IF RESIDENTIAL DRIVEWAY:

- ☐ ☐ Detailed plan/sketch showing the drive location in relation to the property lines, MassDOT baselines, distance from nearest mile marker, and an easily identifiable fixed object (distance from telephone poles, mail boxes, other drives, etc.).
- ☐ ☐ If severe topographic conditions exist, an engineered plan showing the driveway layout, profile and storm water management may be necessary to show that the edge of the proposed drive is protected during and after construction to prevent sediment and debris from entering upon the State Highway Layout (SHLO).

IF COMMERCIAL DRIVEWAY: (where no MEPA review is required)

Required submittals:

- ☐ ☐ Two (2) 40 scale plans that include:
  - ☐ A. Route Number, Road Name, Property Address
  - ☐ B. Property Corners and Bounds
  - ☐ C. Lot Line Dimensions, Bearings and Distances
  - ☐ D. State Highway Layout Lines (both sides) and Nearest Massachusetts Highway Bounds (if found).
  - ☐ E. State Highway Baseline and both edges of roadway including any sidewalks and type of edging, if any, and shoulder information (grass, gravel etc.).
  - ☐ F. Any existing drive to be altered or closed shall be indicated. Existing and proposed dimensions should be included for altered drives.
  - ☐ G. Information on all proposed drives including radii, widths, handicap ramps, etc. must be shown.
  - ☐ H. All existing and proposed buildings, utilities, trees, stonewalls, fences etc., should be labeled and shown in their correct location.
  - ☐ I. It is required that all stands, buildings, gasoline pumps and structures of any kind be placed at least 12 feet back from the State Highway Layout Line, since conducting of business within a State Highway Layout is forbidden.
  - ☐ J. Complete detail on drainage; all drives should be constructed on a downgrade from the edge of the highway surface or shoulder to the State Highway Layout Line.
  - ☐ K. Engineered plans will be required to show that storm flows are not directed into the SHLO, using contour lines, where applicant/owner property elevations are raised from the edge of the highway.
  - ☐ L. The plans should identify measures to protect the edge of the proposed drive during and after construction to prevent sediment and debris from entering upon the SHLO.

IF NEW STREET / SUBDIVISION ROAD:

Minor Intersection and Roadway Reconstruction (where no MEPA review is required)

Required submittals:

- ☐ ☐ All Commercial Driveway requirements (above) apply in addition to the following: Evidence of acceptance, including its line, grade and proposed drainage, by a local planning board, or other City of Town official with such authority.
- ☐ ☐ A street/road profile from its nearest high point and plan of drainage.

Please be advised:

- It will be required that all such future street approaches be constructed on a downgrade, where possible, from the edge of highway surface or shoulder to the State Highway Layout Line.
- Common driveway criteria may apply and must be shown on plans as mentioned above.

GREY: DOT USE ONLY

PART C-II: VEHICULAR PERMITS

CATEGORY II – Major Vehicular Access Permits

Required submittals:

☐ ☐ Engineering Plans based on the standards in the Manual On Uniform Traffic Control Devices (MUTCD), MassDOT's Project Development & Design Guide or its successor, MassDOT's Standard Specifications for Highway and Bridges, and any current technical policies or engineering directives Issued by MassDOT. All PS&E design submissions must be both in hard copy (one set) and electronic format. Electronic format includes PDF files transmitted to DHD or designee via USB Flash Drive, CD or posted to a FTP site.

☐ ☐ In cases where a proposed access is to be shared by multiple development sites, the Applicant(s) will provide evidence of the rights of access between the parties involved prior to the issuance of the Access Permit.

☐ ☐ MEPA Certificate

☐ ☐ Section 61 Finding

PART C-III: VEHICULAR PERMITS

CATEGORY III – Complex Vehicular Permits

Required submittals:

☐ ☐ Engineering Plans based on the standards in the Manual On Uniform Traffic Control Devices (MUTCD), MassDOT's Project Development & Design Guide or its successor, MassDOT's Standard Specifications for Highway and Bridges, and any current technical policies or engineering directives Issued by MassDOT. All PS&E design submissions must be both in hard copy (one set) and electronic format. Electronic format includes PDF files transmitted to DHD or designee via USB Flash Drive, CD or posted to a FTP site.

☐ ☐ In cases where a proposed access is to be shared by multiple development sites, the Applicant(s) will provide evidence of the rights of access between the parties involved prior to the issuance of the Access Permit.

☐ ☐ MEPA Certificate

☐ ☐ Section 61 Finding

Recording of Access Permits

Applicants must record any Vehicular Access Permit and plans or any Non-Vehicular Access Permit and plans involving drainage at the appropriate Registry of Deeds. Any Permit issued by MassDOT that requires recording will not be effective until recorded at the appropriate Registry of Deeds and a notice of recording is submitted to the District Highway Director (DHD). Changes may require the re-recording of permits and related documents. In those cases, permits will not be effective until re-recorded at the Registry of Deeds and a notice of recording is submitted to the DHD.

THERE ARE TWO TYPES OF ACCESS PERMIT APPLICATIONS: VEHICULAR, ISSUED UNDER THREE CATEGORIES & NON-VEHICULAR:

1. VEHICULAR ACCESS PERMITS:

Category I – Minor Vehicular Access Permits:
Access Permits for Projects that require entry to the State Highway Layout (SHLO), require little to no non-signalized modifications, and do not significantly alter the operating characteristics of traffic. These Projects ordinarily do not exceed the Massachusetts Environmental Policy Act (MEPA) transportation thresholds beyond the filing of an Environmental Notification Form (ENF).

Category II - Major Vehicular Access Permits:
Access Permits for Projects that require significant non-signalized modifications that may alter the operating characteristics of traffic at residential or commercial driveway intersecting with the SHLO; that require significant non-signalized modifications that may alter the operating characteristics of traffic at or upon any other intersection or roadway under the jurisdiction of MassDOT; that require the installation of a new traffic signal at a residential or commercial driveway intersecting with the SHLO or at any other intersection or roadway under the jurisdiction of MassDOT; or that require modification of structures, equipment, or hardware at an existing traffic signal at a residential or commercial driveway and its intersection with the SHLO or at any other intersection or roadway under the jurisdiction of MassDOT.

Category III – Complex Vehicular Permits
Access Permits for Complex Projects requiring actions similar to major Projects, but which require a new or altered SHLO; that require significant non-signalized and/or signalized modification within the SHLO over an extended distance or at a number of intersections that significantly alters the operating characteristics of traffic along a corridor; or that require the construction of a new, or modifications to an existing, bridge. These Projects generally require MEPA review and may require Federal review.

2. NON-VEHICULAR ACCESS PERMITS:

Access Permits for Projects that require access to the SHLO that do not involve physical modifications such as a parade or road race; construction, relocation or repair of utilities within the SHLO; tree cutting or landscaping within the SHLO; the use of explosives to remove material from within 250 feet of the SHLO; or connection to or discharge to any MassDOT drainage system (in cases where it can be shown that no practical alternative exists).

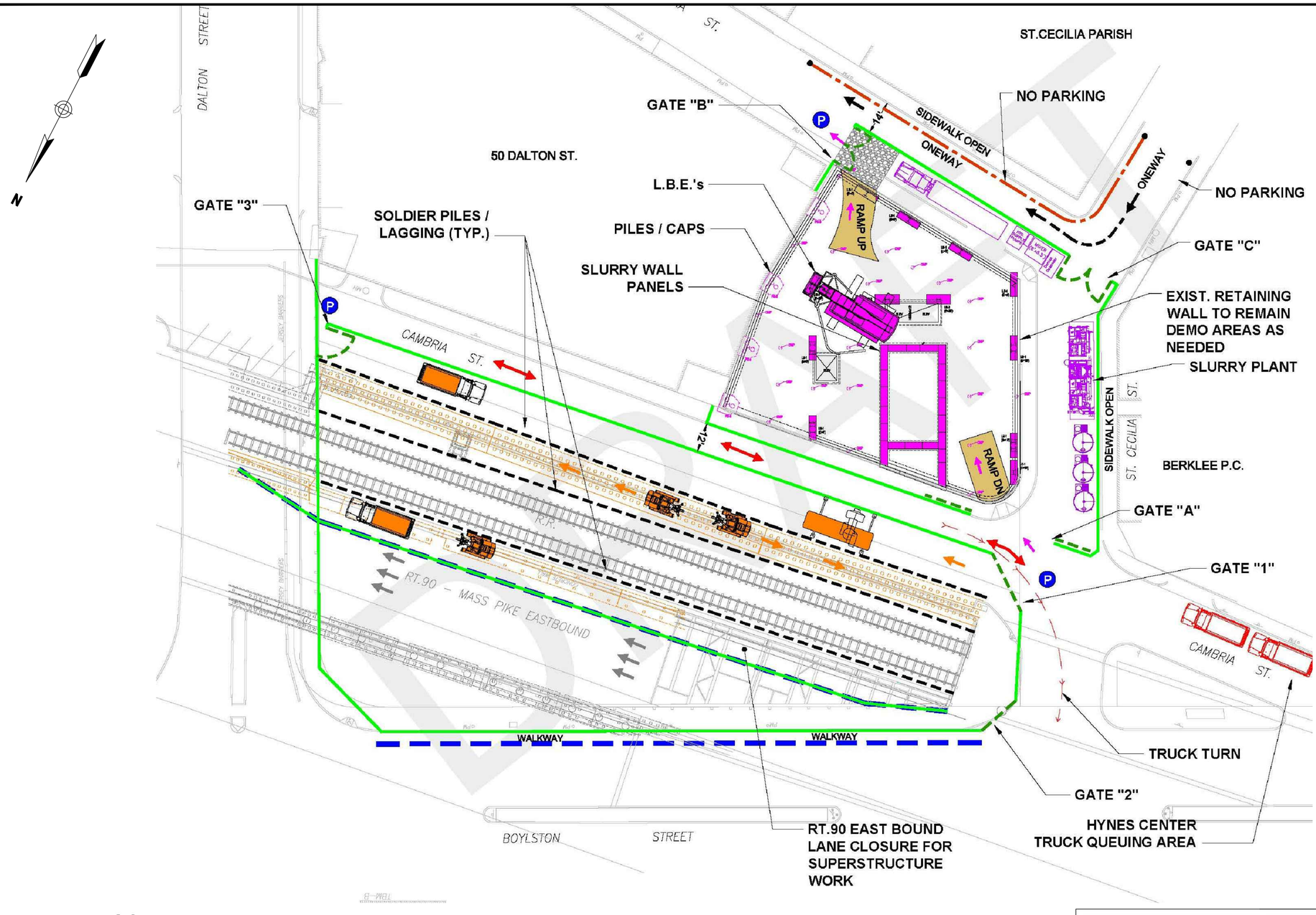
CONDITIONS REQUIRING AN ACCESS PERMIT

Vehicular Access Permits are required for:
- New residential or commercial driveways or streets intersecting the SHLO; or,
- Physical modifications to existing residential or commercial driveways or streets at their intersection with the SHLO; or,
- Change in use of an existing residential or commercial driveway onto SHLO that results in a **Substantial Increase in or Impact on Traffic** (as defined below) over the current use; or
- Construction of new or change in use of existing, residential or commercial driveway from properties that abut the SHLO to serve a building or facility, or expansion of a building or facility, that generates a Substantial Increase in or Impact on Traffic.

Substantial Increase in, or Impact on, Traffic as referenced above is defined as:
A Project that meets or exceeds any of the following thresholds:
(i) Generation of 2,000 or more new ADT on roadways providing access to a single location; or,
(ii) Generation of 1,000 or more new ADT on roadways providing access to a single location and construction of 150 or more new parking spaces at a single location; or,
(iii) Construction of 300 or more new parking spaces at a single location; or
(iv) Creation of a change in the type, pattern, or timing of traffic that is determined by MassDOT to generate a significant impact on traffic flow and safety.

Non-vehicular Access Permits are required for:
- Access to the SHLO for Projects that do not involve physical modifications; or
- Connection to or discharge to any MassDOT drainage system (in cases where it can be shown that no practical alternative exists); or
- Construction, relocation or repair of utilities within the SHLO; or
- Tree cutting or landscaping within the SHLO; or
- The use of explosives to remove material from within 250 feet of the SHLO.

In cases where a particular Project or activity may seek both vehicular and non-vehicular access, separate and distinct Permit Applications must be filed.



DRAFT

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NOT TO SCALE

build smart

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massDOT
Massachusetts Department of Transportation

DESIGNED BY XXX
DRAWN BY XXX
CHECKED BY XXX
APPROVED BY XXX

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

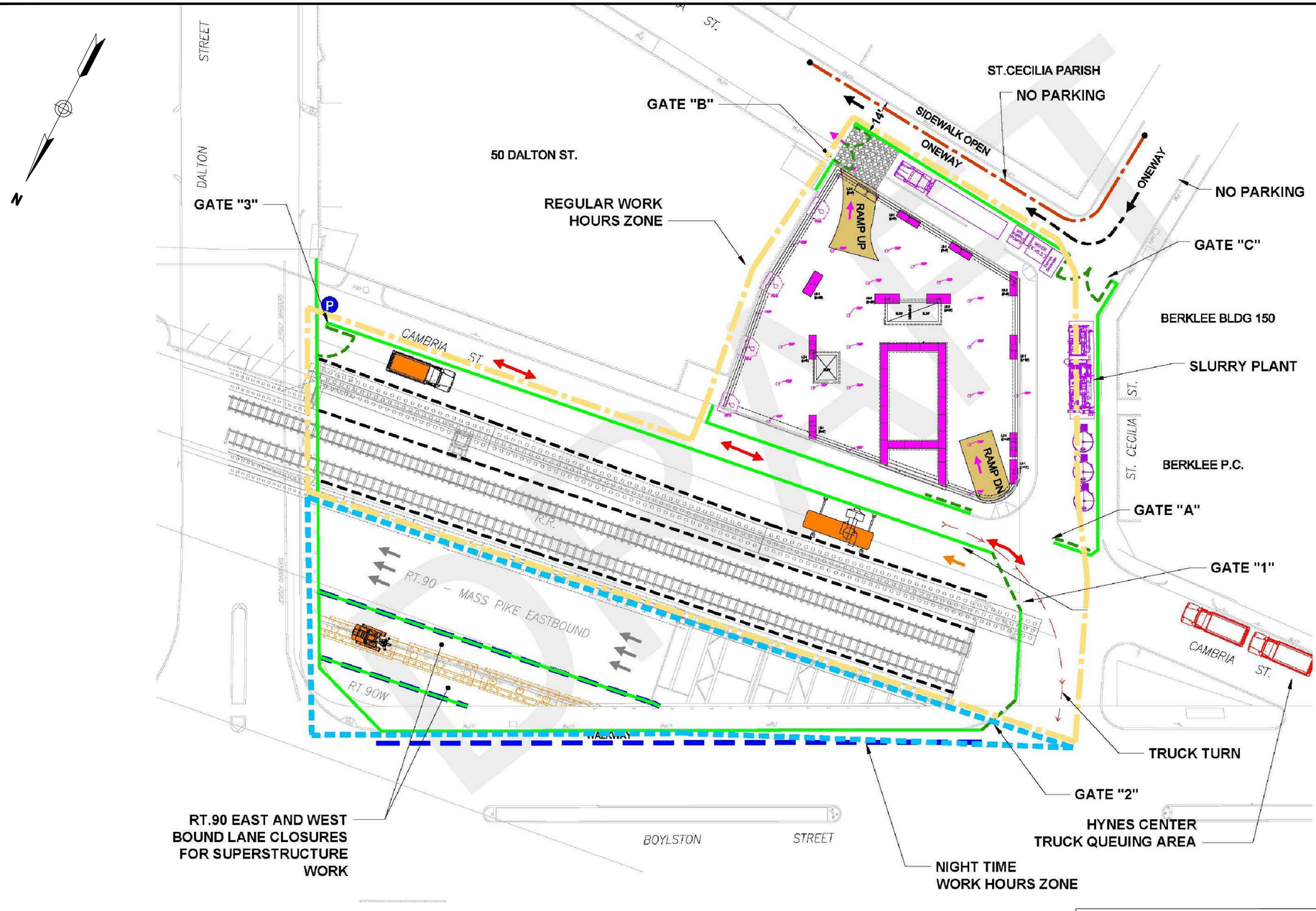
CONSTRUCTION MANAGEMENT PLAN

1000 BOYLSTON STREET

BOSTON, MASSACHUSETTS
PHASE 1

DATE: 3/31/2017
DRAWING NO. CMP-001
SHEET 01 OF 05

DRAWING PREPARED BY VHB



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DRAWN BY XXX
CHECKED BY XXX
APPROVED BY XXX

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

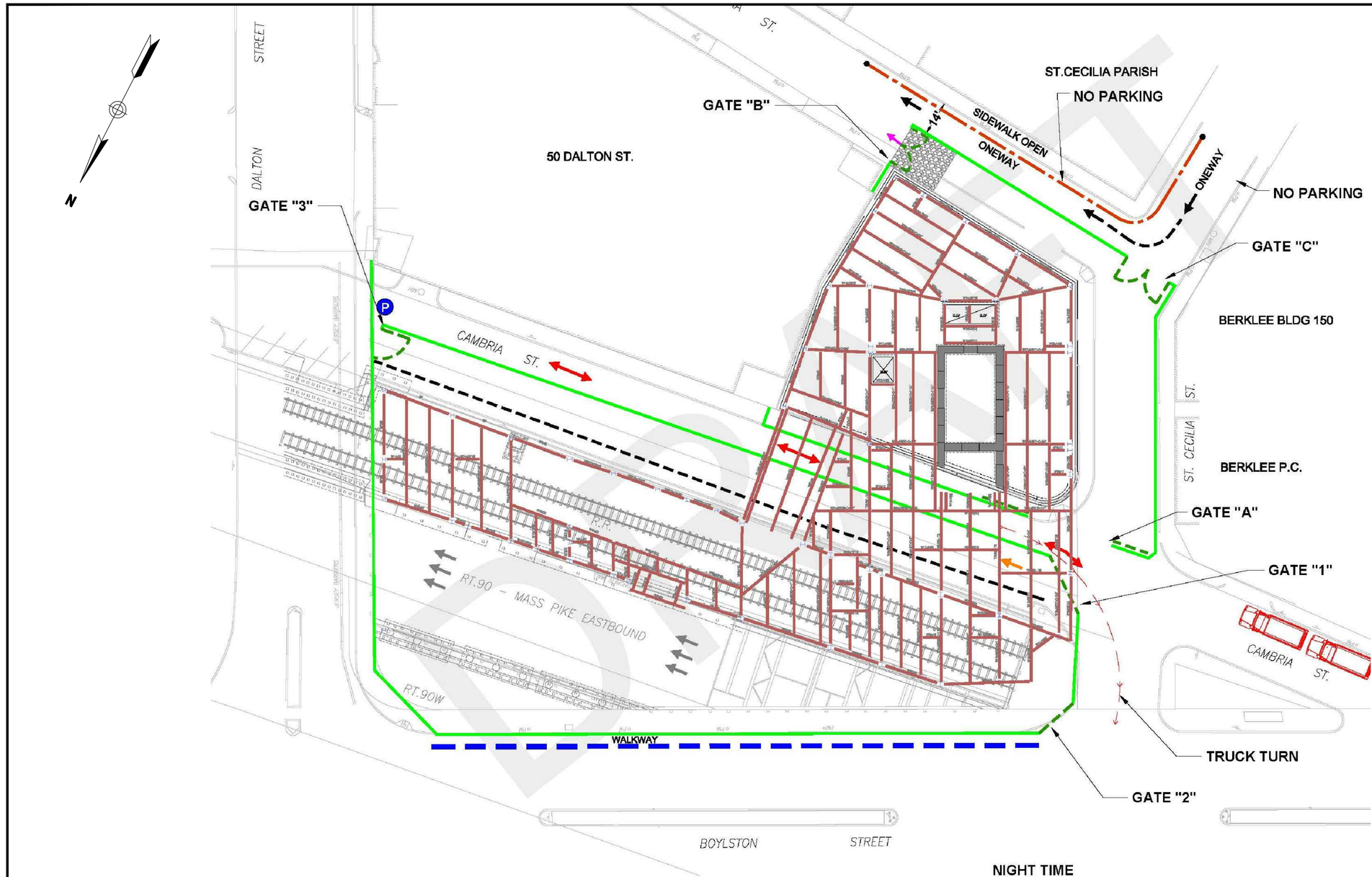
CONSTRUCTION MANAGEMENT PLAN

1000 BOYLSTON STREET

BOSTON, MASSACHUSETTS
PHASE 2

DATE: 3/31/2017
DRAWING NO. CMP-002
SHEET 02 OF 05

DRAWING PREPARED BY VHB



NIGHT TIME
WORK HOURS ZONE

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

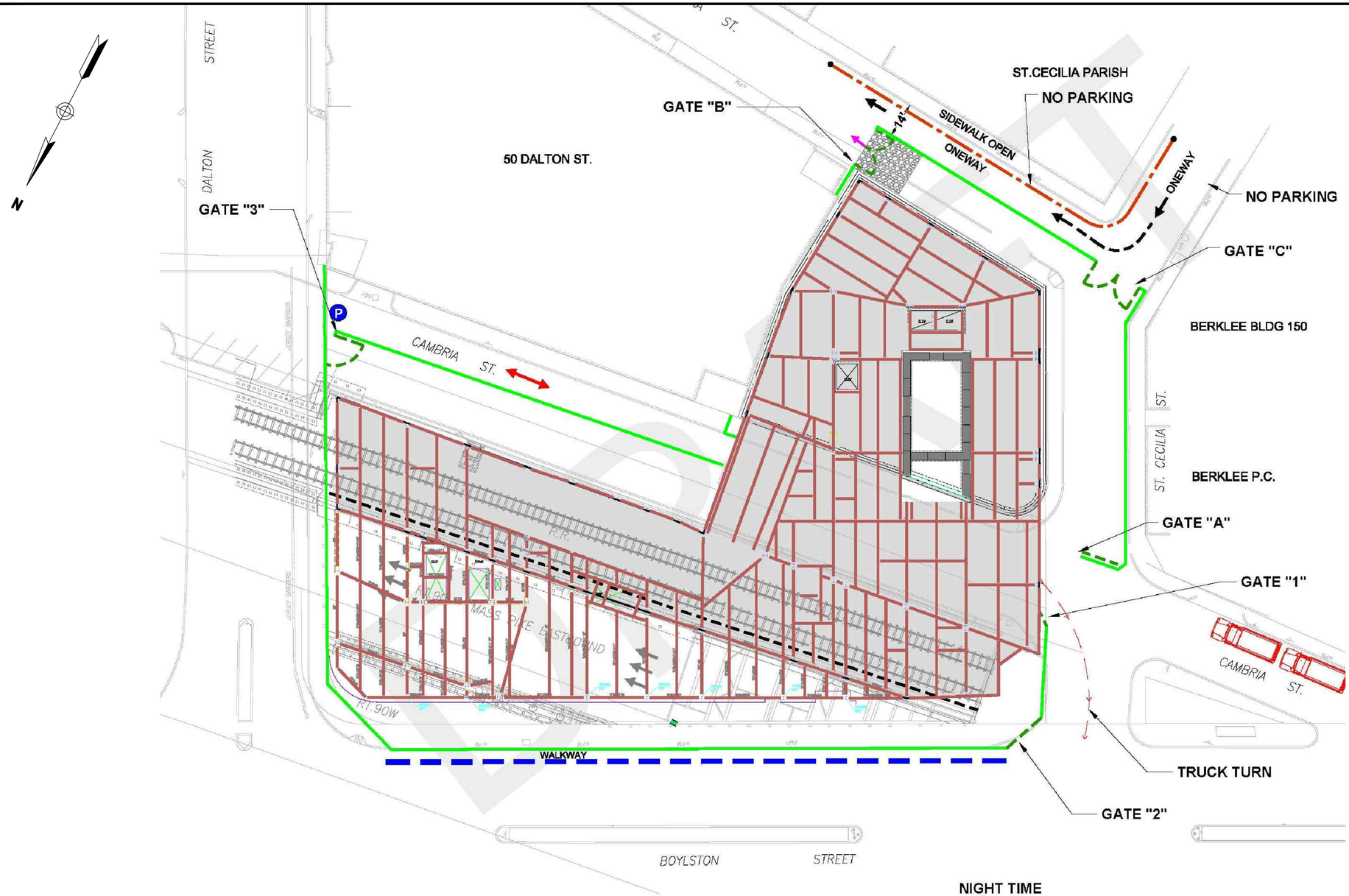
CONSTRUCTION MANAGEMENT PLAN

1000 BOYLSTON STREET

BOSTON, MASSACHUSETTS
PHASE 3

DATE: 3/31/2017
DRAWING NO. CMP-003
SHEET 03 OF 05

DRAWING PREPARED BY VHB



NIGHT TIME
WORK HOURS ZONE

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DESIGNED BY XXX
DRAWN BY XXX
CHECKED BY XXX
APPROVED BY XXX

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

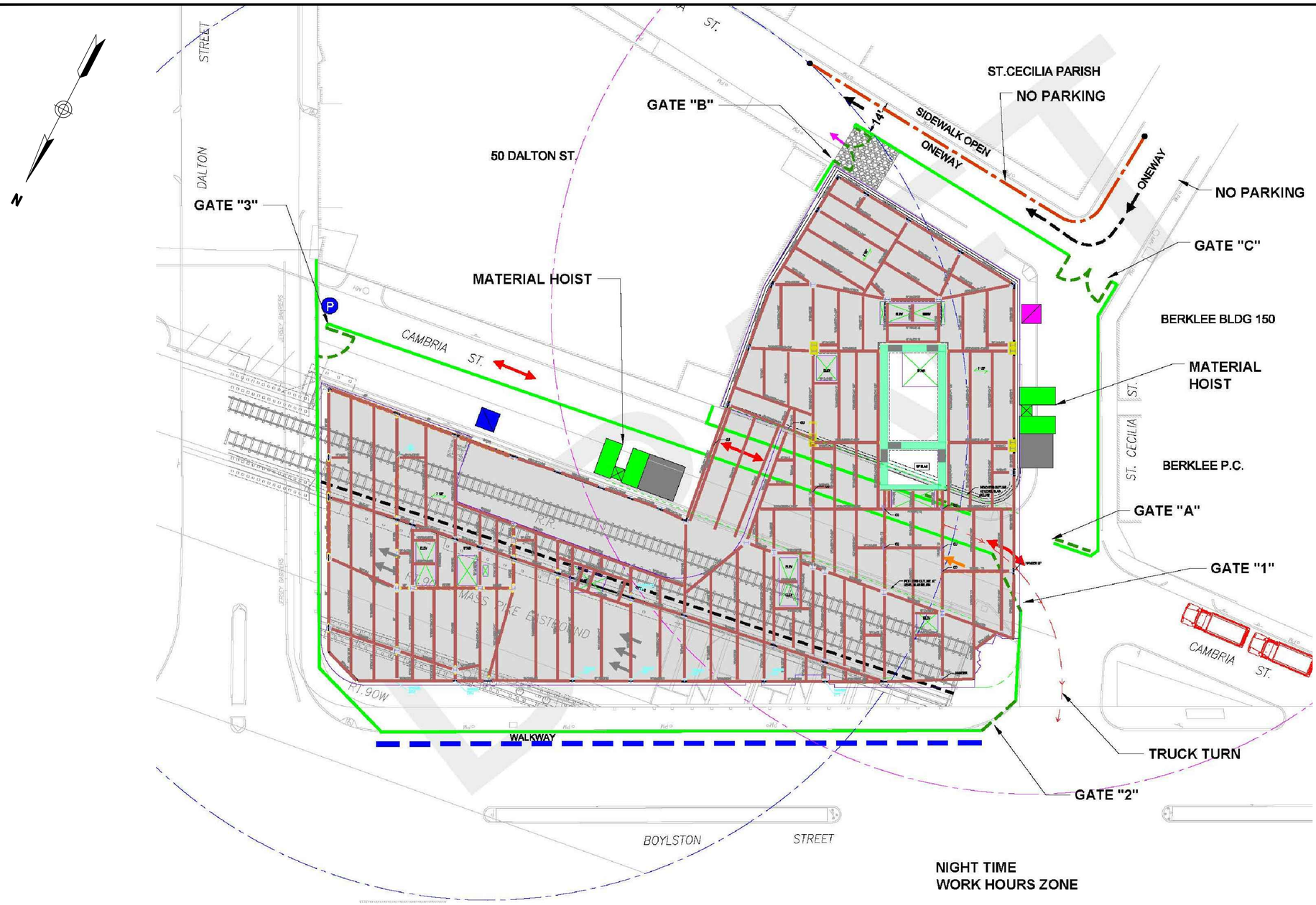
CONSTRUCTION MANAGEMENT PLAN

1000 BOYLSTON STREET

BOSTON, MASSACHUSETTS
PHASE 4

DATE: 3/31/2017
DRAWING NO. CMP-004
SHEET 04 OF 05

DRAWING PREPARED BY VHB



NIGHT TIME
WORK HOURS ZONE

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NOT TO SCALE

massDOT
Massachusetts Department of Transportation

DESIGNED BY XXX
DRAWN BY XXX
CHECKED BY XXX
APPROVED BY XXX

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

CONSTRUCTION MANAGEMENT PLAN

1000 BOYLSTON STREET

BOSTON, MASSACHUSETTS
PHASE 5

DATE: 3/31/2017
DRAWING NO. CMP-005
SHEET 05 OF 05

DRAWING PREPARED BY VHB

Appendix I: Public Comments

Letters of Support

Public Comments

Letters of Support

March 17, 2017

Brian Golden, Director
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Brian:

In the seventeen years since the City of Boston issued the Civic Vision for Air Rights Development, not one project has been successful working through the Article 80 process and gone on to actual development. The Back Bay Association has had the tremendous benefit of serving on various CACs and IAGs for Air Rights Parcels, including the Columbus Center, Fenway Center, The Viola Back Bay, and the Copley Tower. Throughout all of these lengthy public processes, the community was concerned about "height" and "density." The City of Boston spent three years fully vetting the "Civic Vision," yet, alas, nothing has been built using this planning document. The project that preceded the planning process, the Millennium Tower (also called Boylston Square), proposed a 52 story project on Parcels 12-15, and was not supported by the community. In a Northeastern University study published in 2013, the failure of Air Rights development in Boston was ascribed to three top issues: 1. The Community, 2. Technical Issues, 3. Financial Issues.

Today, more than 20 years after Millennium Partners proposed a 52-story project for Air Rights, we review 1000 Boylston Street, which proposes building a 40-story building with a 23-story building to fill in the long-neglected Prudential Air Rights parcel….yet many in the public process believe that, too, is too tall and dense for the area.

The Back Bay Association has long sought to make the important case that the City of Boston created dramatic zoning limitations for the neighborhoods of Back Bay, Beacon Hill, the South End and Fenway. Parks along the Emerald Necklace benefit from a variety of protections. Yet, the City of Boston must continue to grow. More recently, planners have embraced the critically important issues related to climate change, and have established criteria establishing "smart growth" elements, including the following 10 principles to guide smart growth strategies suggested by the pre-Trump Environmental Protection Agency: Principles to Guide Smart Growth Strategies:

- Mix land uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, farmland, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost effective.
- Encourage community and stakeholder collaboration in development decisions

We also know that development in the City of Boston is extraordinarily expensive, challenging, and in great demand. Recently buildings have been constructed to maximize the rare development opportunity in our urban core, also yielding the benefits of Smart Growth. The Millennium Tower in Downtown Crossing is 60-stories, the Carpenter and Company tower is 61-stories. Numerous approved projects include the Bullfinch Crossing Office tower, 43-stories, the South Station tower, 51 stories, and proposed buildings, such as One Bromfield, 59-stories and Winthrop Square at 55-stories.

At 40-stores for an Air Rights project, one might ask, why is this project not taller?

It is with this in mind that, on behalf of the Back Bay Association, I am writing to express our support for the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner Ventures, LLC, and to encourage the BPDA to proceed with the Article 80 process for the development into the next phase (DPIR). The PNF provides a clear vision for Parcel 15+Pru Parcel, that seeks to dramatically improve a vacant and neglected part of Back Bay. The size in height and bulk of the project is in line with the neighboring Prudential and Sheraton/Convention Center developments, not to mention One Dalton and 30 Dalton. Many elements of the project meet the goals of the Civic Vision for Turnpike Air Rights prepared by the BPDA and Turnpike Authority (Department of Transportation) and finalized in 2000, but since no projects have been successfully completed based on the Vision, 1000 Boylston Street incorporates critical elements that propel it from a "vision" to a feasible "vision." Also, by following the Urban Spine concept for developing underutilized turnpike air rights this project strikes the right balance with a mean height that is compatible with the much taller buildings along the center "spine" along Boylston Street, with lower height, historically protected buildings in the nearby residential districts.

This project is the result of over 20 years of civic and community engagement and represents the best of what a modern youthful Boston should be. This transit oriented project will bring significant housing in the form of home ownership and rental to one of Boston's most desirable neighborhoods. Given this projects access to public transit and its walkability, the height and density is justified as part of the urban environment of the Back Bay and is line with the city's Go Boston's 2030 Transportation Plan.

This development will repair the damage and disconnect to the neighborhood that was created when the Turnpike expansion cut this area off from the vibrant Massachusetts Avenue corridor and the bustling Boylston and Newbury Street districts. In addition, the project improves on the public realm by providing new retail & restaurant amenities, the addition off street parking, the covering a noisy section of the Mass Turnpike, and the cleanup of a neglected and long ignored corner of Back Bay.

The Back Bay Association strongly believes that the City of Boston must provide tremendous support and leverage in order to successfully orchestrate a public process that results in successful Air Rights projects. We know from the very few air rights projects that were successfully constructed in the 1960's and 1970's, The Prudential Center and Copley Place, how critically important air rights projects can be to the City. In fact, we have grown so used to the way these projects knit-together our City that we don't consider them "air rights" any more.

Some in the public process have suggested that the Prudential air rights parcel either be left uncovered, or covered into a park. It is our understanding that Prudential must maintain ownership of the site in order to maintain the name of the "Prudential Center" of the "Prudential Center." I would find it highly unlikely that this private company would build and donate an air rights park to Boston. I believe the inclusion of rental housing on this site is the best possible location and use. The CAC/IAG felt that the filling in of this street corner should be a priority, and the Back Bay Association strongly agrees. The building will fit in well with other residential rental towers in the Back Bay, including the Exeter Tower at 28-stories, and the three AvalonBay towers at the Pru, 26-stories; "The Point" in Fenway is 30-stories. The proposed apartment building at 23-stories seems the exact right massing as we seek to develop this long-neglected part of Back Bay.

I urge you and the BPDA Board to fast-track this project to the DPIR phase, and approve it with all of the density and height that Weiner Ventures is proposing. By covering a portion of the turnpike and allowing Parcel 15+ Pru Parcel to be woven back into the fabric of the Back Bay we will on the right path to revitalizing a dead zone in Back Bay and helping to realize the vision of a vibrant urban spine.

What is now a windswept view down to a graffiti filled pit, will one day provide homes for people to live in, stores for people to shop in, a restaurant for people to dine in. Imagine that!

Sincerely,

Meg Mainzer-Cohen
President
Back Bay Association

Dear Phil,

I am a resident of 360 Newbury, close to the proposed 1000 Boylston project and also work in the neighborhood. I have also attended numerous public meetings regarding the project over the last several years, and am in full support of the proponents proposal for the 1000 Boylston project.

The project will transform a long-underused and undesirable block into a destination with appropriate uses for housing and retail. The density and massing of the project are appropriate given the location on Boylston adjacent to the Hynes. 1000 Boylston will dramatically improve a key block in the Back Bay while stimulating economic activity and establishing a much-needed vibrant pedestrian and overall experience. This location has been derelict since the construction of the Turnpike Extension in the 1960s and would be a long overdue and welcome revitalization project. The project thoughtfully addresses essential goals of the Civic Vision and will be a major plus for residents, businesses, and surrounding Back Bay and nearby Fenway neighborhoods.

Sincerely,
Chris Nolan

360 Newbury Street
Boston, MA 02115

March 7, 2017

Mr. Phil Cohen
City of Boston
Boston, MA

Re: 1000 Boylston, Boston

Dear Phil.

I am pleased to submit this letter of support for 1000 Boylston Street. This proposal is the positive product of a civic process years in the making.
The complexity, cost, and risk associated with an air rights project are massive. The proposal by Weiner Ventures is a reasonable and prudent plan to accommodate the deck and platform that is needed to successfully complete a construction project above the Mass Turnpike, while enlivening the surrounding area in a transformative way.
It is important to acknowledge the financing burden that confronts any developer who pursues an "air rights" project in Boston. The costs and risk associated with air rights development and filling in such a hole are substantial, posing a clear and unusual set of circumstances to any group that hopes to successfully execute such an endeavor.
As a Back Bay resident, I hope my letter here is among many you receive indicating that 1000 Boylston and the developer deserve widespread community support.

Sincerely,

Christopher Egan

Dear Mr. Cohen,

As a Boston resident, I have been paying particular attention to the 1000 Boylston project. I live in the Back Bay area, and find myself regularly going to the Symphony and Fenway neighborhoods. The pit and surrounding dead zone created by the Pike unfortunately serves as a physical and spiritual wall separating these neighborhoods. The city deserves better.

I strongly support the development of 1000 Boylston. We have an opportunity to create a bridge linking neighborhoods while creating an enjoyable, clean and vibrant street-level experience. I am sensitive to shadow and traffic concerns, but the status quo protects almost never unused space and a traffic pattern that is not pedestrian friendly. From my own perspective, I know finishing the development to create a continuous, family-friendly urban corridor will make walking the default way to get from the Back Bay to the vibrant areas of Berklee College and beyond.

I'm also enthusiastic to see a local developer that is a strong member of the Boston community willing to tackle 1000 Boylston. History has taught us that turnpike-air-rights development is really hard, and this particular site seems especially challenging. Weiner Ventures, with a proven track record of successfully tackling difficult projects and a long-term commitment to responsibly building in Boston, can credibly take on such a task.

Should this project succeed, it would be a strong symbol of smart community planning and support, not just for development in the Back Bay, but for air rights development in the City of Boston overall. I hope this project moves forward and gets built.

Respectfully submitted,

Daniel N. Saul
20 Park Plaza; Suite 424
Boston, MA 02116

Dear Mr. Cohen,

The Back Bay has waited nearly 50 years for a project like 1000 Boylston to revitalize the vastly-underused urban site. The project will finally deliver a solution that covers the open area above the Turnpike Extension. This long-awaited deck is essential in terms of providing a barrier between the pedestrian street-level and traffic / noise issues below.
Further, the design and size of the proposed project seem reasonable for this specific area of Boylston Street, in terms of the Civic Vision for Turnpike Air Rights document and in terms of what just feels right for our neighborhood.

Sincerely,
Gary Shub
41 Saint Botolph Street, #1, Boston, MA 02116

Sent from my iPhone
Gary Shub
(617) 515-6497
Gary.Shub@pwc.com

Mr. Cohen,

I am very encouraged by the proposed 1000 Boylston project. It is nothing short of transformative and I support it. It will seamlessly connect the Back Bay and Fenway neighborhoods, while once and for all covering the eyesore now there over the Massachusetts Turnpike. The massing and design seem appropriate for this specific area of Boylston Street within the Back Bay. Boston can only benefit from thoughtful developments like 1000 Boylston, which eliminate blight associated with unused "air rights" while restoring the urban fabric in a lively and appropriately-designed and scaled manner.

Thank you for your consideration,

Gregg Lisciotti
One Charles Street South PH 105
Boston, MA 02116

Mr. Cohen:

I have lived on Marlborough St and Mass Ave for over 20 years, now with my family of five. I also work in the Prudential tower and walk by the corner of Boylston and Mass Ave twice a day on my way to work. I was both interested and concerned when I heard about the 1000 Boylston St project. I attended the presentation by the developer at St. Cecilla Parish on February 28th and was relieved to hear the thoughtful plans presented. Along with many of my neighbors, we are enthusiast supporters of this project. The developer has a terrific reputation, has been thoughtful of the design and has been able to put together multiple parcels to solve the most important issue of all: filling in the hole.

I learned that the this hole was an unfortunate result of the Turnpike extension from the 1960s. Our community has long desired to transform this unsightly area into an engaging streetscape. Of course, there are also economic, housing and other benefits 1000 Boylston brings to the neighborhood and the city. While I understand some folks are concerned about shadows, I believe that concern is substantially overblown due to the very temporary and small shadows modeled. When comparing the shadows to the benefits, it's substantially nets out as a positive in my mind.

The 1000 Boylston Street project deserves the support of the City of Boston and its residents and businesses. I fully support the project and developer.

Thank you for your consideration of my thoughts,

Kenneth Frieze
445 Marlborough Street
Boston, MA 02115
617.422.6272

Fwd Project Comment Submission 1000 Boylston St

From: Phil Cohen <phil.cohen@boston.gov>
Sent: January 16, 2017 11:32 AM
To: Adam J. Weiner
Subject: Fwd: Project Comment Submission: 1000 Boylston St

Adam,

I can forward these to you as they come in. I will also track them all and send you a complete
package when the comment period is over.

Happy MLK day!

Phil

---------- Forwarded message ----------
From: <no-reply@boston.gov>
Date: Sun, Jan 15, 2017 at 8:17 PM
Subject: Project Comment Submission: 1000 Boylston St
To: BRAWebContent@cityofboston.gov, phil.cohen@boston.gov

CommentsSubmissionFormID: 1484

Form inserted: 1/15/2017 8:16:42 PM

Form updated: 1/15/2017 8:16:42 PM

Document Name: 1000 Boylston St

Document Name Path: /Development/Development Projects/1000 Boylston St

Origin Page Url: /projects/development-projects/1000-boylston-street

First Name: Thomas

Last Name: MacDonald

Organization:

Email: thomasmbbrighton@gmail.com

Street Address: 1 Egan Way

Address Line 2:

City: Brighton

State: MA

Phone: (514) 577-4170

Fwd Project Comment Submission 1000 Boylston St

Zip: 02135

Comments: A really exciting project that would bring life to an underdeveloped corner and a
new focus to the Back Bay skyline with architectural lines unmatched in the city of Boston
(perhaps harkening to the seemingly changing shape of I.M.Pei's iconic 200 Clarendon from
different perspective locations around the city?). I love the inclusion of green space in the tower.
A model of 21st century architecture!

PMContact: phil.cohen@boston.gov

--

Phil D Cohen
Project Manager
617.918.4280

Boston Planning & Development Agency (BPDA)
One City Hall Square | Boston, MA 02201
bostonplans.org

Dear Mr. Cohen,

I support the 1000 Boylston Street project. This project will improve the street-level experience in the Back Bay by decking the open area of the Turnpike while providing a seriously-needed upgrade to the streetscape. These improvements are consistent with Boston Transportation Department's Complete Street guidelines. The proposed buildings' design and massing, which certainly seems consistent with the spirit and goals Civic Vision for Turnpike Air Rights, would be welcome and massive improvements for the Back Bay and nearby Fenway neighborhoods.

Sincerely yours,

Steven Leed
One Charles Street South
Boston, MA 02116

Sent from my iPad

Mr. Cohen:

My name is Thomas Jones and I have lived in the Fenway for 35 years. We own a condo on Park Drive and it is indeed "our neighborhood"where 1000 Boylston Street has been proposed. I am in total support of this tower and have become increasingly frustrated by the provincial attitude that "development is wrong". The gaping canyon created by the Mass Pike decades ago should be covered over and urban density should be the goal. There is a place for more green space and that spot is not it. I am very pro-parkland and we financially support The Emerald Necklace and a myriad of other "open spaces" organizations. Please, tell the developers to address the issues of traffic and perhaps an investment in public transportation but support this project! I have waited for years to walk downtown without walking over the noise created by the Mass Pike. I totally support 1000 Boylston Street in its current planned configuration.

Sincerely,
Thomas Jones
11 Park Drive, #33
Boston, MA 02215
CELL: 617 959-4009

Hi, Phil,

I wanted to write in support of the current plan and proposal for 1000 Boylston Street consisting of the two towers to be built along and over the Pike. The project has a great balance of mixed uses (including housing), will fill in the gaps in the streetscape along Boylston Street, and has an elegant design, making the best use of limited development opportunities. The 566 foot height is attractive and in keeping with the scale of the high spine.

Best regards,
Vishal Patel

Public Comments

Dear Mr. Cohen,

As a resident of the western end of Back Bay who regularly walks, drives, dines and shops in the neighborhood, I am writing you to add my voice to the many beseeching you to withhold your endorsement of the proposed development at 1000 Boylston. The design as it is currently proposed solves none of the site's problems and, in fact, significantly worsens several of its existing negative qualities.

Walk down Newbury or Boylston Street sometime, paying attention to how the street life feels in sun vs. shadow and you'll see why it is so important to keep sun falling on Back Bay's pedestrian areas.

Erecting a "spine" of high rises along the highest point of Back Bay right next to Boylston and Newbury Streets is ruining the pedestrian experience precisely in the area that gives Back Bay its desirability as real estate.

There are two streets I will avoid walking on at all costs because they are almost invariably windy and unpleasant: Clarendon along the Hancock Tower and Belvidere along the Hynes and Sheraton. I can only imagine how much nastier that area will be with another blank tower looming over Belvidere.

The Hynes Convention Center cuts off pedestrian access from the neighborhood to the south, and its blank, featureless expanse deters pedestrians from walking from Hereford to Mass Ave on Boylston, creating a no man's land. What an amazing opportunity it would be to develop these parcels in a way that connected, not divided! Low buildings mixed with flexible-use outdoor spaces (we have an awful lot of performers right around the corner at Berklee, after all!) would unite the neighborhood and create a pedestrian friendly corridor from the Public Garden to Fenway.

Comm Ave was ruined by the overpass, but on Boylston we could still create an attractive, well planned route for the folks living in the new Fenway buildings to walk over to the shops and restaurants of Back Bay, and vice versa. It could be a glorious addition to the Boston cityscape!

Just because we've made terrible city planning mistakes in the past, doesn't mean we should give up and just design to the lowest architectural denominator! Please send this proposal back to the drawing board. Don't let developers pressure the City to "bend the rules" in return for a few infrastructure improvements--stand your ground and insist they design buildings in the City's best interests, not just their own.

Respectfully submitted,
Alice Murphy
9 Hereford St, Boston

Dear Mr. Cohen:

As a resident of the back bay, I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner Samuels. The PNF states that the community wants this project. The project we want adheres to the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the Weiner proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them.

Please take the long term view and do not permit the developers to ignore the design considerations embedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Alyson Goldberg
360 Newbury Street

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen,

I am an East Fenway resident writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner Ventures. The initial proposal showed a wonderfully designed streetscape scene. However, in its current iteration, the proposal's size--height & bulk--far exceeds anything envisioned for this site as compared to the Civic Vision for Turnpike Air Rights prepared by the BRA as well as the guidelines prepared by the Citizens for Reasonable Turnpike Development. The PNF states that the community wants this project, but this earlier support was for the initial design which differs considerably from the one currently being considered.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

o *A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.*

o *A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.*

There is a widespread neighborhood concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

In addition, the city could benefit considerably if BPDA would incorporate a requirement that the developer incorporate a minimum amount of public art in their proposal and have that public art be sourced competitively from Boston metropolitan area artists. This suggestion is for not only this proposed development but for all major Boston city developments.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Sincerely yours,

Andy

Andrew Hall
308 Commonwealth Ave - Apt L
Boston MA 02115

10 March 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

As a Back Bay resident, I do NOT endorse the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. Nor does the Back Bay community, as far as I can see, want this project as presented by the developers. The size in height and bulk far exceeds anything envisioned for this site, as is clear from the 1) Civic Vision for Turnpike Air Rights prepared by the BRA, 2) guidelines prepared by the Citizens for Reasonable Turnpike Development and 3) the community view for this part of the Back Bay. The proposal does not meet the Civic Vision, is totally outsized for the space, in no way fits into the scale of existing buildings, nor does it provide much needed green space at the ground level. Rather than enhancing the neighborhood, it errodes the very character of an area which is the pride of current residents and a magnet for visitors (think Boston Marathon, 4th of July and so on).

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

- *A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.*

- *A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.*

We are concerned that two of the most emblematic features of Boston may be changed forever: the Commonwealth Avenue Mall and the Esplanade. These precious public spaces, both supported by substantial private donations and investments of volunteer

Dear Mr. Cohen:

As a 43-year resident of the Back Bay, the last three at 780 Boylston Street, I write to express my opposition to the Weiner Proposal for 1000 Boylston Street.

The community does NOT want this project as proposed because it vastly exceeds a reasonable size for the site. It does not enhance our neighborhood at all with its inappropriate scale and absolutely no provision for sorely-needed green space.

Of particular concern also is the project's shadow impact on our beloved Commonwealth Avenue Mall and the Esplanade.

For these reasons I strongly urge that you send the developers of the project back to the drawing board to find something more compatible with our neighborhood and appropriate for that site.

Sincerely,

Anne Devereaux
780 Boylston Street

Dear Mr. Cohen,

About 5 months ago I moved to the Back Bay from Metrowest. I have recently heard about the 1000 Boylston Street Article 80 Project Notification Form design proposed by Weiner Ventures. I am writing to you to express my opposition to this project. From what I understand the PNF states that I and the rest of the community want this project. We certainly would never want something so extensive to overwhelm the space and the historic neighborhood. The developer disregarded the Civic Vision for Turnpike Air Rights prepared by the BRA and the guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the city.This project would not add anything desirable to the neighborhood and might ruin it to a great extent.

I knew when I moved from the suburbs to the city I would lose a great deal of green space, there would be more traffic, more people and wind tunnels that I have experienced. However, this project , with the buildings as tall as the Prudential will impact all of the things I just mentioned. No green space has been planned and the traffic would greatly increase if the buildings add 300 plus residential units, plus retail space which could turn into 200 or 300 more cars! The shadows from these buildings would spread to Comm Ave and perhaps beyond! Also,it would definitely cast shadows on my building and my unit which needless to say I would not be happy with so much shade on my now sunny windows!

Also, I am wondering what the impact would be on our fire and police departments. I look over to the fire house on Boylston St. and I see how extremely busy that station is! I don't know how they could keep up with even more residents and more commercial businesses.

I don't think anyone is trying to completely stop any project for the area. Of course,development is part of any city. BUT please take the long term view and do not allow these developers (or any developers) to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of our and now "my" new neighborhood!!

We would like additional studies prepared with complete environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for parcels 12 & 15.

A design that meets the underlying zoning(no PDA) and does not request the City to cede air rights over streets and sidewalks.

I am so happy to be living in this beautiful, friendly, historic city!!

Thank you for your time,
Anne Prendergast
360 Newbury St. Unit 360

Dear Mr. Cohen,

I am writing to express my opposition to the proposed 620-foot tower for 1000 Boylston Street. This building is obviously much too tall for the location. The proposal largely disregards the “Civic Vision for Turnpike Development” guidelines established after public meetings with the BRA and urban planners. It will cast shadows on fragile historic parklands, eliminate green spaces, increase wind and canyonization of Boylston Street, draw 300 more vehicles to the area, and burden an inadequate infrastructure. How will our finite utilities accommodate such a vast number of new residents? Why doesn’t our city planning agency actually plan for the entire city instead of simply approving every flashy development that is proposed? No wonder residents have no confidence in the “expertise” of the BPDA.

Sincerely,

Anne Swanson
Back Bay resident

Phil Cohen, Project Manager
Boston Planning and Development Agency
One City Hall Square
Boston, MA 02201

Re: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr Cohen:

I oppose the 1000 Boylston Street project.

Please do not endorse the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner.

Back Bay is already a difficult place to live because it is so expensive and crowded. This project will make the neighborhood worse by making it more crowded and darker. Combined with the other recent projects, the size, height, and density of 1000 Boylston will be a wall closing off the southern side of Back Bay. The sun and even the sky will be blocked by the new buildings. Buildings throughout Back Bay will lose sunlight by this project. The sense of light and open space that helped to make Back Bay a desirable place to live is being taken away by projects like this one. Why would anyone want to live in the shadow of this project?

I've lived in Back Bay for almost 50 years, and have watched the neighborhood go from run-down rooming houses to gentrified condominiums and now to commercialization of every available open space. For people not living in Boston, coming into the city is already difficult, and adding thousands more people to Back Bay will make commuting a deterrent to working, or shopping in Boston. In my neighborhood, people move in because they are in graduate programs, or have accepted positions in Boston, but they move out as soon as they complete their degree or work. None continue to live in Back Bay.

This project is an attempt to "cash in" or make money from a good neighborhood, but in the process, it's damaging the neighborhood. The phrase, "killing the goose that laid the golden egg" applies here.

Please do not allow this project to continue.

Thank you.

arthur chin

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project.That is not true! The height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Barry L. Solar
180 Beacon St.
Boston, Ma. 02116

March 17, 2017

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Becky Kidder Smith
255 Marlborough Street #1
Boston, MA 02116

Dear Mr. Cohen,

As a Back Bay resident, I am opposed to the 1000 Boylston Street project design as currently proposed. The height and size far exceeds what that site can handle and is inappropriate for that space. It does not enhance or fit into the scale of the neighborhood. The development would also block sun to my home, the Commonwealth Avenue Mall, the Esplanade, and the Fens. These precious public spaces are enjoyed year around by large numbers of neighborhood residents and many visitors that come to experience what Boston. We need sunshine in our Historic neighborhood, not new construction that will add a wind tunnel and more traffic to the intersection of Boylston, Dalton, and Hereford Street.

I am against what toll a project of this enormous size will have on our Fire and Police department. The Boston Fire Department is directly across the street. This site houses Engine 33 and Ladder 15. Engine 33 consistently ranks among the most active in the City and responds to over 4000 incidents a year. Ladder 15 responds 3800 per year. With the addition of this project, I am afraid that it will make it more difficult for Engine 33 and Ladder 15 to respond to emergencies due to the increase traffic in the area.

Please look at the long term impact that this project will have on our neighborhood. Please do not permit the developers to ignore the design consideration and the widespread concerns that the residents of this neighborhood have with the sheer height and bulk of the project. And please remember that sunshine is what makes this City unique.

Respectfully,

Carol Ann Petruccelli

12 Hereford Street

Unit 1

Boston, MA 02115

March 17, 2017 Due Date

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

My name is Carolyn Arrington. I live in the Back Bay and I am a member of the Old South Church located at the corner of Boylston St. and Dartmouth Street. I must voice my objection to the 1000 Boylston St. Project as currently proposed. The 566-foot tower is inappropriate for this location and the shadows projected will impinge on the very fabric of the surrounding areas and buildings. I understand that development and housing (although I question the need for additional luxury housing) are important to our city but it must be weighed with how and where that development takes place and what it does to the surrounding areas. This project does not adhere to the Civic Vision for Turnpike Air Rights previously prepared by the BRA and the shadows it imparts are unacceptable; for instance, it is my understanding that for 12 weeks of the year shadow will fall across the stained glass windows of Old South Church during the morning hours, including during the time of morning services. The 350-year-old Old South Church and its congregants have played significant historical roles in Boston, the Commonwealth, and indeed to the entire country. Its is an important architectural statement in Copley Square as is Trinity Church, and the Boston Public Library. Yes, indeed we need growth and development in the city but we also need to preserve the history and unique character of Boston. Much more thought and study needs to go into this proposal before approval is granted.

Sincerely,
Carolyn Arrington

Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov,Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov,Andrea.Campbell@boston.gov, Frank.Baker@boston.gov,Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov,Mark.Ciommo@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com,info@nabbonline.com

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>

Boston Planning & Development Agency

One City Hall Square

Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

I have been a Back Bay resident since 1999 and am active in many civic an non-profit groups that work to maintain and enhance the quality of life for residents and visitors to the neighborhood and the city. I am writing to express my **opposition** to the 1000

Boylston Street Article 80 Project Notification Form (PNF) design as proposed by Weiner Ventures LLC.

The size of the project in both **height and density** far exceeds anything envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA, and the guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

I am also extremely concerned about the **shadow impact** that a development of this scale will bring to both the Commonwealth Avenue Mall and the Esplanade.

This is not an “all-or-nothing” situation. A smaller development that conforms to the Civic Vision and avoids this proposal’s lasting harmful consequences would be welcomed in the neighborhood. Comprehensive urban planning is urgently needed in the Back Bay -- more towers are coming. Berklee College has been approved to add another tower on Massachusetts Ave. near Boylston Street as part of its Master Plan. Another tower is planned on an air rights at Mass Ave. across from the Hynes T stop. Four towers would add tremendous density and shadow to the border of our neighborhood. The Mayor has spoken publicly and repeatedly about the "new BPDA" and the increased focus on **Planning** and transparency at the agency. "It is no longer just a rubber stamp for developers". Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Respectfully submitted,

Catherine Bordon

303 Marlborough Street

Boston MA 02116

cc:

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

We are Back Bay residents.

We are very opposed to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. We don't, at least not in its current state. The size far exceeds in height and bulk anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

§ *A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.*

§ *A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.*

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are

enjoyed year round by large and sometimes very large numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Coridally,

Charles Schuerhoff & Patricia Evans
333 Commonwealth Ave., Apt 20
Boston, MA 02115

cc:

Mayor@boston.gov, Michelle.Wu@boston.gov,Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,Ayanna.Pressley@boston.gov, A.E.George@boston.gov,Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov,Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov,Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov,Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov,Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,William.Brownsberger@masenate.gov, nabbdtc@nabbonline.com,info@nabbonline.com

To Whom It May Concern,
In attendance at the recent public meeting at St. Cecelia's Parish, I learned in great detail about the awkward and cumbersome geometry of Parcel 15, and the challenges to develop this section of our city. It's unruly and requires creative thought! Out of all the parcels on Boylston Street to be considered for development in Boston at this time, this Parcel 15 is a bear!

At this point in the public notification process, and after many prior meetings, the proposed building design as presented by Adam Weiner and David Manfretti (Manfretti Architects) stands at 566 feet along with another corresponding building at 283 feet, and four levels of parking garage. This proposed project is the design placed before citizens to date on February 28.

Here is a description of the Back Bay from online source wikipedia:
Back Bay is an officially recognized neighborhood of Boston, Massachusetts.[2] It is most famous for its rows of Victorian brownstone homes — considered one of the best preserved examples of 19th-century urban design in the United States — as well as numerous architecturally significant individual buildings, and cultural institutions such as the Boston Public Library.

With respect to work of the designers and architects...Nothing about this project matches the Back Bay features as one of the most livable regions of Boston. You are seeking a so-called "traditional" development solution of buildings and skyscrapers for a non-traditional space. This skyscraper design is offensive to our Back Bay community and Fenway neighbors. The profile of this project is enormous, and an abomination to the architectural designs of two hundred years. Without mentioning in any detail the traffic problems that already persist on Mass Ave, we are at a tipping point in this area of Boston as viewed during throughout the day, and at peak commutation hours (although all day long, Mass Ave is a parking lot). You can assist our Back Bay and Fenway communities by building a gathering area of gardens and environmentally friendly solutions whereby the two neighborhoods meet when joined at Parcel 15 on Boylston Street.

Have you considered the geometry of this site to be so unusual that you may construct a public park atop this space with green grass and low shrubs? Have you considered Parcel 15 to require more creative uses instead of your bidding this site for residential development and skyscrapers? Have you considered designs for building atop the train tracks and access street with something other than more buildings? How about making this geometrically difficult space a design for students at the Boston Architectural College? Have you considered an environmentally friendly park space as a welcomed relief at this site, and pose no more traffic problems and congestion at this critical intersection of Mass Ave and Boylston Streets?

Please be creative at this time as unusual foresight is required in our beautiful Boston, much like the leadership and foresight of city leaders over the past one hundred years.

Many thanks,
Chris Purcell

I am a South End resident and parishioner of St Cecilia's Church, and I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Sincerely,

Claire Corcoran
81 Montgomery Street
Boston MA 02116

From: Phil Cohen [mailto:phil.cohen@boston.gov]
Sent: March 2, 2017 7:26 PM
To: Adam J. Weiner <aweiner@weinerventures.com>
Cc: Lauren Shurtleff <lauren.shurtleff@boston.gov>
Subject: Fwd: 1000 Boyston Street - Project Notification Form and Public Meeting

---------- Forwarded message ----------
From: **Steve Csipke** <steveindexer@hotmail.com>
Date: Wed, Mar 1, 2017 at 11:23 AM
Subject: Re: 1000 Boyston Street - Project Notification Form and Public Meeting
To: Phil Cohen <phil.cohen@boston.gov>

Hi Phil, A few comments on the 1000 Boylston project and meeting last night (2/28). Thank you for running a good meeting and keeping the speakers brief and focused. (I spoke with you briefly after the meeting.) I live at Church Park Apartments, opposite the Christian Science Complex on Mass. Ave., and I walk on this section of Boylston several times a week, if not daily at times.

In general, I think the project is a positive improvement to the area.

- The height and bulk seem fine for that side of Boylston Street, especially with the addition of the 1 Dalton Street tower.
- The wide sidewalk and setback of the two towers will make walking along Boylston Street pleasant. In winter, neither side of the Boylston St. sidewalks over the Turnpike is shoveled, making walking difficult.
- A speaker's comment last night about the loss of green space mystified me. The small park behind St. Cecilia's Church is not used (and not pleasant!), and I do not see this as a loss. I'm not sure how the developer could provide street-level open green space in the plans (nor does Berklee plan to provide green space, which did not seem to be a problem in their proposal for the Crossroads project), nor would I want to sit in a park right next to the car traffic in Boylston St.

Concerns:

- Affordable housing: I think affordable units need to be incorporated into the site to keep our neighborhood diverse. The Back Bay and adjacent areas of the South End and the East Fenway/Symphony neighborhoods do not seem to have available land for building affordable housing.

- Additional residential traffic: I do not own a car and walk or take public transportation. However, I assume that most residents in the 1000 Boylston complex will use their own cars for transportation (and also true for 1 Dalton, 30 Dalton, and the Parcel 13 buildings). While the development team emphasized that this traffic would be during morning and evening rush hours, that is exactly the time when traffic on Mass. Ave. and Boylston St. is in gridlock. Also, many Sundays have special events that close traffic on Boylston St. or Copley Square, also causing gridlock in the area – and presumably making use of their cars difficult for residents. Because both new Dalton St. projects use Dalton St., where the parking access will be located, means that Dalton will also be gridlocked at times because there seems to be no way to widen Dalton to accommodate the additional traffic.
- Impact of wind: Boylston St. tends not to be as windy as some other streets in the area, except for the openings over the Turnpike. Setting the two towers on a platform and back from the street would seem helpful. I would like to see more information on the impact of wind, anticipating (if possible) the Parcel 13 building on the other side of Boylston and the lower Berkley Crossroads tower.
- Shadows: I understood Back Bay neighbors' concerns about shadows in their neighborhood and would like to see more information. Dalton Street is already in shadow most of the time and thus there would seem to be little impact there.
- Economic viability of the project: I do wonder about more "luxury" housing, both rental and condo, coming on the market in my area, with the recent Exeter St. Prudential building, the opening of both Dalton Street projects, and the proposed Parcel 13 buildings (which presumably will be completed before or at about the same time as 1000 Boylston St.). Also, will shoppers come to this section of Boylston, close to but still not contingent to the shopping areas of upper Newbury St. and the Prudential complex?
- Trees and plantings: It was mentioned last night that tree-planting over the Turnpike is a problem. Also, trees on busy streets do not seem to do well in our neighborhood. Perhaps the developer can design long planters along the curb, to add greenery and color while also making walking along the sidewalk more pleasant. The plantings on the Boylston St. divider are always nice to look at, and the1000 Boylston plantings could complement those.

I look forward to more meetings with the developer. Best, Steve

Steve Csipke
#1111

199 Massachusetts Avenue
Boston, MA 02115-3039
(617) 266-4943
steveindexer@hotmail.com

From: Phil Cohen <phil.cohen@boston.gov>
Sent: Sunday, February 26, 2017 12:58 PM
To: Lauren Shurtleff
Subject: Re: 1000 Boyston Street - Project Notification Form and Public Meeting

Greetings,

I look forward to seeing many of you at the public meeting this Tuesday, February 28, 2017 from 6:00 pm till 8:00 pm at Saint Cecilia Parish, 18 Belvidere St, Boston, MA 02115.

In addition, I would like to invite those interested to a Citizens Advisory Committee meeting being held the following Tuesday March 7, 2017 from 6:00 pm till 8:00 pm at Saint Cecilia Parish.

As always, more information about the 1000 Boylston Street proposal can be found on our website. The BPDA is soliciting comments from public agencies and the public and the public comment period is scheduled to conclude on March 17, 2017.

- 1000 Boylston Street - PNF

The PNF describes the proposal to construct two residential towers with approximately 689,000 square feet of residential space including approximately 182 rental units and approximately 160 ownership units, and with approximately 35,000 square feet of retail space above 303 parking spaces.

Best,

--

boston planning & development agency

Phil D Cohen

Project Manager
617.918.4280

Boston Planning & Development Agency (BPDA)
One City Hall Square | Boston, MA 02201
bostonplans.org

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Phil D Cohen
Project Manager
617.918.4280

Boston Planning & Development Agency (BPDA)
One City Hall Square | Boston, MA 02201
bostonplans.org

This letter is sent to express my OPPOSITION to the 1000 Boylston Street Article 80 Project Notification Design as proposed by Weiner.

1. The project should not be approved until a wind study is conducted.

Winds are a serious problem in Boston. We are one of the windiest cities in the country and during the winter months our average winds are 46% higher than the US city average. Any increase in winds will make the area not only dangerous but unattractive to pedestrians. Not only is the building far higher than any of neighboring buildings creating the potential of wind tunnels but also the closeness of the three buildings is likely to create wind channeling. Winds carry down straight streets such as Boylston Street and Massachusetts Ave.

2. The building should not abut Boylston Street.

The two previous high-rises on Boylston Street (500 and 800 Boylston Street) were set back to allow for visible open space. This allows for street level green spaces. 888 Boylston Street is an excellent example. If the developer truly wants a gateway to the Fens, it is critical to have open green spaces visible from the street that can be seen by pedestrians, bike cyclists and automobiles. Roof gardens are not visible.

3. Long shadows will make Boylston Street and Newbury Street gloomy.

Boston is an attractive city for both residents and visitors. Open space and sun are vital to the attractiveness of the city. We already have areas such as the sidewalks along Hynes Auditorium that are very unattractive. We need to have smart city planning and not allow past mistakes to continue.

Please, please do not approve this project as it currently stands.

In summary I believe green space, lack of wind and sun are vital to the city. I personally contribute to The Friends of the Public Garden, The Esplanade Association, the Friends of Copley Square and the Garden Club of Back Bay. I put my money where my mouth is.

Thank you.

Diane Gipson
181 Marlborough St
Boston, MA

172 Beacon Street #4
Boston, MA 02116
March 10, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to the 1000Boylston Street Project design proposed by Weiner. The company states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned or want for this site and for this part of the Back Bay. It is totally inappropriate for the space, does not enhance the neighborhood or fit into the scale of existing buildings, and does not provide any, much needed green space at the ground level.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential. At various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors
As a voting citizen and member of the Garden Club of Back Bay I ask that you require additional studies to complete evaluating the environmental impact reports for the proposed project or else that you request now that the proposal be greatly amended. Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Sincerely,
Diane Schmalensee

cc:
Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,Ayanna.Pressley@boston.gov, A.E.George@boston.gov,Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov,Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov,Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov,Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com,info@nabbonline.com

Schmalensee Partners
172 Beacon Street, Suite 4
Boston, MA 02116
www.Schmalensee.com

To Whom It May Concern:

Re: 1000 Boylston Street Towers.

NO.

No, we are not New York. We do not want to be New York. We do not want to look like New York.

If you want New York, go to New York. Leave New York in New York.

We are Boston.

We love our low heights, our historic districts and architecture.

We do not want to be overshadowed by tall modern canyon like architecture. And we do not want the actual shadow that those tall buildings cause. We do not want the impersonal feeling of a lot of tall buildings. We do not want the wind tunnel effect ~ that we got from the Hancock Tower, along with the falling glass plates.

If these developers want to build tall buildings, let them go outside this historic city. They are in it for the profit, not for the good of the city, for the love of its architecture, history, and the feelings these evoke in all of us as we stroll down Commonwealth Avenue, for example.

I join the chorus of people who live here, who love our neighborhoods, in strongly opposing these towers.

Dorothy Manning

March 11, 2017

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

As a Back Bay resident, I oppose the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. As part of the Back Bay and Boston community I am concerned that the proposal does not meet the Civic Vision. It is inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), the community needs the preparation of additional studies complete with environmental impact reports.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We need the Commonwealth Avenue Mall and the Esplanade to remain sunny – at least to the levels of the design in the 2013 Weiner Samuels RFP submission. These are precious public spaces. They are supported by substantial private donations and investments of volunteer time in effort to maintain and improve them and are enjoyed year round by large and sometimes very large (e.g. July 4thfestivities) numbers of neighborhood residents and many visitors.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of our unique neighborhood.

Sincerely,

Dr. Esther I. Weissman
326 commonwealth Avenue
Boston, MA 02115

617-267-7100

Dear Mr. Cohen,

I write to express my concerns about the new proposal by Weiner Ventures for the area at 1000 Boylston Street.

*The buildings are TOO TALL, on TOO SMALL A SITE

* They will cast TOO MUCH SHADOW on the mall and neighborhood

*There is NO SET-BACK from the street

*They DO NOT FIT THE AESTHETIC of the neighborhood

*It is not clear that they conform to the highest LEED STANDARDS

*It is not clear that there is adequate availability of LOW AND MIDDLE INCOME HOUSING

*It is not clear that increased VEHICULAR TRAFFIC has been Considered

I hope you will address these issues. This is Boston, not New York!

Sincerely,

Elizabeth Case
100 Beacon St 5B

Good evening Mr. Cohen,

As a resident of Boston in Back Bay, I write to oppose the height and scale of this project. Your agency needs to preserve open space and at a minimum, reduce the height of new buildings in this city. We do not need any more skyscrapers in Back Bay at this time. Please do not approve this project; the scale of the proposed building is way out of line for the site.

Because construction is going on all over this city, your agency should call for a moratorium until much of the approved proposed projects are complete. Your agency should then reevaluate the effect of these new skyscrapers on open and public spaces and the availability of sunlight and the combined effects of all the shading caused by these new buildings.

I urge you to deny this proposed development at 1000 Boylston St.

Sincerely,
Elizabeth Fahey
4 Charlesgate E
Boston, MA 02215

Sent from my iPad

Boston, MA 02116

March 1, 2017

Mr. Phil Cohen, Project Manager

Boston Planning and Development Agency

1 City Hall Square

Boston, MA 02201

Subject: 1000 Boylston Street

Dear Mr. Cohen:

Thank you for the opportunity to comment on the Project Notification Form for 1000 Boylston St. This project is in a very important location in the Back Bay close to the Fenway neighborhood, and its significant potential positive and negative impacts must be studied carefully before any decision is made on whether the project should proceed.

While there is a clear benefit to covering the hole in the streetscape created by the Massachusetts Turnpike and the CSX tracks, this advantageous outcome seems, under the current proposal, to come at a very high price. Shadow impacts that stretch to the Commonwealth Avenue Mall and beyond for extended periods can cause a significant loss of the already very limited wintertime sunlight in the residential district and even more so on Boylston and Newbury Streets.

Wind impacts of a building so close to Boylston Street can be disruptive in ways that sometimes aren't clear from the wind tunnel projections. For example, the wind impacts across Boylston Street from the Mandarin Oriental have been more negative than was anticipated when that project went through the public review process. For that reason, it would be extremely helpful if the consultant that developed the wind data (and has done so for virtually all recent major Boston projects) would furnish what they believe is the margin of error in their projections.

While traffic generated by a residential use is generally less than that by retail or office uses, recent data generated for the DPIR for the Back Bay South End Gateway project now undergoing review raises great concern about the continued functionality of the Massachusetts Turnpike exit onto Stuart Street at both morning and evening peaks in 2023 **without the construction of that project**, with delays more than tripling from current levels and vastly extended queue lengths. If this data is close to accurate, it indicates that the only direct access from the Turnpike to the Back Bay, already rated F, will no longer function at all in any meaningful way during rush hours. Where will that traffic spill? Without improvements, how can any further development in Back Bay, South End, or Bay Village?

There are other aspects of the project that certainly need study, but these seem to me to be fundamental questions that must be answered adequately before a project in this location an move forward.

Very truly yours,

Elliott Laffer

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors
Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Emily B. Gallup
334 Beacon Street
Boston, MA 02116

F R I T Z C A S S E L M A N

March 17, 2017

Philip Cohen
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

By Email

Re: Comments relating to 1000 Boylston Street Scoping Determination

Dear Mr. Cohen:

I am a member of and co-chair of the 1000 Boylston Street IAG, and I fully support the IAG comment letter that you received yesterday. In the instant letter, and speaking as an individual, not on behalf of the IAG, I would like to supplement and/or stress the importance of certain of the IAG comments.

Wind

The IAG, (in the 4th or 5th paragraph [depending how you count] under "Wind") states that, "Another member expressed an ongoing concern that the BPDA continues to accept wind studies using a methodology that has never been validated for these purposes." The potential wind impact of this project, particularly with Parcels 12 and 13 coming along, and even more particularly with the Parcel 12 developer intending to build a two-story row of retail establishments adjacent to the east side of the Massachusetts Avenue bridge. It would be a shame if the project were built based on "acceptable" wind studies only to find out that, once built, actual wind was higher in all the wrong places. When I ask developers or architects if their wind consultant has ever validated the accuracy of the predictions, the typical response is a casual "I assume so" or "I think so" or, "let me find out." But with those whom I have pursued for an answer, the answer is always no. We don't even know what the error bars are on the predictions. If for a given measurement point the result is +/- 5%, then in most cases the result is useful to characterize only the most extreme categories of the BPDA's wind scale:

Dangerous > 27 mph
Uncomfortable for Walking > 19 and ≤ 27 mph
Comfortable for Walking > 15 and ≤ 19 mph
Comfortable for Standing > 12 and ≤ 15 mph
Comfortable for Sitting < 12 mph

There must be some way to improve the confidence level so that these studies are worthwhile.

The East Tower

The new IAG comment letter notes (bottom of page 2) that some IAG members "asked whether the need for a second tower could be revisited, and wondered whether an analysis might show

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333 COMMONWEALTH AVENUE #13
BOSTON, MA 02115
(O) 617-266-1969
(M) 617-285-6767

that the East Tower may not be financially essential to completely cover the Turnpike and train tracks below. Access to the Proponent's financial model for the Project would be needed to complete that analysis." When the Weiner team was asked why the project had grown so dramatically, the answer was (a) area construction costs have risen dramatically and (b) the cost of the decking (including associated upgrades) necessary to incorporate the Prudential Parcel into the project far exceeded the cost of decking Parcel 15 alone. Mr. Weiner also suggested to the effect that since projects downtown are being allowed extra height, this project may warrant extra height as well. Weiner Ventures has declined thus far to disclose financial information to support these assertions, which is why some IAG members have asked for it again.

There are practical observations that support the feasibility of eliminating the East Tower:

- The East Tower provides almost all the new square footage in the project.
- The West Tower has approximately the same GSF as did the originally proposed tower, yet it is over 160 feet taller.
- Adding 160' to the West Tower height, without adding GSF, and redesigning the West Tower to include a novel twist, *has* to be more expensive than the 2012 version. We submit that the costs of that extra height should be factored into the equation.
- We have not received a detailed explanation of the cause of the increased construction costs due to the addition of the Prudential Parcel, but we expect that a lighter build to support a less intensive use will not involve quite as much complexity as the current proposal.
- We have not seen the assumptions and data the proponent relied on to estimate rising costs of construction.

And what about filling the Hole? We should explore other options.

- The easiest and probably least expensive would be to build a wall perhaps two stories high, all the way around the Hole. The wall could be sound-damping, as you see on highways that back up to a residential area. The wall could be made attractive if designed and executed artistically. Walking past the hole would no longer be miserable for pedestrians.
- Several people have suggested decking it over to support a small park. One would expect that decking to support a park would be less expensive and less complicated than doing it to support a 24-story building. And using the new techniques such as those being employed in the Hudson Yards to build airborne parks could also reduce cost. The park could be an amenity for the immediate neighborhood, including the thousands of students new residents, and it would not be unreasonable to ask the institutions and developers creating this demand to bear some of the cost.

All of this is to say that requiring the proponent to disclose relevant financial data is reasonable, and studying the option under the low- or no-build scenarios is warranted. Several IAG members have worked under confidentiality agreements throughout their professional lives, and there is no reason why the proponent would be harmed by this proposal.

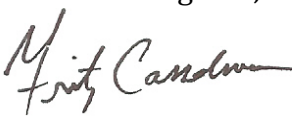
View Corridors
The IAG has requested a view of the Project from the North side of Boylston on the approximate lot line between the fire station and the former police station (now the architectural college). This is important because the two stations are historically important and will contribute to our collective understanding of the effect of the Project on these buildings.

"Boncore Amendment"
It has been exceedingly difficult for residents and even representatives to get clear answers as to the reasons and effects of possibly changing the conveyance from a 99-year lease to fee simple. We want as much warning as possible should this proposal be reintroduced. Thus I request that NABB the CAC/IAG be notified immediately in the event the Proponent, BPDA, City of Boston, MassDOT, the Turnpike Authority or any other state or municipal agency learns that any legislation is being promoted that would change the ownership rights of Parcel 15 from a 99-year lease.

Government Assistance
The Proponent states that it is not seeking a government subsidy for the Project, for which we are grateful. I suggest the BPDA require disclosure of any other government assistance, including but not limited to tax breaks, air rights over Cambria Street, or extension of subterranean or surface rights to the Proponent to increase the aggregate parcel size to one acre. If so, the value of such assistance should be disclosed.

I hope that the BPDA will honor my requests. I would welcome the opportunity to discuss any of this with BPDA personnel before coping determinations are made.

With kind regards,



Fritz Casselman

March 17, 2017

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a resident of the Back Bay/Charlesgate neighborhood and a co-founder of the Charlesgate Alliance. I am writing regarding Weiner's 1000 Boylston St. proposal, which I generally support, with the following reservations:

1. This is a golden opportunity for the BPDA to push hard for the MassDOT to construct an eastbound on ramp to the Mass. Turnpike. This would help relieve congestion on the surrounding city streets as well as Storrow Drive. This would need to be a left lane onramp, and if you walk around the area you will see how easily this could be done. It's time for the Mass Turnpike to be reconfigured to serve the interests of the City of Boston rather than just suburban car commuters. It's also time for the City of Boston to flex its muscles and inform the MassDOT that the days of "controlled dispersal" are over.

2. As a resident of the Charlesgate neighborhood, I am particularly concerned about Parcel 12. Earlier, my understanding was that the right to develop Parcel 15 was tied to the responsibility to develop Parcel 12. I think it was a mistake to sever the connections between these two parcels, and I worry that the Parcel 12 project will not be built without the "sweetener" of building rights for Parcel 15. Please work to restore this connection.

3. These projects at Mass. Avenue and Boylston St. give us the opportunity to turn this area from a grim wasteland into one of the most vibrant parts of the city. I suggest that the BPDA consider how to make this area a destination rather than just a pass-through. Why not substitute some of the parking garage along Boylston St. with a movie theater? There used to be lots of movie theaters in the neighborhood and now there are none. There's plenty of populations density there to support such a venture. The proximity to public transportation would make parking unnecessary. There are tens of thousands of people who live and work within walking distance of this area. I think this could be very successful, and that it would add a sense of vibrancy and "destination" to this area.

Thanks very much for your attention.

Sincerely,

Heyward Parker James
423 Marlborough St, #3
Boston, MA 02115

March 17, 2017 Due Date

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form(PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything I envisioned for this site. It is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Hope and Mel Barkan
109-111 Commonwealth Avenue

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>

Boston Planning & Development Agency

One City Hall Square

Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident and I am writing to you to express my strong opposition to the 1000 Boylston Street Project Notification Form design proposed by Weiner.

The buildings are much too tall and ignore the generally accepted height limits established by the City and the Community many years ago. Moreover, the site under consideration is much too small for such a massive project.

The building proposed has limited set back from the street and will contribute to the “canonization” of that part of Boylston Street. It just does not fit the aesthetics of the area.

There is inadequate information regarding wind and shadow increase in the area and adjoining neighborhoods. There is no information about the effects of increased traffic that would be generated by this project.

It does not appear that the developer has considered the historic nature of the area or the extremely negative consequences to the quality of life for the thousands of residents in that part of Back Bay.

I trust that the BPDA will insist that the needs of the people come before the desires of this developer.

Sincerely,

Howard Kassler

225 Commonwealth Avenue

Boston, Ma 02116

CC.

Mayor@boston.gov

MichelleWu@boston.gov

BillLinehan@bosto.gov

AyannaPressley@boston.gov

A.E.George@boston.gov

TitoJackson@boston.gov

JayLivingtone@mahouse.gov

WilliamBrownsberger@masenate.gov

JoshZakim@boston.gov

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner.

The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the site. It does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

A design that provides a park on the Prudential air rights or a fence around this parcel.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Jacquelin Yessian
160 Commonwealth Avenue Unit 603
Boston, MA 02116

cc:
Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,Ayanna.Pressley@boston.gov, A.E.George@boston.gov,Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov,Mic

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

March 13, 2017

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

As a Back Bay resident with a background in City and Regional Planning and a close neighbor to the project, I am extremely concerned about the design proposed by Weiner for 1000 Boylston Street.

Although the community is supportive of an air rights project, the size in terms of height and bulk as proposed far exceeds guidelines envisioned for this site by the Civic Vision for Turnpike Air Rights.

The project does not enhance the neighborhood or fit into the scale of existing buildings and most importantly, does not provide critically necessary green space in this area.

Two major design failures of the Weiner proposal for 1000 Boylston are: **Too tall** (586 feet plus mechanicals=620 feet), for **TOO small** building site. It is an inappropriate fit for the neighborhood and is an esthetic intrusion in an historic neighborhood.

In addition, as a member of the Green Committee of the Neighborhood Association of the Back Bay (NABB), I am concerned about your efforts to make this a sustainable green building that in 2017 could go beyond LEED with appropriate re-consideration of the costs and overall long-term benefits of clean energy sources.

- - Will your environmental impact report seriously re-consider the environmental impacts of clean alternatives?
- - Will your environmental impact report seriously re-consider climate change goals for a resilient Boston?
- - Will your environmental impact report seriously re-consider the impact of increased private vehicles, pedestrian, train, bus, and bike traffic?

Other questions that arise are:

- - availability of low/middle income housing planned on site?
- - will serious shadow studies be done?
- - can set backs with more open space at sidewalk level with trees and inviting relaxing places be created?
-

The bottom line is, in 2030 will this proposed building enhance or diminish the quality of life in our neighborhood and Boston overall and will this project become part of the problem or part of the solution for developing a resilient Boston and will it help meet the City's climate action goals?

Please take a generous, long-term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Jacqueline Royce, PhD
Board of Directors,
Neighborhood Association of Back Bay (NABB)
Member, NABB Green Committee
780 Boylston St. Apt. 26I
Boston, MA 02199

Cc: Mayor@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov, William.Brownsberger@masenate.gov, info@nabbonline.org, dtcnabb@nabbonline.com, Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov

Phil Cohen,
Thank you for the very helpful public meeting that you ran at St. Cecilia recently. I appreciate the opportunity to make comments on the record. There are many issues with a development this size, but the primary one is scale. What is proposed is to bring a massive high rise right to the edge of a low rise neighborhood. As was pointed out, the other high rises in the area are all set back. There seems to be no offsetting public benefit for so egregiously exceeding what is permitted. What is truly astounding is that this proposal is justified [in comparison with the initial mid-rise proposal] by the request to "fill in the hole." It is not credible that a project of this size was required to provide the funds to support the LOW RISE building requested for "the hole". As a real estate investor, I am sympathetic to financial realities but in this case the developer has gone beyond reality.
The secondary issues are traffic and shadows but they pale in comparison to the inappropriate massing proposed for the site.
[As an aside, the link to project and comments did not work.]

Sincerely,
James Buttrick
396 Beacon St.

Dear Phil,

Thanks very much for chairing the meeting at the Parish last month on the proposed development at 1000 Boylston St.

As a resident of the Back Bay (corner of Marlborough and Mass Ave) I want to submit a record of my comments on the proposal to the city.

I can appreciate that the proposal reflects the following realities of Boston:
1) urban density in the Back Bay and the logistical reality that the only way to build is 'up'
2) aesthetic integration with the high spine
3) 'need' for additional housing, commercial, retail space

However, these realities, of which there are probably more, are not enough to overrule my objections to the project:
1) increases traffic in the area
2) contributes to 'canyonization' of Mass Ave/Boylston
3) primarily consists of luxury accommodation and retail
4) skyscraper and adjacent building blocks my roof deck view of the Christian Science Church

While I have a limited understanding of the history of development in the neighborhood as well as policies and procedures governing air rights, I would vastly prefer to see either lower buildings or none at all.

One of the things that happened when 888 Boylston was built in front of the Prudential was that the large open public space in front of the tower was removed. The new tower, while interesting, largely blocks views of the Prudential from Boylston. This is what would happen with 1000 Boylston as it would block cityscapes of Boston from the bridge over the Pike.

I ask you to imagine what those air rights over the Pike (including additional parcels along the Pike) would look like if they were covered with green space... a Greenway of the Back Bay/Fenway if you will. How awesome would that be?

This is really my main contention with the proposal, along with any further high-rise development in the area... it eliminates open space and does not return or offset it in any fashion. As I suggested in the meeting at the Parish, it would be a different story if there was a 'green offset' requirement. For example, if the developer is permitted to build this structure then they would have to commit to beautifying a nearby public space such as the long-neglected Charlesgate Park under the Bowker overpass.

To sum up, I would like to see future proposals regarding developments in Back Bay along the Pike include PUBLIC SPACE. There doesn't seem to be any reason why the Greenway downtown can't be a reference point for parcels covering the Pike... a balance of low-rise development and green space for residents to enjoy.

What I don't want to see is a forest of glass skyscrapers going up in the area. Think about it... what makes 1000 Boylston distinctively Bostonian in any way? That building could be in Dubai or Singapore, and having lived in the former and visited the latter I'm not eager for Boston to look like either.

Thanks for hearing me out.

James Souza

Dear Mr. Cohen, I live in Back Bay and have for 18 years. I am worried that our neighborhood is losing its character as a historically significant part of our city's culture. Please don't let the new building in my neighborhood become a skyscraper with the super-rich. Better that the building isn't quite so tall so it's less of a factor in creating wind and shadow in the neighborhood.

Thanks for being open to hearing the concerns of the neighborhood.

Jane Wiseman
255 Beacon Street

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

As a Back Bay resident who also served as a member of the Strategic Development Study Committee that developed the Civic Vision for Turnpike Air Rights, I strongly oppose the current design by Weiner, especially as it relates to the taller of the two towers.

At the time we prepared the Civic Vision, it was agreed that taller buildings may be located on the south side of Boylston Street. However, it was very important that the scale of any new development help form a transition between the lower buildings on Newbury Street and the taller structures of the Prudential buildings.

I do not believe that the current proposal meets the objective of creating appropriate urban form.

Respectfully,

Janet Hurwitz AIA

To: Phil Cohen <Phil.Cohen@boston.gov>
Re: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen,

Please allow me to introduce myself, my name is Janet Roche and I have lived in the Back Bay since 1994. I am active within my community, the NABB (Green committee), and Mother's Out Front. I have my masters degree in Design for Human Health. I currently teach Environmental Health as well as the upcoming Biophilia, Universal Design, and Urban Sociological Design classes for the Boston Architectural College.

I am concerned with the overall design of 1000 Boylston Street. I must first say, I am not against the project as a whole, and I completely appreciate any further progression in that area which is in dire need of modernizing and redesign. However, I have deep concerns with the design of the current design of the building and how it will impact the area, and my community.

I recognize that area is currently deeply flawed due to wind and pollution from the highway running underneath as well as older and crumbling buildings and infrastructure with little, to no, consideration for ADA access. Your current design for 1000 Boylston, appears to have very little design considerations for dealing with helping resolve these issues, but intact produce more issues under a shiny facade. Massive shadows (urban canyon), lack of pedestrian walkways and outdoor spaces (this is Boston and we are know for our walking and our parks), or any energy plan design are a few of the design flaws that will be harmful for the area.

Since there seems to be a lack of neighborhood understanding, residential desires, or even current conditions (are you aware of our crumbling infrastructure that is causing hundreds of methane leaks) that would all continue to decline with the current design You should consider a redesign.

I have a few ideas for you to think about. A. Have you considered reaching out to local design schools? It should be no surprise that the Boston Architectural College, which will be directly effected by this change, would be interested in this project. B. Or, look at 888 Boylston Street for green and healthier options for design. C. Or lastly, look for WELL designers to help you with addressing these concerns. D. Or do all the above.

While there is probably no pleasing everyone, you could improve the design to take these concerns into consideration, do a redesign for well considered building that takes into consideration of the health, environment, and neighborhood, of a community.

Thank you for your time,

Janet Roche, MDS
136 Marlborough Street
Boston, MA 02116

Dear Mr. Cohen;

I live on Commonwealth Avenue in the Back Bay. I am writing to you to express my opposition to the 1000 Boylston Street project. The tower heights are preposterous and will only add to the current 'wind fiasco' from the misguided high spine development experiment. If a developer claims that the heights are needed to make the project financially viable, then perhaps they should explore a wider range of cost/labor options…or perhaps the parcel should be converted to a park.

The Article 80 Project Notification Form (PNF) design proposed by Weiner states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.
Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Respectfully submitted,

Jay Johnson

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

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Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,
Jennifer Carp
Marlborough Street

Joseph M Gertner
160 Commonwealth Ave. Apt 605
Boston MA 02116
617-834-3946
j.gertner@rcn.com

March 17, 2017

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

As a Back Bay resident, I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The height and bulk of these buildings are totally inappropriate for the space, do not fit into the scale of existing structures and thus degrade the quality and feel of the current neighborhood.

I am also concerned about the impact of the the large number of residences, additional retail space and large parking facility on already congested traffic and overcrowded crowded public transport in the area.

Please do not permit the developers to degrade the quality of the fragile residential and commercial areas of the Back Bay and give due consideration to the widespread neighborhood concerns regarding this project.

Respectfully submitted,

Joseph M Gertner

cc:
Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov,
Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,
William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com, info@nabbonline.com

Dear

Sincerely

Dear Mr. Cohen,

As a resident of the Back Bay, it is distressing to learn of the proposed size and height of the two residential towers planned for 1000 Boylston Street which ignores previously established BRA guidelines and fails to provide a public benefit for the residents of Boston in terms of affordable housing and green space.

Furthermore, this project negatively impacts the surrounding Back Bay, a Nationally Registered Historic Neighborhood, which must be preserved for future generations without increased shadow and winds.

We urge you not to endorse this project as currently proposed.

Sincerely,

Joyce E. Tallent
Brian P. Klock
100 Beacon Street, #3B
Boston, MA 02116

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

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A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors
Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Name: Judith Saide
Address: 457 Beacon St., #3

Dear Mr. Cohen:

I am a resident of Back Bay and I am writing to express my opposition to the 1000 Boylston Street Article 80 Project Notification Form (PNF) design as currently proposed. The size in height and bulk far exceeds anything previously envisioned for this site, is not appropriate for the space and does not fit into the scale of the existing buildings. The taller of the two towers will be as tall as the Hancock Tower and almost the same size as the Prudential Tower. At various times during the year, it will cast a shadow completely across the neighborhood, the Commonwealth Avenue Mall and the Esplanade. These public spaces are the front and backyards of our neighborhood enjoyed year-round by residents and supported by substantial private donations.

I am also very concerned that this site has not been properly vetted for traffic concerns. There has been a lot of development in this area over the last few years including 30 Dalton and the new Four Seasons. Both of these projects added additional underground parking spaces to the existing Prudential, Hilton and Sheraton parking garages. This project will also add more parking spaces, resulting in a substantial increase in traffic at the intersection of Boylston, Hereford and Dalton streets. This is the same intersection where the Boston Fire Department, Engine 33 and Ladder 15 is housed. As you know, Engine 33 is the most active fire company in the city and responds to over 4,000 incidents per year while Ladder 15 responds to approximately 3,800 incidents per year.

This project will have a long-term negative impact on the Back Bay neighborhood and will cause major traffic issues. I ask that you please do not allow the developers to ignore the neighborhood's concerns and the city's civic vision and its design considerations.

Respectfully submitted,

Karen Shine
376 Marlborough Street
Boston, MA 02115

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Kristin C Field
333 Commonwealth Ave.
Boston, MA 02115

Dear Mr. Cohen,
I am a resident of the Back Bay. I love Boston. As I walk around my Back Bay neighborhood, I can see on the faces of the people I pass that others love this city too. Boston is a very livable city. Part of what makes Boston so livable is its human scale, especially its human scale buildings.
Human scale buildings provide a sense of openness and connection to the neighborhood and nature, and that attracts residents and tourists alike.
The height proposed for the 1000 Boylston Street buildings could diminish and even jeopardize this sense of human scale. 1000 Boylston Street, as proposed, would cast new shadows, create canyons and wind tunnels as well as erect new physical and visual barriers in our Back Bay neighborhood. Nobody wins in this scenario.
Do construct new buildings, but please do so in a human scale and with an aesthetic sense so that the Back Bay and Boston are enhanced, not diminished.
Respectfully yours,
Kristina Watts

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

Dear Mr. Cohen;
As a Back Bay resident, as well as the founder of a company that currently employs 80 professionals in our Copley Square office, I want to express my opposition to the 1000 Boylston Street Article 80 Project Notification Form (PNF) design. The scale far exceeds anything envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), I request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

Please seriously consider not permitting the developers to ignore the design considerations imbedded in the Civic Vision.

Respectfully submitted,

Kurt Cerulli
317 Marlborough Street (building owner)

Kurt Cerulli | Chief Executive Officer
CERULLI ASSOCIATES
Research | Analytics | Consulting
699 Boylston Street, Boston, MA 02116
+1 617 437-1098 x113 | kcerulli@cerulli.com

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90 Commonwealth Avenue

Boston, MA 02116

March 1, 2017

Mr. Phil Cohen, Project Manager

Boston Planning and Development Agency

1 City Hall Square

Boston, MA 02201

Subject: 1000 Boylston Street

Dear Mr. Cohen:

Thank you for the opportunity to comment on the Project Notification Form for 1000 Boylston St. This project is in a very important location in the Back Bay close to the Fenway neighborhood, and its significant potential positive and negative impacts must be studied carefully before any decision is made on whether the project should proceed.

While there is a clear benefit to covering the hole in the streetscape created by the Massachusetts Turnpike and the CSX tracks, this advantageous outcome seems, under the current proposal, to come at a very high price. Shadow impacts that stretch to the Commonwealth Avenue Mall and beyond for extended periods can cause a significant loss of the already very limited wintertime sunlight in the residential district and even more so on Boylston and Newbury Streets.

Wind impacts of a building so close to Boylston Street can be disruptive in ways that sometimes aren't clear from the wind tunnel projections. For example, the wind impacts across Boylston Street from the Mandarin Oriental have been more negative than was anticipated when that project went through the public review process. For that reason, it would be extremely helpful if the consultant that developed the wind data (and has done so for virtually all recent major Boston projects) would furnish what they believe is the margin of error in their projections.

While traffic generated by a residential use is generally less than that by retail or office uses, recent data generated for the DPIR for the Back Bay South End Gateway project now undergoing review raises great concern about the continued functionality of the Massachusetts Turnpike exit onto Stuart Street at both morning and evening peaks in 2023 **without the construction of that project**, with delays more than tripling from current levels and vastly extended queue lengths. If this data is close to accurate, it indicates that the only direct access from the Turnpike to the Back Bay, already rated F, will no longer function at all in any meaningful way during rush hours. Where will that traffic spill? Without improvements, how can any further development in Back Bay, South End, or Bay Village?

There are other aspects of the project that certainly need study, but these seem to me to be fundamental questions that must be answered adequately before a project in this location an move forward.

Very truly yours,

Elliott Laffer

Dear Mr. Cohen,
As a Back Bay resident for 36 years, I'm writing to express my strong opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner Ventures.
The PNF states that the community 'wants" this project. As a member of the Garden Club and the Neighborhood Association, I've reached the conclusion that "wants" is a huge exaggeration, if not an "alternative fact." I know a lot of Back Bay residents, but I don't know a single one who thinks that a project of this height and density is desirable in this location. This plan exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.
In addition to their excessive size, the proposed towers are visually unappealing: two more bland yet overdesigned glass tubes, with visible parking and no green space at street level. (Will Boston *ever* build a tower as remarkable and inspiring as London's iconic "Gherkin"? But even a "Gherkin" would be much too tall for Boylston Street.)
Even some developers are realizing that Boston is becoming oversaturated with "luxury" housing (The Copley Place luxury tower plan was recently, and sensibly, scrapped). Foreign investors and one-percenters may line up to pay cash for units as safe investments, but luxury housing does not help the average Bostonian, and the average Bostonian truly needs help to afford housing in our city's best neighborhoods.
Regarding the required Draft Project Impact Report (DPIR), I join many others in Back Bay who request the preparation of additional studies — complete with environmental impact reports for the following alternatives:
A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low-scale building or a park.
A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.
I'm also extremely concerned that the Commonwealth Avenue Mall and the Esplanade remain **at least** as sunny as the design in the 2013 Weiner Samuels RFP submission. The shadows cast by these towers are unacceptable. Wind studies need to be completed as well.
Energy efficiency and sustainable design are also important. Let's aim for Gold or Platinum LEED certification, not Silver.
In accordance with the Go Boston 2030 Vision and Action Plan, which calls for more support for public transit and fewer cars in the city, let's eliminate ALL of the parking for this site. Housing on this site would have a Walkscore in the high 90s, making it one of the top locations in the city for walkability and convenience — it's right across the street from the Green Line and buses.
It is also across the street from our busy fire station. We need to reduce traffic congestion in this area, not add to it.
Please take the long-term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision. Please do not saddle our historic neighborhood with the negative, permanent impacts that these two monstrosities will cause.
Respectfully,

Lauren Thomas
348 Marlborough Street #2
Boston, MA 02115
617-262-1290 (h)
617-688-8666 (m)
properbostonian@gmail.com

March 17, 2017

Phil Cohen, Project Manager

Boston Planning & Development Agency

One City Hall Square

Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the

1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by

Weiner. The PNF states that the community wants this project. However, the size in

height and bulk far exceeds anything we envisioned for this site, as is clear from the

Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the

Citizens for Reasonable Turnpike Development and the community view for this part of

the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally

inappropriate for the space, does not in any way enhance the neighborhood or fit

intothe scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation

of additional studies complete with environmental impact reports for the following

alternatives:

BA design based on the Weiner Samuels submission to MassDOT in 2013, the design

the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In

this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to

cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly

equals that of the Prudential; at various times of the year, it will cast new shadow

completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and

all the way into the Charles River. We are concerned that the Commonwealth Avenue

Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner

Samuels RFP submission. These precious public spaces, both of which are supported

by substantial private donations and investments of volunteer time and effort to

maintain and improve them, are enjoyed year round by large and sometimes very large

(e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design

considerations imbedded in the Civic Vision and the widespread concerns of the

neighborhood.

Respectfully submitted,

Leslie Gaffin

Dear Mr. Cohen;
I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

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Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

M. E. Harrington
180 Beacon Street
Boston, MA 02116

144 Beacon Street

Boston, MA 02116

March 11, 2017

Mr. Phil Cohen, Project Manager

Boston Planning and Development Agency

1 City Hall Square

Boston, MA 02201

Subject: 1000 Boylston Street

Dear Mr. Cohen:

Thank you for the opportunity to comment on the Project Notification Form for 1000 Boylston St. This project is strategically located in the Back Bay close to the Fenway neighborhood. The foreseeable durable consequences of new large structures built on this site for these neighborhoods, and even further in some respects, are substantial. They include undesirable and harmful effects as well as claims of desirable and beneficial outcomes.

At this stage it is very dubious whether the potentially positive outweigh the potentially negative impacts of this project. Equally if not more important there are, as outlined below, feasible alternatives that would deliver a better outcome for the City and the neighborhood in preserving the best of the present while delivering highly desirable improvements to the sites involved as well as enhancing the quality of life experiences of residents, commuters, and visitors.

In this letter I would like to offer a few comments and observations about matters that must be carefully assessed and alternative ideas that should be considered before a decision is taken on whether this project should be approved in essentially its current configuration or replaced by an alternative, significantly different concept.

QUESTIONS TO BE ADDRESSED

There is a clear benefit from covering the hole in the streetscape created by the Massachusetts Turnpike and the CSX tracks. However, under the current proposal this benefit will only be achieved at a very and arguably unjustifiably high price, given the project's shadow, wind, and traffic effects, among other impacts not discussed here.

Shadows

Shadow impacts that stretch to the Commonwealth Avenue Mall and beyond (even to the Esplanade) for extended periods can cause a significant loss of the already very limited wintertime sunlight in the residential district, and even more so on Boylston and Newbury Streets. These shadows will diminish the attractiveness of the public spaces of the Mall and the Esplanade that are used year round by residents and visitors and are one of Boston's well known attractions. These valuable and scarce spaces are supported and partly maintained by private donations and the efforts of many volunteers. Any impairment they may suffer that would be solely attributable to a new development of high end

residential housing units and retail space, in a location that already has an abundance and diversity of such space, would raise serious misgivings about the vision and priorities underlying, or the criteria used by the City in the evaluation of specific development proposals. Accepting these impairments would raise serious doubts about whether the interests of all those who live and work in the neighborhood are being weighed appropriately and fairly together with interests that are directly tied to and hence in favor of this proposed development.

Wind

Wind impacts of a building so close to Boylston Street can be disruptive in ways that sometimes are not evident from the wind tunnel projections. For example, the wind impacts across Boylston Street from the Mandarin Oriental have been more negative than was anticipated when that project went through the public review process. For this reason, it would be extremely helpful if the consultant who developed the wind data (and has done so for virtually all recent major Boston projects) would furnish estimates of the margins of error in their projections.

Traffic

While incremental traffic generated by the proposed 1000 Boylston Street project may be quite small, recent data generated for the DPIR for the Back Bay South End Gateway project currently undergoing review raises great concern about the continued functionality of the Massachusetts Turnpike exit onto Stuart Street at both morning and evening peaks in 2023 even without the construction of that project. Delays will more than triple from current levels and the lengths of queues will be vastly extended. If these forecasts are reasonably close to accurate[1], they indicate that the only direct access from the Turnpike to the Back Bay, already rated as failing, will break down during rush hours. Queuing theory tells us that there is a tipping point at which a system breaks down with only a small increase in the load (or in this case the traffic) it has to handle. So it is valid to question whether a specific development, even one with small incremental traffic impact, may preclude any further development in an area (in this case Back Bay, South End, Bay Village) absent a fundamental change in travel practices and patterns which is not envisaged in the context of the project.

ALTERNATIVE SOLUTIONS

The developer has stated that the size and massing of this project is a response to the CAC's suggestion of 2012 that the Prudential parcel be included and the hole be completely covered, since the costs of building on air rights sites are so high that only a project of this magnitude is viable. I cannot comment on the cost side since relevant financial information has not been disclosed. However, the CAC's letter or suggestion also referred to a "low rise structure." This project is not a "low rise structure," and therefore cannot legitimately be characterized as a response to the CAC's suggestion. It is at most a partially compliant, which also means a partially noncompliant proposal.

In light of major objections to the height and massing of this project as outlined above, because of their durable harmful impacts, alternative structures in both size and purpose that avoid these detriments should be pursued that will be fully compliant or as close as possible in letter and completely in spirit to the CAC's suggestion. Further analyses are needed to produce specific details for the ideas sketched out

[1] I understand that these data are not claimed to be accurate but the margin of error has not been estimated

as follows, and moreover other commenters may produce additional ideas I have not identified at this stage.

Two possibilities with different implications for costs are:

- Build structures of an acceptable size adjacent to the hole, with improvements to the surroundings of the hole itself, such as a circumferential wall;

- Establish a pocket or mini-park on a deck over the hole, again with structures of an acceptable size in the adjoining parcels.

The second alternative will require additional ventilation. There are many examples of mini- or pocket parks in cities throughout the US and abroad that can be used as models for this alternative, and technologies have been developed to make them practical and attractive even on air rights sites.

Both the BPDA and MassDOT could and should play valuable roles in pursuing the realization of the idea of a mini-park on the Prudential parcel site, whether by the current designated developer or by another organization selected after a new RFP.

In short, radically different alternatives should be evaluated and compared to the current proposal and any of its modifications that do not fundamentally alter its configuration in terms of height, massing, and number of towers.

CONCLUDING REMARKS

There is considerable public awareness and concern about the future of public spaces in the City of Boston. As noted above they are enjoyed by many residents, workers and visitors year round. Moreover they generate substantial value to the economy of the city and sustain the value of its properties. These observations are confirmed by a recent article about another "treasured asset," "*Could the state pull the plug on Greenway Funding?*"[2]

It would send a strong unwelcome and confusing signal about the City's priorities if despite evident harm to the public interest a project such as 1000 Boylston Street in its current form were to be approved. It would indicate that foreseeable significant and durable adverse consequences for two "treasured assets" and multiple locations in a neighborhood were outweighed by a development primarily involving additional high end residential housing units targeted at the few.

Very truly yours,



Martyn Roetter

[2] http://www.bostonglobe.com/metro/2017/03/02/could-state-pull-plug-greenway-funding/73SwMZQ1EsBUiSHiS2hpWI/story.html?s_campaign=email_BG_TodaysHeadline&s_campaign=

Hello Mr. Cohen,

Following is my comment letter in Opposition to Weiner Ventures proposal for 1000 Boylston St (Parcel 15):

"I live on Boylston Street in the Back Bay just down the street from parcel 15 and ***I am strongly opposed to this new scheme****.*

I do however favor something closely akin to the original proposal*. That included a single building within the existing 'as of right' height at 398 ft. That 2012 plan originally included 12 floors of hotel rooms which the developer has chosen to eliminate, enabling him to increase the number of residential units to 160. The Back Bay has a disturbing shortage of affordable housing. Since it is a neighborhood of families I believe that every one of the 13% of the 160 units mandated for affordable housing by the Inclusionary Development Policy (IDP) should be built on-site. Further, those 21 mandated units should be of sizes equivalent to the market priced units.*

Reasons for opposing current scheme*: After a two year hiatus, the developer has returned with a plan which was unrecognizable from the first in several respects. 1) No second building on parcel 15 was ever contemplated. It should be categorically rejected. 2) He returns with a vastly expanded and more costly version. However, during four CAC meetings and a public meeting, he has adamantly refused to financially justify the additional 276 ft., 17 story tower. He argues it's expensive to build over air rights which it was 5 years ago. He argues there's been inflation of construction costs which he likewise refuses to quantify. 3) Over four meetings he has repeatedly refused to reveal his thinking about affordable housing. He says he'll comply with the IDP. He and we know that there are several ways to do this. The cheapest way is to negotiate an all cash buyout and the most expensive is on-site housing. His silence leaves us with only one conclusion. 4) Finally he cautions us that he's the only developer with the courage to do Parcel 15. Our response is we can wait for another day and meanwhile concentrate on Parcels 12 and 13."*

Marvin S. Wool
Back Bay

Phil Cohen, Project Manager

Boston Planning & Development Agency

One City Hall Square

Boston, MA 02201

RE: 1000 Boylston Street Project

Dear Mr. Cohen;

As a Back Bay resident. I am writing to you to express my strenuousopposition to endorsing the 1000 Boylston Street design as currently proposed, and highlight several serious concerns.

I understand that the Project Notification Form states that the community wants this project, but I completely oppose the current design, as do many of our friends and neighbors in this part of Boston.

The height and massiveness of the buildings are extremely inappropriate for this site. This is not only my personal view, but also a conclusion from the Civic Vision for Turnpike Air Rights prepared by the BRA, and from guidelines prepared by the Citizens for Reasonable Turnpike Development; it is the community view for this part of the Back Bay/this section of Boston.

The building appears to create many problems for the neighborhood, and offers nothing that the neighborhood needs.

As plans proceed, I would also ask the planning and design changes to address:

- ensuring there is no further traffic congestion in the neighborhood
- ensuring there is no negative impact on the neighborhood from increased wind
- increasing access to a park/green space, which we know can literally increases lifespans, as well as improving physical and mental health of residents of the community (actual dedicated public green space, not just a courtyard within a building, or grass under a highway flyover)
- no reductions in sun on the Fens, the Commonwealth Ave mall, the Esplanade, or even substantial shadows on city streets and sidewalks

It is essential to have a thorough environmental impact study so we can understand all the true impacts of the design.

Once such a project is built, there is no going back. It can be a permanent blight on our wonderful section of Boston, with its key links in Olmstead's Emerald necklace. Please don't allow private developers to do such damage to our lovely city; we can protect its historic beauty and meet the current needs as a busy modern metropolitan area without these terrible results.

Respectfully submitted,

Michael E. George

329 Beacon St. Unit 1

Boston

==========

Michael E. George

329 Beacon Street #1

Boston, MA 02116

Phone: 617-267-1694

Email: MEGeorge1@comcast.net

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

March 13, 2017
RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
I am writing to express my serious reservations about the proposed development for 1000 Boylston Street and to encourage you to cause this project to be address the following observations and questions:
1. Is it , indeed, " necessary" and not just " desirable" from the developer's standpoint for this project to exceed the guidelines envisioned for this site by the Civic Vision for Turnpike Rights? And can the developers prove the point of ''necessity" in a truly convincing fashion? I understand that the answer to that question is all about the money, and the developers certainly deserve to earn a profit on this undertaking. We, as citizens and as a municipality, however, are in the position, with our approval authority, to ask how much they expect to make, and to question their projections if we disagree. Our primary duty is not to their profit line,but to the public interest in what they wish to do.

2. If they are successful in mounting an argument based on 'necessity' (and not simply maximizing profits) would it be better to abandon the whole idea of developing this parcel as opposed to developing it poorly. Granted, the current site is not a thing of beauty now, but it might be better to live with the site as is than with a building that too large and casts shadows on the neighborhood and, of most concern on the mall.

3. 1000 Boylston Street it part of a bigger and emerging picture of a profound change in the architectural scale of Boston. In aggregate,the changes that have occurred in the Back Bay in the past decade and those proposed point toward a tipping in the direction of a much more 'high-rise' dominated city, and away from a congenial and carefully balanced mix of a few tall buildings scattered among those of a more human scale. The precise ' tipping point,' of course, is a matter of opinion, but these massive projects on the drawing boards today will permanently change the Boston that we all love, and, if this one and the next one and the one after that are all approved, the Boston we treasure will be lost and we will be a smaller version of Manhattan.

4. Finally, if these developments at whatever scale need to occur, I would strongly urge that the highest clean energy standards—much higher than LEED certifications as currently defined—be expected. At the very least, we should be requiring all new buildings be fully designed to switch to a clean energy future, which will likely mean electric heat produced by renewable resources and not fossil fuels. The reliance on fracked natural gas, or oil, can only be considered a short term investment, because those are the fuels that are strangling the city's efforts to attain its GHG reduction goals—and strangling our planet.

Respectfully submitted,

Michael McCord
Board of Directors,
Neighborhood Association of Back Bay (NABB)
Chair NABB Green Committee

March 17, 2017 Due Date

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>

Boston Planning & Development Agency

One City Hall Square

Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to

maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Michel & Elisabeth Lay

239 Marlborough St.

Boston, MA-2116

PS have just returned after operation, so did not manage to write my own letter,,,but the concerns and sentiments listed above are exactly how we both feel....Please dont ruin the Back BAy!

M. & E. Lay

Dear Phil, Representatives of CAC and BPDA,
Please pass this email to others CAC and BPDA members, and others. I will also try to email our Bostonian message to the BPDA on their website as there is no email address.

We read in the Boston Guardian of March 3, 2017, about the "more mega, more elaborate, taller, bigger Gateway Project" with brief and inconsequential details. And we ask...

Why is Boston so lovable and nationally judged to be the best livable city in the entire US.?

As Bostonians for over 30 years who stuck with Boston during the many years of down turns and recessions, we love Boston for many reasons:

- A city with a significant QUALITY of life
  - A walking city
  - A friendly community with friendly neighborhoods (think of the show CHEERs as a symbol of our neighborhoods)
- A city where ALL, no matter of race, gender, and wealth can share and enjoy green parks, space and sunlight
- A city with deep roots in fairness, and protecting each other
- A city with deep historical roots that attracts many visitors and provides tourism
- A city that we call HOME

Recent developments have cast Boston in SHADOWS, SUNLESS, unfriendly, depressed and SO, SO, windy. Areas depleted in this manner include:

- New tall buildings in the neighborhood of Lenox Hotel and Boston Public Library on Exeter Street
- 30 Dalton and 1 Dalton across from the Sheraton and Hilton, Back Bay
- The Financial District
- The planned parcels at Mass Ave and Boylston St.

We read in horror that developers are even trying to cast SHADOWs over our beloved Boston Commons and Public Gardens, public spaces enjoyed and shared by all.

The Gateway Project rests on major centers of PUBLIC transportation in Boston and as such:

- sets a tone for visitors as they leave the station for Copley square or other Back Bay environs
- is used by many people, especially middle and low income who walk and take trains and buses

As such, windswept byways, ill-conceived and cramped walkways, more shadows, will only reinforce Boston as a New York City clone and not the city on the hill.

People here work long hours so preserve a bit of sunlight and calm. We the 99%, cannot afford to move to the deluxe super expensive high rise condos with beautiful and sunny views – with limo drop-offs in underground garages.

Please keep Boston for all and start scaling the Gateway Project DOWN!

Thank you,
Ming and Stephen Rauch
18 Braddock Park
Boston, MA 02116

March 13, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Mireille & Philip Clapp
308 Commonwealth Ave, Apt J
Boston, MA 02115

Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,
Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov,
Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov,
Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov,
Mark.Ciommo@boston.gov,
Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,
William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com, info@nabbonline.com

Dear Mr. Cohen…

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. These guideline have been ignored.

I am very concerned about traffic congestion. Adding 342 residential units (or possibly 700 people) plus 300 cars on this block will have significant impact. Keep in mind that our Fire Station is across the street. Impact studies have not been completed.

As a resident pedestrian in this area, I am very concerned about petestrian safety. Mass Ave at Boylston is so congested now that there is gridlock at that intersection and pedestrians have to walk thru a maze of moving cars to cross the street when there is a "walk" sign. With the planned sidewalk encroachment, there will not be room to plant trees along the street, never mind be able to freely walk. Again to emphasize the pedestrian concern, this is already a gusty wind area and this construction will intensify the winds.

There is no justification for increased height…no building of this size has ever been supported by the neighborhoods for Boylston Street in the Back Bay.
This is not an "all-or-nothing" situation. NABB would welcome a smaller development that conforms to the Civic Vision and avoids this proposal's lasting harmful consequences to our neighborhood. We propose that an alternative, smaller-scale design must be evaluated before any decisions are made. Also that additional studies should performed for wind and traffic impacts.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Respectfully…Nancy

Nancy Macchia
617-247-7323 Direct
617-797-7323 Mobile

March 15, 2017

Mr. Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

I am a Back Bay resident and I wanted to let you know that I am not in favor of the design of 1000 Boylston Street Article 80 Project as presently proposed by Weiner. My understanding, as well, is that many in our community oppose this project. In particular, the height and mass of the current proposal far exceeds previous plans envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), preparation of additional studies complete with environmental impact reports would be useful for the following alternatives:

- A design based on the Weiner Samuels submission to MassDOT in 2013, which is the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park;
- A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks; and
- A proposal that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

We urge the Boston Planning and Development Agency to consider the long-term impact a project of this scale will have on all of the city's neighborhoods, in terms of maintaining its livability for all residents and its character which attracts so many visitors. It is vitally important to develop the city with a consistent overall plan and vision, and, not permit developers to ignore the design considerations embedded in the Civic Vision.

Very truly yours,

Patricia Corrigan

cc: Mayor@boston.gov, Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov, Byron.Rushing@mahouse.gov,

Jay.Livingstone@mahouse.gov, William.Brownsberger@masenate.gov,
dtcnabb@nabbonline.com, info@nabbonline.com

Dear Phillip,

I am writing as a resident of the Back Bay at 166 Beacon St. regarding the size of the proposed development at 1000 Boylston St. The project completely ignores the feeling and charm of the Back Bay to say nothing of the shadow, congestion wind and other problems that it creates. It would seem that the developer completely ignored what tourists and residents alike love so much about this city. The BPDA must take a stand on this now before its too late. This is not New York city , yet it seems developers are determined to take it in that direction. I am not opposed to any development or change , but feel more attention needs to be paid to overall size, green building methods, surrounding sidewalk areas, inclusion of greenery and open space. Please include my name in the list of those opposed to the current development as planned.

Sincerely, Patricia Smith

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

While I am copying a letter, which I'm sure you have already received, it captures all the elements that are of concern to me and felt there was no reason to change it.

My one additional concern, which I do not believe has been fully vetted, is traffic congestion and resulting public safety. The intersection of Boylston Street and Massachusetts Ave are regularly and heavily congested. This creates regular hardships and risks for drivers, pedestrians, and bikers. I'm concerned that the number of units in this proposal will only exacerbate an already problematic situation.

That said…

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Paul Lewis

360 Newbury Street

cc:
Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,
Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov,
Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov,
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Mark.Ciommo@boston.gov,
Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,
William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com, info@nabbonline.com

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project

Dear Mr. Cohen;

As a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street design as currently proposed, and highlight several serious concerns.

I understand that the Project Notification Form states that the community wants this project, but I completely oppose the current design, as do many of our friends and neighbors in this part of Boston.

The height and massiveness of the buildings are extremely inappropriate for this site. This is not only my personal view, but also a conclusion from the Civic Vision for Turnpike Air Rights prepared by the BRA, and from guidelines prepared by the Citizens for Reasonable Turnpike Development; it is the community view for this part of the Back Bay/this section of Boston.

The building appears to create many problems for the neighborhood, and offers nothing that the neighborhood needs.

As plans proceed, I would also ask the planning and design changes to address:

- ensuring there is no further traffic congestion in the neighborhood
- ensuring there is no negative impact on the neighborhood from increased wind
- increasing access to a park/green space, which we know can literally increases lifespans, as well as improving physical and mental health of residents of the community (actual dedicated public green space, not just a courtyard within a building, or grass under a highway flyover)
- no reductions in sun on the Fens, the Commonwealth Ave mall, the Esplanade, or even substantial shadows on city streets and sidewalks

It is essential to have a thorough environmental impact study so we can understand all the true impacts of the design.

Once such a project is built, there is no going back. It can be a permanent blight on our wonderful section of Boston, with its key links in Olmstead's Emerald necklace. Please don't allow private developers to do such damage to our lovely

city; we can protect its historic beauty and meet the current needs as a busy modern metropolitan area without these terrible results.

Respectfully submitted,

Paula Griswold
329 Beacon St. Unit 1
Boston

March 17, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident of several decades. I am writing to express my strong opposition to the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF misstates that the community's views on this project. We do not want it. It is an eyesore, and potential menace, out of all proportion to the Back Bay and what it truly needs. The size in height and bulk far exceeds anything we previously discussed for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. The proposal is totally inappropriate for the space, and fails to enhance the neighborhood or fit into the scale of existing buildings. And what happened to the needs of everyday Bostonians? Where is the green space?

Regarding the required Draft Project Impact Report (DPIR), I would like to see additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. This is completely unacceptable, and the Back Bay is now under siege from all sides. There are similar "attacks" underway from the Boston Common side with a horrible project downtown at Winthrop Square. The Commonwealth Avenue Mall and the Esplanade must remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces are supported by large private donations and investments of volunteer time and effort to maintain and improve them, and are enjoyed all year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors. Do not ruin them, and do not further erode our property values.

Please take the long term view and do not permit the developers to ignore the design considerations of the Civic Vision and the widespread concerns of the neighborhood. The Back Bay is a precious gem of Boston's history. Every day more and more of it is erased from the face of the earth with gut renovations and other changes by people ignorant of the area's wonderful history. I fail to see how creating a canyonized wind-tunnel, with increased traffic, glare and shadow-casting, for absentee investors, is a plus for the area. It is only a plus for greedy developers, nothing more.

Respectfully submitted,

Peter Manuelian
348 Marlborough St.
Boston, MA 02115

Boston, 170313

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

A Back Bay resident's questions for the 1000 Boylston Street Development Team

Peter Papesch, AIA

Mayor Walsh recently signed the Metro Mayors Coalition pledge on behalf of Boston to have all sectors of the city be completely carbon neutral by 2050. The 1000 Boylston Street project will still be around and functioning at that time. How much of an obstacle to the Mayors' pledge will your building represent? Conversely, could a net zero carbon project not be planned which would make it more realistic to achieve the Mayors' pledge, and would such a design not weigh significantly to favorably influence the permitting process?

The 1000 Boylston Street Project Notification Form (PNF) does not mention by how much the project will exceed the Zoning Code's Maximum FAR and Maximum Height requirements?

All signs point to the high likelihood that Massachusetts electricity will be powered 100% by renewables like solar, wind and hydro by 2030 or 2040. If the project is designed around the use of fracked gas as its energy source for heating, will that initial decision not lead to stranded - and squandered - investments when electric furnaces are cheaper to install today? Investment decisions usually weigh risks and rewards against first costs vs. life-cycle costs. If such a cost-benefit study has been carried out, will it be publicly available in a follow-up to the current PNF?

The 1000 Boylston Street PNF states: "New natural gas service will be needed to serve the mixed-use residential apartments, condominiums, residential amenity areas, and commercial retail spaces. It is anticipated that the gas service will be supplied from the low pressure gas main in Stuart Street to a shared BWSC and NGrid meter room located within the Podium." PNF - 6.7.1, p. 158. Have you negotiated with National Grid or the City of Boston about the construction of such a new intermediate pressure natural gas pipe to service your building? If so, will there be a public process to discuss the proposed pipe? What's the path for the pipeline? Are you a co-investor in said pipeline?

Air-source heat pumps are three or more times as efficient as gas furnaces, and ground-source heat pumps are even more efficient. The 1000 Boylston Street PNF indicates that ground source energy supplies are not viable for the project, but have you looked at air-source or MWRA-supplied water heat pumps for your building as a viable alternative to heating equipment supplied by gas? A South Boston hotel has been designed to use city water as a heat pump

energy source; have you considered such a design instead of planning to contribute CO2 emissions into the atmosphere via the project's fracked gas energy supply system?

Finally, from a broader perspective, does Boston really need all the high-rise development projects that are currently being proposed?

Peter Papesch, AIA
Chair, BSA Sustainability Education Committee
Co-chair, Back Bay Green Initiative
617 267-6598

Copy to:

Mayor@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov, William.Brownsberger@masenate.gov, info@nabbonline.org, dtcnabb@nabbonline.com, Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov

Dear Mr. Cohen,

My name is Rachel Zack Ishikawa, and I am resident of Roslindale. I am writing to voice my opposition to the proposed structures at 1000 Boylston street. These designs ignore community guidelines for limiting excessive height and providing public benefit. They will create environmental hazards by causing a wind tunnel, casting shadows, increasing traffic, and they do nothing to improve green space for residents.

I ask that the BPDA demand a redesign of this development that prioritizes the welfare of Bostonians and of our environment.

Respectfully,

Rachel Zack Ishikawa

As a resident of Back Bay, I **OPPOSE** the proposed height and massing of this project as it is too large and tall for it's location. It will cast enormous shadows on the Comm Ave Mall and the Esplanade.

When will the city adopt citywide regulations on shadows on public spaces and parks??

I am NOT opposed to a REASONABLY PROPORTIONED project on this site, just the proposed project as it is too large and tall (more than 35% larger than in it's previous iteration.

Thanks, do the right thing **DOWNSIZE THIS PROJECT**, rob radloff

Dear Mr. Cohen,

As a Back Bay resident for nearly 15 years I want to specifically voice my opposition to the project proposed at 1000 Boylston Street. Stating that the community supports this project seems absurd … how does it make our neighborhood better? Answer = it doesn't.

Please take a good view for the long term and make sure this doesn't happen to us in the Back Bay.

Ronald Cooper
68 Commonwealth Ave
Boston MA 02116
617-424-5272
978-886-0440 (Cell)

I have lived on Commonwealth Avenue since 1963 - at 379 for 35 years and at 311 for the past 21 years. The corner of Boylston Street and Mass. Ave. has been in my life for over 50 years, and I am devastated thinking of what it will become if this project is approved.

I do not believe that the community is in favor of it. The size and bulk far exceeds anything that we envisioned. It does not meet the Civic Vision; is is completely inappropriate for the area, doesn't enhance the neighborhood nor fit in with existing buildings. While I would prefer nothing built over the Turnpike, I realize that that is probably a losing cause and a minority view. BUT, what is now envisioned is totally unacceptable.

I'm sure you have many opposing letters so I won't go into more detail on why this proposal is unacceptable, but I would like to state that in the years since the early 70's when I got involved with NABB, I have seen how much good civic involvement has done to preserve the Back Bay and make it such a desirable place to live and work. This project will undue much of that. What little sun we still get on the Commonwealth Avenue Mall I fear will be gone.

Do not let this project go forth.

Rosanne Kumins
311 Commonwealth Avenue

Samuel D. Perry
327 Newbury Street
Boston, Massachusetts 02115

March 8, 2017

Mr. Philip Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, Massachusetts 02201

Dear Mr. Cohen:

RE: 1000 Boylston Street Project Notification Form

I am writing to you as an individual who formerly resided and still owns property within Newbury Street's historic Stable District (the block between Hereford Street and Massachusetts Avenue) going back to 1946. As such, over some seventy years, I have observed the many transformations that have taken place within this corner of the Back Bay. Arguably, the two of greatest significance were the replacement of the former expansive steam engine railroad yards by the Prudential Center and the creation of the Back Bay Historic District.

The Back Bay enjoys a unique and world famous urban planning design thanks to the foresight of Arthur Gilmore and his contemporary planners when they initially and thoughtfully laid out the Back Bay. The "green buffers", so nouvelle at the time, are the envy of many cities today while the "recharge sumps" continue to serve their important role in maintaining high ground water levels so critical for protecting the wooden pilings on which all Back Bay buildings rest. My great-grandfather, Eliot Channing Clark, was the City's engineer who designed and oversaw the installation of the so-called "Westside Interceptor". Besides being the City's first effort to sewer the newly created "Back Bay", even today it remains the only system tracking west along Beacon Street, crossing Hereford Street, and then traversing under what is now the Prudential Center. Although this system's installation occurred some 130 years ago, what was built remains largely "intact" and, because of its careful design, still operates effectively today.

When the decision was made to develop what had been the "railroad yards" then anchored by Mechanics' Hall at one corner, the Mother Church at a second, the State Street Bank at the third and a hotel at the fourth, great care was taken to insure that the height of the new buildings constructed across the site (with the exception of the Prudential Tower itself) would be kept low enough so as not to impact or compete against the developed areas surrounding this site whether in the Back Bay or the adjacent South End. This sensitivity had been well respected until recent years when several newer projects were approved and erected involving such high heights that they intrude upon the "open vista" which the original development of this site had sought so earnestly to preserve.

In 2013, the design prepared by the Samuels Weiner team was one of three shared with the neighborhood. For Parcel 15, it envisioned a "low" small-scaled building featuring reasonable "setbacks" and ample "open space". As a result, this proposal

received "neighborhood support". It was respectful to the historic Back Bay buildings in proximity while also in keeping with the original vision governing how the former railroad yard site should be developed.

What is being proposed now by Weiner Ventures is a large building with two tall towers, limited setbacks, and minimal open space. If constructed, it will have considerable impact upon the adjacent Back Bay Historic District because of its large mass, the shadows its two towers will cast, and its density which seeks to maximize "site development". The Stable District, in particular, with its architecturally low two-story and three-story structures, will be particularly overwhelmed by this looming mass and will become seriously "over-shadowed" detracting from the openness and warm ambience of this singularly unique boutique block. Only recently, the City authorities approved an unfortunate new project within the Stable District which will fenestrate 53 Hereford Street's fabled "blank wall" and which will eliminate one of the Back Bay's larger "green buffers" to allow a different developer the opportunity to construct a large four-story retail building. In this instance, the City's approval violated both zoning and the BBAC's architectural guidelines to permit a new structure completely "out of character" with respect to the other existing buildings comprising this historic Stable District block. The latest alterations to the 1000 Boylston Street proposal would introduce yet another new structure of such scale and mass that it will further impact the Back Bay's historic character to an even greater extent while being in "complete conflict" with the civic vision that governed the original development of this former "railroad yard" site.

Based on these observations, I would ask that you and all other City authorities involved in reviewing this project carefully consider what is in the "best interest" of the larger neighborhood. An improper development benefits only the developer while its impact upon the surrounding historic neighborhoods becomes permanent. Boston is special and the Back Bay is even more so thanks to careful and forward looking planning undertaken many years ago.

Please consider the legacy we have inherited and modify this proposal so that this legacy is not lost or destroyed but protected and preserved.

Sincerely,



Samuel D. Perry

SDP/bm

cc: Mayor@boston.gov
Michelle.Wu@boston.gov
Josh.Zakim@boston.gov
Ayanna.Pressley@boston.gov
A.E.George@boston.gov
Michael.F.Flaherty@boston.gov
Byron.Rushing@mahouse.gov
Jay.Livingstone@mahouse.gov
William.Brownsberger@masenate.gov

Samuel D. Perry
327 Newbury Street
Boston, Massachusetts 02115

March 8, 2017

Mr. Philip Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, Massachusetts 02201

Dear Mr. Cohen:

RE: 1000 Boylston Street Project Notification Form

I am writing to you as an individual who formerly resided and still owns property within Newbury Street's historic Stable District (the block between Hereford Street and Massachusetts Avenue) going back to 1946. As such, over some seventy years, I have observed the many transformations that have taken place within this corner of the Back Bay. Arguably, the two of greatest significance were the replacement of the former expansive steam engine railroad yards by the Prudential Center and the creation of the Back Bay Historic District.

The Back Bay enjoys a unique and world famous urban planning design thanks to the foresight of Arthur Gilmore and his contemporary planners when they initially and thoughtfully laid out the Back Bay. The "green buffers", so nouvelle at the time, are the envy of many cities today while the "recharge sumps" continue to serve their important role in maintaining high ground water levels so critical for protecting the wooden pilings on which all Back Bay buildings rest. My great-grandfather, Eliot Channing Clark, was the City's engineer who designed and oversaw the installation of the so-called "Westside Interceptor". Besides being the City's first effort to sewer the newly created "Back Bay", even today it remains the only system tracking west along Beacon Street, crossing Hereford Street, and then traversing under what is now the Prudential Center. Although this system's installation occurred some 130 years ago, what was built remains largely "intact" and, because of its careful design, still operates effectively today.

When the decision was made to develop what had been the "railroad yards" then anchored by Mechanics' Hall at one corner, the Mother Church at a second, the State Street Bank at the third and a hotel at the fourth, great care was taken to insure that the height of the new buildings constructed across the site (with the exception of the Prudential Tower itself) would be kept low enough so as not to impact or compete against the developed areas surrounding this site whether in the Back Bay or the adjacent South End. This sensitivity had been well respected until recent years when several newer projects were approved and erected involving such high heights that they intrude upon the "open vista" which the original development of this site had sought so earnestly to preserve.

In 2013, the design prepared by the Samuels Weiner team was one of three shared with the neighborhood. For Parcel 15, it envisioned a "low" small-scaled building featuring reasonable "setbacks" and ample "open space". As a result, this proposal received "neighborhood support". It was respectful to the historic Back Bay buildings in proximity while also in keeping with the original vision governing how the former railroad yard site should be developed.

What is being proposed now by Weiner Ventures is a large building with two tall towers, limited setbacks, and minimal open space. If constructed, it will have considerable impact upon the adjacent Back Bay Historic District because of its large mass, the shadows its two towers will cast, and its density which seeks to maximize "site development". The Stable District, in particular, with its architecturally low two-story and three-story structures, will be particularly overwhelmed by this looming mass and will become seriously "over-shadowed" detracting from the openness and warm ambience of this singularly unique boutique block. Only recently, the City authorities approved an unfortunate new project within the Stable District which will fenestrate 53 Hereford Street's fabled "blank wall" and which will eliminate one of the Back Bay's larger "green buffers" to allow a different developer the opportunity to construct a large four-story retail building. In this instance, the City's approval violated both zoning and the BBAC's architectural guidelines to permit a new structure completely "out of character" with respect to the other existing buildings comprising this historic Stable District block. The latest alterations to the 1000 Boylston Street proposal would introduce yet another new structure of such scale and mass that it will further impact the Back Bay's historic character to an even greater extent while being in "complete conflict" with the civic vision that governed the original development of this former "railroad yard" site.

Based on these observations, I would ask that you and all other City authorities involved in reviewing this project carefully consider what is in the "best interest" of the larger neighborhood. An improper development benefits only the developer while its impact upon the surrounding historic neighborhoods becomes permanent. Boston is special and the Back Bay is even more so thanks to careful and forward looking planning undertaken many years ago.

Please consider the legacy we have inherited and modify this proposal so that this legacy is not lost or destroyed but protected and preserved.

Sincerely,

Samuel D. Perry

SDP/bm

cc: Mayor@boston.gov
Michelle.Wu@boston.gov
Josh.Zakim@boston.gov
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322 Marlborough Street
Boston MA 02116

March 14, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), I request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15 which presented the Prudential site as undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

I am concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

Please take the long term view and do not permit the developers to ignore the design considerations embedded in the Civic Vision.

With thanks,

Sarah McGinty

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
I am a Back Bay/Fenway resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

We are concerned that the Commonwealth Avenue Mall, the Back Bay Fens and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Respectfully submitted,
Sheri Olans Wright

cc:
Mayor@boston.gov, Michelle.Wu@boston.gov,Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,Ayanna.Pressley@boston.gov, A.E.George@boston.gov,Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov,Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov,Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov,Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov,Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov,William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com,info@nabbonline.com

Shirley Kressel
27 Hereford Street
Boston, MA 02115

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident and owner of a home at Hereford and Marlborough, a couple of blocks north of the proposed project. I am writing to you to express my opposition to the design as proposed in the 1000 Boylston Street Article 80 Project Notification Form (PNF).

The PNF asserts that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. The proposal suffers from many serious deficiencies:

Neighborhood and state guidelines are ignored.
No building of this size has ever been supported by the neighborhoods for Boylston Street (in the Back Bay). The Developer largely disregards the "Civic Vision for Turnpike Development" guidelines, designed to protect Back Bay and Fenway neighborhood's historic character and livability. These were established (by consensus) after public meetings with BRA staff and urban planners. "Only one taller building above 15 stories should be allowed on either Parcel 12 or 15. No other buildings on these parcels should exceed 14 stories." Further, the guidelines call for no visible parking, 24-foot-wide sidewalks, and some form of public benefit, such as assisted living, childcare, cultural facilities, affordable housing, etc. This proposal includes none of these.

Serious environmental impacts will result.

Shadows. This project will create unacceptable shadow on our parks and will darken many homes. We can expect significant new shadows throughout the year. These are indicated on the minimal shadow studies included in the PNF. In some seasons, shadows will extend across the Comm. Ave. Mall to the Esplanade and Charles River. At times these shadows will adversely affect significant areas of parks, homes, and public and historic buildings for several hours daily. We need detailed shadow studies of these impacts, which will affect quality of life and property values. Note that the PNF fails to include a shadow "overlap" diagram for Dec. 21.

Canyonization. The larger buildings on Boylston Street (500 and 888 Boylston) were set far back from the sidewalk edge to reduce the canyonization of the street and the shadow impact on Newbury Street and the residential neighborhood. In contrast, this project has no significant setback for either tower.

Wind. These towers will intensify winds in our already gusty neighborhood. We need detailed wind studies and impacts on pedestrians.

Transportation. Adding 342 residential units and 300 cars on this block will have significant impact. Keep in mind that our Fire Station is across the street. We need detailed studies of impact on street traffic and public transit capacity.

Sustainable design. This project meets only the third-tier quality benchmark (Silver) for LEED certification (Leadership in Energy and Environmental Design). Massachusetts ranks as a top state for sustainable, energy-efficient building. Projects here should be built to Gold or Platinum LEED standards.

Public open space. A small garden belonging to St. Cecilia Parish will disappear. We need a

study considering a replacement park on the portion of the air rights owned by the Prudential to offset this loss.

Design process is inadequate.

The proponent has not considered a more regulation-compliant, less damaging alternative. This is not an "all-or-nothing" situation. The community would welcome a smaller development that conforms to the Civic Vision and avoids this proposal's lasting harmful consequences to our neighborhood. We demand that an alternative smaller-scale design, requiring no public land acquisition, be evaluated before any decisions are made. Even the state Executive Office of Energy and Environmental Affairs requested additional studies in their review: 1) No-Build Alternative, 2) Reduced-Build Alternative originally proposed by the Proponent in 2013, and 3) [Developer-]Preferred Alternative

The development context must be considered as a whole. Berklee College is about to add another tower on Mass. Ave. near Boylston Street as part of its Master Plan. And another tower is planned on air rights at Mass. Ave. across from the Hynes T stop. The four towers together would add tremendous density and shadow to the border of our neighborhood.

The economics of the project have not been demonstrated. The developer has not shown that a project of this scale is financially necessary to offset the costs of building over the Turnpike, although cost arguments alone would not necessarily garner support for the project.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design, the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

A design that leaves the city's cherished public parks – the Commonwealth Avenue Mall and the Esplanade -- at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

Please protect the neighborhood fabric and do not permit the developers to ignore the design considerations embedded in the Civic Vision.

Shirley Kressel

cc:
Mayor@boston.gov, Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov, William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com, info@nabbonline.com

Dear Mr Cohen,

I am a resident at 360 Newbury St, and business owner at teuscher chocolates of Switzerland at 230 Newbury St.

I generally approve of the project/s on the air rights parcels on the Mass Pike. The idea of covering up one of the largest areas of ugly blight in Boston is commendable and would do much to improve the quality of life of nearby residents as well as visitors.
Most any structure would be better than the offensive 8 lane Mass Pike hole with its noise and emissions issues.

MY AREAS OF CONCERN:

-The height of the buildings is too great for the area. Their shadows will impact large parts of the Back Bay neighborhood, especially during low sunlight months of winter

-The mirror finish to the windows will intensely reflect sunlight! The CONCAVE twisted design will bundle sun rays and could be a hazard to neighboring structures/cars/humans since it acts as a lens (for reference to this issue/problem, please see the problems with the concave design "Walkie Talkie" building in London, UK)

-Air Rights Parcel 13 project, just across Boylston Street, seems to have stalled. Since the projected square footage planned on Parcel 14/15 is really too massively overbearing for the space/infrastructure in front and around the projected towers, the developers should be mandated to cover the Air Rights space over Parcel 13 and turn it into green space as a trade-off for building up such an great concentrated mass of square footage on a relatively small footprint on Parcels 14/15 (as well as 12). This mandate could be shared with the Berklee College tower developers.

Thank you for your consideration,

Stefan Bieri
Resident
360 Newbury Street
Boston MA 02115

Hi Phil, A few comments on the 1000 Boylston project and meeting last night (2/28). Thank you for running a good meeting and keeping the speakers brief and focused. (I spoke with you briefly after the meeting.) I live at Church Park Apartments, opposite the Christian Science Complex on Mass. Ave., and I walk on this section of Boylston several times a week, if not daily at times.

In general, I think the project is a positive improvement to the area.

- The height and bulk seem fine for that side of Boylston Street, especially with the addition of the 1 Dalton Street tower.
- The wide sidewalk and setback of the two towers will make walking along Boylston Street pleasant. In winter, neither side of the Boylston St. sidewalks over the Turnpike is shoveled, making walking difficult.
- A speaker's comment last night about the loss of green space mystified me. The small park behind St. Cecilia's Church is not used (and not pleasant!), and I do not see this as a loss. I'm not sure how the developer could provide street-level open green space in the plans (nor does Berklee plan to provide green space, which did not seem to be a problem in their proposal for the Crossroads project), nor would I want to sit in a park right next to the car traffic in Boylston St.

Concerns:

- Affordable housing: I think affordable units need to be incorporated into the site to keep our neighborhood diverse. The Back Bay and adjacent areas of the South End and the East Fenway/Symphony neighborhoods do not seem to have available land for building affordable housing.
- Additional residential traffic: I do not own a car and walk or take public transportation. However, I assume that most residents in the 1000 Boylston complex will use their own cars for transportation (and also true for 1 Dalton, 30 Dalton, and the Parcel 13 buildings). While the development team emphasized that this traffic would be during morning and evening rush hours, that is exactly the time when traffic on Mass. Ave. and Boylston St. is in gridlock. Also, many Sundays have special events that close traffic on Boylston St. or Copley Square, also causing gridlock in the area – and presumably making use of their cars difficult for residents. Because both new Dalton St. projects use Dalton St., where the parking access will be located, means that Dalton will also be gridlocked at times because there seems to be no way to widen Dalton to accommodate the additional traffic.

- Impact of wind: Boylston St. tends not to be as windy as some other streets in the area, except for the openings over the Turnpike. Setting the two towers on a platform and back from the street would seem helpful. I would like to see more information on the impact of wind, anticipating (if possible) the Parcel 13 building on the other side of Boylston and the lower Berkley Crossroads tower.
- Shadows: I understood Back Bay neighbors' concerns about shadows in their neighborhood and would like to see more information. Dalton Street is already in shadow most of the time and thus there would seem to be little impact there.
- Economic viability of the project: I do wonder about more "luxury" housing, both rental and condo, coming on the market in my area, with the recent Exeter St. Prudential building, the opening of both Dalton Street projects, and the proposed Parcel 13 buildings (which presumably will be completed before or at about the same time as 1000 Boylston St.). Also, will shoppers come to this section of Boylston, close to but still not contingent to the shopping areas of upper Newbury St. and the Prudential complex?
- Trees and plantings: It was mentioned last night that tree-planting over the Turnpike is a problem. Also, trees on busy streets do not seem to do well in our neighborhood. Perhaps the developer can design long planters along the curb, to add greenery and color while also making walking along the sidewalk more pleasant. The plantings on the Boylston St. divider are always nice to look at, and the1000 Boylston plantings could complement those.

I look forward to more meetings with the developer. Best, Steve

Steve Csipke
Boston, MA 02115-3039

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

- *A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.*

- *A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.*

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4thfestivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Steven M. Sayers
319 Marlborough Street
Boston, Massachusetts 02116
stevenmsayers@verizon.net

March 15, 2017

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen:

I am a longtime Back Bay resident who lives near the proposed 1000 Boylston Street development. I am writing to express my strong opposition to the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

The taller of two proposed towers approaches the height of the Hancock and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Avenue Mall, the Esplanade and all the way into the Charles River. We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.

The shorter building, which was not part of the earlier proposal, is bulky and massive and comes right down to the sidewalk, increasing the canyon effect of Boylston Street, begun by the Mandarin Hotel.

While I welcome the beautification of the ugly hole along Boylston Street where it traverses the MassPike, the price in loss of sunlight, increase in wind, and destruction of view corridors by the proposed project is much too high

Please take the long-term view and do not permit the developers to ignore the design considerations embedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Susan Ashbrook
333 Commonwealth Avenue, #13

cc:
Mayor@boston.gov,
Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov,
Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov,
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William.Brownsberger@masenate.gov, dtcnabb@nabbonline.com, info@nabbonline.com

Dear Mr. Cohen:

As a Back Bay resident, I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design as currently proposed. The size in height and bulk far exceeds anything previously envisioned for this site, and is totally inappropriate for the space. It does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

I am also very concerned that this site has not been properly vetted for traffic concerns. Directly across the street from this site is a Boston Fire Department building which houses Engine 33 and Ladder 15. Engine 33 consistently ranks among the most active fire companies in the city and responds to over 4,000 incidents per year, while Ladder 15 responds to around 3,800 per year. With the addition of 30 Dalton, the new Four Seasons and this project all adding additional underground parking spaces to the existing Hilton, Sheraton and Prudential parking garages, the amount of traffic converging on the intersection of Boylston, Dalton and Hereford Streets will be greatly increased. This will make it even more difficult for Engine 33 and Ladder 15 to respond to emergencies where every second of delay could be critical.

The taller of two proposed towers is almost as tall as the Hancock tower and nearly equals that of the Prudential; at various times of the year, it will cast new shadow completely across the neighborhood, the Commonwealth Ave. Mall, the Esplanade and all the way into the Charles River. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Susan Baker
457 Beacon Street #4
Boston, MA 02115

Susan D. Prindle
Boston, MA 02116

February 20, 2017

Phil Cohen, Project Manager
Boston Planning and Development Agency
1 City Hall Square
Boston, MA 02201

Re: 1000 Boylston St.

Dear Mr. Cohen:

As I have indicated at several public meetings, I have grave concerns about the appropriateness of the new proposal for 1000 Boylston St. While I am sympathetic to the need to rebuild the corner of Massachusetts Avenue and Boylston Street, I am concerned that the price of that improvement is at this point far too high. I am hopeful that through the Article 80 process a solution that is more compatible with the Boylston Street and the abutting Architectural District can be achieved. As part of that process, I would like to raise some questions that I feel need further study.

Compatibility with A Civic Vision for Turnpike Air Rights in Boston
While there has been an effort to respect the recommendations of the Civic Vision, the project falls short in many areas. The developer should be asked to explain how he plans to address the goals expressed in this document, specifically:

Scale and Massing: Tower height

1. "Only one taller building (15+ stories) is to be located on these parcels; all additional buildings should be less than 15 stories." (p. 71)
   "Only one taller building above 15 stories should be allowed on either Parcel 12 or Parcel 15. No other building on these parcels should exceed 14 stories… 49 stories is substantially higher than what should be the maximum allowable of the taller building constructed on these parcels." (p.72)
   The current proposal adds a second tower where only one (of 378') had been proposed. Both towers are taller than anticipated in the Civic Vision – 566' and 301', respectively.

Scale and massing: Street wall and setback

2. "Buildings facing directly onto Massachusetts Avenue and Boylston Street should reinforce the existing visual vitality and diversity of these streets. Appropriate street wall heights in these areas generally range between four and six stories (50-75'). (p. 71)
3. "Reflect the prevailing scale and character of nearby buildings—including traditional rhythm created by a variety of building widths (25-100') building bays (16-25') and variety of design details. (p. 72)
   The current proposal presents a street wall that extends beyond the Hynes Auditorium setback, rises to 99', and offers little articulation above the retail floors.

4. "To reinforce the visual integrity of these street walls and maintain an appropriate scale relationship to other nearby buildings, additional massing above this base should be set back at least one building bay (approximately 20') from the building's street wall. (p. 72) *The east tower, because it is set back only 8' and is oriented east-west, is in direct conflict with this guideline. The taller tower, although set back more above the 8th floor, leans closer to Boylston Street as it rises.*

Uses

5. "Parking should not face directly onto Massachusetts Avenue or Boylston Street at any level" (p. 68) *Four floors of parking dominate the Boylston Street frontage.*
6. "A diverse mix of independent businesses should predominate, rather than large chain businesses." (p. 68) *The retail mix is unclear.*
7. "Parking ratios for these parcels are: residential .75 to 1 space per unit. Retail none if possible. Target more than 30% transit use, less than 30% auto use... reflect detailed inventory of all public spaces within walking distance and their availability. Allocate a portion of new parking for use by the community. Include other major traffic generators in study." (p. 69) *The developer is seeking over 300 parking spaces for the condominium and the apartment building*.
8. "A minimum of 24' (sidewalk width) is suggested, animated with outdoor dining or other activities." (p. 71) *The sidewalk width on Boylston Street is 18'.*

Environment

9. "There must be minimal adverse transportation, shadow, wind and other environmental impacts, as determined by environmental studies, on the residential portions of the Back Bay, Fenway, and Kenmore Square, and such impacts must be mitigated to the greatest extent possible. Shadow impacts shall include the impacts on the tops and sides of buildings." (p. 72) *More thorough studies of shadow and transportation impacts are needed. Wind studies are not yet available.*

The revised proposal that the developer put forth in March of 2012 was much more respectful of the recommendations of the Civic Vision. The 2012 proposal states clearly on page 8 that there will be a single tower: "The tower will have elegantly slender proportions and be primarily oriented north-south to minimize its visual and shading impact on the pedestrian experience along Boylston Street…Our building will occupy the entire site footprint along St. Cecilia Street, from Boylston Street to Scotia Street. We will maintain a 20 foot sidewalk on Boylston Street…" The current proposal is nearly 50% larger than the one that was previously reviewed. The developer should be required to study the 2012 option as well as the current "preferred option." Studies should include the wind, shadow, and traffic impacts of both proposals, so that the BPDA, the CAC, and the public can evaluate the relative costs and benefits of the two proposals.

Urban Design Issues

On page 2-2 of the PNF, the developer states that "This east-west zone, along the southern edge of the Back Bay, is part of what has become known as the "High Spine." This zone is characterized by a continuous urban edge and a number of buildings over 250' in height, including but not limited to the two Hancock Towers, the Prudential Tower, and 111 Huntington

Avenue." The High Spine in fact runs from Stuart Street through the Prudential Center, not down Boylston Street. The Hancock Towers front on Stuart Street, the Prudential Tower is in the center of its site, set back significantly from both Boylston and Huntington, and 111 Huntington fronts on Huntington Avenue. The residential buildings in the Prudential Center are also carefully buffered by low-rise structures on north and south, as is the more recent Exeter Tower building. Newer high-rise buildings on Boylston Street are set back from the street edge to allow sunlight on Boylston and Newbury Streets (500 Boylston is set back 125', 888 Boylston 75'). The developer should explain why he cannot comply with this precedent; specifically, why it is not possible to use more of the air rights over Scotia Street to address this concern.

The developer should justify the fact that the front façade of the podium extends into the Boylston Street sidewalk further than the façade of the Hynes Auditorium.

Additional perspectives from nearby historic properties should be shown. Specifically, I would like to see perspectives from the north side of the Commonwealth Avenue Mall on the Hereford-Massachusetts Avenue block, the Saint Cecilia Church, the Boston Architectural College on Boylston Street, the Ayers Mansion, the Massachusetts Historical Society, Fenway Studios, and the northeast corner of Massachusetts Avenue and Boylston Streets. These perspectives should be shown without the proposed Berklee Tower building.

Environmental Protection Issues

Wind

The Huntington Avenue/Prudential zoning (41.16) establishes standards for pedestrian safety and comfort in Table A: "Buildings shall be designed to avoid excessive and uncomfortable downdrafts on pedestrians. Each Proposed Project shall be shaped, or other wind-baffling measures shall be adopted, so that the Proposed Project will not cause ground-level ambient wind speeds to exceed the standards in Table A of this section." Will the project comply with these standards?

Will the developer commit to a followup verification study that will be shared with the City and the neighborhood?

Does the twisting design of the tower have an effect on pedestrian level winds? How much?

My experience has been that increased building height increases pedestrian level wind speeds on the north-south streets of the residential district. I would like to see the wind studies include more points to the north of the project; specifically Hereford and Beacon, Hereford and Commonwealth, Commonwealth and Massachusetts Avenue, and Beacon and Massachusetts Avenue.

Shadow

The developer has admitted that the majority of the shadow impact will be concentrated to the north of the building on Boylston and Newbury and in the Back Bay residential district. He predicts 3-4 hours of new shadow on Boylston, 2 on Newbury and Mass Ave, 1 in the residential district. What measures will they take to minimize these impacts?

The shadow criteria in article 41-16 states that "Each Proposed Project shall be arranged and designed in a way to assure that it does not cast shadows for more than two hours from 8:00 a.m. through 2:30 p.m., on any day from March 21 through September 21, in any calendar year, on any portion of dedicated public parkland that either (a) is not cast in shadow during such period on such days by structures existing as of the effective date of this article or (b) would not be cast in shadow during such period on such days by structures built to the as-of-right limits allowed by this article, whichever structures cast the greater shadow. In addition, shadow studies shall be conducted in connection with any Proposed Project demonstrating that shadows will be minimized to the extent practicable in public open spaces created as part of the Proposed Project." Will this project comply with this standard at all locations?

I am particularly concerned about impacts on the Commonwealth Avenue Mall. A more detailed analysis of shadows on the Mall should be required, including the number of days and the number of hours each day it will be shadowed. Several points should be studied – the eastern and western ends of the shadow area, as well as the center point. The shadows for projects not yet approved should not be included in the study, and it should be clearly explained (graphically or verbally) which tower is causing which shadow.

Historic Resources

Page 7-8 states that the "project is not expected to introduce materials that are incompatible with the current streetscape and skyline, as visible from these properties." Graphic evidence should be produced to support this statement.

Page 7-9 states: "All shadow impacts have been minimized to the maximum extent practicable to avoid any noticeable effect on pedestrian use patterns and historic resources. Most new shadows will be concentrated to the north; therefore, proposed shadow impacts to historic properties are limited to the Back Bay National Register and Architectural Districts. Generally, the contributing buildings located directly across Boylston Street from the project site would receive approximately 3-4 hours daily of new shadows throughout the year. The majority of shadow impacts to the district would be limited to one additional hour of new shadows daily, with some buildings on Newbury Street and Massachusetts Avenue projected to have two additional hours. The extent of the one-hour shadow impacts increases northward as the year progresses." (p. 7-8) The developer should show evidence supporting these statements. Elevations showing the shadow impacts on the facades of Boylston and Newbury Streets should be included in the DPIR.

Transportation and Parking

The garage capacity exceeds the recommendations of the Huntington Avenue/Prudential zoning, which recommends .7 parking spaces per unit. The Fenway Urban renewal plan recommends .75 parking spaces per unit. The developer should explain why exceeding these standards is necessary.

The developer should study the possibility of screening the four floors of parking along Boylston Street with retail or other uses. A night-time elevation should be prepared to assess the impact of lighting from the garage and the retail establishments on the Boylston streetscape.

The traffic counts and mode splits should include trips to the proposed 160 seat restaurant, which may impact evening peak hour traffic.

The developer assumes that 18-26% of the new vehicle trips will utilize Storrow Drive. As the Berkeley Street entrance to Storrow is already failing, a study should be made of the Berkeley/Beacon and Charlesgate/Beacon access points to see if additional cars can be accommodated and whether additional traffic will exceed EPA standards.

The developer should be asked to explain the impact on air quality of covering the Turnpike in this area. Will additional fans or vent stacks be required and if so, where will they be located?

Thank you for the opportunity to comment.

Sincerely,

Susan D. Prindle

Cc:
Senator Will Brownsberger,
Representative Jay Livingston,
Representative Byron Rushing
Councilor Josh Zakim,
Councilor Bill Linehan
David Carlson, Deputy Director for Urban Design, Boston Planning and Development Agency
Greg Galer, Boston Preservation Alliance,
Bob Sloane, Walk Boston

Susan Briere Shafer
70 Marlborough St #8
Boston, Mass. 02116

Mr. Phil Cohen, Project manager Phil.Cohen@boston.gov
Boston Planning & Development Agency
One City Hall Square
Boston, Mass. 02201

15 Mar 2017

RE: 1000 Boylston Street PNF

Dear Mr. Cohen,

As a resident of Back Bay, I am writing to you to express my opposition to the 1000 Boylston St. Article 80 Project Notification Form design as currently proposed by Adam Weiner. Although the PNF states the community wants this project, the fact is that the design far exceeds in height and scale anything close to appropriate for this site. It does not meet the Civic Vision for Turnpike Air Rights as prepared by the BRA, does little to enhance the neighborhood, disrespects the existing scale of nearby buildings and robs the community of vital green space at the ground level.

The Prudential owned part of the site should be developed as a pocket park for the benefit of the many new residents the building will bring to Back Bay as well as the current ones. The current design takes away green space from the public realm and hoards it up high for enjoyment of the residents only.

The taller of the two towers is near the height of the Prudential and the Hancock towers. At various times of the year, it will cast a new shadow completely across the neighborhood all the way to the Charles River. I am concerned that the Commonwealth Ave. Mall and the Esplanade remain at least as sunny as the design of the 2013n Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investment of volunteer time and effort to maintain them are enjoyed year round by large numbers of neighbors and visitors alike.

Please take the long-term view and do not let the developer ignore the design considerations compatible with the existing historic fabric of Back Bay and the valid widespread concerns of the neighborhood.

Thank you,



Susan Shafer
sbshafer@gmail.com

March 15, 2017 (revised)

Phil Cohen, Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (Article 80 PNF)

Dear Mr. Cohen:

I am a Back Bay resident writing to you to express my opposition to the 1000 Boylston Street design proposed by Weiner Ventures in the Article 80 Project Notification Form (PNF).

The proposed height and bulk far exceed the 2013 Weiner / Samuels design that was submitted at the time of developer selection. Also, it violates appropriate parameters for this site as expressed in the "Civic Vision for Turnpike Air Rights" prepared by the BRA and the proposal neglects guidelines prepared by the Citizens for Reasonable Turnpike Development. It is inappropriate for the location, fails to enhance the neighborhood, does not reflect the scale of existing buildings, nor does it provide much needed green space at the sidewalk level. It will cast damaging new shadows across the Back Bay residential neighborhood, the Commonwealth Avenue Mall Park, the Charles River Esplanade, into the Charles River and into the Fens / Muddy River open space.

In my view, the present form of the proposal requires significant redesign and preparation of the required Draft Project Impact Report (DPIR).

Very truly yours,

Tim Ian Mitchell

Mr. Phil Cohen
Project Manager
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;

I am a Back Bay resident. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay. Not only does the proposal not meet the Civic Vision, but it is totally inappropriate for the space, does not in any way enhance the neighborhood or fit into the scale of existing buildings, nor does it provide any, much needed green space at the ground level.

Regarding the required Draft Project Impact Report(DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

▪ *A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.*

▪ *A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.*

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission. These precious public spaces, both of which are supported by substantial private donations and investments of volunteer time and effort to maintain and improve them, are enjoyed year round by large and sometimes very large (e.g. July 4th festivities) numbers of neighborhood residents and many visitors

Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision and the widespread concerns of the neighborhood.

Respectfully submitted,

Tom and Lisa Blumenthal

300 Commonwealth Avenue
Boston, MA 02115

cc:

Mayor@boston.gov, Michelle.Wu@boston.gov, Bill.Linehan@boston.gov, Josh.Zakim@boston.gov, Ayanna.Pressley@boston.gov, A.E.George@boston.gov, Tito.Jackson@boston.gov, Salvatore.Lamattina@boston.gov, Michael.F.Flaherty@boston.gov, Andrea.Campbell@boston.gov, Frank.Baker@boston.gov, Timothy.McCarthy@boston.gov, Matthew.OMalley@boston.gov, Mark.Ciommo@boston.gov, Byron.Rushing@mahouse.gov, Jay.Livingstone@mahouse.gov, William.Brownsberger@masenate.gov, nabbdtc@nabbonline.com, info@nabbonline.com

Sent from my iPhone

Dear Mr. Cohen;

I am a Back Bay resident and live on Commonwealth Ave. I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. The PNF states that the community wants this project. However, the size in height and bulk far exceeds anything we envisioned for this site, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.

Regarding the required Draft Project Impact Report (DPIR), we request the preparation of additional studies complete with environmental impact reports for the following alternatives:

A design based on the Weiner Samuels submission to MassDOT in 2013, the design the CAC reviewed when recommending the Samuels Weiner team for Parcels 12 & 15. In this design the Prudential site is undeveloped, except for a low scale building or a park.

A design that meets the underlying zoning (no PDA) and does not request the City to cede air rights over streets or sidewalks.

We are concerned that the Commonwealth Avenue Mall and the Esplanade remain at least as sunny as the design in the 2013 Weiner Samuels RFP submission.
Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.

Thank you,

Tom

Phil Cohen, Project Manager <Phil.Cohen@boston.gov>
Boston Planning & Development Agency
One City Hall Square
Boston, MA 02201

RE: 1000 Boylston Street Project Notification Form (PNF)

Dear Mr. Cohen;
As a former Back Bay resident and current South End resident, I am writing to you to express my opposition to endorsing the 1000 Boylston Street Article 80 Project Notification Form (PNF) design proposed by Weiner. Recognizing that the public is in favor of some development for this site, the size in height and bulk far exceeds anything we envisioned, as is clear from the Civic Vision for Turnpike Air Rights prepared by the BRA and guidelines prepared by the Citizens for Reasonable Turnpike Development and the community view for this part of the Back Bay.
A project of this size will surely impact the traffic (which our streets are already maxed out) and several other factors need to be studied (wind, shade, etc.).
Regarding the required Draft Project Impact Report (DPIR), I request the preparation of additional studies complete with environmental impact reports be conducted and the results shared with the public before any action is taken on the project.
Please take the long term view and do not permit the developers to ignore the design considerations imbedded in the Civic Vision.
Respectfully submitted,
Tracy Pesanelli

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