

Appendix A

Traffic Count Data

- *48 Hour Automatic Traffic Recorder Counts*
- *48 Hour Automatic Traffic Recorder Counts with Speeds*
 - *Peak Hour Turning Movement Counts*

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263AVOLUME

Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		11	163			8	138				
12:15		5	176			5	129				
12:30		6	195			7	155				
12:45		5	159	27	693	6	157	26	579	53	1272
01:00		1	158			9	135				
01:15		2	162			3	178				
01:30		6	170			2	124				
01:45		1	158	10	648	2	132	16	569	26	1217
02:00		1	144			7	133				
02:15		4	143			3	168				
02:30		2	164			1	176				
02:45		7	186	14	637	3	146	14	623	28	1260
03:00		2	194			2	165				
03:15		5	213			3	162				
03:30		1	192			3	144				
03:45		7	171	15	770	6	147	14	618	29	1388
04:00		8	211			5	180				
04:15		16	219			7	151				
04:30		20	213			6	173				
04:45		20	194	64	837	6	177	24	681	88	1518
05:00		20	240			8	192				
05:15		39	206			23	153				
05:30		40	212			30	175				
05:45		62	197	161	855	35	145	96	665	257	1520
06:00		61	177			58	137				
06:15		84	189			124	123				
06:30		88	152			161	150				
06:45		80	136	313	654	155	146	498	556	811	1210
07:00		119	136			108	107				
07:15		136	126			139	108				
07:30		147	135			129	113				
07:45		202	127	604	524	129	116	505	444	1109	968
08:00		181	99			144	132				
08:15		160	87			157	108				
08:30		163	86			143	105				
08:45		162	80	666	352	159	96	603	441	1269	793
09:00		163	57			106	105				
09:15		146	46			111	80				
09:30		150	53			101	68				
09:45		138	39	597	195	119	53	437	306	1034	501
10:00		140	30			120	59				
10:15		141	32			122	56				
10:30		147	31			115	43				
10:45		161	17	589	110	141	37	498	195	1087	305
11:00		165	21			108	28				
11:15		168	17			138	36				
11:30		152	18			137	25				
11:45		157	17	642	73	139	21	522	110	1164	183
Total		3702	6348			3253	5787			6955	12135
Percent		36.8%	63.2%			36.0%	64.0%			36.4%	63.6%
Combined Total		10050				9040				19090	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263AVOLUME

Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	194			19	131				
12:15		7	176			17	145				
12:30		5	172			10	167				
12:45		8	184	28	726	11	118	57	561	85	1287
01:00		5	190			2	123				
01:15		8	183			7	126				
01:30		2	141			3	137				
01:45		2	192	17	706	5	133	17	519	34	1225
02:00		4	187			2	161				
02:15		3	172			4	133				
02:30		3	171			4	139				
02:45		7	211	17	741	3	167	13	600	30	1341
03:00		0	175			3	151				
03:15		4	179			3	166				
03:30		4	231			1	162				
03:45		7	174	15	759	2	144	9	623	24	1382
04:00		8	207			8	176				
04:15		10	179			6	137				
04:30		22	190			5	133				
04:45		27	199	67	775	11	160	30	606	97	1381
05:00		27	225			13	160				
05:15		35	212			21	157				
05:30		62	194			39	140				
05:45		51	198	175	829	37	122	110	579	285	1408
06:00		65	167			51	137				
06:15		76	152			59	109				
06:30		104	152			107	106				
06:45		105	137	350	608	97	96	314	448	664	1056
07:00		108	128			99	114				
07:15		132	114			107	106				
07:30		162	111			121	101				
07:45		190	107	592	460	128	106	455	427	1047	887
08:00		162	103			115	95				
08:15		172	85			124	86				
08:30		161	86			139	109				
08:45		176	67	671	341	141	111	519	401	1190	742
09:00		162	55			115	88				
09:15		138	67			120	75				
09:30		143	44			101	67				
09:45		129	46	572	212	99	55	435	285	1007	497
10:00		148	43			105	59				
10:15		140	40			122	57				
10:30		154	33			142	49				
10:45		179	21	621	137	132	37	501	202	1122	339
11:00		159	32			130	36				
11:15		149	18			103	43				
11:30		187	31			133	32				
11:45		165	24	660	105	159	34	525	145	1185	250
Total		3785	6399			2985	5396			6770	11795
Percent		37.2%	62.8%			35.6%	64.4%			36.5%	63.5%
Combined Total		10184				8381				18565	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263AVOLUME

Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		13	179			25	117				
12:15		14	161			13	113				
12:30		8	193			14	116				
12:45		17	194	52	727	13	104	65	450	117	1177
01:00		11	173			18	148				
01:15		7	149			14	138				
01:30		4	171			2	140				
01:45		4	191	26	684	6	151	40	577	66	1261
02:00		5	185			10	161				
02:15		8	174			7	154				
02:30		2	145			3	144				
02:45		2	178	17	682	7	143	27	602	44	1284
03:00		4	161			6	174				
03:15		2	142			4	121				
03:30		2	147			2	128				
03:45		4	148	12	598	2	117	14	540	26	1138
04:00		7	150			5	142				
04:15		9	135			6	149				
04:30		15	128			3	176				
04:45		24	148	55	561	6	133	20	600	75	1161
05:00		12	112			2	156				
05:15		12	134			12	121				
05:30		24	118			17	136				
05:45		35	115	83	479	12	137	43	550	126	1029
06:00		27	123			10	118				
06:15		33	99			23	129				
06:30		52	103			47	116				
06:45		40	89	152	414	44	83	124	446	276	860
07:00		56	75			35	105				
07:15		65	88			37	94				
07:30		98	110			37	73				
07:45		92	99	311	372	55	71	164	343	475	715
08:00		106	86			44	84				
08:15		108	57			63	88				
08:30		119	64			66	85				
08:45		146	47	479	254	77	74	250	331	729	585
09:00		110	41			76	84				
09:15		128	40			81	74				
09:30		126	33			91	73				
09:45		146	33	510	147	85	56	333	287	843	434
10:00		126	27			111	59				
10:15		141	21			83	57				
10:30		141	22			123	50				
10:45		161	23	569	93	120	36	437	202	1006	295
11:00		151	27			130	36				
11:15		174	17			114	44				
11:30		199	32			107	31				
11:45		197	14	721	90	132	26	483	137	1204	227
Total		2987	5101			2000	5065			4987	10166
Percent		36.9%	63.1%			28.3%	71.7%			32.9%	67.1%
Combined Total		8088				7065				15153	
Total		10474	17848			8238	16248			18712	34096
Percent		37.0%	63.0%			33.6%	66.4%			35.4%	64.6%
Combined Total		28322				24486				52808	
ADT		ADT 17,603				AADT 17,603					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Route 3 Northbound On-Ramps
north of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263BVOLUME

Site Code: 04263

Start Time	14-Jun-12 Thu	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	160			1	34				
12:15		10	152			0	24				
12:30		7	142			2	23				
12:45		3	134	24	588	2	16	5	97	29	685
01:00		1	164			0	21				
01:15		2	132			1	28				
01:30		0	140			1	32				
01:45		2	155	5	591	1	27	3	108	8	699
02:00		0	152			0	21				
02:15		3	158			4	21				
02:30		3	124			0	48				
02:45		4	162	10	596	1	20	5	110	15	706
03:00		3	140			3	29				
03:15		3	163			5	72				
03:30		6	128			1	54				
03:45		9	132	21	563	4	44	13	199	34	762
04:00		9	144			4	51				
04:15		14	151			6	35				
04:30		28	145			3	39				
04:45		34	133	85	573	8	33	21	158	106	731
05:00		56	161			10	68				
05:15		79	159			14	37				
05:30		131	129			13	27				
05:45		134	116	400	565	24	30	61	162	461	727
06:00		128	114			26	21				
06:15		118	129			16	29				
06:30		133	125			11	19				
06:45		130	96	509	464	12	11	65	80	574	544
07:00		142	92			14	13				
07:15		144	100			13	16				
07:30		151	80			13	11				
07:45		111	98	548	370	16	12	56	52	604	422
08:00		126	102			16	21				
08:15		110	87			13	8				
08:30		130	66			14	11				
08:45		139	81	505	336	22	19	65	59	570	395
09:00		150	129			24	18				
09:15		166	80			26	6				
09:30		168	78			29	4				
09:45		145	66	629	353	28	4	107	32	736	385
10:00		146	56			24	8				
10:15		146	108			19	3				
10:30		154	87			27	10				
10:45		152	60	598	311	22	3	92	24	690	335
11:00		186	62			32	6				
11:15		176	45			26	3				
11:30		158	42			30	0				
11:45		128	31	648	180	33	5	121	14	769	194
Total		3982	5490			614	1095			4596	6585
Percent		42.0%	58.0%			35.9%	64.1%			41.1%	58.9%
Combined Total		9472				1709				11181	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 2

Route 3 Northbound On-Ramps
north of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263BVOLUME

Site Code: 04263

Start Time	15-Jun-12 Fri	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		27	146			7	36				
12:15		27	164			3	30				
12:30		23	164			2	22				
12:45		18	145	95	619	1	16	13	104	108	723
01:00		16	154			0	24				
01:15		16	144			0	22				
01:30		6	148			0	24				
01:45		8	132	46	578	11	22	11	92	57	670
02:00		5	172			1	22				
02:15		5	152			1	28				
02:30		9	157			2	32				
02:45		7	138	26	619	0	24	4	106	30	725
03:00		8	152			4	30				
03:15		7	155			2	84				
03:30		3	150			3	57				
03:45		3	149	21	606	1	28	10	199	31	805
04:00		6	146			1	36				
04:15		5	142			1	30				
04:30		24	136			3	33				
04:45		24	117	59	541	6	32	11	131	70	672
05:00		35	125			19	51				
05:15		72	146			10	27				
05:30		100	158			24	24				
05:45		116	91	323	520	20	20	73	122	396	642
06:00		106	131			20	8				
06:15		132	114			18	12				
06:30		104	113			14	15				
06:45		130	110	472	468	10	16	62	51	534	519
07:00		141	112			11	6				
07:15		154	99			16	18				
07:30		158	111			15	9				
07:45		151	88	604	410	14	14	56	47	660	457
08:00		127	74			21	8				
08:15		152	72			22	8				
08:30		102	76			21	11				
08:45		121	89	502	311	26	2	90	29	592	340
09:00		164	70			25	5				
09:15		141	63			26	16				
09:30		166	92			21	3				
09:45		148	56	619	281	22	4	94	28	713	309
10:00		152	48			19	9				
10:15		142	50			24	4				
10:30		164	54			23	7				
10:45		144	32	602	184	25	2	91	22	693	206
11:00		132	29			33	7				
11:15		173	27			26	1				
11:30		144	24			16	7				
11:45		145	13	594	93	28	6	103	21	697	114
Total		3963	5230			618	952			4581	6182
Percent		43.1%	56.9%			39.4%	60.6%			42.6%	57.4%
Combined Total		9193				1570				10763	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 3

Route 3 Northbound On-Ramps
north of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263BVOLUME

Site Code: 04263

Start Time	16-Jun-12 Sat	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		17	158			4	14				
12:15		13	174			0	11				
12:30		13	152			2	17				
12:45		4	188	47	672	4	13	10	55	57	727
01:00		6	170			1	18				
01:15		6	148			3	19				
01:30		4	172			0	14				
01:45		3	159	19	649	11	14	15	65	34	714
02:00		1	170			0	14				
02:15		4	150			1	16				
02:30		2	168			0	15				
02:45		5	147	12	635	2	15	3	60	15	695
03:00		3	153			0	11				
03:15		4	167			2	19				
03:30		5	171			2	15				
03:45		4	160	16	651	0	15	4	60	20	711
04:00		7	166			0	11				
04:15		6	171			1	10				
04:30		9	142			1	8				
04:45		11	172	33	651	4	13	6	42	39	693
05:00		16	149			1	10				
05:15		21	170			0	11				
05:30		27	153			9	12				
05:45		46	144	110	616	7	11	17	44	127	660
06:00		45	145			9	12				
06:15		54	127			8	11				
06:30		46	114			8	12				
06:45		36	135	181	521	2	10	27	45	208	566
07:00		56	100			12	7				
07:15		69	126			5	12				
07:30		66	92			21	9				
07:45		80	88	271	406	8	12	46	40	317	446
08:00		68	109			10	9				
08:15		86	96			10	8				
08:30		125	89			12	5				
08:45		108	68	387	362	10	7	42	29	429	391
09:00		118	75			12	4				
09:15		115	96			13	9				
09:30		144	68			12	9				
09:45		124	66	501	305	8	9	45	31	546	336
10:00		142	65			12	4				
10:15		118	44			12	5				
10:30		163	33			14	3				
10:45		140	46	563	188	13	2	51	14	614	202
11:00		164	28			23	2				
11:15		186	39			16	5				
11:30		150	26			19	4				
11:45		166	22	666	115	17	1	75	12	741	127
Total		2806	5771			341	497			3147	6268
Percent		32.7%	67.3%			40.7%	59.3%			33.4%	66.6%
Combined Total		8577				838				9415	
Total		10751	16491			1573	2544			12324	19035
Percent		39.5%	60.5%			38.2%	61.8%			39.3%	60.7%
Combined Total		27242				4117				31359	
ADT		ADT 10,453				AADT 10,453					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Route 3 Northbound Off-Ramps

north of Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

04263CVOLUME

Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	9			2	52				
12:15		1	25			1	48				
12:30		0	10			2	77				
12:45		0	18	1	62	1	72	6	249	7	311
01:00		0	26			2	64				
01:15		0	22			1	54				
01:30		0	24			1	48				
01:45		0	22	0	94	0	48	4	214	4	308
02:00		0	30			2	57				
02:15		0	26			2	66				
02:30		0	12			1	68				
02:45		0	32	0	100	4	56	9	247	9	347
03:00		0	18			0	56				
03:15		0	16			1	56				
03:30		1	32			2	58				
03:45		0	25	1	91	3	40	6	210	7	301
04:00		0	24			3	63				
04:15		0	24			6	68				
04:30		4	20			7	59				
04:45		3	24	7	92	7	61	23	251	30	343
05:00		3	19			5	59				
05:15		7	27			22	42				
05:30		6	16			26	61				
05:45		7	22	23	84	33	55	86	217	109	301
06:00		14	22			47	48				
06:15		19	24			86	39				
06:30		17	27			127	51				
06:45		38	26	88	99	107	48	367	186	455	285
07:00		20	22			70	31				
07:15		12	32			89	31				
07:30		16	22			82	34				
07:45		24	26	72	102	94	30	335	126	407	228
08:00		19	18			88	36				
08:15		19	17			81	35				
08:30		16	18			90	27				
08:45		35	29	89	82	89	28	348	126	437	208
09:00		28	11			56	22				
09:15		34	14			59	23				
09:30		28	15			52	13				
09:45		37	7	127	47	59	18	226	76	353	123
10:00		32	2			42	4				
10:15		30	0			51	0				
10:30		34	0			48	0				
10:45		40	0	136	2	59	1	200	5	336	7
11:00		36	1			43	0				
11:15		32	0			52	0				
11:30		14	0			70	3				
11:45		30	0	112	1	48	0	213	3	325	4
Total		656	856			1823	1910			2479	2766
Percent		43.4%	56.6%			48.8%	51.2%			47.3%	52.7%
Combined Total		1512				3733				5245	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 2

Route 3 Northbound Off-Ramps
north of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263CVOLUME

Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		1	7			0	60				
12:15		1	14			1	82				
12:30		0	18			0	70				
12:45		0	14	2	53	1	54	2	266	4	319
01:00		2	18			0	53				
01:15		0	26			0	52				
01:30		0	18			0	56				
01:45		0	29	2	91	0	46	0	207	2	298
02:00		0	22			0	62				
02:15		0	24			1	56				
02:30		0	32			3	70				
02:45		0	16	0	94	1	64	5	252	5	346
03:00		0	25			1	57				
03:15		1	14			0	54				
03:30		0	24			1	46				
03:45		1	37	2	100	3	52	5	209	7	309
04:00		0	27			5	66				
04:15		1	26			3	50				
04:30		4	28			8	56				
04:45		5	26	10	107	7	62	23	234	33	341
05:00		2	26			9	48				
05:15		7	26			20	52				
05:30		5	28			23	45				
05:45		10	38	24	118	23	44	75	189	99	307
06:00		12	22			34	42				
06:15		8	20			33	37				
06:30		5	31			68	44				
06:45		20	24	45	97	64	33	199	156	244	253
07:00		10	30			54	38				
07:15		14	25			74	34				
07:30		22	13			74	23				
07:45		22	28	68	96	85	30	287	125	355	221
08:00		24	22			66	23				
08:15		27	14			79	25				
08:30		30	21			70	20				
08:45		32	10	113	67	85	32	300	100	413	167
09:00		27	14			57	22				
09:15		37	4			60	23				
09:30		34	8			50	22				
09:45		33	6	131	32	48	12	215	79	346	111
10:00		32	9			57	16				
10:15		43	3			48	22				
10:30		37	3			57	16				
10:45		25	4	137	19	48	17	210	71	347	90
11:00		33	3			62	15				
11:15		38	2			27	9				
11:30		29	2			37	11				
11:45		20	3	120	10	53	12	179	47	299	57
Total		654	884			1500	1935			2154	2819
Percent		42.5%	57.5%			43.7%	56.3%			43.3%	56.7%
Combined Total		1538				3435				4973	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 3

Route 3 Northbound Off-Ramps
north of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263CVOLUME

Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	52			9	46				
12:15		1	40			5	43				
12:30		1	48			6	42				
12:45		0	42	2	182	7	40	27	171	29	353
01:00		1	38			7	46				
01:15		1	28			5	47				
01:30		0	41			0	52				
01:45		1	29	3	136	2	51	14	196	17	332
02:00		0	32			7	60				
02:15		0	40			3	48				
02:30		1	44			0	59				
02:45		0	41	1	157	1	47	11	214	12	371
03:00		0	34			1	52				
03:15		0	29			2	38				
03:30		0	37			0	39				
03:45		0	38	0	138	1	41	4	170	4	308
04:00		0	30			0	50				
04:15		0	35			2	68				
04:30		1	30			1	86				
04:45		3	38	4	133	1	64	4	268	8	401
05:00		0	40			2	70				
05:15		4	28			7	61				
05:30		3	42			6	69				
05:45		7	35	14	145	14	77	29	277	43	422
06:00		2	40			6	45				
06:15		4	22			16	40				
06:30		3	28			29	49				
06:45		11	32	20	122	25	27	76	161	96	283
07:00		5	22			18	35				
07:15		6	23			21	43				
07:30		12	20			24	22				
07:45		14	31	37	96	30	25	93	125	130	221
08:00		12	17			28	22				
08:15		14	14			30	28				
08:30		15	17			30	29				
08:45		22	11	63	59	30	24	118	103	181	162
09:00		31	6			30	29				
09:15		28	8			26	22				
09:30		24	8			26	24				
09:45		40	10	123	32	33	16	115	91	238	123
10:00		35	4			36	28				
10:15		34	10			28	26				
10:30		39	5			38	19				
10:45		29	4	137	23	36	16	138	89	275	112
11:00		39	3			39	17				
11:15		45	5			45	13				
11:30		40	3			40	14				
11:45		41	2	165	13	45	11	169	55	334	68
Total		569	1236			798	1920			1367	3156
Percent		31.5%	68.5%			29.4%	70.6%			30.2%	69.8%
Combined Total		1805				2718				4523	
Total		1879	2976			4121	5765			6000	8741
Percent		38.7%	61.3%			41.7%	58.3%			40.7%	59.3%
Combined Total		4855				9886				14741	
ADT		ADT 4,914				AADT 4,914					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Route 3 SB Off-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Fvolume
Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		13	157			1	25				
12:15		11	160			8	16				
12:30		17	171			6	28				
12:45		11	168	52	656	2	30	17	99	69	755
01:00		12	144			5	34				
01:15		10	156			3	22				
01:30		5	148			0	26				
01:45		3	161	30	609	1	22	9	104	39	713
02:00		2	156			3	26				
02:15		0	164			0	30				
02:30		4	143			2	30				
02:45		2	144	8	607	3	24	8	110	16	717
03:00		2	173			7	32				
03:15		2	150			7	35				
03:30		4	135			2	26				
03:45		1	141	9	599	2	24	18	117	27	716
04:00		8	136			4	20				
04:15		3	142			16	22				
04:30		7	131			20	25				
04:45		2	154	20	563	7	16	47	83	67	646
05:00		9	175			6	22				
05:15		11	149			6	18				
05:30		31	185			8	17				
05:45		15	160	66	669	11	18	31	75	97	744
06:00		27	194			14	15				
06:15		39	179			23	14				
06:30		41	182			33	19				
06:45		66	192	173	747	21	18	91	66	264	813
07:00		79	138			28	13				
07:15		97	168			26	17				
07:30		86	154			22	11				
07:45		104	142	366	602	20	14	96	55	462	657
08:00		106	133			24	12				
08:15		107	144			32	11				
08:30		76	138			38	10				
08:45		94	116	383	531	28	11	122	44	505	575
09:00		84	86			37	7				
09:15		100	76			34	6				
09:30		106	79			38	10				
09:45		118	83	408	324	42	4	151	27	559	351
10:00		95	72			26	6				
10:15		110	61			22	9				
10:30		117	44			24	8				
10:45		114	47	436	224	34	9	106	32	542	256
11:00		88	25			12	5				
11:15		142	33			27	12				
11:30		142	28			24	3				
11:45		146	19	518	105	36	5	99	25	617	130
Total		2469	6236			795	837			3264	7073
Percent		28.4%	71.6%			48.7%	51.3%			31.6%	68.4%
Combined Total		8705				1632				10337	

Transportation Data Corporation

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Page 2

Route 3 SB Off-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Fvolume
Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		20	132			1	28				
12:15		25	156			3	19				
12:30		16	158			4	26				
12:45		10	173	71	619	5	20	13	93	84	712
01:00		10	146			2	25				
01:15		10	147			1	15				
01:30		6	140			3	22				
01:45		5	154	31	587	1	24	7	86	38	673
02:00		3	126			1	14				
02:15		6	112			8	24				
02:30		6	98			1	19				
02:45		3	116	18	452	2	26	12	83	30	535
03:00		1	140			4	32				
03:15		1	165			1	18				
03:30		1	127			3	17				
03:45		0	139	3	571	2	28	10	95	13	666
04:00		4	126			8	19				
04:15		2	134			24	16				
04:30		4	158			18	11				
04:45		11	132	21	550	15	10	65	56	86	606
05:00		9	149			4	15				
05:15		6	118			10	9				
05:30		12	149			13	8				
05:45		21	130	48	546	16	13	43	45	91	591
06:00		34	128			8	14				
06:15		29	152			19	12				
06:30		54	149			29	20				
06:45		71	136	188	565	28	8	84	54	272	619
07:00		84	140			28	8				
07:15		94	111			28	10				
07:30		90	131			22	9				
07:45		122	130	390	512	20	14	98	41	488	553
08:00		106	133			36	13				
08:15		94	106			38	12				
08:30		124	119			23	8				
08:45		103	89	427	447	18	11	115	44	542	491
09:00		100	74			34	7				
09:15		109	59			39	6				
09:30		104	47			24	5				
09:45		134	47	447	227	28	8	125	26	572	253
10:00		116	48			27	11				
10:15		112	58			23	6				
10:30		112	52			18	5				
10:45		150	42	490	200	24	7	92	29	582	229
11:00		158	34			24	6				
11:15		134	37			22	7				
11:30		128	25			19	3				
11:45		131	18	551	114	24	5	89	21	640	135
Total		2685	5390			753	673			3438	6063
Percent		33.3%	66.7%			52.8%	47.2%			36.2%	63.8%
Combined Total		8075				1426				9501	

Route 3 SB Off-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

t. (781) 587-0086 f. (781) 587-0189

04263Fvolume
Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		15	156			2	12				
12:15		17	146			3	6				
12:30		22	140			2	7				
12:45		23	146	77	588	6	8	13	33	90	621
01:00		10	144			4	12				
01:15		13	172			5	10				
01:30		12	144			4	20				
01:45		10	138	45	598	3	10	16	52	61	650
02:00		8	132			3	18				
02:15		9	138			3	19				
02:30		7	156			4	14				
02:45		7	132	31	558	0	14	10	65	41	623
03:00		4	153			1	23				
03:15		4	128			0	14				
03:30		2	160			3	16				
03:45		5	144	15	585	2	16	6	69	21	654
04:00		1	163			4	14				
04:15		3	146			6	18				
04:30		10	152			9	14				
04:45		20	116	34	577	14	26	33	72	67	649
05:00		10	159			3	11				
05:15		7	150			7	8				
05:30		20	154			1	13				
05:45		12	152	49	615	3	12	14	44	63	659
06:00		17	155			2	12				
06:15		20	127			6	12				
06:30		39	107			3	3				
06:45		36	140	112	529	5	5	16	32	128	561
07:00		34	97			7	15				
07:15		42	91			8	4				
07:30		54	106			4	3				
07:45		60	76	190	370	10	6	29	28	219	398
08:00		72	70			6	16				
08:15		78	67			8	7				
08:30		84	92			10	5				
08:45		108	59	342	288	7	11	31	39	373	327
09:00		96	56			14	8				
09:15		106	58			14	7				
09:30		124	62			11	7				
09:45		131	47	457	223	9	13	48	35	505	258
10:00		139	48			18	6				
10:15		142	42			17	5				
10:30		123	42			16	6				
10:45		146	45	550	177	15	6	66	23	616	200
11:00		146	29			14	5				
11:15		158	38			17	5				
11:30		138	26			7	3				
11:45		154	20	596	113	15	5	53	18	649	131
Total		2498	5221			335	510			2833	5731
Percent		32.4%	67.6%			39.6%	60.4%			33.1%	66.9%
Combined Total		7719				845				8564	
Total		7652	16847			1883	2020			9535	18867
Percent		31.2%	68.8%			48.2%	51.8%			33.6%	66.4%
Combined Total		24499				3903				28402	
ADT		ADT 9.467				AADT 9.467					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Route 3 Southbound On-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Evolume
Site Code: 04263

Start Time	14-Jun-12 Thu	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	46			6	87				
12:15		0	50			1	54				
12:30		1	56			4	58				
12:45		1	50	2	202	3	44	14	243	16	445
01:00		3	50			0	58				
01:15		2	54			1	58				
01:30		1	60			0	70				
01:45		0	64	6	228	0	78	1	264	7	492
02:00		0	66			1	82				
02:15		0	67			0	45				
02:30		0	70			0	90				
02:45		1	58	1	261	0	90	1	307	2	568
03:00		3	62			2	108				
03:15		0	62			0	130				
03:30		0	66			1	124				
03:45		2	58	5	248	2	123	5	485	10	733
04:00		1	66			5	134				
04:15		1	72			0	137				
04:30		1	71			1	107				
04:45		0	58	3	267	3	102	9	480	12	747
05:00		3	71			6	160				
05:15		5	88			15	136				
05:30		4	74			18	101				
05:45		5	44	17	277	11	96	50	493	67	770
06:00		4	52			22	92				
06:15		7	53			21	77				
06:30		14	44			27	49				
06:45		12	46	37	195	26	41	96	259	133	454
07:00		7	34			46	54				
07:15		21	50			62	42				
07:30		20	56			68	54				
07:45		24	50	72	190	73	39	249	189	321	379
08:00		15	52			79	37				
08:15		26	46			62	36				
08:30		22	44			72	27				
08:45		31	50	94	192	56	34	269	134	363	326
09:00		20	54			62	29				
09:15		22	33			50	17				
09:30		18	40			54	18				
09:45		28	21	88	148	73	11	239	75	327	223
10:00		18	20			44	15				
10:15		33	16			53	16				
10:30		34	14			52	14				
10:45		35	3	120	53	59	6	208	51	328	104
11:00		28	13			70	13				
11:15		43	14			56	10				
11:30		35	5			60	11				
11:45		42	4	148	36	76	8	262	42	410	78
Total		593	2297			1403	3022			1996	5319
Percent		20.5%	79.5%			31.7%	68.3%			27.3%	72.7%
Combined Total		2890				4425				7315	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 2

Route 3 Southbound On-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Evolume
Site Code: 04263

Start Time	15-Jun-12 Fri	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	49			7	72				
12:15		2	60			2	60				
12:30		0	64			1	68				
12:45		3	57	10	230	2	90	12	290	22	520
01:00		2	66			0	96				
01:15		0	56			3	74				
01:30		1	74			3	72				
01:45		0	71	3	267	4	76	10	318	13	585
02:00		0	80			1	78				
02:15		0	74			2	74				
02:30		0	70			0	93				
02:45		3	76	3	300	2	104	5	349	8	649
03:00		1	62			0	98				
03:15		0	69			3	95				
03:30		0	76			0	115				
03:45		2	60	3	267	6	96	9	404	12	671
04:00		0	58			1	110				
04:15		1	56			2	116				
04:30		0	48			3	104				
04:45		0	64	1	226	2	102	8	432	9	658
05:00		2	64			5	124				
05:15		4	76			12	117				
05:30		5	70			24	108				
05:45		4	50	15	260	22	86	63	435	78	695
06:00		4	43			22	69				
06:15		12	65			24	68				
06:30		19	46			43	56				
06:45		12	46	47	200	44	45	133	238	180	438
07:00		16	40			50	51				
07:15		18	39			53	44				
07:30		13	38			68	31				
07:45		18	59	65	176	60	40	231	166	296	342
08:00		19	40			68	51				
08:15		28	37			68	30				
08:30		32	47			64	26				
08:45		22	39	101	163	70	26	270	133	371	296
09:00		27	42			68	22				
09:15		18	43			60	32				
09:30		27	32			48	15				
09:45		28	24	100	141	44	25	220	94	320	235
10:00		32	22			59	25				
10:15		40	16			64	19				
10:30		48	13			64	13				
10:45		41	6	161	57	78	8	265	65	426	122
11:00		52	5			72	13				
11:15		38	6			56	12				
11:30		48	5			77	20				
11:45		51	5	189	21	80	12	285	57	474	78
Total		698	2308			1511	2981			2209	5289
Percent		23.2%	76.8%			33.6%	66.4%			29.5%	70.5%
Combined Total		3006				4492				7498	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 3

Route 3 Southbound On-Ramps
south of Derby Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Evolume
Site Code: 04263

Start Time	16-Jun-12 Sat	From East		Hour Totals		From West		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		4	70			9	72				
12:15		8	61			7	57				
12:30		1	57			4	70				
12:45		4	70	17	258	8	70	28	269	45	527
01:00		2	66			7	71				
01:15		0	70			2	62				
01:30		0	75			2	64				
01:45		2	58	4	269	4	64	15	261	19	530
02:00		2	63			3	86				
02:15		2	59			4	75				
02:30		3	51			2	61				
02:45		4	74	11	247	0	59	9	281	20	528
03:00		0	66			2	74				
03:15		2	66			2	56				
03:30		0	63			1	60				
03:45		1	76	3	271	1	40	6	230	9	501
04:00		0	66			4	58				
04:15		0	52			2	66				
04:30		2	64			0	60				
04:45		0	74	2	256	6	48	12	232	14	488
05:00		1	57			3	53				
05:15		3	53			4	49				
05:30		2	44			7	46				
05:45		0	40	6	194	12	49	26	197	32	391
06:00		7	57			10	33				
06:15		10	40			14	33				
06:30		8	35			24	38				
06:45		16	31	41	163	23	21	71	125	112	288
07:00		14	37			24	28				
07:15		16	34			26	31				
07:30		16	28			52	36				
07:45		15	37	61	136	52	41	154	136	215	272
08:00		20	37			40	28				
08:15		14	26			60	25				
08:30		28	27			50	24				
08:45		30	26	92	116	50	22	200	99	292	215
09:00		32	20			46	15				
09:15		30	31			48	16				
09:30		28	19			58	11				
09:45		44	18	134	88	54	20	206	62	340	150
10:00		30	24			49	13				
10:15		56	16			46	10				
10:30		42	10			48	8				
10:45		52	11	180	61	49	10	192	41	372	102
11:00		67	9			68	14				
11:15		46	10			65	11				
11:30		48	5			76	17				
11:45		64	3	225	27	77	5	286	47	511	74
Total		776	2086			1205	1980			1981	4066
Percent		27.1%	72.9%			37.8%	62.2%			32.8%	67.2%
Combined Total		2862				3185				6047	
Total		2067	6691			4119	7983			6186	14674
Percent		23.6%	76.4%			34.0%	66.0%			29.7%	70.3%
Combined Total		8758				12102				20860	
ADT		ADT 6,953			AADT 6,953						

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dvolume
Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		22	275			17	144				
12:15		24	295			8	186				
12:30		17	316			3	211				
12:45		7	280	70	1166	3	202	31	743	101	1909
01:00		11	271			7	222				
01:15		8	286			3	237				
01:30		10	258			3	199				
01:45		17	271	46	1086	0	190	13	848	59	1934
02:00		7	232			0	195				
02:15		6	252			3	228				
02:30		2	273			4	228				
02:45		4	258	19	1015	3	217	10	868	29	1883
03:00		3	311			4	202				
03:15		1	300			1	198				
03:30		6	288			3	188				
03:45		8	272	18	1171	5	194	13	782	31	1953
04:00		7	298			3	192				
04:15		8	307			6	211				
04:30		11	298			5	214				
04:45		22	323	48	1226	5	207	19	824	67	2050
05:00		15	329			12	179				
05:15		36	288			24	215				
05:30		55	310			53	203				
05:45		51	316	157	1243	55	165	144	762	301	2005
06:00		61	306			70	178				
06:15		62	290			90	168				
06:30		100	302			124	142				
06:45		109	283	332	1181	169	176	453	664	785	1845
07:00		122	238			136	127				
07:15		151	255			186	148				
07:30		153	245			192	151				
07:45		191	239	617	977	200	154	714	580	1331	1557
08:00		186	205			206	177				
08:15		180	193			224	129				
08:30		175	189			208	148				
08:45		181	187	722	774	239	147	877	601	1599	1375
09:00		188	128			158	139				
09:15		215	113			155	107				
09:30		216	107			152	100				
09:45		218	119	837	467	171	72	636	418	1473	885
10:00		208	87			142	68				
10:15		236	84			176	59				
10:30		217	63			150	53				
10:45		243	58	904	292	158	25	626	205	1530	497
11:00		209	39			171	42				
11:15		287	41			165	36				
11:30		293	37			195	26				
11:45		293	34	1082	151	166	24	697	128	1779	279
Total		4852	10749			4233	7423			9085	18172
Percent		31.1%	68.9%			36.3%	63.7%			33.3%	66.7%
Combined Total		15601				11656				27257	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dvolume
Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		30	299			25	190				
12:15		28	301			14	219				
12:30		24	293			6	201				
12:45		15	298	97	1191	10	214	55	824	152	2015
01:00		15	310			6	200				
01:15		17	276			4	184				
01:30		5	239			4	227				
01:45		18	282	55	1107	1	208	15	819	70	1926
02:00		3	242			1	247				
02:15		8	246			4	219				
02:30		11	224			7	247				
02:45		5	260	27	972	8	206	20	919	47	1891
03:00		5	273			3	203				
03:15		2	297			0	178				
03:30		7	273			0	193				
03:45		4	279	18	1122	6	193	9	767	27	1889
04:00		3	275			7	215				
04:15		9	278			2	168				
04:30		10	301			14	177				
04:45		23	268	45	1122	9	188	32	748	77	1870
05:00		36	335			15	190				
05:15		26	268			26	212				
05:30		46	271			36	190				
05:45		51	272	159	1146	51	158	128	750	287	1896
06:00		63	253			69	169				
06:15		68	251			84	163				
06:30		90	246			139	142				
06:45		110	236	331	986	132	123	424	597	755	1583
07:00		131	232			141	139				
07:15		144	186			139	139				
07:30		160	213			156	132				
07:45		214	201	649	832	198	140	634	550	1283	1382
08:00		188	198			158	117				
08:15		184	165			202	120				
08:30		215	174			194	150				
08:45		212	138	799	675	212	140	766	527	1565	1202
09:00		204	114			174	123				
09:15		220	97			144	117				
09:30		207	79			151	92				
09:45		236	67	867	357	142	71	611	403	1478	760
10:00		210	75			146	77				
10:15		207	84			164	63				
10:30		235	72			181	61				
10:45		280	52	932	283	186	39	677	240	1609	523
11:00		282	52			198	36				
11:15		254	46			136	45				
11:30		252	40			166	31				
11:45		290	32	1078	170	200	34	700	146	1778	316
Total		5057	9963			4071	7290			9128	17253
Percent		33.7%	66.3%			35.8%	64.2%			34.6%	65.4%
Combined Total		15020				11361				26381	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 3

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dvolume
Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		30	270			25	177				
12:15		24	250			22	175				
12:30		27	270			15	172				
12:45		32	272	113	1062	13	172	75	696	188	1758
01:00		17	252			17	181				
01:15		19	260			8	203				
01:30		15	250			3	211				
01:45		19	270	70	1032	4	190	32	785	102	1817
02:00		10	240			9	214				
02:15		14	239			7	194				
02:30		7	240			3	190				
02:45		10	259	41	978	12	206	31	804	72	1782
03:00		5	242			5	204				
03:15		6	230			5	185				
03:30		3	246			2	172				
03:45		6	259	20	977	3	183	15	744	35	1721
04:00		4	251			3	178				
04:15		7	242			4	196				
04:30		14	215			3	215				
04:45		30	211	55	919	4	209	14	798	69	1717
05:00		14	239			3	198				
05:15		13	229			16	173				
05:30		34	237			13	161				
05:45		34	229	95	934	22	155	54	687	149	1621
06:00		35	231			23	177				
06:15		42	198			27	153				
06:30		67	169			56	148				
06:45		60	205	204	803	53	115	159	593	363	1396
07:00		61	147			57	124				
07:15		67	157			54	128				
07:30		100	164			46	107				
07:45		106	143	334	611	74	93	231	452	565	1063
08:00		129	129			62	110				
08:15		135	104			72	105				
08:30		146	128			95	117				
08:45		200	103	610	464	107	94	336	426	946	890
09:00		176	75			101	89				
09:15		197	90			102	104				
09:30		209	81			117	86				
09:45		231	71	813	317	132	64	452	343	1265	660
10:00		215	58			142	83				
10:15		242	57			131	69				
10:30		221	59			142	58				
10:45		263	55	941	229	148	44	563	254	1504	483
11:00		254	44			162	43				
11:15		253	51			153	49				
11:30		266	35			143	42				
11:45		272	34	1045	164	181	22	639	156	1684	320
Total		4341	8490			2601	6738			6942	15228
Percent		33.8%	66.2%			27.9%	72.1%			31.3%	68.7%
Combined Total		12831				9339				22170	
Total		14250	29202			10905	21451			25155	50653
Percent		32.8%	67.2%			33.7%	66.3%			33.2%	66.8%
Combined Total		43452				32356				75808	
ADT		ADT 25,269				AADT 25,269					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gvolume

Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		16	232			45	243				
12:15		22	234			20	268				
12:30		16	244			18	241				
12:45		5	228	59	938	15	219	98	971	157	1909
01:00		9	208			12	268				
01:15		7	212			10	264				
01:30		11	228			6	260				
01:45		6	218	33	866	3	254	31	1046	64	1912
02:00		2	200			9	283				
02:15		5	197			15	271				
02:30		1	210			12	255				
02:45		4	223	12	830	11	243	47	1052	59	1882
03:00		2	242			15	257				
03:15		0	217			6	246				
03:30		5	236			19	232				
03:45		6	189	13	884	21	262	61	997	74	1881
04:00		7	228			9	257				
04:15		8	224			9	252				
04:30		10	213			22	248				
04:45		13	252	38	917	35	242	75	999	113	1916
05:00		9	229			49	262				
05:15		27	219			90	268				
05:30		34	248			155	235				
05:45		37	242	107	938	133	192	427	957	534	1895
06:00		41	254			154	206				
06:15		57	256			174	219				
06:30		97	234			183	201				
06:45		101	234	296	978	194	192	705	818	1001	1796
07:00		118	198			190	171				
07:15		133	208			224	199				
07:30		142	187			218	188				
07:45		164	188	557	781	191	198	823	756	1380	1537
08:00		169	154			218	216				
08:15		175	173			226	167				
08:30		152	169			228	164				
08:45		173	178	669	674	245	189	917	736	1586	1410
09:00		139	111			230	224				
09:15		185	109			225	151				
09:30		173	112			233	146				
09:45		183	107	680	439	228	117	916	638	1596	1077
10:00		183	86			231	117				
10:15		175	76			216	162				
10:30		188	53			228	127				
10:45		181	54	727	269	228	83	903	489	1630	758
11:00		157	31			272	95				
11:15		219	40			239	79				
11:30		216	36			244	61				
11:45		211	27	803	134	226	52	981	287	1784	421
Total		3994	8648			5984	9746			9978	18394
Percent		31.6%	68.4%			38.0%	62.0%			35.2%	64.8%
Combined Total		12642				15730				28372	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gvolume

Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		23	219			53	260				
12:15		25	247			38	257				
12:30		20	249			30	270				
12:45		13	214	81	929	22	271	143	1058	224	1987
01:00		18	198			25	230				
01:15		17	205			18	249				
01:30		6	197			8	253				
01:45		6	224	47	824	7	235	58	967	105	1791
02:00		2	189			7	287				
02:15		7	174			7	265				
02:30		8	173			12	300				
02:45		5	224	22	760	13	232	39	1084	61	1844
03:00		1	220			8	256				
03:15		3	199			7	237				
03:30		3	209			3	257				
03:45		1	219	8	847	6	240	24	990	32	1837
04:00		3	218			7	255				
04:15		6	211			7	240				
04:30		10	238			28	219				
04:45		22	206	41	873	25	210	67	924	108	1797
05:00		20	223			41	244				
05:15		24	210			80	264				
05:30		27	224			120	263				
05:45		36	224	107	881	137	199	378	970	485	1851
06:00		56	205			132	221				
06:15		60	201			181	203				
06:30		75	215			185	186				
06:45		104	174	295	795	203	183	701	793	996	1588
07:00		117	190			201	199				
07:15		138	161			211	192				
07:30		148	180			219	199				
07:45		186	170	589	701	226	196	857	786	1446	1487
08:00		170	170			217	166				
08:15		162	140			250	157				
08:30		194	142			197	195				
08:45		181	123	707	575	222	183	886	701	1593	1276
09:00		176	94			244	158				
09:15		180	78			218	155				
09:30		177	73			246	152				
09:45		198	66	731	311	200	116	908	581	1639	892
10:00		172	70			207	98				
10:15		168	74			250	97				
10:30		192	67			239	93				
10:45		206	54	738	265	220	52	916	340	1654	605
11:00		223	46			210	51				
11:15		181	45			238	57				
11:30		209	31			247	41				
11:45		211	31	824	153	261	33	956	182	1780	335
Total		4190	7914			5933	9376			10123	17290
Percent		34.6%	65.4%			38.8%	61.2%			36.9%	63.1%
Combined Total		12104				15309				27413	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Gvolume
Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		24	212			32	251				
12:15		26	205			26	258				
12:30		29	204			22	235				
12:45		27	220	106	841	10	267	90	1011	196	1852
01:00		18	198			19	262				
01:15		17	220			7	236				
01:30		13	189			7	275				
01:45		9	204	57	811	4	261	37	1034	94	1845
02:00		9	175			5	286				
02:15		14	212			7	251				
02:30		7	184			7	245				
02:45		8	196	38	767	14	266	33	1048	71	1815
03:00		6	188			8	261				
03:15		3	178			7	262				
03:30		6	210			7	267				
03:45		5	204	20	780	5	265	27	1055	47	1835
04:00		4	213			9	261				
04:15		5	209			8	271				
04:30		14	202			11	254				
04:45		28	193	51	817	14	268	42	1054	93	1871
05:00		14	208			18	233				
05:15		17	189			30	231				
05:30		26	201			36	232				
05:45		34	212	91	810	54	215	138	911	229	1721
06:00		28	198			57	243				
06:15		37	154			71	215				
06:30		53	145			71	200				
06:45		55	187	173	684	73	200	272	858	445	1542
07:00		51	132			89	186				
07:15		64	135			102	200				
07:30		87	148			83	160				
07:45		96	121	298	536	117	157	391	703	689	1239
08:00		107	109			107	180				
08:15		115	85			127	172				
08:30		133	98			183	162				
08:45		168	80	523	372	179	140	596	654	1119	1026
09:00		151	71			168	140				
09:15		162	74			178	170				
09:30		172	77			207	117				
09:45		184	59	669	281	197	113	750	540	1419	821
10:00		188	65			224	117				
10:15		185	61			189	79				
10:30		191	52			240	68				
10:45		200	56	764	234	232	70	885	334	1649	568
11:00		189	42			264	58				
11:15		212	51			253	72				
11:30		215	37			229	41				
11:45		201	31	817	161	247	32	993	203	1810	364
Total		3607	7094			4254	9405			7861	16499
Percent		33.7%	66.3%			31.1%	68.9%			32.3%	67.7%
Combined Total		10701				13659				24360	
Total		11791	23656			16171	28527			27962	52183
Percent		33.3%	66.7%			36.2%	63.8%			34.9%	65.1%
Combined Total		35447				44698				80145	
ADT		ADT 26,715				ADT 26,715					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hvolume
Site Code: 04263

Start Time	14-Jun-12 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	171			38	173				
12:15		10	127			14	156				
12:30		12	155			13	150				
12:45		2	153	34	606	16	145	81	624	115	1230
01:00		7	148			13	168				
01:15		3	155			11	153				
01:30		6	162			4	157				
01:45		3	171	19	636	4	151	32	629	51	1265
02:00		1	176			7	146				
02:15		3	151			15	139				
02:30		2	162			11	155				
02:45		3	201	9	690	7	140	40	580	49	1270
03:00		1	176			15	144				
03:15		0	164			4	158				
03:30		1	200			18	147				
03:45		3	165	5	705	18	161	55	610	60	1315
04:00		4	169			5	149				
04:15		2	194			6	148				
04:30		8	203			17	147				
04:45		8	199	22	765	21	137	49	581	71	1346
05:00		3	197			34	167				
05:15		14	197			64	160				
05:30		22	198			114	147				
05:45		17	163	56	755	108	125	320	599	376	1354
06:00		22	198			113	131				
06:15		29	180			127	127				
06:30		55	173			148	143				
06:45		49	192	155	743	161	127	549	528	704	1271
07:00		59	150			155	105				
07:15		69	144			184	101				
07:30		72	148			167	99				
07:45		80	154	280	596	156	125	662	430	942	1026
08:00		96	118			171	119				
08:15		92	148			150	83				
08:30		94	139			188	80				
08:45		100	164	382	569	180	83	689	365	1071	934
09:00		94	127			180	89				
09:15		75	94			161	72				
09:30		76	102			140	63				
09:45		76	92	321	415	130	40	611	264	932	679
10:00		96	68			147	91				
10:15		72	77			115	104				
10:30		84	44			121	87				
10:45		91	36	343	225	88	69	471	351	814	576
11:00		101	25			149	70				
11:15		141	27			162	59				
11:30		148	20			161	46				
11:45		126	17	516	89	168	34	640	209	1156	298
Total		2142	6794			4199	5770			6341	12564
Percent		24.0%	76.0%			42.1%	57.9%			33.5%	66.5%
Combined Total		8936				9969				18905	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hvolume
Site Code: 04263

Start Time	15-Jun-12 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		12	157			48	159				
12:15		14	147			31	186				
12:30		12	154			22	167				
12:45		3	195	41	653	14	161	115	673	156	1326
01:00		14	145			21	165				
01:15		10	152			14	160				
01:30		3	157			4	139				
01:45		3	181	30	635	6	139	45	603	75	1238
02:00		2	141			7	184				
02:15		2	171			7	152				
02:30		6	155			8	157				
02:45		5	168	15	635	9	138	31	631	46	1266
03:00		0	180			5	157				
03:15		1	203			5	162				
03:30		2	193			1	147				
03:45		1	182	4	758	4	144	15	610	19	1368
04:00		2	176			6	168				
04:15		6	211			5	147				
04:30		4	206			22	139				
04:45		10	187	22	780	12	132	45	586	67	1366
05:00		9	203			35	180				
05:15		10	158			57	147				
05:30		14	182			95	155				
05:45		17	181	50	724	111	154	298	636	348	1360
06:00		32	172			107	157				
06:15		32	184			134	133				
06:30		47	191			138	128				
06:45		47	151	158	698	146	92	525	510	683	1208
07:00		66	157			155	142				
07:15		78	150			177	111				
07:30		73	139			176	104				
07:45		93	139	310	585	181	96	689	453	999	1038
08:00		109	141			169	94				
08:15		98	123			153	98				
08:30		109	136			154	86				
08:45		121	132	437	532	165	80	641	358	1078	890
09:00		108	102			164	74				
09:15		107	95			172	58				
09:30		106	68			167	41				
09:45		99	61	420	326	159	41	662	214	1082	540
10:00		117	51			151	46				
10:15		99	61			153	43				
10:30		115	51			165	42				
10:45		104	39	435	202	166	30	635	161	1070	363
11:00		131	42			154	31				
11:15		119	34			193	26				
11:30		137	20			152	16				
11:45		105	21	492	117	164	16	663	89	1155	206
Total		2414	6645			4364	5524			6778	12169
Percent		26.6%	73.4%			44.1%	55.9%			35.8%	64.2%
Combined Total		9059				9888				18947	

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hvolume
Site Code: 04263

Start Time	16-Jun-12 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		24	180			19	190				
12:15		17	146			11	155				
12:30		14	170			14	143				
12:45		14	156	69	652	6	159	50	647	119	1299
01:00		9	159			16	155				
01:15		6	165			3	163				
01:30		8	156			4	176				
01:45		8	175	31	655	2	151	25	645	56	1300
02:00		4	167			1	152				
02:15		12	178			4	142				
02:30		3	159			2	166				
02:45		5	172	24	676	4	150	11	610	35	1286
03:00		2	179			4	132				
03:15		5	165			3	137				
03:30		0	168			4	163				
03:45		5	177	12	689	3	173	14	605	26	1294
04:00		4	184			5	170				
04:15		5	198			2	144				
04:30		12	144			5	134				
04:45		19	164	40	690	10	161	22	609	62	1299
05:00		8	174			15	125				
05:15		8	164			25	142				
05:30		11	162			30	125				
05:45		19	157	46	657	40	124	110	516	156	1173
06:00		18	140			41	124				
06:15		24	121			49	110				
06:30		36	128			43	106				
06:45		26	121	104	510	41	128	174	468	278	978
07:00		29	110			53	115				
07:15		34	105			69	110				
07:30		46	104			64	98				
07:45		58	96	167	415	79	88	265	411	432	826
08:00		55	116			65	92				
08:15		76	89			88	70				
08:30		79	88			127	87				
08:45		85	85	295	378	136	48	416	297	711	675
09:00		75	81			107	52				
09:15		112	82			131	63				
09:30		105	66			150	43				
09:45		112	56	404	285	132	41	520	199	924	484
10:00		112	60			165	49				
10:15		128	32			145	31				
10:30		138	41			172	30				
10:45		142	34	520	167	139	33	621	143	1141	310
11:00		130	42			174	23				
11:15		155	28			161	39				
11:30		159	29			143	19				
11:45		158	15	602	114	158	12	636	93	1238	207
Total		2314	5888			2864	5243			5178	11131
Percent		28.2%	71.8%			35.3%	64.7%			31.7%	68.3%
Combined Total		8202				8107				16309	
Total		6870	19327			11427	16537			18297	35864
Percent		26.2%	73.8%			40.9%	59.1%			33.8%	66.2%
Combined Total		26197				27964				54161	
ADT		ADT 18,054				AADT 18,054					

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Eastbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/14/12	0	0	0	1	1	7	12	4	1	0	0	1	0	27
01:00	0	1	0	0	1	3	2	3	0	0	0	0	0	10
02:00	0	0	1	2	1	3	5	1	1	0	0	0	0	14
03:00	0	1	1	0	3	1	7	1	1	0	0	0	0	15
04:00	1	0	3	1	7	20	21	6	5	0	0	0	0	64
05:00	0	1	13	1	13	49	67	16	1	0	0	0	0	161
06:00	1	5	10	3	32	123	98	36	5	0	0	0	0	313
07:00	1	10	39	37	130	253	121	11	2	0	0	0	0	604
08:00	0	8	36	72	217	244	81	7	1	0	0	0	0	666
09:00	0	13	23	58	229	200	69	5	0	0	0	0	0	597
10:00	2	8	32	65	214	190	73	4	0	0	0	0	0	588
11:00	9	16	48	123	235	155	54	2	0	0	0	0	0	642
12 PM	2	13	56	130	256	179	53	4	0	0	0	0	0	693
13:00	0	9	58	138	181	189	72	1	0	0	0	0	0	648
14:00	5	11	44	114	233	158	62	9	1	0	0	0	0	637
15:00	13	20	85	142	251	196	59	4	0	0	0	0	0	770
16:00	2	13	49	142	295	249	77	9	0	0	0	1	0	837
17:00	5	16	107	179	261	189	89	8	0	1	0	0	0	855
18:00	2	6	21	63	137	246	167	11	1	0	0	0	0	654
19:00	1	5	19	23	122	215	123	14	2	0	0	0	0	524
20:00	0	0	6	20	86	156	71	9	4	0	0	0	0	352
21:00	0	1	6	13	38	75	53	8	1	0	0	0	0	195
22:00	0	2	3	3	14	51	27	7	3	0	0	0	0	110
23:00	0	0	0	1	14	21	25	9	3	0	0	0	0	73
Total	44	159	660	1331	2971	3172	1488	189	32	1	0	2	0	10049
Percent	0.4%	1.6%	6.6%	13.2%	29.6%	31.6%	14.8%	1.9%	0.3%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 28 MPH
50th Percentile : 35 MPH
85th Percentile : 41 MPH
95th Percentile : 45 MPH

Mean Speed(Average) : 35 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 6143

Percent in Pace : 61.1%

Number of Vehicles > 35 MPH : 4884

Percent of Vehicles > 35 MPH : 48.6%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Eastbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/15/12	0	1	1	2	3	7	10	2	2	0	0	0	0	28
01:00	0	1	0	0	2	4	7	2	1	0	0	0	0	17
02:00	0	0	0	2	3	5	3	4	0	0	0	0	0	17
03:00	0	0	0	0	3	3	5	4	0	0	0	0	0	15
04:00	0	0	1	3	9	21	20	9	3	1	0	0	0	67
05:00	0	4	9	2	23	57	59	17	4	0	0	0	0	175
06:00	0	2	18	2	52	121	117	30	8	0	0	0	0	350
07:00	0	8	40	47	145	207	128	17	0	0	0	0	0	592
08:00	2	8	37	83	175	237	112	14	3	0	0	0	0	671
09:00	3	11	35	59	189	200	67	7	1	0	0	0	0	572
10:00	3	12	41	101	233	180	49	2	0	0	0	0	0	621
11:00	1	12	57	112	198	197	76	7	0	0	0	0	0	660
12 PM	15	25	99	159	229	169	29	1	0	0	0	0	0	726
13:00	8	17	60	129	245	181	60	6	0	0	0	0	0	706
14:00	7	23	67	158	261	172	46	7	0	0	0	0	0	741
15:00	5	18	65	136	247	224	56	5	2	0	0	0	0	758
16:00	5	23	60	132	251	232	71	1	0	0	0	0	0	775
17:00	1	12	61	110	269	263	102	8	1	1	0	0	0	828
18:00	1	11	23	33	97	281	147	12	3	0	0	0	0	608
19:00	0	3	11	17	92	216	110	11	0	0	0	0	0	460
20:00	0	1	10	14	78	149	78	10	1	0	0	0	0	341
21:00	0	2	9	16	37	75	64	6	3	0	0	0	0	212
22:00	0	0	5	8	20	59	36	6	1	1	0	0	0	136
23:00	0	1	1	1	12	33	43	13	1	0	0	0	0	105
Total	51	195	710	1326	2873	3293	1495	201	34	3	0	0	0	10181
Percent	0.5%	1.9%	7.0%	13.0%	28.2%	32.3%	14.7%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 28 MPH
50th Percentile : 35 MPH
85th Percentile : 41 MPH
95th Percentile : 45 MPH

Mean Speed(Average) : 35 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 6166

Percent in Pace : 60.6%

Number of Vehicles > 35 MPH : 5026

Percent of Vehicles > 35 MPH : 49.4%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/16/12	0	2	2	1	11	17	16	2	0	0	0	1	0	52
01:00	0	0	2	0	4	11	7	2	0	0	0	0	0	26
02:00	0	0	0	1	1	4	6	3	1	0	1	0	0	17
03:00	0	0	0	1	0	4	6	1	0	0	0	0	0	12
04:00	0	0	3	0	3	26	17	5	1	0	0	0	0	55
05:00	0	2	2	0	7	22	26	17	6	1	0	0	0	83
06:00	0	2	2	1	16	34	64	30	3	0	0	0	0	152
07:00	0	4	7	2	23	81	145	41	8	0	0	0	0	311
08:00	0	2	16	21	38	171	193	31	6	1	0	0	0	479
09:00	1	3	15	21	84	179	177	29	1	0	0	0	0	510
10:00	0	12	23	40	99	218	159	13	5	0	0	0	0	569
11:00	3	6	30	36	143	334	153	16	0	0	0	0	0	721
12 PM	0	9	29	50	156	266	199	17	1	0	0	0	0	727
13:00	0	5	25	39	122	251	216	21	4	1	0	0	0	684
14:00	0	7	28	39	114	267	207	19	1	0	0	0	0	682
15:00	3	4	34	40	87	215	174	37	3	0	0	0	0	597
16:00	1	7	29	28	85	180	204	25	1	1	0	0	0	561
17:00	0	3	26	27	80	170	147	24	2	0	0	0	0	479
18:00	0	6	16	21	72	153	132	13	1	0	0	0	0	414
19:00	0	3	11	10	37	132	147	26	6	0	0	0	0	372
20:00	0	1	10	7	33	110	77	14	1	0	0	0	0	253
21:00	0	1	6	4	21	65	43	4	3	0	0	0	0	147
22:00	0	2	4	2	7	30	37	10	1	0	0	0	0	93
23:00	0	4	3	1	16	29	32	4	1	0	0	0	0	90
Total	8	85	323	392	1259	2969	2584	404	56	4	1	1	0	8086
Percent	0.1%	1.1%	4.0%	4.8%	15.6%	36.7%	32.0%	5.0%	0.7%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 32 MPH
50th Percentile : 39 MPH
85th Percentile : 44 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 38 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 5553

Percent in Pace : 68.7%

Number of Vehicles > 35 MPH : 6019

Percent of Vehicles > 35 MPH : 74.4%

Grand
Total

103 439 1693 3049 7103 9434 5567 794 122 8 1 3 0 28316

Overall

15th Percentile : 29 MPH
50th Percentile : 36 MPH
85th Percentile : 43 MPH
95th Percentile : 45 MPH

Mean Speed(Average) : 36 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 16537

Percent in Pace : 58.4%

Number of Vehicles > 35 MPH : 15929

Percent of Vehicles > 35 MPH : 56.3%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Westbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/14/12	0	0	0	4	1	5	11	2	1	1	1	0	0	26
01:00	0	1	0	1	1	5	5	2	1	0	0	0	0	16
02:00	0	0	1	1	0	4	4	2	1	0	1	0	0	14
03:00	0	0	0	0	4	3	3	3	1	0	0	0	0	14
04:00	1	1	0	0	0	6	10	4	1	1	0	0	0	24
05:00	0	0	0	1	6	23	35	21	7	3	0	0	0	96
06:00	0	1	2	2	36	139	214	85	18	1	0	0	0	498
07:00	2	3	1	10	69	206	168	39	7	0	0	0	0	505
08:00	0	2	9	37	165	249	113	23	4	1	0	0	0	603
09:00	1	0	12	17	130	177	85	10	5	0	0	0	0	437
10:00	0	2	15	29	130	198	99	24	1	0	0	0	0	498
11:00	0	1	24	27	151	203	101	12	3	0	0	0	0	522
12 PM	0	1	32	37	166	223	93	22	4	0	0	0	0	578
13:00	0	1	12	37	180	225	95	18	0	1	0	0	0	569
14:00	7	19	15	49	187	234	92	19	1	0	0	0	0	623
15:00	4	6	22	39	213	238	84	12	0	0	0	0	0	618
16:00	0	5	24	49	238	274	74	15	2	0	0	0	0	681
17:00	1	12	26	70	217	226	100	10	2	1	0	0	0	665
18:00	2	10	19	14	103	253	142	13	0	0	0	0	0	556
19:00	2	9	15	27	106	170	103	11	1	0	0	0	0	444
20:00	1	4	10	23	112	150	117	21	3	0	0	0	0	441
21:00	0	3	10	18	49	102	97	24	3	0	0	0	0	306
22:00	0	2	5	5	21	67	70	21	4	0	0	0	0	195
23:00	0	0	1	8	17	29	31	18	5	1	0	0	0	110
Total	21	83	255	505	2302	3409	1946	431	75	10	2	0	0	9039
Percent	0.2%	0.9%	2.8%	5.6%	25.5%	37.7%	21.5%	4.8%	0.8%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 32 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 37 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 5711

Percent in Pace : 63.2%

Number of Vehicles > 35 MPH : 5873

Percent of Vehicles > 35 MPH : 65.0%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/15/12	0	1	7	4	2	12	19	6	3	2	1	0	0	57
01:00	0	0	1	0	2	6	5	2	1	0	0	0	0	17
02:00	0	1	0	1	1	3	4	2	0	1	0	0	0	13
03:00	0	1	0	0	1	2	3	1	1	0	0	0	0	9
04:00	0	0	0	0	5	7	10	7	1	0	0	0	0	30
05:00	0	0	5	8	9	21	40	22	5	0	0	0	0	110
06:00	1	0	3	2	19	81	132	60	13	3	0	0	0	314
07:00	0	0	6	15	93	148	148	34	11	0	0	0	0	455
08:00	1	4	10	9	110	187	153	41	4	0	0	0	0	519
09:00	0	2	14	25	107	167	89	28	3	0	0	0	0	435
10:00	0	5	13	34	128	198	101	19	3	0	0	0	0	501
11:00	0	4	11	31	153	219	91	14	2	0	0	0	0	525
12 PM	3	5	22	49	233	179	64	6	0	0	0	0	0	561
13:00	0	13	18	43	128	204	102	9	2	0	0	0	0	519
14:00	8	9	18	45	165	265	80	9	1	0	0	0	0	600
15:00	6	9	33	46	190	237	90	10	2	0	0	0	0	623
16:00	1	3	25	29	209	259	68	11	1	0	0	0	0	606
17:00	1	6	15	24	171	253	87	17	5	0	0	0	0	579
18:00	0	5	8	22	73	166	140	33	1	0	0	0	0	448
19:00	1	3	16	16	107	171	92	18	2	1	0	0	0	427
20:00	0	4	8	16	80	147	115	25	6	0	0	0	0	401
21:00	0	0	5	13	34	86	115	26	5	1	0	0	0	285
22:00	0	0	10	4	13	54	90	26	5	0	0	0	0	202
23:00	0	0	5	4	16	41	58	15	6	0	0	0	0	145
Total	22	75	253	440	2049	3113	1896	441	83	8	1	0	0	8381
Percent	0.3%	0.9%	3.0%	5.2%	24.4%	37.1%	22.6%	5.3%	1.0%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 44 MPH
95th Percentile : 47 MPH

Mean Speed(Average) : 37 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 5162

Percent in Pace : 61.6%

Number of Vehicles > 35 MPH : 5542

Percent of Vehicles > 35 MPH : 66.1%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
west of Pond Park Road
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Aspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/16/12	0	0	3	4	7	14	21	11	3	2	0	0	0	65
01:00	0	0	3	1	2	8	15	9	2	0	0	0	0	40
02:00	0	0	0	3	0	10	8	1	4	0	1	0	0	27
03:00	0	0	1	1	0	2	7	2	0	0	1	0	0	14
04:00	0	0	3	0	3	4	5	5	0	0	0	0	0	20
05:00	0	0	0	0	8	10	10	10	3	1	1	0	0	43
06:00	0	0	1	0	4	10	62	33	12	2	0	0	0	124
07:00	0	0	6	1	4	21	77	44	10	1	0	0	0	164
08:00	1	0	7	5	14	66	93	48	16	0	0	0	0	250
09:00	0	3	12	15	48	91	114	44	5	1	0	0	0	333
10:00	1	6	13	17	58	131	151	56	4	0	0	0	0	437
11:00	1	8	14	21	92	194	118	31	4	0	0	0	0	483
12 PM	1	2	16	14	53	165	161	34	4	0	0	0	0	450
13:00	0	6	15	23	89	174	216	42	10	2	0	0	0	577
14:00	5	4	15	20	134	226	167	24	5	2	0	0	0	602
15:00	0	5	13	17	101	173	165	59	6	1	0	0	0	540
16:00	1	3	10	21	90	249	175	47	4	0	0	0	0	600
17:00	2	5	13	14	81	183	179	55	16	1	0	0	0	549
18:00	1	1	10	16	49	137	175	47	10	0	0	0	0	446
19:00	0	0	8	8	24	119	132	45	7	0	0	0	0	343
20:00	0	3	15	10	23	94	138	42	5	0	1	0	0	331
21:00	1	2	8	9	29	84	112	34	8	0	0	0	0	287
22:00	0	0	6	8	15	37	80	45	10	1	0	0	0	202
23:00	0	3	3	3	12	38	45	22	9	1	1	0	0	137
Total	14	51	195	231	940	2240	2426	790	157	15	5	0	0	7064
Percent	0.2%	0.7%	2.8%	3.3%	13.3%	31.7%	34.3%	11.2%	2.2%	0.2%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 34 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 4666

Percent in Pace : 66.1%

Number of Vehicles > 35 MPH : 5633

Percent of Vehicles > 35 MPH : 79.7%

Grand Total

57 209 703 1176 5291 8762 6268 1662 315 33 8 0 0 24484

Overall

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 44 MPH
95th Percentile : 48 MPH

Mean Speed(Average) : 38 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 15030

Percent in Pace : 61.4%

Number of Vehicles > 35 MPH : 17048

Percent of Vehicles > 35 MPH : 69.6%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Page 1

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	0	0	2	21	32	11	4	0	0	0	0	70
01:00	0	0	0	0	3	14	19	8	2	0	0	0	0	46
02:00	0	0	0	0	2	4	7	5	1	0	0	0	0	19
03:00	0	0	0	0	0	7	5	4	2	0	0	0	0	18
04:00	0	0	2	0	7	12	16	8	2	0	1	0	0	48
05:00	0	0	0	6	25	42	54	23	5	2	0	0	0	157
06:00	0	0	0	5	38	111	144	30	3	1	0	0	0	332
07:00	0	1	8	18	89	259	198	37	5	2	0	0	0	617
08:00	0	0	0	12	97	363	211	33	5	1	0	0	0	722
09:00	1	2	8	39	160	388	200	35	4	0	0	0	0	837
10:00	1	0	4	40	147	428	250	34	0	0	0	0	0	904
11:00	0	0	8	69	357	466	164	17	1	0	0	0	0	1082
12 PM	11	9	29	131	394	469	105	16	1	0	0	0	0	1165
13:00	3	4	24	88	358	412	176	19	1	1	0	0	0	1086
14:00	0	0	2	75	311	457	151	16	2	0	0	0	1	1015
15:00	3	9	17	86	478	443	121	14	0	0	0	0	0	1171
16:00	2	1	1	49	393	581	189	8	1	1	0	0	0	1226
17:00	0	1	10	118	392	512	184	23	2	0	1	0	0	1243
18:00	0	0	4	54	313	583	209	17	1	0	0	0	0	1181
19:00	1	1	9	31	133	449	305	46	2	0	0	0	0	977
20:00	0	0	3	16	117	367	219	44	8	0	0	0	0	774
21:00	0	0	1	5	36	164	209	46	6	0	0	0	0	467
22:00	0	0	0	6	19	89	123	49	5	1	0	0	0	292
23:00	0	0	0	1	7	35	75	26	5	2	0	0	0	151
Total	22	28	130	849	3878	6676	3366	569	68	11	2	0	1	15600
Percent	0.1%	0.2%	0.8%	5.4%	24.9%	42.8%	21.6%	3.6%	0.4%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 43 MPH
95th Percentile : 45 MPH

Mean Speed(Average) : 38 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 10554

Percent in Pace : 67.7%

Number of Vehicles > 40 MPH : 4017

Percent of Vehicles > 40 MPH : 25.8%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/15/12	0	0	1	1	6	35	30	17	7	0	0	0	0	97
01:00	0	0	1	4	8	14	15	12	0	1	0	0	0	55
02:00	0	0	0	0	0	7	13	4	3	0	0	0	0	27
03:00	0	0	0	0	3	5	8	2	0	0	0	0	0	18
04:00	0	0	0	1	3	10	23	6	2	0	0	0	0	45
05:00	0	1	0	3	24	35	69	23	4	0	0	0	0	159
06:00	0	0	0	3	28	94	137	58	11	0	0	0	0	331
07:00	0	0	0	10	64	264	244	60	6	1	0	0	0	649
08:00	0	0	7	14	123	350	268	31	5	1	0	0	0	799
09:00	0	0	1	25	167	394	241	33	6	0	0	0	0	867
10:00	1	0	1	35	212	454	196	28	4	1	0	0	0	932
11:00	0	4	18	55	322	467	189	19	4	0	0	0	0	1078
12 PM	2	9	53	190	370	414	143	10	0	0	0	0	0	1191
13:00	0	6	28	103	368	431	137	29	3	1	0	0	0	1106
14:00	3	8	19	67	293	428	146	7	1	0	0	0	0	972
15:00	10	12	74	145	344	398	121	16	2	0	0	0	0	1122
16:00	0	0	3	34	285	552	223	22	2	1	0	0	0	1122
17:00	0	0	12	53	311	505	234	25	4	1	0	0	0	1145
18:00	0	0	0	18	170	467	275	52	4	0	0	0	0	986
19:00	0	3	6	13	94	383	279	49	5	0	0	0	0	832
20:00	0	0	1	15	96	303	205	48	5	2	0	0	0	675
21:00	0	0	1	10	33	144	120	42	7	0	0	0	0	357
22:00	0	0	0	1	24	85	121	44	6	1	0	0	0	282
23:00	0	0	0	1	18	41	83	23	4	0	0	0	0	170
Total	16	43	226	801	3366	6280	3520	660	95	10	0	0	0	15017
Percent	0.1%	0.3%	1.5%	5.3%	22.4%	41.8%	23.4%	4.4%	0.6%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 38 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 9800

Percent in Pace : 65.3%

Number of Vehicles > 40 MPH : 4285

Percent of Vehicles > 40 MPH : 28.5%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Eastbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/16/12	0	0	0	0	5	33	53	15	6	0	0	0	0	112
01:00	0	0	0	0	6	21	32	10	1	0	0	0	0	70
02:00	0	0	0	1	2	10	17	9	2	0	0	0	0	41
03:00	0	0	0	1	1	4	6	6	2	0	0	0	0	20
04:00	0	0	0	1	5	13	23	11	2	0	0	0	0	55
05:00	0	0	0	3	8	25	27	24	6	2	0	0	0	95
06:00	0	0	0	1	8	52	93	43	6	1	0	0	0	204
07:00	0	0	0	4	25	70	152	70	12	1	0	0	0	334
08:00	0	0	1	0	39	211	280	73	5	0	0	0	1	610
09:00	0	0	1	19	116	294	312	65	5	1	0	0	0	813
10:00	0	0	4	14	158	459	263	34	8	1	0	0	0	941
11:00	0	0	23	48	284	450	216	18	6	0	0	0	0	1045
12 PM	0	0	3	31	202	533	258	34	1	0	0	0	0	1062
13:00	1	0	1	29	233	495	237	33	2	1	0	0	0	1032
14:00	0	0	1	18	192	481	241	41	4	0	0	0	0	978
15:00	0	4	6	12	178	485	259	26	5	1	0	0	0	976
16:00	0	0	0	10	154	438	282	32	2	1	0	0	0	919
17:00	0	0	6	25	187	422	247	43	3	1	0	0	0	934
18:00	0	0	0	8	120	344	271	57	2	1	0	0	0	803
19:00	0	0	1	7	64	236	251	48	3	0	0	0	0	610
20:00	0	0	0	3	53	190	177	36	4	1	0	0	0	464
21:00	0	0	0	2	17	122	136	32	6	2	0	0	0	317
22:00	0	0	0	1	10	63	113	30	12	0	0	0	0	229
23:00	0	0	0	0	6	38	85	32	1	1	1	0	0	164
Total	1	4	47	238	2073	5489	4031	822	106	15	1	0	1	12828
Percent	0.0%	0.0%	0.4%	1.9%	16.2%	42.8%	31.4%	6.4%	0.8%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 34 MPH
50th Percentile : 39 MPH
85th Percentile : 44 MPH
95th Percentile : 47 MPH

Mean Speed(Average) : 39 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 9520

Percent in Pace : 74.2%

Number of Vehicles > 40 MPH : 4976

Percent of Vehicles > 40 MPH : 38.8%

Grand Total

39 75 403 1888 9317 18445 10917 2051 269 36 3 0 2 43445

Overall

15th Percentile : 33 MPH
50th Percentile : 38 MPH
85th Percentile : 44 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 38 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 29362

Percent in Pace : 67.6%

Number of Vehicles > 40 MPH : 13278

Percent of Vehicles > 40 MPH : 30.6%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	0	1	3	7	12	4	2	2	0	0	0	31
01:00	0	0	0	0	1	3	0	7	0	1	1	0	0	13
02:00	0	0	0	0	2	2	5	1	0	0	0	0	0	10
03:00	0	0	0	0	0	3	2	6	0	1	0	1	0	13
04:00	0	0	0	1	2	8	6	1	1	0	0	0	0	19
05:00	0	0	1	2	26	52	40	17	3	3	0	0	0	144
06:00	0	0	0	2	57	154	157	66	15	2	0	0	0	453
07:00	1	0	5	12	113	235	238	89	19	2	0	0	0	714
08:00	0	0	0	20	179	354	251	60	11	2	0	0	0	877
09:00	1	0	5	16	80	256	220	50	8	0	0	0	0	636
10:00	0	0	0	11	81	223	216	84	8	1	1	0	0	625
11:00	0	0	0	13	106	296	223	51	8	0	0	0	0	697
12 PM	1	3	7	29	170	303	186	33	9	2	0	0	0	743
13:00	1	0	5	26	162	404	193	50	6	0	1	0	0	848
14:00	0	5	12	29	152	343	263	56	8	0	0	0	0	868
15:00	1	0	11	31	177	331	182	38	10	1	0	0	0	782
16:00	1	0	1	23	140	346	238	60	12	2	0	0	0	823
17:00	0	0	6	24	134	277	241	66	11	1	2	0	0	762
18:00	0	0	1	15	99	297	195	48	8	1	0	0	0	664
19:00	1	0	2	6	51	185	242	71	20	1	1	0	0	580
20:00	1	0	1	5	98	229	215	44	8	0	0	0	0	601
21:00	0	0	0	2	53	141	158	54	8	1	0	0	0	417
22:00	0	0	0	0	9	28	92	54	21	1	0	0	0	205
23:00	0	0	0	0	3	24	51	30	17	2	0	1	0	128
Total	8	8	57	268	1898	4501	3626	1040	213	26	6	2	0	11653
Percent	0.1%	0.1%	0.5%	2.3%	16.3%	38.6%	31.1%	8.9%	1.8%	0.2%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 34 MPH
50th Percentile : 39 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH
10 MPH Pace Speed : 36-45 MPH

Number in Pace : 8127
Percent in Pace : 69.7%

Number of Vehicles > 40 MPH : 4913
Percent of Vehicles > 40 MPH : 42.2%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/15/12	0	0	0	1	2	10	15	17	5	3	2	0	0	55
01:00	1	1	3	0	0	3	5	2	0	0	0	0	0	15
02:00	0	0	0	0	4	3	6	2	3	0	1	1	0	20
03:00	0	0	0	0	1	1	4	2	1	0	0	0	0	9
04:00	0	0	0	0	4	11	14	2	1	0	0	0	0	32
05:00	0	0	0	1	16	41	39	19	10	1	1	0	0	128
06:00	0	0	0	4	32	108	178	71	25	6	0	0	0	424
07:00	0	0	0	8	85	210	230	81	16	4	0	0	0	634
08:00	0	4	7	9	92	291	283	68	11	1	0	0	0	766
09:00	0	0	2	5	78	215	213	77	17	2	1	0	0	610
10:00	0	0	2	15	84	281	212	74	9	0	0	0	0	677
11:00	0	1	1	11	107	305	217	48	10	0	0	0	0	700
12 PM	1	5	6	45	178	319	231	38	1	0	0	0	0	824
13:00	0	3	9	37	181	361	176	44	7	1	0	0	0	819
14:00	2	1	8	36	239	375	214	39	4	1	0	0	0	919
15:00	0	2	10	21	169	323	186	49	6	1	0	0	0	767
16:00	0	0	5	21	129	309	217	58	8	1	0	0	0	748
17:00	1	1	7	15	116	281	248	65	15	1	0	0	0	750
18:00	0	0	0	11	70	211	219	62	21	3	0	0	0	597
19:00	1	0	4	1	71	210	192	61	10	0	0	0	0	550
20:00	1	0	0	3	72	211	191	38	10	1	0	0	0	527
21:00	0	0	0	0	54	136	157	48	7	0	0	0	0	402
22:00	0	0	0	0	22	86	77	43	8	4	0	0	0	240
23:00	0	0	0	2	22	44	52	19	6	1	0	0	0	146
Total	7	18	64	246	1828	4345	3576	1027	211	31	5	1	0	11359
Percent	0.1%	0.2%	0.6%	2.2%	16.1%	38.3%	31.5%	9.0%	1.9%	0.3%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 34 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH
10 MPH Pace Speed : 36-45 MPH

Number in Pace : 7921
Percent in Pace : 69.7%

Number of Vehicles > 40 MPH : 4851
Percent of Vehicles > 40 MPH : 42.7%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street Overpass between
Route 3 NB/SB Ramps
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Dspeed
Site Code: 04263

Westbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/16/12	0	0	0	2	10	22	23	10	5	2	1	0	0	75
01:00	0	0	0	0	7	8	8	5	4	0	0	0	0	32
02:00	0	0	0	0	3	10	10	6	2	0	0	0	0	31
03:00	0	0	0	1	2	1	3	4	2	2	0	0	0	15
04:00	0	0	0	0	1	4	7	0	2	0	0	0	0	14
05:00	0	0	0	1	8	18	13	8	5	1	0	0	0	54
06:00	0	0	0	1	18	39	48	29	19	4	0	0	0	158
07:00	0	0	3	0	16	54	94	47	15	1	1	0	0	231
08:00	0	0	0	4	24	91	126	71	18	2	0	0	0	336
09:00	0	0	0	2	31	135	179	76	28	1	0	0	0	452
10:00	0	0	3	4	46	192	217	75	23	3	0	0	0	563
11:00	3	1	4	8	65	249	237	57	13	1	1	0	0	639
12 PM	0	0	0	5	80	275	245	67	22	1	1	0	0	696
13:00	0	1	1	13	111	350	236	59	13	1	0	0	0	785
14:00	0	2	1	18	94	302	300	73	13	1	0	0	0	804
15:00	0	0	1	11	74	299	248	86	23	1	1	0	0	744
16:00	0	0	4	19	116	316	280	50	11	2	0	0	0	798
17:00	0	0	1	12	98	297	210	52	16	1	0	0	0	687
18:00	0	0	1	3	83	203	217	74	9	3	0	0	0	593
19:00	0	0	0	2	48	154	173	60	12	3	0	0	0	452
20:00	0	0	0	2	55	143	160	54	10	2	0	0	0	426
21:00	0	0	0	4	53	117	125	38	6	0	0	0	0	343
22:00	0	0	0	3	24	85	80	55	7	0	0	0	0	254
23:00	0	0	0	1	15	50	59	23	7	1	0	0	0	156
Total	3	4	19	116	1082	3414	3298	1079	285	33	5	0	0	9338
Percent	0.0%	0.0%	0.2%	1.2%	11.6%	36.6%	35.3%	11.6%	3.1%	0.4%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 46 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 41 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 6712

Percent in Pace : 71.9%

Number of Vehicles > 40 MPH : 4700

Percent of Vehicles > 40 MPH : 50.3%

Grand Total

18 30 140 630 4808 12260 10500 3146 709 90 16 3 0 32350

Overall

15th Percentile : 35 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 22760

Percent in Pace : 70.4%

Number of Vehicles > 40 MPH : 14464

Percent of Vehicles > 40 MPH : 44.7%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gspeed

Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	0	0	2	21	20	12	3	1	0	0	0	59
01:00	0	0	0	2	1	11	9	7	3	0	0	0	0	33
02:00	0	0	0	0	0	4	4	2	2	0	0	0	0	12
03:00	0	0	0	0	0	2	8	1	2	0	0	0	0	13
04:00	1	0	0	0	1	11	14	7	3	0	0	1	0	38
05:00	0	0	0	1	5	16	46	26	13	0	0	0	0	107
06:00	1	0	3	2	11	58	148	60	11	2	0	0	0	296
07:00	0	0	2	3	15	144	289	90	11	2	1	0	0	557
08:00	5	2	4	17	28	231	295	72	12	2	0	1	0	669
09:00	5	3	4	18	76	270	235	56	12	1	0	0	0	680
10:00	5	3	3	15	61	304	289	39	8	0	0	0	0	727
11:00	6	4	4	39	175	370	179	18	8	0	0	0	0	803
12 PM	8	6	4	42	217	449	190	21	1	0	0	0	0	938
13:00	9	3	1	29	151	402	228	40	3	0	0	0	0	866
14:00	5	2	8	32	119	366	243	51	3	1	0	0	0	830
15:00	9	7	9	24	147	376	274	37	1	0	0	0	0	884
16:00	3	7	5	26	97	328	383	63	3	2	0	0	0	917
17:00	3	5	2	41	114	335	354	70	12	0	1	0	0	937
18:00	3	8	5	24	73	329	415	111	10	0	0	0	0	978
19:00	2	1	0	15	54	224	367	105	9	4	0	0	0	781
20:00	1	0	2	17	55	207	292	91	8	1	0	0	0	674
21:00	0	0	0	5	13	108	222	81	8	2	0	0	0	439
22:00	0	1	0	1	10	53	137	56	9	2	0	0	0	269
23:00	1	0	0	0	5	16	57	40	12	3	0	0	0	134
Total	67	52	56	353	1430	4635	4698	1156	167	23	2	2	0	12641
Percent	0.5%	0.4%	0.4%	2.8%	11.3%	36.7%	37.2%	9.1%	1.3%	0.2%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 35 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 9333

Percent in Pace : 73.8%

Number of Vehicles > 40 MPH : 6048

Percent of Vehicles > 40 MPH : 47.8%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gspeed

Site Code: 04263

Eastbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/15/12	0	0	0	0	1	8	38	25	6	3	0	0	0	81
01:00	1	1	0	0	2	10	22	9	1	1	0	0	0	47
02:00	0	0	0	0	1	5	5	9	2	0	0	0	0	22
03:00	0	0	0	0	0	1	2	5	0	0	0	0	0	8
04:00	0	0	0	1	2	4	20	9	4	1	0	0	0	41
05:00	0	0	0	0	4	13	49	31	7	3	0	0	0	107
06:00	0	1	1	2	6	51	120	83	28	3	0	0	0	295
07:00	2	2	1	4	14	116	301	119	26	4	0	0	0	589
08:00	2	2	1	5	28	180	351	118	20	0	0	0	0	707
09:00	2	4	1	12	47	277	313	66	8	1	0	0	0	731
10:00	8	6	5	24	76	312	264	36	7	0	0	0	0	738
11:00	5	5	9	22	156	376	205	42	2	1	0	0	0	823
12 PM	4	4	11	52	251	402	189	12	3	0	0	0	0	928
13:00	6	8	11	44	211	323	190	22	8	1	0	0	0	824
14:00	10	3	4	19	134	308	229	45	7	1	0	0	0	760
15:00	5	5	6	20	112	412	248	34	5	0	0	0	0	847
16:00	3	2	0	12	73	310	383	80	10	0	0	0	0	873
17:00	0	7	1	10	68	303	405	73	13	0	0	0	0	880
18:00	2	2	3	8	45	223	370	125	12	4	1	0	0	795
19:00	0	2	2	8	35	201	336	92	24	0	1	0	0	701
20:00	0	0	0	6	34	199	243	82	9	1	0	1	0	575
21:00	0	5	2	4	15	96	121	57	10	1	0	0	0	311
22:00	0	0	0	1	12	44	136	50	21	1	0	0	0	265
23:00	1	1	0	4	4	18	72	45	6	0	1	1	0	153
Total	51	60	58	258	1331	4192	4612	1269	239	26	3	2	0	12101
Percent	0.4%	0.5%	0.5%	2.1%	11.0%	34.6%	38.1%	10.5%	2.0%	0.2%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 8804

Percent in Pace : 72.8%

Number of Vehicles > 40 MPH : 6151

Percent of Vehicles > 40 MPH : 50.8%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Gspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/16/12	1	0	0	0	3	15	50	22	11	2	1	1	0	106
01:00	0	0	1	1	1	12	25	13	3	1	0	0	0	57
02:00	0	0	1	1	2	7	15	10	2	0	0	0	0	38
03:00	0	0	3	2	1	2	3	3	4	2	0	0	0	20
04:00	0	0	0	0	2	3	20	19	6	1	0	0	0	51
05:00	1	0	0	0	1	13	39	19	16	1	1	0	0	91
06:00	1	1	0	0	0	18	78	48	23	3	1	0	0	173
07:00	4	1	0	1	8	33	135	85	25	5	1	0	0	298
08:00	3	1	3	9	31	94	233	121	22	5	1	0	0	523
09:00	1	0	1	8	59	204	311	68	15	1	1	0	0	669
10:00	2	7	2	24	101	294	283	39	8	4	0	0	0	764
11:00	3	3	5	19	152	350	247	34	2	2	0	0	0	817
12 PM	9	7	4	34	153	353	251	27	1	1	0	1	0	841
13:00	4	3	0	18	132	378	233	38	4	0	1	0	0	811
14:00	4	5	5	30	92	340	245	37	7	2	0	0	0	767
15:00	6	4	5	13	96	303	289	53	10	1	0	0	0	780
16:00	4	2	1	21	87	319	326	52	4	1	0	0	0	817
17:00	1	3	0	24	86	285	319	82	9	1	0	0	0	810
18:00	0	1	0	9	61	249	266	85	12	1	0	0	0	684
19:00	1	1	0	6	36	128	248	91	19	4	0	0	1	535
20:00	1	1	2	5	26	117	151	52	17	0	0	0	0	372
21:00	0	0	0	1	8	62	146	46	18	0	0	0	0	281
22:00	1	0	0	1	3	38	114	53	23	1	0	0	0	234
23:00	0	0	0	0	11	23	72	40	11	4	0	0	0	161
Total	47	40	33	227	1152	3640	4099	1137	272	43	7	2	1	10700
Percent	0.4%	0.4%	0.3%	2.1%	10.8%	34.0%	38.3%	10.6%	2.5%	0.4%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 45 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 7739

Percent in Pace : 72.3%

Number of Vehicles > 40 MPH : 5561

Percent of Vehicles > 40 MPH : 52.0%

Grand
Total

165 152 147 838 3913 12467 13409 3562 678 92 12 6 1 35442

Overall

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 45 MPH
95th Percentile : 49 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 25876

Percent in Pace : 73.0%

Number of Vehicles > 40 MPH : 17760

Percent of Vehicles > 40 MPH : 50.1%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gspeed

Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	1	1	6	27	35	19	4	4	1	0	0	98
01:00	0	0	0	4	5	4	8	6	3	0	1	0	0	31
02:00	0	0	0	2	3	10	23	7	2	0	0	0	0	47
03:00	0	0	0	0	3	12	24	13	6	2	0	1	0	61
04:00	0	0	0	0	3	16	36	14	4	2	0	0	0	75
05:00	0	0	1	0	7	76	205	109	24	5	0	0	0	427
06:00	1	4	3	4	21	155	326	139	46	6	0	0	0	705
07:00	2	4	5	6	23	172	388	180	36	6	1	0	0	823
08:00	3	3	6	5	75	278	387	129	26	4	1	0	0	917
09:00	6	5	9	16	113	358	315	79	14	1	0	0	0	916
10:00	0	3	7	10	87	364	317	92	20	3	0	0	0	903
11:00	1	2	2	34	139	434	266	82	20	1	0	0	0	981
12 PM	4	2	3	24	154	412	293	64	13	2	0	0	0	971
13:00	2	4	6	43	166	457	287	67	14	0	0	0	0	1046
14:00	3	3	7	23	157	395	370	73	21	0	0	0	0	1052
15:00	7	4	12	40	133	399	290	90	18	3	1	0	0	997
16:00	6	5	9	19	97	363	368	102	26	2	1	1	0	999
17:00	4	6	8	43	84	338	338	105	29	1	0	0	0	956
18:00	1	2	10	25	67	284	310	98	17	4	0	0	0	818
19:00	2	4	4	12	63	221	328	88	31	2	1	0	0	756
20:00	3	3	1	19	110	278	242	67	12	1	0	0	0	736
21:00	0	0	4	13	71	236	233	68	10	2	1	0	0	638
22:00	0	2	6	12	61	145	161	75	25	1	1	0	0	489
23:00	0	0	1	7	24	75	98	64	14	3	1	0	0	287
Total	45	56	105	362	1672	5509	5648	1830	435	55	10	2	0	15729
Percent	0.3%	0.4%	0.7%	2.3%	10.6%	35.0%	35.9%	11.6%	2.8%	0.3%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 45 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 11157

Percent in Pace : 70.9%

Number of Vehicles > 40 MPH : 7980

Percent of Vehicles > 40 MPH : 50.7%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]

City, State: Hingham, MA

Client: C&C/J. Morgan

04263Gspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/15/12	0	1	0	0	8	26	60	32	10	4	1	0	0	142
01:00	0	0	0	0	11	20	17	6	3	1	0	0	0	58
02:00	0	0	0	1	2	11	7	11	6	0	0	0	0	38
03:00	0	0	0	0	2	7	6	5	3	1	0	0	0	24
04:00	0	0	1	1	2	10	28	19	5	1	0	0	0	67
05:00	0	0	2	1	10	50	161	103	44	5	2	0	0	378
06:00	1	4	1	4	12	135	298	170	63	13	0	0	0	701
07:00	4	6	7	5	41	174	402	165	42	8	2	1	0	857
08:00	2	5	1	7	39	210	404	172	39	7	0	0	0	886
09:00	0	6	4	14	81	312	352	108	26	5	0	0	0	908
10:00	2	1	6	12	85	330	360	91	25	4	0	0	0	916
11:00	3	2	3	30	149	415	286	48	18	1	1	0	0	956
12 PM	2	4	9	32	135	453	327	84	10	0	2	0	0	1058
13:00	3	8	11	43	182	352	287	69	8	3	0	0	0	966
14:00	6	3	4	34	182	442	303	84	20	5	1	0	0	1084
15:00	3	2	6	14	117	411	303	112	20	2	0	0	0	990
16:00	2	4	4	22	93	341	328	99	25	6	0	0	0	924
17:00	1	2	6	9	104	319	391	99	34	4	1	0	0	970
18:00	0	1	1	12	74	265	324	81	30	4	0	1	0	793
19:00	1	0	2	9	80	301	289	83	18	3	0	0	0	786
20:00	1	1	2	7	79	273	262	58	15	3	0	0	0	701
21:00	1	1	2	16	73	186	225	53	20	3	1	0	0	581
22:00	0	0	0	3	41	98	135	47	15	1	0	0	0	340
23:00	0	0	1	3	19	45	75	28	9	2	0	0	0	182
Total	32	51	73	279	1621	5186	5630	1827	508	86	11	2	0	15306
Percent	0.2%	0.3%	0.5%	1.8%	10.6%	33.9%	36.8%	11.9%	3.3%	0.6%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 46 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 41 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 10816

Percent in Pace : 70.7%

Number of Vehicles > 40 MPH : 8064

Percent of Vehicles > 40 MPH : 52.7%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street between
Old Derby Streets [North & South]
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Gspeed
Site Code: 04263

Westbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/16/12	0	1	1	1	6	22	34	13	6	3	3	0	0	90
01:00	1	2	0	0	1	11	12	7	2	0	0	0	1	37
02:00	0	1	3	3	3	5	11	4	2	1	0	0	0	33
03:00	0	0	1	4	2	3	7	8	2	0	0	0	0	27
04:00	0	0	1	2	2	9	18	7	2	0	1	0	0	42
05:00	0	0	2	0	2	30	56	33	12	3	0	0	0	138
06:00	1	3	1	0	4	41	108	73	28	10	3	0	0	272
07:00	2	4	4	3	14	67	183	85	20	9	0	0	0	391
08:00	1	3	3	3	47	172	241	94	25	7	0	0	0	596
09:00	6	1	3	7	70	241	297	92	29	2	2	0	0	750
10:00	2	7	5	11	94	333	326	85	18	3	0	0	0	884
11:00	1	2	11	23	125	427	324	61	16	2	0	0	0	992
12 PM	4	2	7	31	148	417	315	73	10	4	0	0	0	1011
13:00	3	0	3	38	189	438	248	94	19	2	0	0	0	1034
14:00	4	2	4	29	172	424	328	58	24	3	0	0	0	1048
15:00	5	1	9	24	162	414	332	80	23	4	1	0	0	1055
16:00	2	2	4	21	149	423	358	73	17	5	0	0	0	1054
17:00	1	1	4	21	95	331	356	76	22	2	2	0	0	911
18:00	2	1	2	10	134	372	258	60	16	2	1	0	0	858
19:00	0	1	1	10	113	252	230	76	19	1	0	0	0	703
20:00	0	1	1	14	107	255	197	66	10	2	1	0	0	654
21:00	0	1	0	18	89	194	185	40	12	0	1	0	0	540
22:00	2	1	1	4	36	97	138	43	8	4	0	0	0	334
23:00	0	0	1	4	17	69	69	32	8	2	1	0	0	203
Total	37	37	72	281	1781	5047	4631	1333	350	71	16	0	1	13657
Percent	0.3%	0.3%	0.5%	2.1%	13.0%	37.0%	33.9%	9.8%	2.6%	0.5%	0.1%	0.0%	0.0%	

Daily

15th Percentile : 35 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 9678

Percent in Pace : 70.9%

Number of Vehicles > 40 MPH : 6402

Percent of Vehicles > 40 MPH : 46.9%

Grand Total

114 144 250 922 5074 15742 15909 4990 1293 212 37 4 1 44692

Overall

15th Percentile : 36 MPH
50th Percentile : 41 MPH
85th Percentile : 45 MPH
95th Percentile : 50 MPH

Mean Speed(Average) : 40 MPH

10 MPH Pace Speed : 36-45 MPH

Number in Pace : 31651

Percent in Pace : 70.8%

Number of Vehicles > 40 MPH : 22446

Percent of Vehicles > 40 MPH : 50.2%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t. (781) 587-0086 f. (781) 587-0189

Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	0	0	5	7	14	6	1	1	0	0	0	34
01:00	0	0	0	1	2	6	7	1	1	1	0	0	0	19
02:00	0	0	0	1	2	1	5	0	0	0	0	0	0	9
03:00	0	0	0	0	0	0	4	0	1	0	0	0	0	5
04:00	0	0	0	1	2	8	6	3	1	0	1	0	0	22
05:00	0	0	4	14	2	13	10	10	2	1	0	0	0	56
06:00	0	0	5	21	26	32	43	24	3	1	0	0	0	155
07:00	2	4	17	20	37	84	83	31	2	0	0	0	0	280
08:00	0	1	15	40	74	121	98	25	8	0	0	0	0	382
09:00	4	15	33	39	85	96	43	6	0	0	0	0	0	321
10:00	4	24	44	55	103	80	32	1	0	0	0	0	0	343
11:00	3	4	18	70	162	168	73	16	1	1	0	0	0	516
12 PM	1	5	38	97	197	170	83	12	3	0	0	0	0	606
13:00	2	15	35	100	224	179	69	11	1	0	0	0	0	636
14:00	1	4	45	108	243	186	86	16	1	0	0	0	0	690
15:00	3	7	31	91	198	228	125	18	4	0	0	0	0	705
16:00	1	3	13	62	249	271	135	26	5	0	0	0	0	765
17:00	1	4	22	66	215	268	149	24	5	1	0	0	0	755
18:00	0	0	19	70	162	287	160	35	9	1	0	0	0	743
19:00	1	5	23	94	167	177	101	22	6	0	0	0	0	596
20:00	0	1	12	65	147	210	107	17	9	1	0	0	0	569
21:00	1	1	3	66	110	132	79	21	2	0	0	0	0	415
22:00	0	0	5	6	43	82	68	16	4	1	0	0	0	225
23:00	0	0	1	4	15	27	31	10	1	0	0	0	0	89
Total	24	93	383	1091	2470	2833	1611	351	70	9	1	0	0	8936
Percent	0.3%	1.0%	4.3%	12.2%	27.6%	31.7%	18.0%	3.9%	0.8%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 29 MPH
50th Percentile : 36 MPH
85th Percentile : 43 MPH
95th Percentile : 45 MPH

Mean Speed(Average) : 36 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 5303

Percent in Pace : 59.3%

Number of Vehicles > 35 MPH : 4875

Percent of Vehicles > 35 MPH : 54.6%

Transportation Data Corporation

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Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Eastbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/15/12	0	0	0	0	5	13	15	6	1	1	0	0	0	41
01:00	0	0	0	0	3	12	12	3	0	0	0	0	0	30
02:00	0	0	0	0	0	7	4	2	1	1	0	0	0	15
03:00	0	0	0	0	0	2	2	0	0	0	0	0	0	4
04:00	0	0	1	0	6	4	8	3	0	0	0	0	0	22
05:00	0	0	1	13	3	7	14	11	0	1	0	0	0	50
06:00	0	0	4	20	21	30	45	27	10	1	0	0	0	158
07:00	1	2	13	25	39	83	99	35	10	3	0	0	0	310
08:00	2	6	10	59	84	113	121	36	5	1	0	0	0	437
09:00	1	10	20	47	107	122	95	17	1	0	0	0	0	420
10:00	1	0	16	53	129	146	80	9	1	0	0	0	0	435
11:00	1	7	23	57	142	147	94	20	1	0	0	0	0	492
12 PM	0	8	43	146	224	173	55	4	0	0	0	0	0	653
13:00	5	4	41	145	252	144	39	4	1	0	0	0	0	635
14:00	2	6	43	111	206	182	68	16	0	1	0	0	0	635
15:00	3	2	17	94	258	272	93	17	2	0	0	0	0	758
16:00	3	1	18	65	230	297	144	16	6	0	0	0	0	780
17:00	2	2	14	54	180	268	164	35	5	0	0	0	0	724
18:00	0	4	8	50	152	275	156	46	5	2	0	0	0	698
19:00	2	1	11	23	104	241	150	39	13	1	0	0	0	585
20:00	0	1	7	29	143	196	121	30	4	1	0	0	0	532
21:00	1	0	2	25	93	138	56	10	1	0	0	0	0	326
22:00	0	0	3	5	37	81	60	13	3	0	0	0	0	202
23:00	0	1	0	3	18	50	33	10	2	0	0	0	0	117
Total	24	55	295	1024	2436	3003	1728	409	72	13	0	0	0	9059
Percent	0.3%	0.6%	3.3%	11.3%	26.9%	33.1%	19.1%	4.5%	0.8%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 30 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 36 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 5439

Percent in Pace : 60.0%

Number of Vehicles > 35 MPH : 5225

Percent of Vehicles > 35 MPH : 57.7%

Transportation Data Corporation

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Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Eastbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/16/12	1	0	0	0	6	29	24	4	4	1	0	0	0	69
01:00	0	0	0	0	5	13	9	3	1	0	0	0	0	31
02:00	0	0	0	2	2	9	9	2	0	0	0	0	0	24
03:00	0	0	1	1	1	4	4	1	0	0	0	0	0	12
04:00	0	0	0	1	4	6	12	8	8	1	0	0	0	40
05:00	1	0	1	7	1	8	14	5	8	0	1	0	0	46
06:00	0	0	3	11	9	17	44	13	5	2	0	0	0	104
07:00	0	1	4	5	26	48	40	28	14	1	0	0	0	167
08:00	0	1	4	10	34	108	100	29	6	2	1	0	0	295
09:00	1	1	5	25	82	135	121	27	4	3	0	0	0	404
10:00	1	2	12	34	128	188	124	26	4	1	0	0	0	520
11:00	1	4	19	65	177	228	90	16	2	0	0	0	0	602
12 PM	3	7	27	70	208	221	103	12	1	0	0	0	0	652
13:00	3	2	17	67	215	224	108	13	5	1	0	0	0	655
14:00	4	5	15	70	224	227	106	21	3	0	0	0	0	675
15:00	1	2	13	57	241	231	115	23	5	1	0	0	0	689
16:00	1	5	16	54	222	258	108	21	5	0	0	0	0	690
17:00	0	2	11	28	150	274	159	30	3	0	0	0	0	657
18:00	0	1	5	39	179	174	91	18	3	0	0	0	0	510
19:00	0	0	3	20	82	151	118	33	7	1	0	0	0	415
20:00	0	0	2	29	89	142	88	23	4	1	0	0	0	378
21:00	0	0	3	20	67	106	69	15	5	0	0	0	0	285
22:00	0	0	2	8	35	59	56	5	2	0	0	0	0	167
23:00	0	0	0	4	24	42	28	15	1	0	0	0	0	114
Total	17	33	163	627	2211	2902	1740	391	100	15	2	0	0	8201
Percent	0.2%	0.4%	2.0%	7.6%	27.0%	35.4%	21.2%	4.8%	1.2%	0.2%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 31 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 47 MPH

Mean Speed(Average) : 37 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 5113

Percent in Pace : 62.3%

Number of Vehicles > 35 MPH : 5150

Percent of Vehicles > 35 MPH : 62.8%

Grand Total

65 181 841 2742 7117 8738 5079 1151 242 37 3 0 0 26196

Overall

15th Percentile : 31 MPH
50th Percentile : 37 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Mean Speed(Average) : 36 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 15855

Percent in Pace : 60.5%

Number of Vehicles > 35 MPH : 15250

Percent of Vehicles > 35 MPH : 58.2%

Transportation Data Corporation

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t. (781) 587-0086 f. (781) 587-0189

Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/14/12	0	0	1	11	12	23	19	12	1	1	1	0	0	81
01:00	0	0	1	4	5	11	6	4	1	0	0	0	0	32
02:00	0	0	1	1	7	14	11	4	2	0	0	0	0	40
03:00	0	0	0	1	5	11	26	9	2	1	0	0	0	55
04:00	0	0	0	4	12	11	15	6	1	0	0	0	0	49
05:00	0	2	5	27	78	108	71	21	8	0	0	0	0	320
06:00	0	11	18	71	129	181	101	35	3	0	0	0	0	549
07:00	7	19	60	111	229	160	56	17	3	0	0	0	0	662
08:00	6	20	54	143	235	164	54	12	1	0	0	0	0	689
09:00	54	73	118	147	143	57	18	1	0	0	0	0	0	611
10:00	90	82	114	103	72	10	0	0	0	0	0	0	0	471
11:00	12	18	78	195	237	77	21	1	1	0	0	0	0	640
12 PM	19	34	95	186	185	88	15	2	0	0	0	0	0	624
13:00	12	38	90	192	196	76	22	2	1	0	0	0	0	629
14:00	7	28	80	170	196	73	24	1	1	0	0	0	0	580
15:00	17	30	76	144	191	111	32	7	2	0	0	0	0	610
16:00	9	34	59	140	212	90	32	4	1	0	0	0	0	581
17:00	5	21	81	163	181	113	31	3	1	0	0	0	0	599
18:00	6	8	44	105	186	116	58	4	1	0	0	0	0	528
19:00	2	3	36	87	163	109	27	0	3	0	0	0	0	430
20:00	0	1	23	74	153	82	27	4	0	1	0	0	0	365
21:00	0	3	27	69	82	53	27	3	0	0	0	0	0	264
22:00	2	4	12	68	131	84	36	11	2	1	0	0	0	351
23:00	0	2	17	40	54	58	32	6	0	0	0	0	0	209
Total	248	431	1090	2256	3094	1880	761	169	35	4	1	0	0	9969
Percent	2.5%	4.3%	10.9%	22.6%	31.0%	18.9%	7.6%	1.7%	0.4%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 24 MPH
50th Percentile : 32 MPH
85th Percentile : 39 MPH
95th Percentile : 44 MPH

Mean Speed(Average) : 32 MPH
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 5350
Percent in Pace : 53.7%
Number of Vehicles > 35 MPH : 2850
Percent of Vehicles > 35 MPH : 28.6%

Transportation Data Corporation

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Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Westbound

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	Total
6/15/12	0	0	5	12	25	29	27	14	2	0	0	0	0	114
01:00	0	1	0	4	7	11	14	6	0	1	1	0	0	45
02:00	0	0	0	1	6	8	9	4	3	0	0	0	0	31
03:00	0	0	0	0	1	7	4	2	1	0	0	0	0	15
04:00	0	0	0	0	4	13	16	8	4	0	0	0	0	45
05:00	0	2	4	17	53	70	96	39	12	5	0	0	0	298
06:00	0	4	10	42	116	179	126	36	12	0	0	0	0	525
07:00	11	14	42	115	185	190	108	17	4	2	1	0	0	689
08:00	7	7	37	118	210	173	72	15	2	0	0	0	0	641
09:00	5	33	60	147	238	135	40	4	0	0	0	0	0	662
10:00	9	27	88	161	224	102	23	1	0	0	0	0	0	635
11:00	29	50	107	188	196	82	9	2	0	0	0	0	0	663
12 PM	30	43	108	213	192	67	20	0	0	0	0	0	0	673
13:00	19	48	92	190	200	43	11	0	0	0	0	0	0	603
14:00	28	47	93	194	190	66	12	1	0	0	0	0	0	631
15:00	9	37	70	151	207	109	20	5	1	0	1	0	0	610
16:00	12	13	64	147	207	98	40	5	0	0	0	0	0	586
17:00	9	28	63	145	212	142	35	1	1	0	0	0	0	636
18:00	3	8	39	92	175	140	45	8	0	0	0	0	0	510
19:00	3	10	26	78	146	139	47	4	0	0	0	0	0	453
20:00	0	3	18	59	154	90	26	7	1	0	0	0	0	358
21:00	0	0	7	37	74	71	21	2	1	1	0	0	0	214
22:00	0	0	7	25	55	51	18	3	2	0	0	0	0	161
23:00	0	0	2	10	25	31	18	3	0	0	0	0	0	89
Total	174	375	942	2146	3102	2046	857	187	46	9	3	0	0	9887
Percent	1.8%	3.8%	9.5%	21.7%	31.4%	20.7%	8.7%	1.9%	0.5%	0.1%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 25 MPH
50th Percentile : 33 MPH
85th Percentile : 40 MPH
95th Percentile : 44 MPH

Mean Speed(Average) : 32 MPH

10 MPH Pace Speed : 26-35 MPH

Number in Pace : 5248

Percent in Pace : 53.1%

Number of Vehicles > 35 MPH : 3148

Percent of Vehicles > 35 MPH : 31.8%

Transportation Data Corporation

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Derby Street
east of Cushing Street
City, State: Hingham, MA
Client: C&C/J. Morgan

04263Hspeed
Site Code: 04263

Westbound

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	Total
6/16/12	1	0	3	7	8	15	13	3	0	0	0	0	0	50
01:00	0	0	1	1	6	9	6	1	1	0	0	0	0	25
02:00	0	0	0	0	4	4	1	1	1	0	0	0	0	11
03:00	0	0	0	0	2	6	4	2	0	0	0	0	0	14
04:00	0	0	0	2	1	10	8	1	0	0	0	0	0	22
05:00	0	0	0	2	14	37	36	18	3	0	0	0	0	110
06:00	0	0	0	11	39	49	55	14	5	0	1	0	0	174
07:00	0	1	3	11	61	95	70	17	7	0	0	0	0	265
08:00	0	1	13	65	169	122	40	6	0	0	0	0	0	416
09:00	2	6	30	86	193	142	52	7	2	0	0	0	0	520
10:00	11	17	62	116	228	145	36	5	0	1	0	0	0	621
11:00	22	37	59	117	206	150	40	4	1	0	0	0	0	636
12 PM	10	30	94	178	201	103	30	1	0	0	0	0	0	647
13:00	15	35	65	121	228	142	34	5	0	0	0	0	0	645
14:00	11	20	65	137	214	129	31	3	0	0	0	0	0	610
15:00	9	19	61	145	193	137	35	6	0	0	0	0	0	605
16:00	14	22	45	143	212	143	29	1	0	0	0	0	0	609
17:00	4	12	35	110	172	141	37	4	1	0	0	0	0	516
18:00	9	11	52	117	180	81	15	3	0	0	0	0	0	468
19:00	2	8	16	65	159	118	35	6	1	1	0	0	0	411
20:00	0	1	9	45	127	93	18	3	1	0	0	0	0	297
21:00	0	1	3	35	74	62	23	1	0	0	0	0	0	199
22:00	0	0	1	16	50	47	22	5	2	0	0	0	0	143
23:00	0	1	3	20	30	27	11	1	0	0	0	0	0	93
Total	110	222	620	1550	2771	2007	681	118	25	2	1	0	0	8107
Percent	1.4%	2.7%	7.6%	19.1%	34.2%	24.8%	8.4%	1.5%	0.3%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile : 26 MPH
50th Percentile : 33 MPH
85th Percentile : 40 MPH
95th Percentile : 44 MPH

Mean Speed(Average) : 33 MPH

10 MPH Pace Speed : 31-40 MPH

Number in Pace : 4778

Percent in Pace : 58.9%

Number of Vehicles > 35 MPH : 2834

Percent of Vehicles > 35 MPH : 35.0%

Grand
Total

532 1028 2652 5952 8967 5933 2299 474 106 15 5 0 0 27963

Overall

15th Percentile : 25 MPH
50th Percentile : 33 MPH
85th Percentile : 39 MPH
95th Percentile : 44 MPH

Mean Speed(Average) : 32 MPH

10 MPH Pace Speed : 26-35 MPH

Number in Pace : 14919

Percent in Pace : 53.4%

Number of Vehicles > 35 MPH : 8832

Percent of Vehicles > 35 MPH : 31.6%

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263A

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
07:00 AM	0	0	0	0	4	116	50	0	14	0	3	0	24	95	0	0	0	306	306
07:15 AM	0	0	0	0	3	137	57	0	7	0	2	0	20	117	2	0	0	345	345
07:30 AM	0	0	0	0	8	148	47	0	19	0	3	0	30	129	1	0	0	385	385
07:45 AM	0	0	2	1	7	136	62	0	9	0	1	0	35	167	4	0	1	423	424
Total	0	0	2	1	22	537	216	0	49	0	9	0	109	508	7	0	1	1459	1460
08:00 AM	0	0	3	0	14	148	64	0	20	1	6	0	42	146	1	0	0	445	445
08:15 AM	4	1	1	0	26	155	69	0	20	0	11	0	27	137	7	0	0	458	458
08:30 AM	2	0	8	0	17	147	73	0	32	0	8	0	33	133	4	0	0	457	457
08:45 AM	1	1	4	0	22	151	76	0	24	0	13	0	34	132	2	0	0	460	460
Total	7	2	16	0	79	601	282	0	96	1	38	0	136	548	14	0	0	1820	1820
Grand Total	7	2	18	1	101	1138	498	0	145	1	47	0	245	1056	21	0	1	3279	3280
Apprch %	25.9	7.4	66.7		5.8	65.5	28.7		75.1	0.5	24.4		18.5	79.9	1.6				
Total %	0.2	0.1	0.5		3.1	34.7	15.2		4.4	0	1.4		7.5	32.2	0.6		0	100	
Cars & Peds	7	2	18		100	1130	487		130	1	44		245	1034	21		0	0	3219
% Cars & Peds	100	100	100	0	99	99.3	97.8	0	89.7	100	93.6	0	100	97.9	100	0	0	0	98.1
Trucks	0	0	0		1	8	11		15	0	3		0	22	0		0	0	61
% Trucks	0	0	0	100	1	0.7	2.2	0	10.3	0	6.4	0	0	2.1	0	0	0	0	1.9

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	3	3	14	148	64	226	20	1	6	27	42	146	1	189	445
08:15 AM	4	1	1	6	26	155	69	250	20	0	11	31	27	137	7	171	458
08:30 AM	2	0	8	10	17	147	73	237	32	0	8	40	33	133	4	170	457
08:45 AM	1	1	4	6	22	151	76	249	24	0	13	37	34	132	2	168	460
Total Volume	7	2	16	25	79	601	282	962	96	1	38	135	136	548	14	698	1820
% App. Total	28	8	64		8.2	62.5	29.3		71.1	0.7	28.1		19.5	78.5	2		
PHF	.438	.500	.500	.625	.760	.969	.928	.962	.750	.250	.731	.844	.810	.938	.500	.923	.989
Cars & Peds	7	2	16	25	78	598	277	953	88	1	37	126	136	538	14	688	1792
% Cars & Peds	100	100	100	100	98.7	99.5	98.2	99.1	91.7	100	97.4	93.3	100	98.2	100	98.6	98.5
Trucks	0	0	0	0	1	3	5	9	8	0	1	9	0	10	0	10	28
% Trucks	0	0	0	0	1.3	0.5	1.8	0.9	8.3	0	2.6	6.7	0	1.8	0	1.4	1.5

Transportation Data Corporation

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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263A

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Office Park Driveway From North			Derby Street From East			Pond Park Road From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	0	2	0	2	0	4	0	10
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
07:30 AM	0	0	0	0	3	3	3	0	0	0	3	0	12
07:45 AM	0	0	0	0	0	3	2	0	0	0	3	0	8
Total	0	0	0	0	5	6	7	0	2	0	12	0	32
08:00 AM	0	0	0	0	0	2	1	0	0	0	3	0	6
08:15 AM	0	0	0	0	0	0	3	0	1	0	4	0	8
08:30 AM	0	0	0	0	2	3	1	0	0	0	1	0	7
08:45 AM	0	0	0	1	1	0	3	0	0	0	2	0	7
Total	0	0	0	1	3	5	8	0	1	0	10	0	28
Grand Total	0	0	0	1	8	11	15	0	3	0	22	0	60
Apprch %	0	0	0	5	40	55	83.3	0	16.7	0	100	0	
Total %	0	0	0	1.7	13.3	18.3	25	0	5	0	36.7	0	

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	3	3	6	3	0	0	3	0	3	0	3	12
07:45 AM	0	0	0	0	0	0	3	3	2	0	0	2	0	3	0	3	8
08:00 AM	0	0	0	0	0	0	2	2	1	0	0	1	0	3	0	3	6
08:15 AM	0	0	0	0	0	0	0	0	3	0	1	4	0	4	0	4	8
Total Volume	0	0	0	0	0	3	8	11	9	0	1	10	0	13	0	13	34
% App. Total	0	0	0		0	27.3	72.7		90	0	10		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.667	.458	.750	.000	.250	.625	.000	.813	.000	.813	.708

Transportation Data Corporation

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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

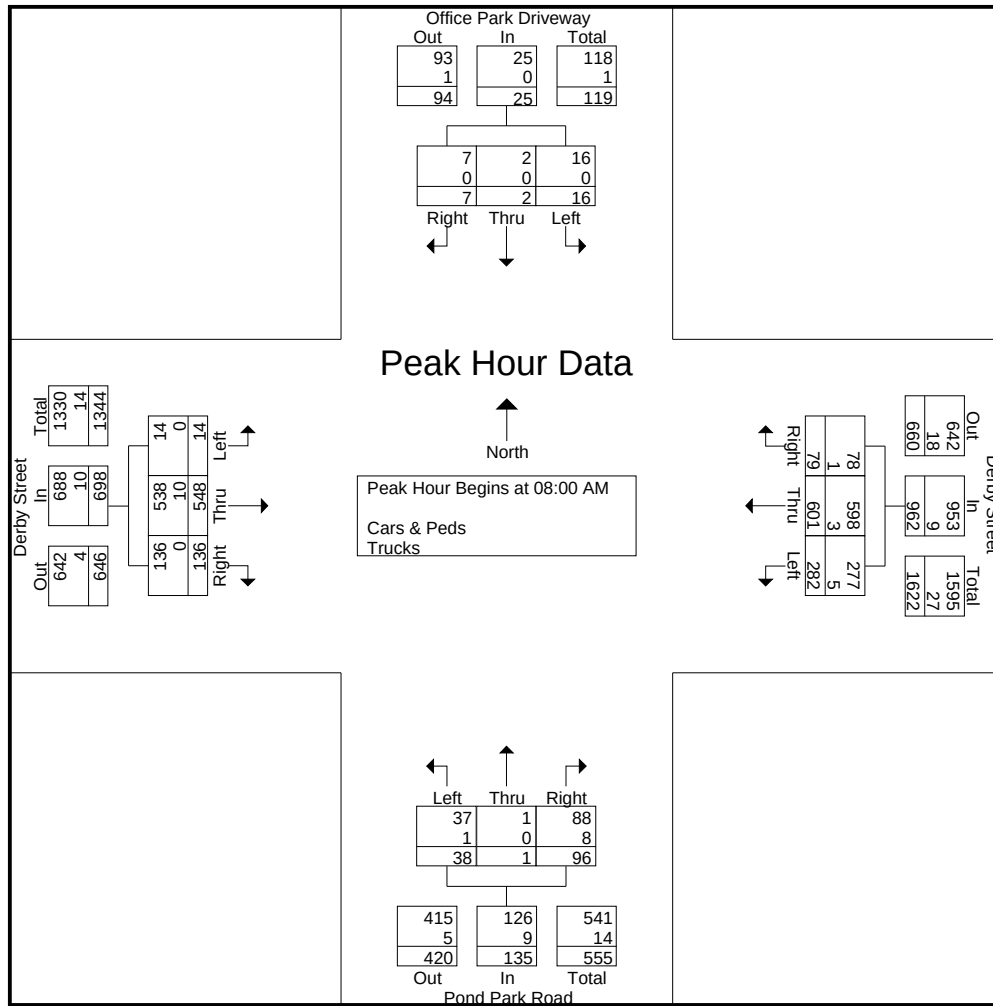
File Name : 04263A

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	3	3	14	148	64	226	20	1	6	27	42	146	1	189	445
08:15 AM	4	1	1	6	26	155	69	250	20	0	11	31	27	137	7	171	458
08:30 AM	2	0	8	10	17	147	73	237	32	0	8	40	33	133	4	170	457
08:45 AM	1	1	4	6	22	151	76	249	24	0	13	37	34	132	2	168	460
Total Volume	7	2	16	25	79	601	282	962	96	1	38	135	136	548	14	698	1820
% App. Total	28	8	64		8.2	62.5	29.3		71.1	0.7	28.1		19.5	78.5	2		
PHF	.438	.500	.500	.625	.760	.969	.928	.962	.750	.250	.731	.844	.810	.938	.500	.923	.989
Cars & Peds	7	2	16	25	78	598	277	953	88	1	37	126	136	538	14	688	1792
% Cars & Peds	100	100	100	100	98.7	99.5	98.2	99.1	91.7	100	97.4	93.3	100	98.2	100	98.6	98.5
Trucks	0	0	0	0	1	3	5	9	8	0	1	9	0	10	0	10	28
% Trucks	0	0	0	0	1.3	0.5	1.8	0.9	8.3	0	2.6	6.7	0	1.8	0	1.4	1.5



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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263AA

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
04:00 PM	5	0	10	0	9	154	27	0	100	2	47	0	10	215	5	0	0	584	584
04:15 PM	9	0	15	0	7	148	25	0	52	0	19	0	5	239	0	0	0	519	519
04:30 PM	1	0	12	0	7	167	13	0	61	0	27	0	5	224	3	0	0	520	520
04:45 PM	7	1	15	0	4	165	18	0	64	0	22	0	6	223	1	0	0	526	526
Total	22	1	52	0	27	634	83	0	277	2	115	0	26	901	9	0	0	2149	2149
05:00 PM	9	0	27	0	4	184	17	0	101	0	67	0	7	266	2	0	0	684	684
05:15 PM	2	0	7	0	2	147	14	0	68	0	32	0	6	219	2	0	0	499	499
05:30 PM	2	0	11	0	2	164	6	0	42	0	15	0	3	225	1	0	0	471	471
05:45 PM	2	0	12	0	10	146	13	0	23	0	13	1	4	223	1	0	1	447	448
Total	15	0	57	0	18	641	50	0	234	0	127	1	20	933	6	0	1	2101	2102
Grand Total	37	1	109	0	45	1275	133	0	511	2	242	1	46	1834	15	0	1	4250	4251
Apprch %	25.2	0.7	74.1		3.1	87.7	9.2		67.7	0.3	32.1		2.4	96.8	0.8				
Total %	0.9	0	2.6		1.1	30	3.1		12	0	5.7		1.1	43.2	0.4		0	100	
Cars & Peds	37	1	109		45	1266	110		506	2	242		44	1829	15		0	0	4206
% Cars & Peds	100	100	100	0	100	99.3	82.7	0	99	100	100	0	95.7	99.7	100	0	0	0	98.9
Trucks	0	0	0		0	9	23		5	0	0		2	5	0		0	0	45
% Trucks	0	0	0	0	0	0.7	17.3	0	1	0	0	100	4.3	0.3	0	0	0	0	1.1

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	0	15	24	7	148	25	180	52	0	19	71	5	239	0	244	519
04:30 PM	1	0	12	13	7	167	13	187	61	0	27	88	5	224	3	232	520
04:45 PM	7	1	15	23	4	165	18	187	64	0	22	86	6	223	1	230	526
05:00 PM	9	0	27	36	4	184	17	205	101	0	67	168	7	266	2	275	684
Total Volume	26	1	69	96	22	664	73	759	278	0	135	413	23	952	6	981	2249
% App. Total	27.1	1	71.9		2.9	87.5	9.6		67.3	0	32.7		2.3	97	0.6		
PHF	.722	.250	.639	.667	.786	.902	.730	.926	.688	.000	.504	.615	.821	.895	.500	.892	.822
Cars & Peds	26	1	69	96	22	659	58	739	275	0	135	410	23	949	6	978	2223
% Cars & Peds	100	100	100	100	100	99.2	79.5	97.4	98.9	0	100	99.3	100	99.7	100	99.7	98.8
Trucks	0	0	0	0	0	5	15	20	3	0	0	3	0	3	0	3	26
% Trucks	0	0	0	0	0	0.8	20.5	2.6	1.1	0	0	0.7	0	0.3	0	0.3	1.2

Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263AA

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Office Park Driveway From North			Derby Street From East			Pond Park Road From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	2	5	2	0	0	0	1	0	10
04:15 PM	0	0	0	0	1	7	0	0	0	0	1	0	9
04:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
04:45 PM	0	0	0	0	2	4	1	0	0	0	2	0	9
Total	0	0	0	0	5	16	4	0	0	0	4	0	29
05:00 PM	0	0	0	0	2	4	1	0	0	0	0	0	7
05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:45 PM	0	0	0	0	1	2	0	0	0	2	0	0	5
Total	0	0	0	0	4	7	1	0	0	2	1	0	15
Grand Total	0	0	0	0	9	23	5	0	0	2	5	0	44
Apprch %	0	0	0	0	28.1	71.9	100	0	0	28.6	71.4	0	
Total %	0	0	0	0	20.5	52.3	11.4	0	0	4.5	11.4	0	

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	5	7	2	0	0	2	0	1	0	1	10
04:15 PM	0	0	0	0	0	1	7	8	0	0	0	0	0	1	0	1	9
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	2	4	6	1	0	0	1	0	2	0	2	9
Total Volume	0	0	0	0	0	5	16	21	4	0	0	4	0	4	0	4	29
% App. Total	0	0	0		0	23.8	76.2		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.625	.571	.656	.500	.000	.000	.500	.000	.500	.000	.500	.725

Transportation Data Corporation

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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

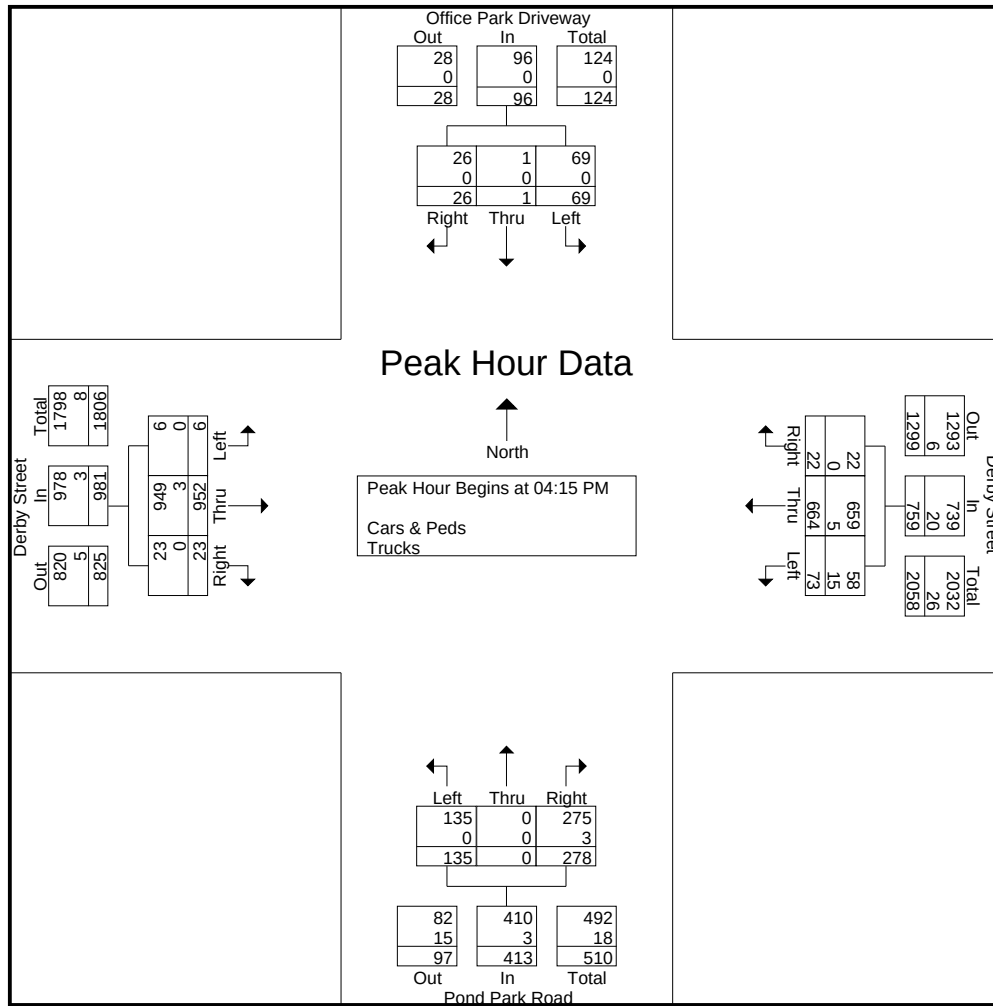
File Name : 04263AA

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	9	0	15	24	7	148	25	180	52	0	19	71	5	239	0	244	519
04:30 PM	1	0	12	13	7	167	13	187	61	0	27	88	5	224	3	232	520
04:45 PM	7	1	15	23	4	165	18	187	64	0	22	86	6	223	1	230	526
05:00 PM	9	0	27	36	4	184	17	205	101	0	67	168	7	266	2	275	684
Total Volume	26	1	69	96	22	664	73	759	278	0	135	413	23	952	6	981	2249
% App. Total	27.1	1	71.9		2.9	87.5	9.6		67.3	0	32.7		2.3	97	0.6		
PHF	.722	.250	.639	.667	.786	.902	.730	.926	.688	.000	.504	.615	.821	.895	.500	.892	.822
Cars & Peds	26	1	69	96	22	659	58	739	275	0	135	410	23	949	6	978	2223
% Cars & Peds	100	100	100	100	100	99.2	79.5	97.4	98.9	0	100	99.3	100	99.7	100	99.7	98.8
Trucks	0	0	0	0	0	5	15	20	3	0	0	3	0	3	0	3	26
% Trucks	0	0	0	0	0	0.8	20.5	2.6	1.1	0	0	0.7	0	0.3	0	0.3	1.2



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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263AAA

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
11:00 AM	0	0	3	0	3	127	2	0	41	0	10	0	1	163	1	0	0	351	351
11:15 AM	1	0	7	0	9	119	6	0	4	0	2	0	0	168	2	0	0	318	318
11:30 AM	1	1	1	0	2	112	4	0	6	0	1	1	3	214	0	0	1	345	346
11:45 AM	0	0	2	0	2	128	10	0	10	0	2	0	1	192	0	0	0	347	347
Total	2	1	13	0	16	486	22	0	61	0	15	1	5	737	3	0	1	1361	1362
12:00 PM	1	0	1	0	1	122	4	0	11	0	3	0	1	197	3	0	0	344	344
12:15 PM	1	0	3	3	3	119	4	0	8	0	1	0	0	160	0	0	3	299	302
12:30 PM	1	0	4	0	3	121	6	0	8	0	0	0	2	203	1	0	0	349	349
12:45 PM	1	0	2	0	2	118	3	0	4	0	0	0	0	207	0	0	0	337	337
Total	4	0	10	3	9	480	17	0	31	0	4	0	3	767	4	0	3	1329	1332
Grand Total	6	1	23	3	25	966	39	0	92	0	19	1	8	1504	7	0	4	2690	2694
Apprch %	20	3.3	76.7		2.4	93.8	3.8		82.9	0	17.1		0.5	99	0.5				
Total %	0.2	0	0.9		0.9	35.9	1.4		3.4	0	0.7		0.3	55.9	0.3		0.1	99.9	
Cars & Peds	6	1	23		25	964	39		91	0	18		8	1500	7		0	0	2683
% Cars & Peds	100	100	100	33.3	100	99.8	100	0	98.9	0	94.7	0	100	99.7	100	0	0	0	99.6
Trucks	0	0	0		0	2	0		1	0	1		0	4	0		0	0	11
% Trucks	0	0	0	66.7	0	0.2	0	0	1.1	0	5.3	100	0	0.3	0	0	0	0	0.4

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	3	3	3	127	2	132	41	0	10	51	1	163	1	165	351
11:15 AM	1	0	7	8	9	119	6	134	4	0	2	6	0	168	2	170	318
11:30 AM	1	1	1	3	2	112	4	118	6	0	1	7	3	214	0	217	345
11:45 AM	0	0	2	2	2	128	10	140	10	0	2	12	1	192	0	193	347
Total Volume	2	1	13	16	16	486	22	524	61	0	15	76	5	737	3	745	1361
% App. Total	12.5	6.2	81.2		3.1	92.7	4.2		80.3	0	19.7		0.7	98.9	0.4		
PHF	.500	.250	.464	.500	.444	.949	.550	.936	.372	.000	.375	.373	.417	.861	.375	.858	.969
Cars & Peds	2	1	13	16	16	485	22	523	61	0	14	75	5	736	3	744	1358
% Cars & Peds	100	100	100	100	100	99.8	100	99.8	100	0	93.3	98.7	100	99.9	100	99.9	99.8
Trucks	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
% Trucks	0	0	0	0	0	0.2	0	0.2	0	0	6.7	1.3	0	0.1	0	0.1	0.2

Transportation Data Corporation

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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263AAA

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Office Park Driveway From North			Derby Street From East			Pond Park Road From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	1	0	1	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	0	0	0	1	0	1	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	1	0	1	0	0	0	2	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	3	0	5
Grand Total	0	0	0	0	2	0	1	0	1	0	4	0	8
Apprch %	0	0	0	0	100	0	50	0	50	0	100	0	
Total %	0	0	0	0	25	0	12.5	0	12.5	0	50	0	

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	4
Total Volume	0	0	0	0	0	2	0	2	1	0	0	1	0	3	0	3	6
% App. Total	0	0	0		0	100	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.000	.250	.000	.375	.000	.375	.375

Transportation Data Corporation

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N/S: Office Park Dr./Pond Park Rd.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

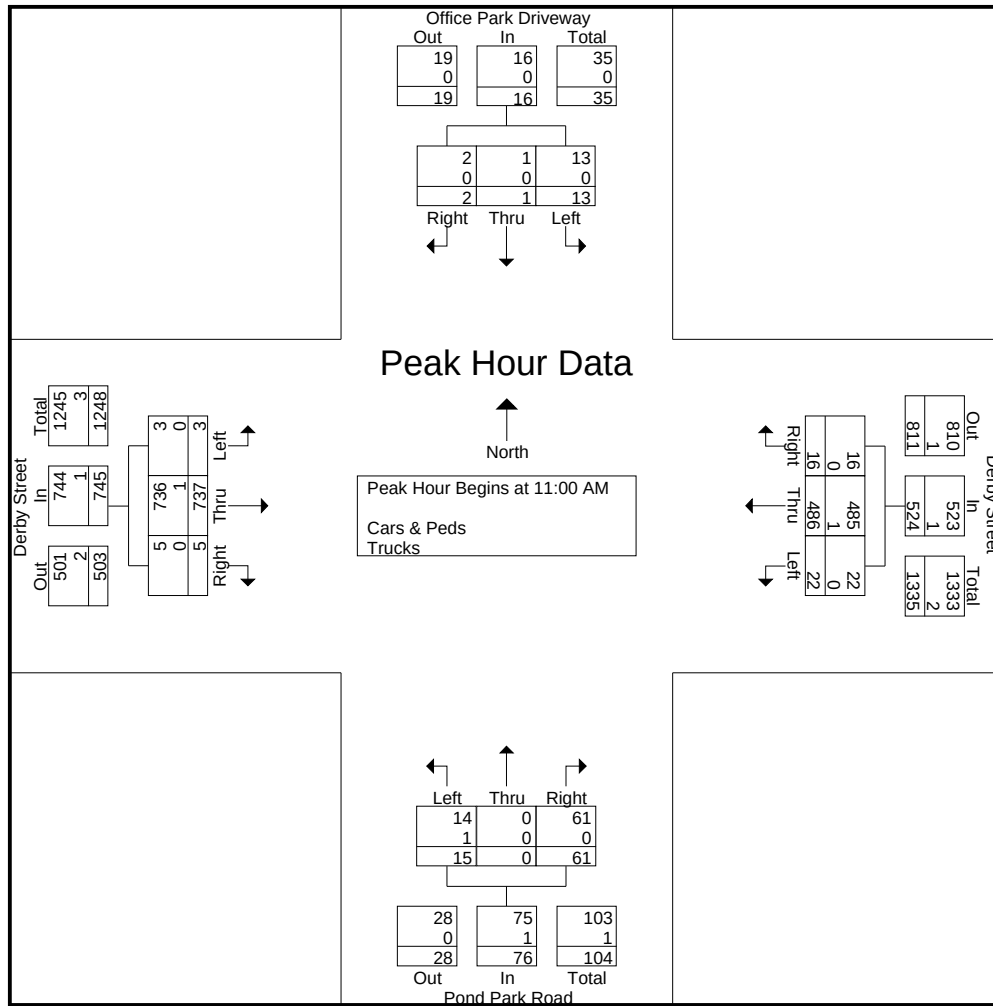
File Name : 04263AAA

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

	Office Park Driveway From North				Derby Street From East				Pond Park Road From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	3	3	3	127	2	132	41	0	10	51	1	163	1	165	351
11:15 AM	1	0	7	8	9	119	6	134	4	0	2	6	0	168	2	170	318
11:30 AM	1	1	1	3	2	112	4	118	6	0	1	7	3	214	0	217	345
11:45 AM	0	0	2	2	2	128	10	140	10	0	2	12	1	192	0	193	347
Total Volume	2	1	13	16	16	486	22	524	61	0	15	76	5	737	3	745	1361
% App. Total	12.5	6.2	81.2		3.1	92.7	4.2		80.3	0	19.7		0.7	98.9	0.4		
PHF	.500	.250	.464	.500	.444	.949	.550	.936	.372	.000	.375	.373	.417	.861	.375	.858	.969
Cars & Peds	2	1	13	16	16	485	22	523	61	0	14	75	5	736	3	744	1358
% Cars & Peds	100	100	100	100	100	99.8	100	99.8	100	0	93.3	98.7	100	99.9	100	99.9	99.8
Trucks	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
% Trucks	0	0	0	0	0	0.2	0	0.2	0	0	6.7	1.3	0	0.1	0	0.1	0.2



Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263B

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
07:00 AM	138	9	0	75	28	0	49	57	0	0	356	356
07:15 AM	174	22	0	94	26	0	59	66	0	0	441	441
07:30 AM	177	18	0	84	21	0	67	79	0	0	446	446
07:45 AM	188	22	0	101	19	0	74	99	0	0	503	503
Total	677	71	0	354	94	0	249	301	0	0	1746	1746
08:00 AM	202	14	0	105	29	0	74	95	0	0	519	519
08:15 AM	219	27	0	107	36	0	68	96	0	0	553	553
08:30 AM	200	19	0	78	34	0	71	108	0	0	510	510
08:45 AM	219	32	0	94	30	0	66	101	0	0	542	542
Total	840	92	0	384	129	0	279	400	0	0	2124	2124
Grand Total	1517	163	0	738	223	0	528	701	0	0	3870	3870
Apprch %	90.3	9.7		76.8	23.2		43	57				
Total %	39.2	4.2		19.1	5.8		13.6	18.1		0	100	
Cars & Peds	1504	160		712	216		512	680		0	0	3784
% Cars & Peds	99.1	98.2	0	96.5	96.9	0	97	97	0	0	0	97.8
Trucks	13	3		26	7		16	21		0	0	86
% Trucks	0.9	1.8	0	3.5	3.1	0	3	3	0	0	0	2.2

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	202	14	216	105	29	134	74	95	169	519
08:15 AM	219	27	246	107	36	143	68	96	164	553
08:30 AM	200	19	219	78	34	112	71	108	179	510
08:45 AM	219	32	251	94	30	124	66	101	167	542
Total Volume	840	92	932	384	129	513	279	400	679	2124
% App. Total	90.1	9.9		74.9	25.1		41.1	58.9		
PHF	.959	.719	.928	.897	.896	.897	.943	.926	.948	.960
Cars & Peds	835	90	925	373	125	498	272	390	662	2085
% Cars & Peds	99.4	97.8	99.2	97.1	96.9	97.1	97.5	97.5	97.5	98.2
Trucks	5	2	7	11	4	15	7	10	17	39
% Trucks	0.6	2.2	0.8	2.9	3.1	2.9	2.5	2.5	2.5	1.8

Transportation Data Corporation

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S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263B

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Route 3 Southbound Ramps From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	2	0	4	0	4	3	13
07:15 AM	1	0	4	0	1	1	7
07:30 AM	3	0	5	2	2	4	16
07:45 AM	2	1	2	1	2	3	11
Total	8	1	15	3	9	11	47
08:00 AM	1	1	4	1	2	2	11
08:15 AM	0	1	2	0	5	2	10
08:30 AM	2	0	2	3	0	1	8
08:45 AM	2	0	3	0	0	5	10
Total	5	2	11	4	7	10	39
Grand Total	13	3	26	7	16	21	86
Apprch %	81.2	18.8	78.8	21.2	43.2	56.8	
Total %	15.1	3.5	30.2	8.1	18.6	24.4	

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	3	0	3	5	2	7	2	4	6	16
07:45 AM	2	1	3	2	1	3	2	3	5	11
08:00 AM	1	1	2	4	1	5	2	2	4	11
08:15 AM	0	1	1	2	0	2	5	2	7	10
Total Volume	6	3	9	13	4	17	11	11	22	48
% App. Total	66.7	33.3		76.5	23.5		50	50		
PHF	.500	.750	.750	.650	.500	.607	.550	.688	.786	.750

Transportation Data Corporation

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S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

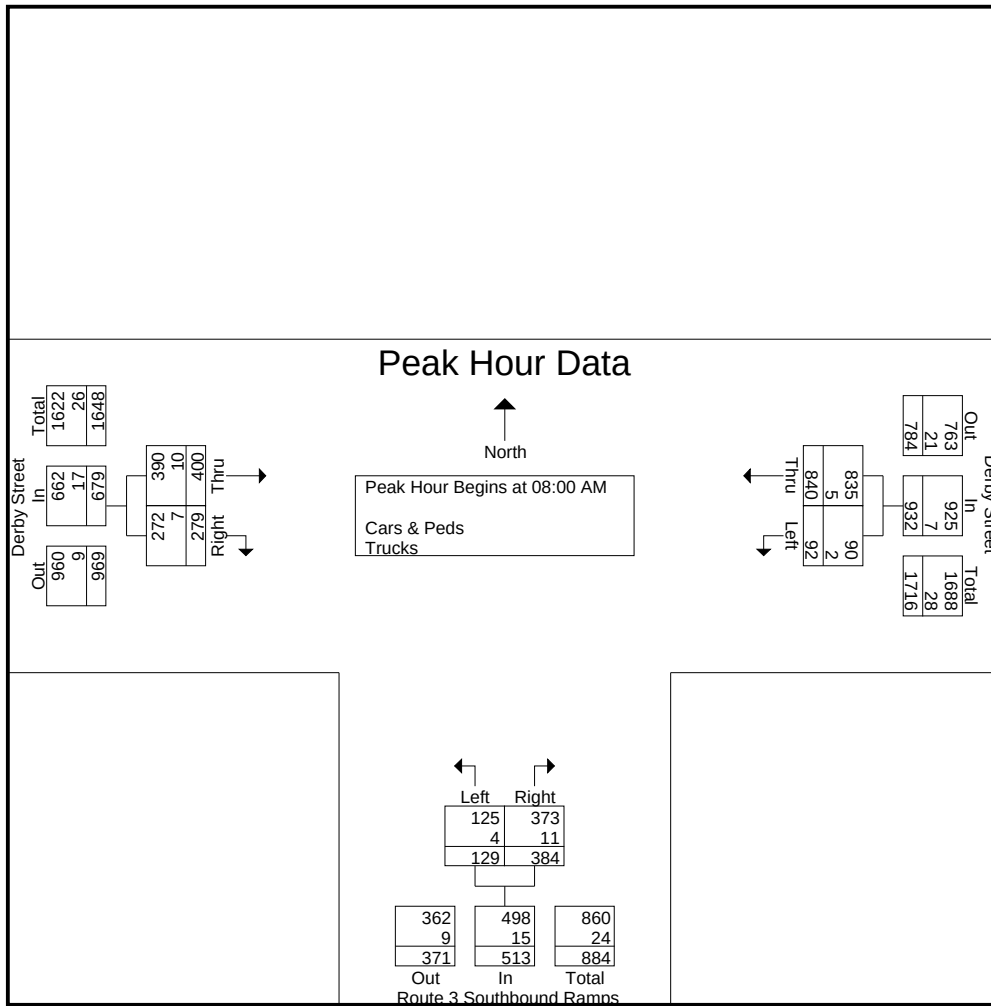
File Name : 04263B

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	202	14	216	105	29	134	74	95	169	519
08:15 AM	219	27	246	107	36	143	68	96	164	553
08:30 AM	200	19	219	78	34	112	71	108	179	510
08:45 AM	219	32	251	94	30	124	66	101	167	542
Total Volume	840	92	932	384	129	513	279	400	679	2124
% App. Total	90.1	9.9		74.9	25.1		41.1	58.9		
PHF	.959	.719	.928	.897	.896	.897	.943	.926	.948	.960
Cars & Peds	835	90	925	373	125	498	272	390	662	2085
% Cars & Peds	99.4	97.8	99.2	97.1	96.9	97.1	97.5	97.5	97.5	98.2
Trucks	5	2	7	11	4	15	7	10	17	39
% Trucks	0.6	2.2	0.8	2.9	3.1	2.9	2.5	2.5	2.5	1.8



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t (781) 587-0086 f (781) 587-0189

S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263BB

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
04:00 PM	165	60	0	130	21	0	141	190	0	0	707	707
04:15 PM	159	74	0	141	23	0	131	171	0	0	699	699
04:30 PM	170	78	0	137	21	0	109	194	0	0	709	709
04:45 PM	171	52	0	154	14	0	111	198	0	0	700	700
Total	665	264	0	562	79	0	492	753	0	0	2815	2815
05:00 PM	187	70	0	166	23	0	153	232	0	0	831	831
05:15 PM	144	96	0	142	19	0	119	174	0	0	694	694
05:30 PM	161	71	0	178	17	0	102	168	0	0	697	697
05:45 PM	150	44	0	166	18	0	95	169	0	0	642	642
Total	642	281	0	652	77	0	469	743	0	0	2864	2864
Grand Total	1307	545	0	1214	156	0	961	1496	0	0	5679	5679
Apprch %	70.6	29.4		88.6	11.4		39.1	60.9				
Total %	23	9.6		21.4	2.7		16.9	26.3		0	100	
Cars & Peds	1291	544		1213	140		957	1490		0	0	5635
% Cars & Peds	98.8	99.8	0	99.9	89.7	0	99.6	99.6	0	0	0	99.2
Trucks	16	1		1	16		4	6		0	0	44
% Trucks	1.2	0.2	0	0.1	10.3	0	0.4	0.4	0	0	0	0.8

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	159	74	233	141	23	164	131	171	302	699
04:30 PM	170	78	248	137	21	158	109	194	303	709
04:45 PM	171	52	223	154	14	168	111	198	309	700
05:00 PM	187	70	257	166	23	189	153	232	385	831
Total Volume	687	274	961	598	81	679	504	795	1299	2939
% App. Total	71.5	28.5		88.1	11.9		38.8	61.2		
PHF	.918	.878	.935	.901	.880	.898	.824	.857	.844	.884
Cars & Peds	679	273	952	598	69	667	502	791	1293	2912
% Cars & Peds	98.8	99.6	99.1	100	85.2	98.2	99.6	99.5	99.5	99.1
Trucks	8	1	9	0	12	12	2	4	6	27
% Trucks	1.2	0.4	0.9	0	14.8	1.8	0.4	0.5	0.5	0.9

Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263BB

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Route 3 Southbound Ramps From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	6	0	1	1	2	1	11
04:15 PM	3	0	0	4	0	1	8
04:30 PM	0	0	0	0	0	1	1
04:45 PM	4	0	0	3	1	2	10
Total	13	0	1	8	3	5	30
05:00 PM	1	1	0	5	1	0	8
05:15 PM	0	0	0	1	0	0	1
05:30 PM	1	0	0	0	0	1	2
05:45 PM	1	0	0	2	0	0	3
Total	3	1	0	8	1	1	14
Grand Total	16	1	1	16	4	6	44
Apprch %	94.1	5.9	5.9	94.1	40	60	
Total %	36.4	2.3	2.3	36.4	9.1	13.6	

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	6	0	6	1	1	2	2	1	3	11
04:15 PM	3	0	3	0	4	4	0	1	1	8
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	4	0	4	0	3	3	1	2	3	10
Total Volume	13	0	13	1	8	9	3	5	8	30
% App. Total	100	0		11.1	88.9		37.5	62.5		
PHF	.542	.000	.542	.250	.500	.563	.375	.625	.667	.682

Transportation Data Corporation

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S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

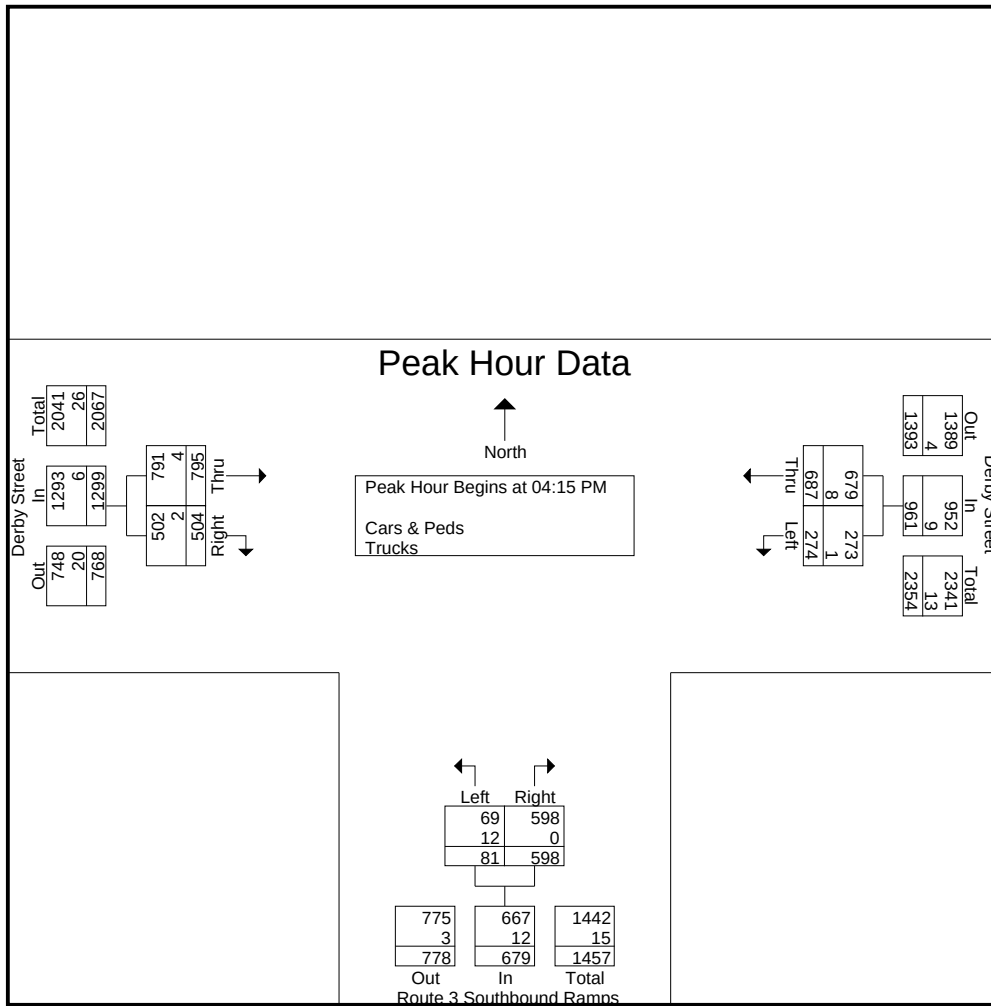
File Name : 04263BB

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	159	74	233	141	23	164	131	171	302	699
04:30 PM	170	78	248	137	21	158	109	194	303	709
04:45 PM	171	52	223	154	14	168	111	198	309	700
05:00 PM	187	70	257	166	23	189	153	232	385	831
Total Volume	687	274	961	598	81	679	504	795	1299	2939
% App. Total	71.5	28.5		88.1	11.9		38.8	61.2		
PHF	.918	.878	.935	.901	.880	.898	.824	.857	.844	.884
Cars & Peds	679	273	952	598	69	667	502	791	1293	2912
% Cars & Peds	98.8	99.6	99.1	100	85.2	98.2	99.6	99.5	99.5	99.1
Trucks	8	1	9	0	12	12	2	4	6	27
% Trucks	1.2	0.4	0.9	0	14.8	1.8	0.4	0.5	0.5	0.9



Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263BBB

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
11:00 AM	125	63	0	143	10	0	66	144	0	0	551	551
11:15 AM	115	47	0	159	19	0	68	110	0	0	518	518
11:30 AM	109	53	0	139	9	1	83	138	0	1	531	532
11:45 AM	123	63	0	150	14	0	69	136	0	0	555	555
Total	472	226	0	591	52	1	286	528	0	1	2155	2156
12:00 PM	119	71	0	158	11	0	78	132	0	0	569	569
12:15 PM	121	63	0	145	6	0	51	121	0	0	507	507
12:30 PM	124	57	0	144	6	0	74	143	0	0	548	548
12:45 PM	115	73	0	137	7	0	71	141	0	0	544	544
Total	479	264	0	584	30	0	274	537	0	0	2168	2168
Grand Total	951	490	0	1175	82	1	560	1065	0	1	4323	4324
Apprch %	66	34		93.5	6.5		34.5	65.5				
Total %	22	11.3		27.2	1.9		13	24.6		0	100	
Cars & Peds	949	489		1171	82		558	1062		0	0	4312
% Cars & Peds	99.8	99.8	0	99.7	100	100	99.6	99.7	0	0	0	99.7
Trucks	2	1		4	0		2	3		0	0	12
% Trucks	0.2	0.2	0	0.3	0	0	0.4	0.3	0	0	0	0.3

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	123	63	186	150	14	164	69	136	205	555
12:00 PM	119	71	190	158	11	169	78	132	210	569
12:15 PM	121	63	184	145	6	151	51	121	172	507
12:30 PM	124	57	181	144	6	150	74	143	217	548
Total Volume	487	254	741	597	37	634	272	532	804	2179
% App. Total	65.7	34.3		94.2	5.8		33.8	66.2		
PHF	.982	.894	.975	.945	.661	.938	.872	.930	.926	.957
Cars & Peds	485	254	739	596	37	633	270	530	800	2172
% Cars & Peds	99.6	100	99.7	99.8	100	99.8	99.3	99.6	99.5	99.7
Trucks	2	0	2	1	0	1	2	2	4	7
% Trucks	0.4	0	0.3	0.2	0	0.2	0.7	0.4	0.5	0.3

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263BBB

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Route 3 Southbound Ramps From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
11:00 AM	0	1	1	0	0	0	2
11:15 AM	0	0	1	0	0	1	2
11:30 AM	0	0	1	0	0	0	1
11:45 AM	1	0	0	0	0	0	1
Total	1	1	3	0	0	1	6
12:00 PM	0	0	0	0	0	1	1
12:15 PM	0	0	1	0	0	0	1
12:30 PM	1	0	0	0	2	1	4
12:45 PM	0	0	0	0	0	0	0
Total	1	0	1	0	2	2	6
Grand Total	2	1	4	0	2	3	12
Apprch %	66.7	33.3	100	0	40	60	
Total %	16.7	8.3	33.3	0	16.7	25	

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	1	0	1	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	1	1	1
12:15 PM	0	0	0	1	0	1	0	0	0	1
12:30 PM	1	0	1	0	0	0	2	1	3	4
Total Volume	2	0	2	1	0	1	2	2	4	7
% App. Total	100	0		100	0		50	50		
PHF	.500	.000	.500	.250	.000	.250	.250	.500	.333	.438

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S: Route 3 Southbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

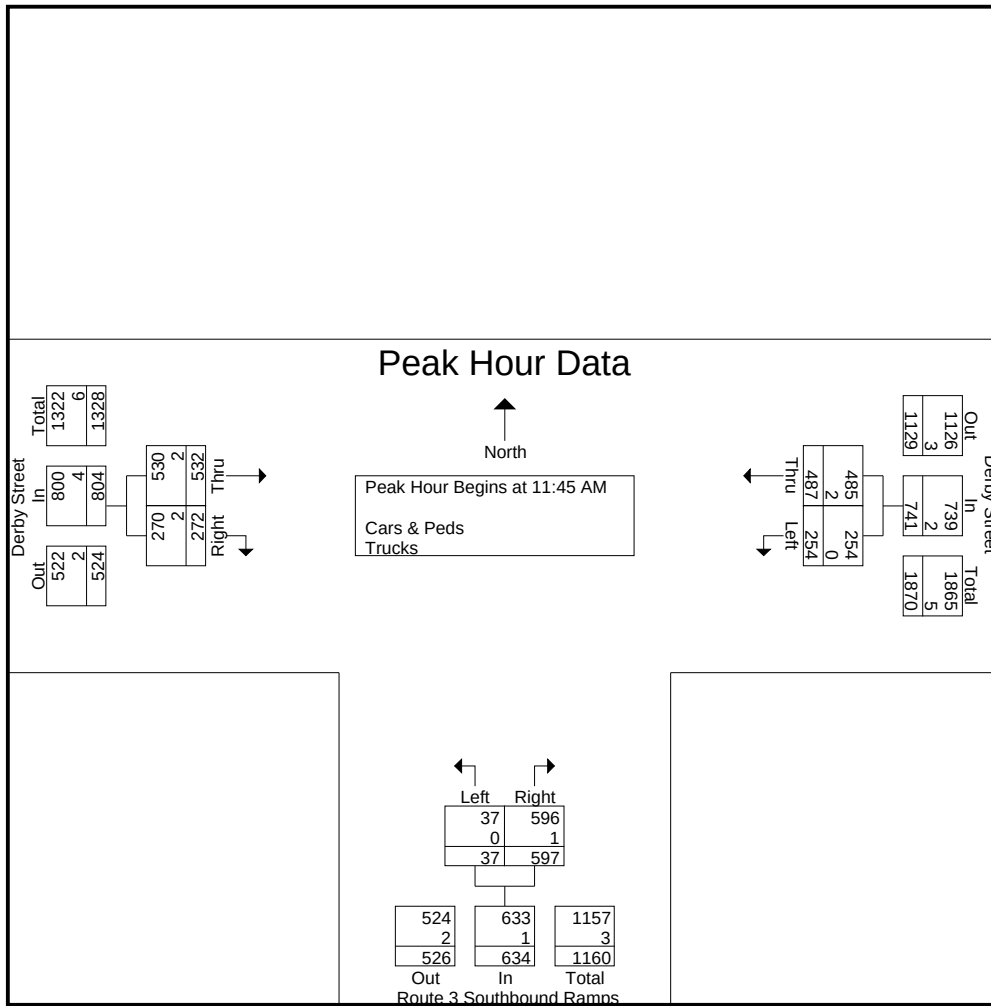
File Name : 04263BBB

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

	Derby Street From East			Route 3 Southbound Ramps From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	123	63	186	150	14	164	69	136	205	555
12:00 PM	119	71	190	158	11	169	78	132	210	569
12:15 PM	121	63	184	145	6	151	51	121	172	507
12:30 PM	124	57	181	144	6	150	74	143	217	548
Total Volume	487	254	741	597	37	634	272	532	804	2179
% App. Total	65.7	34.3		94.2	5.8		33.8	66.2		
PHF	.982	.894	.975	.945	.661	.938	.872	.930	.926	.957
Cars & Peds	485	254	739	596	37	633	270	530	800	2172
% Cars & Peds	99.6	100	99.7	99.8	100	99.8	99.3	99.6	99.5	99.7
Trucks	2	0	2	1	0	1	2	2	4	7
% Trucks	0.4	0	0.3	0.2	0	0.2	0.7	0.4	0.5	0.3



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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263C

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds			
07:00 AM	67	22	0	140	78	0	118	12	0	0	437	437
07:15 AM	80	11	0	152	116	0	147	12	0	0	518	518
07:30 AM	82	15	0	146	104	0	153	12	0	0	512	512
07:45 AM	89	25	0	104	120	0	168	17	0	0	523	523
Total	318	73	0	542	418	0	586	53	0	0	1990	1990
08:00 AM	88	17	0	117	130	0	202	13	0	0	567	567
08:15 AM	79	21	0	104	159	0	183	15	0	0	561	561
08:30 AM	96	17	0	124	135	1	177	14	0	1	563	564
08:45 AM	93	28	0	139	160	0	188	15	0	0	623	623
Total	356	83	0	484	584	1	750	57	0	1	2314	2315
Grand Total	674	156	0	1026	1002	1	1336	110	0	1	4304	4305
Apprch %	81.2	18.8		50.6	49.4		92.4	7.6				
Total %	15.7	3.6		23.8	23.3		31	2.6		0	100	
Cars & Peds	665	155		1012	995		1299	99		0	0	4226
% Cars & Peds	98.7	99.4	0	98.6	99.3	100	97.2	90	0	0	0	98.2
Trucks	9	1		14	7		37	11		0	0	79
% Trucks	1.3	0.6	0	1.4	0.7	0	2.8	10	0	0	0	1.8

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	88	17	105	117	130	247	202	13	215	567
08:15 AM	79	21	100	104	159	263	183	15	198	561
08:30 AM	96	17	113	124	135	259	177	14	191	563
08:45 AM	93	28	121	139	160	299	188	15	203	623
Total Volume	356	83	439	484	584	1068	750	57	807	2314
% App. Total	81.1	18.9		45.3	54.7		92.9	7.1		
PHF	.927	.741	.907	.871	.913	.893	.928	.950	.938	.929
Cars & Peds	352	83	435	474	581	1055	735	51	786	2276
% Cars & Peds	98.9	100	99.1	97.9	99.5	98.8	98.0	89.5	97.4	98.4
Trucks	4	0	4	10	3	13	15	6	21	38
% Trucks	1.1	0	0.9	2.1	0.5	1.2	2.0	10.5	2.6	1.6

Transportation Data Corporation

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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263C

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Route 3 Northbound Ramps From North		Derby Street From East		Derby Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
07:00 AM	1	0	1	1	5	2	10
07:15 AM	1	1	2	0	6	0	10
07:30 AM	2	0	0	1	7	2	12
07:45 AM	1	0	1	2	4	1	9
Total	5	1	4	4	22	5	41
08:00 AM	1	0	3	1	4	2	11
08:15 AM	0	0	3	1	4	0	8
08:30 AM	2	0	1	0	2	1	6
08:45 AM	1	0	3	1	5	3	13
Total	4	0	10	3	15	6	38
Grand Total	9	1	14	7	37	11	79
Apprch %	90	10	66.7	33.3	77.1	22.9	
Total %	11.4	1.3	17.7	8.9	46.8	13.9	

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	1	1	2	2	0	2	6	0	6	10
07:30 AM	2	0	2	0	1	1	7	2	9	12
07:45 AM	1	0	1	1	2	3	4	1	5	9
08:00 AM	1	0	1	3	1	4	4	2	6	11
Total Volume	5	1	6	6	4	10	21	5	26	42
% App. Total	83.3	16.7		60	40		80.8	19.2		
PHF	.625	.250	.750	.500	.500	.625	.750	.625	.722	.875

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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

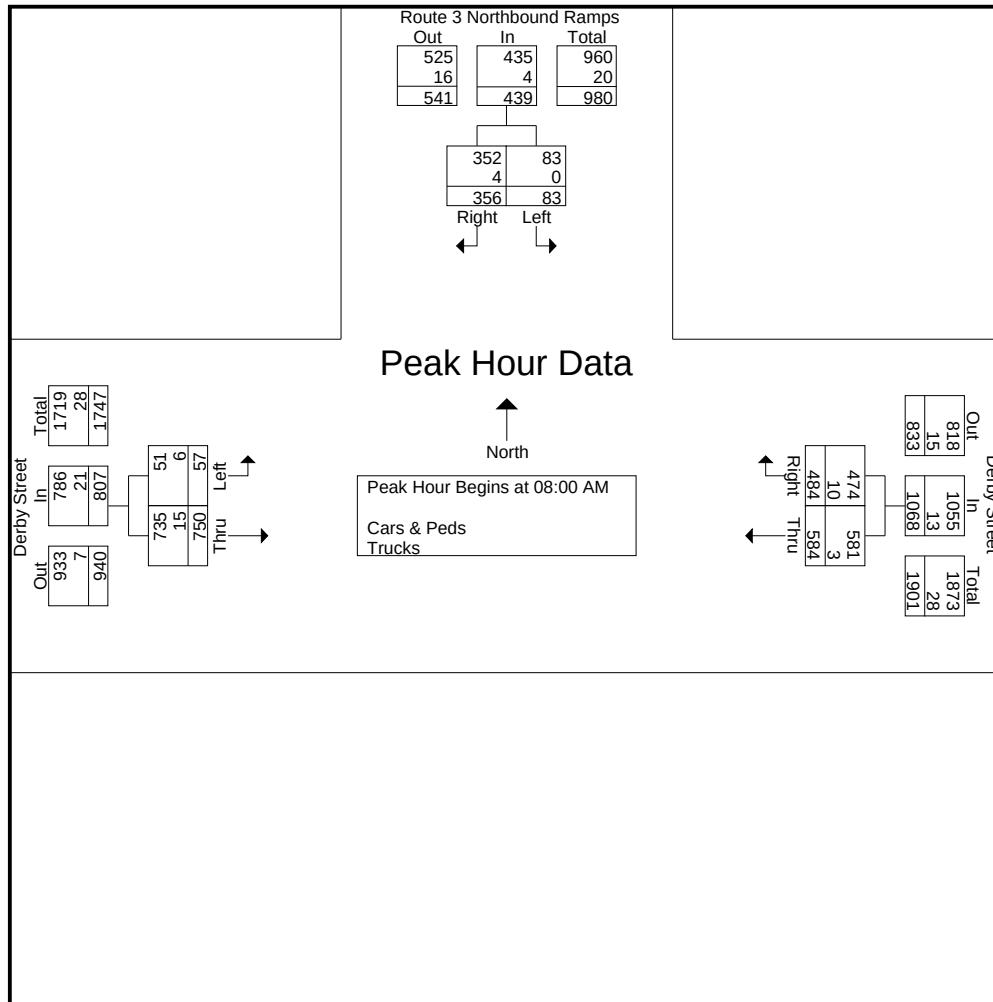
File Name : 04263C

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	88	17	105	117	130	247	202	13	215	567
08:15 AM	79	21	100	104	159	263	183	15	198	561
08:30 AM	96	17	113	124	135	259	177	14	191	563
08:45 AM	93	28	121	139	160	299	188	15	203	623
Total Volume	356	83	439	484	584	1068	750	57	807	2314
% App. Total	81.1	18.9		45.3	54.7		92.9	7.1		
PHF	.927	.741	.907	.871	.913	.893	.928	.950	.938	.929
Cars & Peds	352	83	435	474	581	1055	735	51	786	2276
% Cars & Peds	98.9	100	99.1	97.9	99.5	98.8	98.0	89.5	97.4	98.4
Trucks	4	0	4	10	3	13	15	6	21	38
% Trucks	1.1	0	0.9	2.1	0.5	1.2	2.0	10.5	2.6	1.6



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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263CC

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds			
04:00 PM	65	21	0	145	157	0	281	42	0	0	711	711
04:15 PM	60	17	0	147	172	0	281	33	0	0	710	710
04:30 PM	58	26	0	134	186	0	289	39	0	0	732	732
04:45 PM	55	19	0	129	164	0	314	35	0	0	716	716
Total	238	83	0	555	679	0	1165	149	0	0	2869	2869
05:00 PM	49	22	0	151	206	0	329	65	0	0	822	822
05:15 PM	36	27	0	140	202	0	271	31	0	0	707	707
05:30 PM	51	16	0	123	186	0	323	28	0	0	727	727
05:45 PM	49	34	0	117	145	0	317	22	0	0	684	684
Total	185	99	0	531	739	0	1240	146	0	0	2940	2940
Grand Total	423	182	0	1086	1418	0	2405	295	0	0	5809	5809
Apprch %	69.9	30.1		43.4	56.6		89.1	10.9				
Total %	7.3	3.1		18.7	24.4		41.4	5.1		0	100	
Cars & Peds	411	180		1079	1414		2400	293		0	0	5777
% Cars & Peds	97.2	98.9	0	99.4	99.7	0	99.8	99.3	0	0	0	99.4
Trucks	12	2		7	4		5	2		0	0	32
% Trucks	2.8	1.1	0	0.6	0.3	0	0.2	0.7	0	0	0	0.6

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	60	17	77	147	172	319	281	33	314	710
04:30 PM	58	26	84	134	186	320	289	39	328	732
04:45 PM	55	19	74	129	164	293	314	35	349	716
05:00 PM	49	22	71	151	206	357	329	65	394	822
Total Volume	222	84	306	561	728	1289	1213	172	1385	2980
% App. Total	72.5	27.5		43.5	56.5		87.6	12.4		
PHF	.925	.808	.911	.929	.883	.903	.922	.662	.879	.906
Cars & Peds	216	83	299	554	725	1279	1210	171	1381	2959
% Cars & Peds	97.3	98.8	97.7	98.8	99.6	99.2	99.8	99.4	99.7	99.3
Trucks	6	1	7	7	3	10	3	1	4	21
% Trucks	2.7	1.2	2.3	1.2	0.4	0.8	0.2	0.6	0.3	0.7

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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263CC

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Route 3 Northbound Ramps From North		Derby Street From East		Derby Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
04:00 PM	4	0	0	1	1	1	7
04:15 PM	3	1	1	0	1	0	6
04:30 PM	0	0	4	0	1	0	5
04:45 PM	3	0	1	1	1	1	7
Total	10	1	6	2	4	2	25
05:00 PM	0	0	1	2	0	0	3
05:15 PM	0	0	0	0	0	0	0
05:30 PM	1	1	0	0	1	0	3
05:45 PM	1	0	0	0	0	0	1
Total	2	1	1	2	1	0	7
Grand Total	12	2	7	4	5	2	32
Apprch %	85.7	14.3	63.6	36.4	71.4	28.6	
Total %	37.5	6.2	21.9	12.5	15.6	6.2	

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	4	0	4	0	1	1	1	1	2	7
04:15 PM	3	1	4	1	0	1	1	0	1	6
04:30 PM	0	0	0	4	0	4	1	0	1	5
04:45 PM	3	0	3	1	1	2	1	1	2	7
Total Volume	10	1	11	6	2	8	4	2	6	25
% App. Total	90.9	9.1		75	25		66.7	33.3		
PHF	.625	.250	.688	.375	.500	.500	1.000	.500	.750	.893

Transportation Data Corporation

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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

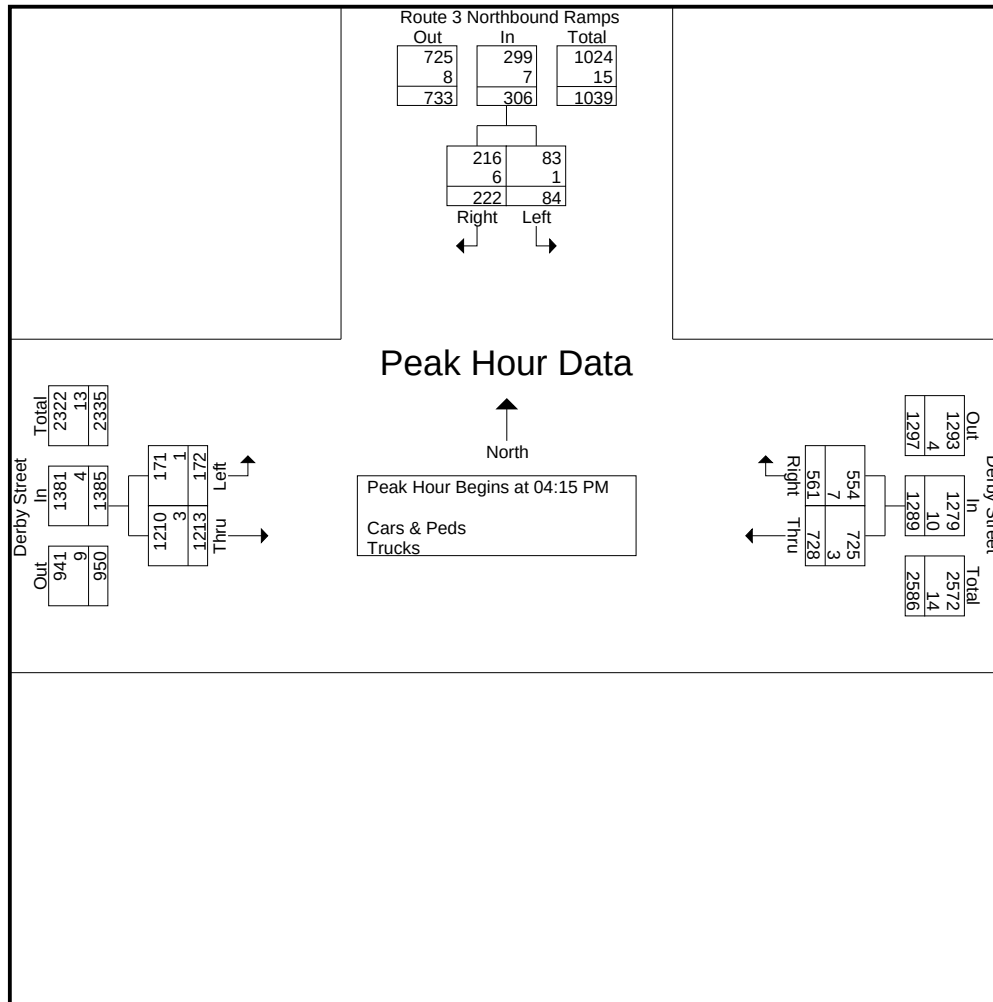
File Name : 04263CC

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	60	17	77	147	172	319	281	33	314	710
04:30 PM	58	26	84	134	186	320	289	39	328	732
04:45 PM	55	19	74	129	164	293	314	35	349	716
05:00 PM	49	22	71	151	206	357	329	65	394	822
Total Volume	222	84	306	561	728	1289	1213	172	1385	2980
% App. Total	72.5	27.5		43.5	56.5		87.6	12.4		
PHF	.925	.808	.911	.929	.883	.903	.922	.662	.879	.906
Cars & Peds	216	83	299	554	725	1279	1210	171	1381	2959
% Cars & Peds	97.3	98.8	97.7	98.8	99.6	99.2	99.8	99.4	99.7	99.3
Trucks	6	1	7	7	3	10	3	1	4	21
% Trucks	2.7	1.2	2.3	1.2	0.4	0.8	0.2	0.6	0.3	0.7



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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263CCC

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Left	Peds	Right	Thru	Peds	Thru	Left	Peds			
11:00 AM	32	43	0	162	147	0	265	21	0	0	670	670
11:15 AM	35	46	0	174	128	0	258	19	0	0	660	660
11:30 AM	28	50	0	153	131	0	263	17	0	0	642	642
11:45 AM	43	47	0	168	145	0	274	16	0	0	693	693
Total	138	186	0	657	551	0	1060	73	0	0	2665	2665
12:00 PM	37	51	0	168	150	0	277	23	0	0	706	706
12:15 PM	34	45	0	165	155	0	261	16	0	0	676	676
12:30 PM	34	48	0	161	146	0	270	18	0	0	677	677
12:45 PM	32	52	0	176	152	0	267	10	0	0	689	689
Total	137	196	0	670	603	0	1075	67	0	0	2748	2748
Grand Total	275	382	0	1327	1154	0	2135	140	0	0	5413	5413
Apprch %	41.9	58.1		53.5	46.5		93.8	6.2				
Total %	5.1	7.1		24.5	21.3		39.4	2.6		0	100	
Cars & Peds	273	379		1319	1153		2130	139		0	0	5393
% Cars & Peds	99.3	99.2	0	99.4	99.9	0	99.8	99.3	0	0	0	99.6
Trucks	2	3		8	1		5	1		0	0	20
% Trucks	0.7	0.8	0	0.6	0.1	0	0.2	0.7	0	0	0	0.4

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	43	47	90	168	145	313	274	16	290	693
12:00 PM	37	51	88	168	150	318	277	23	300	706
12:15 PM	34	45	79	165	155	320	261	16	277	676
12:30 PM	34	48	82	161	146	307	270	18	288	677
Total Volume	148	191	339	662	596	1258	1082	73	1155	2752
% App. Total	43.7	56.3		52.6	47.4		93.7	6.3		
PHF	.860	.936	.942	.985	.961	.983	.977	.793	.963	.975
Cars & Peds	146	190	336	658	596	1254	1080	72	1152	2742
% Cars & Peds	98.6	99.5	99.1	99.4	100	99.7	99.8	98.6	99.7	99.6
Trucks	2	1	3	4	0	4	2	1	3	10
% Trucks	1.4	0.5	0.9	0.6	0	0.3	0.2	1.4	0.3	0.4

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263CCC

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Route 3 Northbound Ramps From North		Derby Street From East		Derby Street From West		
Start Time	Right	Left	Right	Thru	Thru	Left	Int. Total
11:00 AM	0	1	1	1	1	0	4
11:15 AM	0	0	1	0	1	0	2
11:30 AM	0	1	1	0	1	0	3
11:45 AM	1	0	1	0	0	0	2
Total	1	2	4	1	3	0	11
12:00 PM	0	1	0	0	0	1	2
12:15 PM	0	0	1	0	1	0	2
12:30 PM	1	0	2	0	1	0	4
12:45 PM	0	0	1	0	0	0	1
Total	1	1	4	0	2	1	9
Grand Total	2	3	8	1	5	1	20
Apprch %	40	60	88.9	11.1	83.3	16.7	
Total %	10	15	40	5	25	5	

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	0	1	1	1	1	2	1	0	1	4
11:15 AM	0	0	0	1	0	1	1	0	1	2
11:30 AM	0	1	1	1	0	1	1	0	1	3
11:45 AM	1	0	1	1	0	1	0	0	0	2
Total Volume	1	2	3	4	1	5	3	0	3	11
% App. Total	33.3	66.7		80	20		100	0		
PHF	.250	.500	.750	1.000	.250	.625	.750	.000	.750	.688

Transportation Data Corporation

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N: Route 3 Northbound Ramps

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

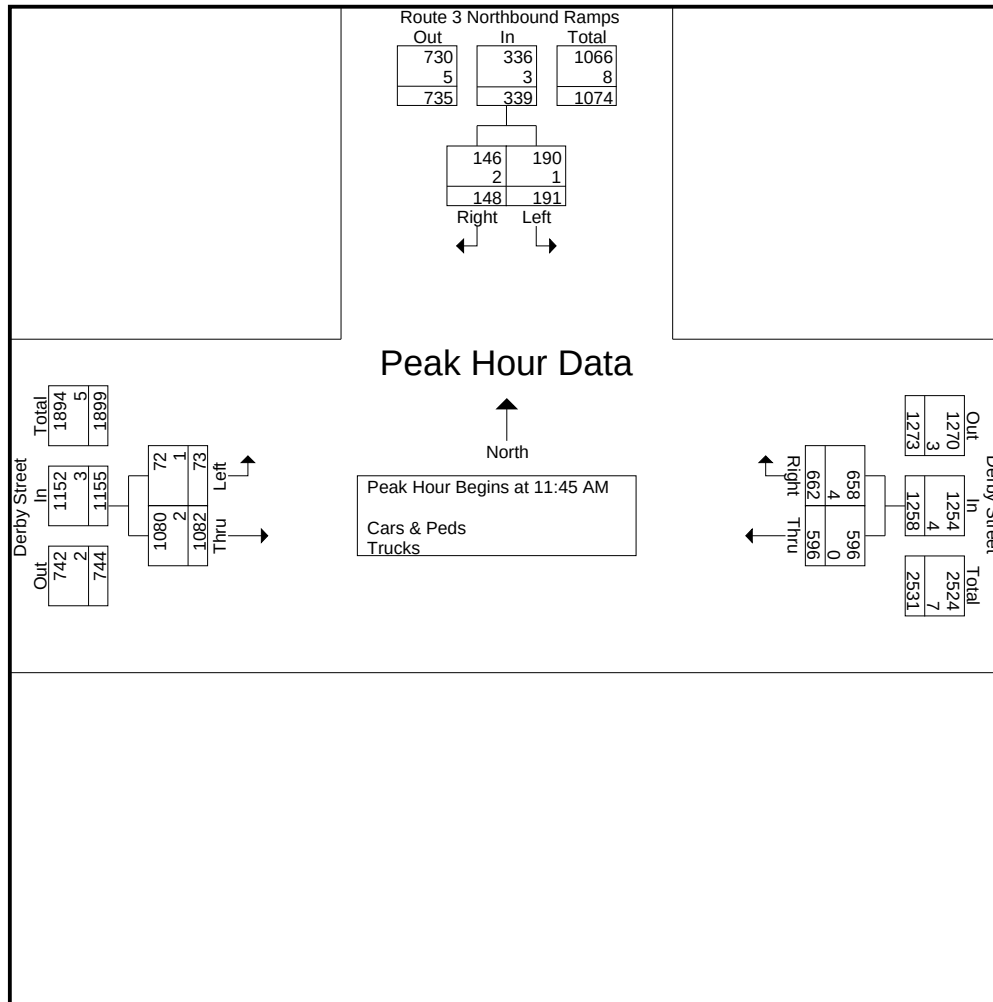
File Name : 04263CCC

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

	Route 3 Northbound Ramps From North			Derby Street From East			Derby Street From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:45 AM										
11:45 AM	43	47	90	168	145	313	274	16	290	693
12:00 PM	37	51	88	168	150	318	277	23	300	706
12:15 PM	34	45	79	165	155	320	261	16	277	676
12:30 PM	34	48	82	161	146	307	270	18	288	677
Total Volume	148	191	339	662	596	1258	1082	73	1155	2752
% App. Total	43.7	56.3		52.6	47.4		93.7	6.3		
PHF	.860	.936	.942	.985	.961	.983	.977	.793	.963	.975
Cars & Peds	146	190	336	658	596	1254	1080	72	1152	2742
% Cars & Peds	98.6	99.5	99.1	99.4	100	99.7	99.8	98.6	99.7	99.6
Trucks	2	1	3	4	0	4	2	1	3	10
% Trucks	1.4	0.5	0.9	0.6	0	0.3	0.2	1.4	0.3	0.4



Transportation Data Corporation

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N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263D
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
07:00 AM	1	0	1	0	1	0	2	0	0	0	1	0	11	0	1	0	0	18	18
07:15 AM	2	0	0	0	2	0	3	0	0	0	0	0	10	0	2	0	0	19	19
07:30 AM	2	0	1	0	5	0	5	0	0	0	1	0	8	0	0	0	0	22	22
07:45 AM	3	0	1	0	2	0	6	0	2	0	1	0	12	0	1	0	0	28	28
Total	8	0	3	0	10	0	16	0	2	0	3	0	41	0	4	0	0	87	87
08:00 AM	1	0	1	0	4	0	8	0	0	0	0	0	23	0	4	0	0	41	41
08:15 AM	4	0	0	0	5	0	2	0	0	0	1	0	13	0	2	0	0	27	27
08:30 AM	2	0	1	0	3	0	3	0	3	0	0	0	18	0	4	0	0	34	34
08:45 AM	0	0	2	0	6	0	3	0	2	0	0	0	12	0	8	0	0	33	33
Total	7	0	4	0	18	0	16	0	5	0	1	0	66	0	18	0	0	135	135
Grand Total	15	0	7	0	28	0	32	0	7	0	4	0	107	0	22	0	0	222	222
Apprch %	68.2	0	31.8		46.7	0	53.3		63.6	0	36.4		82.9	0	17.1				
Total %	6.8	0	3.2		12.6	0	14.4		3.2	0	1.8		48.2	0	9.9		0	100	
Cars & Peds	14	0	7		27	0	32		7	0	4		106	0	22		0	0	219
% Cars & Peds	93.3	0	100	0	96.4	0	100	0	100	0	100	0	99.1	0	100	0	0	0	98.6
Trucks	1	0	0		1	0	0		0	0	0		1	0	0		0	0	3
% Trucks	6.7	0	0	0	3.6	0	0	0	0	0	0	0	0.9	0	0	0	0	0	1.4

Start Time	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	0	1	2	4	0	8	12	0	0	0	0	23	0	4	27	41
08:15 AM	4	0	0	4	5	0	2	7	0	0	1	1	13	0	2	15	27
08:30 AM	2	0	1	3	3	0	3	6	3	0	0	3	18	0	4	22	34
08:45 AM	0	0	2	2	6	0	3	9	2	0	0	2	12	0	8	20	33
Total Volume	7	0	4	11	18	0	16	34	5	0	1	6	66	0	18	84	135
% App. Total	63.6	0	36.4		52.9	0	47.1		83.3	0	16.7		78.6	0	21.4		
PHF	.438	.000	.500	.688	.750	.000	.500	.708	.417	.000	.250	.500	.717	.000	.563	.778	.823
Cars & Peds	7	0	4	11	18	0	16	34	5	0	1	6	65	0	18	83	134
% Cars & Peds	100	0	100	100	100	0	100	100	100	0	100	100	98.5	0	100	98.8	99.3
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	1.2	0.7

Transportation Data Corporation

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N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263D
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

Groups Printed- Trucks

	Old Derby Street From North			Derby Street From East			Old Derby Street From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	1
Grand Total	1	0	0	1	0	0	0	0	0	1	0	0	3
Apprch %	100	0	0	100	0	0	0	0	0	100	0	0	
Total %	33.3	0	0	33.3	0	0	0	0	0	33.3	0	0	

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	1	0	0	1	1	0	0	1	0	0	0	0	1	0	0	1	3
% App. Total	100	0	0		100	0	0		0	0	0		100	0	0		
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.250	.000	.000	.250	.750

Transportation Data Corporation

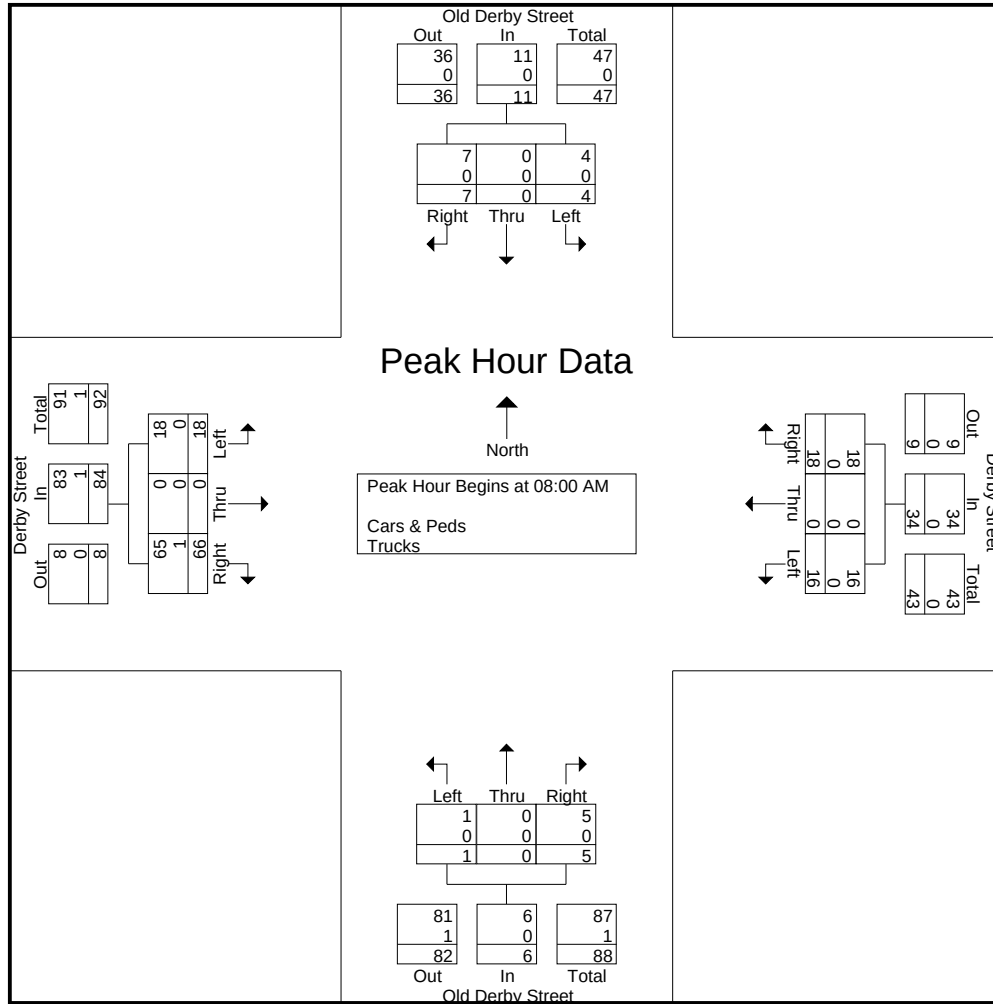
Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263D
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	1	0	1	2	4	0	8	12	0	0	0	0	23	0	4	27	41
08:15 AM	4	0	0	4	5	0	2	7	0	0	1	1	13	0	2	15	27
08:30 AM	2	0	1	3	3	0	3	6	3	0	0	3	18	0	4	22	34
08:45 AM	0	0	2	2	6	0	3	9	2	0	0	2	12	0	8	20	33
Total Volume	7	0	4	11	18	0	16	34	5	0	1	6	66	0	18	84	135
% App. Total	63.6	0	36.4		52.9	0	47.1		83.3	0	16.7		78.6	0	21.4		
PHF	.438	.000	.500	.688	.750	.000	.500	.708	.417	.000	.250	.500	.717	.000	.563	.778	.823
Cars & Peds	7	0	4	11	18	0	16	34	5	0	1	6	65	0	18	83	134
% Cars & Peds	100	0	100	100	100	0	100	100	100	0	100	100	98.5	0	100	98.8	99.3
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	1.2	0.7



Transportation Data Corporation

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N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DD
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
04:00 PM	9	0	5	0	5	0	9	0	7	0	2	0	48	0	2	0	0	87	87
04:15 PM	5	0	2	0	2	0	5	0	11	0	4	0	51	0	2	0	0	82	82
04:30 PM	3	0	4	0	4	0	4	0	6	0	2	0	73	0	1	0	0	97	97
04:45 PM	1	0	0	0	4	0	7	0	5	0	1	0	62	0	0	0	0	80	80
Total	18	0	11	0	15	0	25	0	29	0	9	0	234	0	5	0	0	346	346
05:00 PM	12	0	2	0	2	0	12	0	4	0	0	0	64	0	0	0	0	96	96
05:15 PM	2	0	1	0	1	0	7	0	7	0	2	0	33	0	1	0	0	54	54
05:30 PM	1	0	0	0	2	0	7	0	4	0	5	0	43	0	1	0	0	63	63
05:45 PM	0	0	1	0	2	0	5	0	5	0	3	0	26	0	0	0	0	42	42
Total	15	0	4	0	7	0	31	0	20	0	10	0	166	0	2	0	0	255	255
Grand Total	33	0	15	0	22	0	56	0	49	0	19	0	400	0	7	0	0	601	601
Apprch %	68.8	0	31.2		28.2	0	71.8		72.1	0	27.9		98.3	0	1.7				
Total %	5.5	0	2.5		3.7	0	9.3		8.2	0	3.2		66.6	0	1.2		0	100	
Cars & Peds	33	0	15		22	0	56		49	0	18		400	0	7		0	0	600
% Cars & Peds	100	0	100	0	100	0	100	0	100	0	94.7	0	100	0	100	0	0	0	99.8
Trucks	0	0	0		0	0	0		0	0	1		0	0	0		0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	5.3	0	0	0	0	0	0	0	0.2

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	5	0	2	7	2	0	5	7	11	0	4	15	51	0	2	53	82
04:30 PM	3	0	4	7	4	0	4	8	6	0	2	8	73	0	1	74	97
04:45 PM	1	0	0	1	4	0	7	11	5	0	1	6	62	0	0	62	80
05:00 PM	12	0	2	14	2	0	12	14	4	0	0	4	64	0	0	64	96
Total Volume	21	0	8	29	12	0	28	40	26	0	7	33	250	0	3	253	355
% App. Total	72.4	0	27.6		30	0	70		78.8	0	21.2		98.8	0	1.2		
PHF	.438	.000	.500	.518	.750	.000	.583	.714	.591	.000	.438	.550	.856	.000	.375	.855	.915
Cars & Peds	21	0	8	29	12	0	28	40	26	0	6	32	250	0	3	253	354
% Cars & Peds	100	0	100	100	100	0	100	100	100	0	85.7	97.0	100	0	100	100	99.7
Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	14.3	3.0	0	0	0	0	0.3

Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DD
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

Groups Printed- Trucks

	Old Derby Street From North			Derby Street From East			Old Derby Street From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	1	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	0	0	0	100	0	0	0	

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.250

Transportation Data Corporation

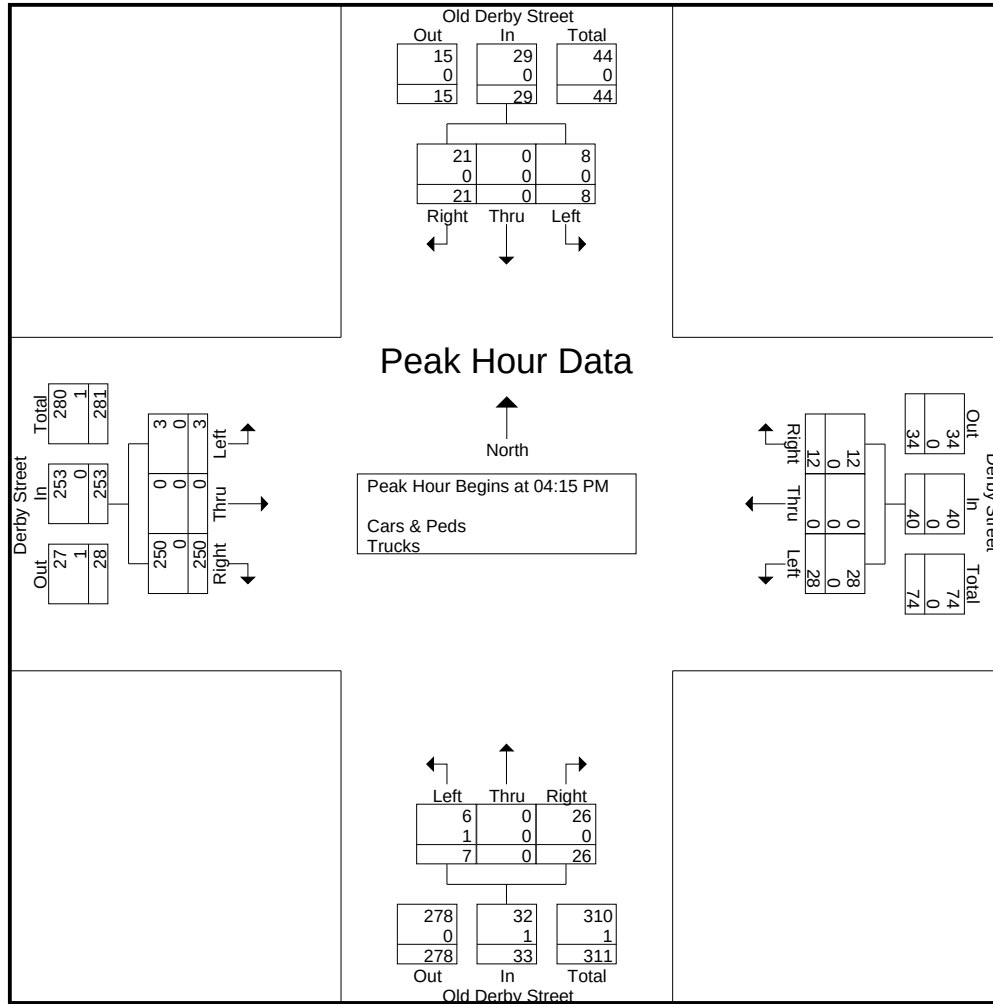
Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DD
Site Code : 04263
Start Date : 6/14/2012
Page No : 1

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	5	0	2	7	2	0	5	7	11	0	4	15	51	0	2	53	82
04:30 PM	3	0	4	7	4	0	4	8	6	0	2	8	73	0	1	74	97
04:45 PM	1	0	0	1	4	0	7	11	5	0	1	6	62	0	0	62	80
05:00 PM	12	0	2	14	2	0	12	14	4	0	0	4	64	0	0	64	96
Total Volume	21	0	8	29	12	0	28	40	26	0	7	33	250	0	3	253	355
% App. Total	72.4	0	27.6		30	0	70		78.8	0	21.2		98.8	0	1.2		
PHF	.438	.000	.500	.518	.750	.000	.583	.714	.591	.000	.438	.550	.856	.000	.375	.855	.915
Cars & Peds	21	0	8	29	12	0	28	40	26	0	6	32	250	0	3	253	354
% Cars & Peds	100	0	100	100	100	0	100	100	100	0	85.7	97.0	100	0	100	100	99.7
Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	14.3	3.0	0	0	0	0	0.3



t (781) 587-0086 *f* (781) 587-0189

N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DDD
Site Code : 04263
Start Date : 6/16/2012
Page No : 1

Groups Printed- Cars & Peds - Trucks

[illegible][illegible]

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N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DDD
Site Code : 04263
Start Date : 6/16/2012
Page No : 1

Groups Printed- Trucks

[illegible][illegible]

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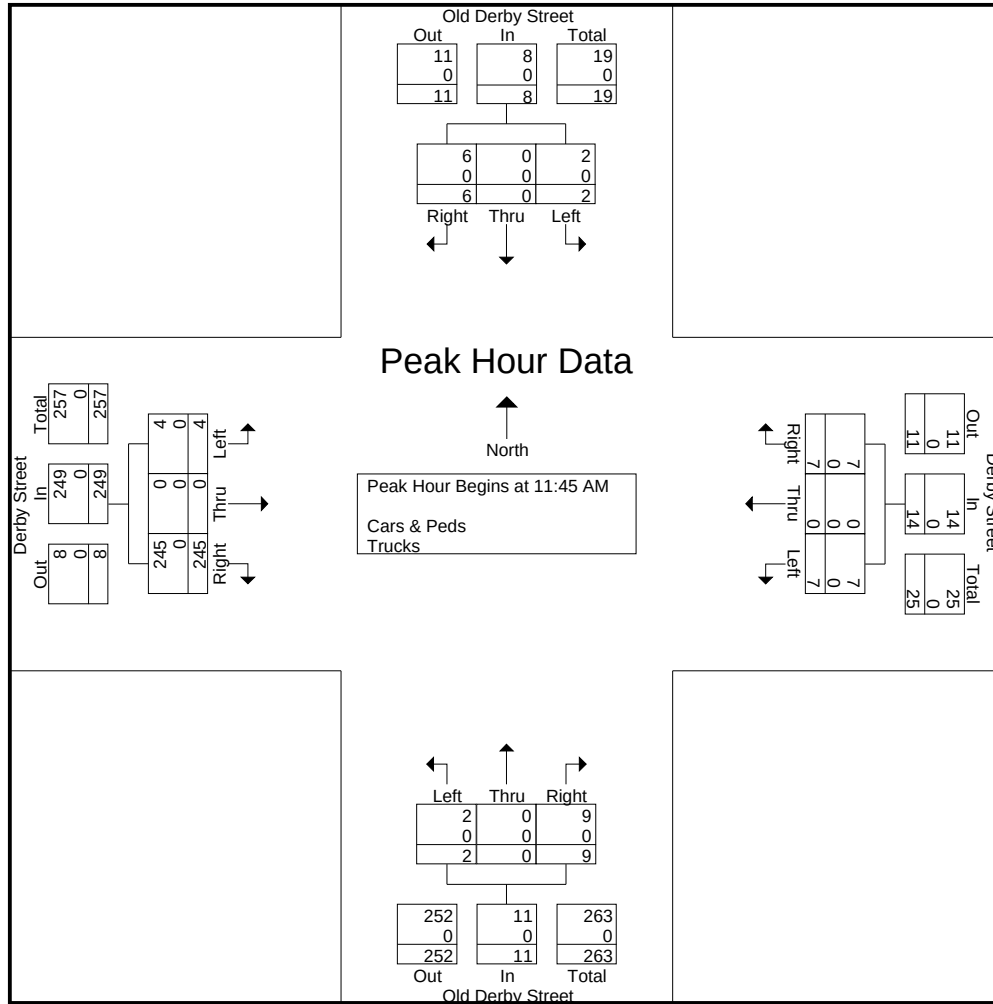
Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Old Derby Street
E/W: Derby Street (Turns Only)
City, State: Hingham, MA
Client: C&C/J. Morgan

File Name : 04263DDD
Site Code : 04263
Start Date : 6/16/2012
Page No : 1

	Old Derby Street From North				Derby Street From East				Old Derby Street From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:45 AM																	
11:45 AM	1	0	1	2	1	0	2	3	1	0	1	2	62	0	0	62	69
12:00 PM	2	0	0	2	2	0	1	3	4	0	1	5	64	0	1	65	75
12:15 PM	1	0	1	2	1	0	3	4	2	0	0	2	58	0	1	59	67
12:30 PM	2	0	0	2	3	0	1	4	2	0	0	2	61	0	2	63	71
Total Volume	6	0	2	8	7	0	7	14	9	0	2	11	245	0	4	249	282
% App. Total	75	0	25		50	0	50		81.8	0	18.2		98.4	0	1.6		
PHF	.750	.000	.500	1.000	.583	.000	.583	.875	.563	.000	.500	.550	.957	.000	.500	.958	.940
Cars & Peds	6	0	2	8	7	0	7	14	9	0	2	11	245	0	4	249	282
% Cars & Peds	100	0	100	100	100	0	100	100	100	0	100	100	100	0	100	100	100
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263E

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
07:00 AM	217	2	0	1	6	0	8	123	0	0	357	357
07:15 AM	264	7	0	1	7	0	9	139	0	0	427	427
07:30 AM	230	7	0	2	12	0	8	144	0	0	403	403
07:45 AM	229	12	0	2	8	0	10	163	0	0	424	424
Total	940	28	0	6	33	0	35	569	0	0	1611	1611
08:00 AM	242	9	0	4	19	0	18	159	0	0	451	451
08:15 AM	239	4	0	3	32	0	13	174	0	0	465	465
08:30 AM	217	16	0	11	36	0	14	151	0	0	445	445
08:45 AM	269	17	0	3	27	0	21	152	0	0	489	489
Total	967	46	0	21	114	0	66	636	0	0	1850	1850
Grand Total	1907	74	0	27	147	0	101	1205	0	0	3461	3461
Apprch %	96.3	3.7		15.5	84.5		7.7	92.3				
Total %	55.1	2.1		0.8	4.2		2.9	34.8		0	100	
Cars & Peds	1891	72		23	145		100	1169		0	0	3400
% Cars & Peds	99.2	97.3	0	85.2	98.6	0	99	97	0	0	0	98.2
Trucks	16	2		4	2		1	36		0	0	61
% Trucks	0.8	2.7	0	14.8	1.4	0	1	3	0	0	0	1.8

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	242	9	251	4	19	23	18	159	177	451
08:15 AM	239	4	243	3	32	35	13	174	187	465
08:30 AM	217	16	233	11	36	47	14	151	165	445
08:45 AM	269	17	286	3	27	30	21	152	173	489
Total Volume	967	46	1013	21	114	135	66	636	702	1850
% App. Total	95.5	4.5		15.6	84.4		9.4	90.6		
PHF	.899	.676	.885	.477	.792	.718	.786	.914	.939	.946
Cars & Peds	958	46	1004	18	113	131	66	620	686	1821
% Cars & Peds	99.1	100	99.1	85.7	99.1	97.0	100	97.5	97.7	98.4
Trucks	9	0	9	3	1	4	0	16	16	29
% Trucks	0.9	0	0.9	14.3	0.9	3.0	0	2.5	2.3	1.6

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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263E

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Derby Shoppes Signal Drive From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
07:00 AM	2	0	0	0	0	6	8
07:15 AM	2	0	0	0	0	8	10
07:30 AM	1	0	1	0	1	3	6
07:45 AM	2	2	0	1	0	3	8
Total	7	2	1	1	1	20	32
08:00 AM	2	0	0	0	0	4	6
08:15 AM	3	0	0	0	0	4	7
08:30 AM	0	0	2	1	0	3	6
08:45 AM	4	0	1	0	0	5	10
Total	9	0	3	1	0	16	29
Grand Total	16	2	4	2	1	36	61
Apprch %	88.9	11.1	66.7	33.3	2.7	97.3	
Total %	26.2	3.3	6.6	3.3	1.6	59	

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	0	2	0	0	0	0	6	6	8
07:15 AM	2	0	2	0	0	0	0	8	8	10
07:30 AM	1	0	1	1	0	1	1	3	4	6
07:45 AM	2	2	4	0	1	1	0	3	3	8
Total Volume	7	2	9	1	1	2	1	20	21	32
% App. Total	77.8	22.2		50	50		4.8	95.2		
PHF	.875	.250	.563	.250	.250	.500	.250	.625	.656	.800

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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

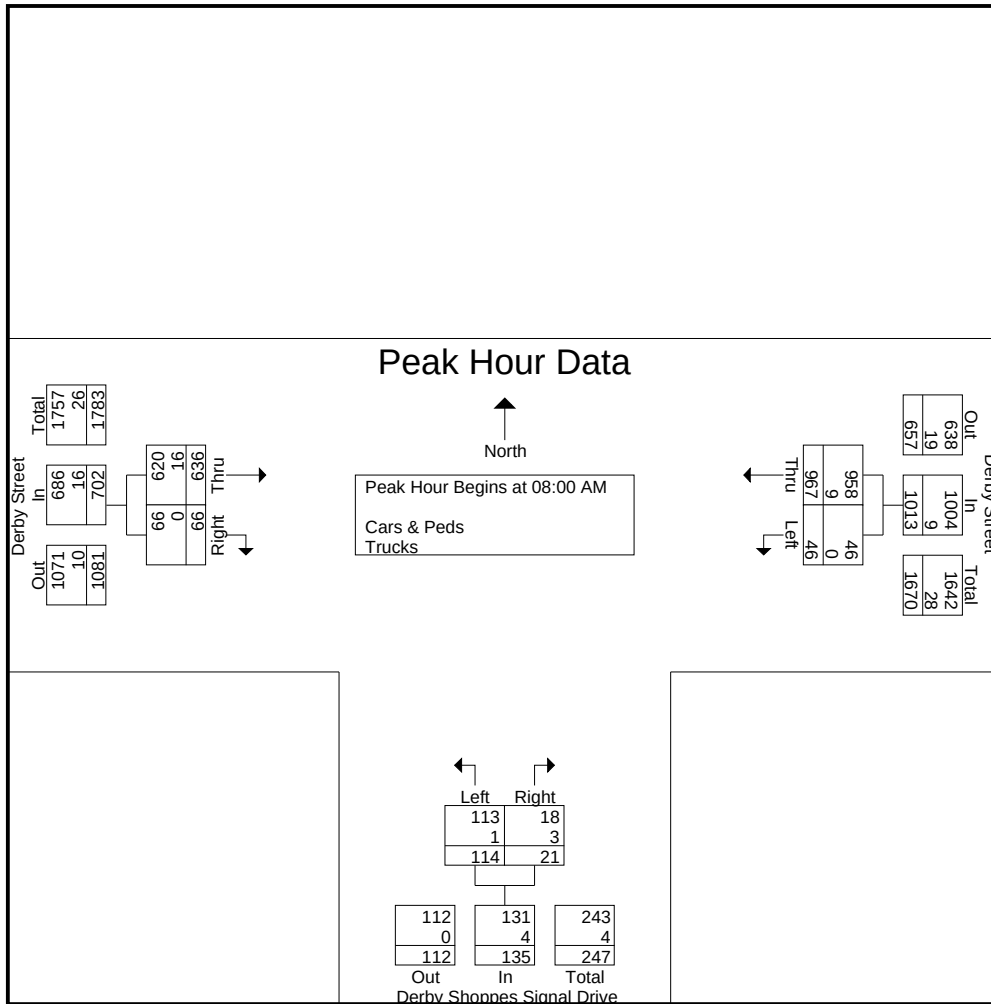
File Name : 04263E

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	242	9	251	4	19	23	18	159	177	451
08:15 AM	239	4	243	3	32	35	13	174	187	465
08:30 AM	217	16	233	11	36	47	14	151	165	445
08:45 AM	269	17	286	3	27	30	21	152	173	489
Total Volume	967	46	1013	21	114	135	66	636	702	1850
% App. Total	95.5	4.5		15.6	84.4		9.4	90.6		
PHF	.899	.676	.885	.477	.792	.718	.786	.914	.939	.946
Cars & Peds	958	46	1004	18	113	131	66	620	686	1821
% Cars & Peds	99.1	100	99.1	85.7	99.1	97.0	100	97.5	97.7	98.4
Trucks	9	0	9	3	1	4	0	16	16	29
% Trucks	0.9	0	0.9	14.3	0.9	3.0	0	2.5	2.3	1.6



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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263EE

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
04:00 PM	190	30	0	27	109	0	59	191	0	0	606	606
04:15 PM	196	36	0	30	114	0	46	216	0	0	638	638
04:30 PM	208	36	0	36	101	0	49	194	0	0	624	624
04:45 PM	186	31	0	28	116	1	53	239	0	1	653	654
Total	780	133	0	121	440	1	207	840	0	1	2521	2522
05:00 PM	235	36	0	35	116	4	63	240	0	4	725	729
05:15 PM	214	28	0	37	115	1	46	216	0	1	656	657
05:30 PM	189	40	0	41	87	0	51	241	0	0	649	649
05:45 PM	158	46	0	38	96	0	73	207	0	0	618	618
Total	796	150	0	151	414	5	233	904	0	5	2648	2653
Grand Total	1576	283	0	272	854	6	440	1744	0	6	5169	5175
Apprch %	84.8	15.2		24.2	75.8		20.1	79.9				
Total %	30.5	5.5		5.3	16.5		8.5	33.7		0.1	99.9	
Cars & Peds	1566	283		272	854		439	1738		0	0	5156
% Cars & Peds	99.4	100	0	100	100	66.7	99.8	99.7	0	0	0	99.6
Trucks	10	0		0	0		1	6		0	0	19
% Trucks	0.6	0	0	0	0	33.3	0.2	0.3	0	0	0	0.4

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	186	31	217	28	116	144	53	239	292	653
05:00 PM	235	36	271	35	116	151	63	240	303	725
05:15 PM	214	28	242	37	115	152	46	216	262	656
05:30 PM	189	40	229	41	87	128	51	241	292	649
Total Volume	824	135	959	141	434	575	213	936	1149	2683
% App. Total	85.9	14.1		24.5	75.5		18.5	81.5		
PHF	.877	.844	.885	.860	.935	.946	.845	.971	.948	.925
Cars & Peds	819	135	954	141	434	575	212	934	1146	2675
% Cars & Peds	99.4	100	99.5	100	100	100	99.5	99.8	99.7	99.7
Trucks	5	0	5	0	0	0	1	2	3	8
% Trucks	0.6	0	0.5	0	0	0	0.5	0.2	0.3	0.3

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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263EE

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Derby Shoppes Signal Drive From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
04:00 PM	0	0	0	0	0	1	1
04:15 PM	1	0	0	0	0	2	3
04:30 PM	4	0	0	0	0	1	5
04:45 PM	2	0	0	0	0	1	3
Total	7	0	0	0	0	5	12
05:00 PM	3	0	0	0	0	0	3
05:15 PM	0	0	0	0	1	0	1
05:30 PM	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0
Total	3	0	0	0	1	1	5
Grand Total	10	0	0	0	1	6	17
Apprch %	100	0	0	0	14.3	85.7	
Total %	58.8	0	0	0	5.9	35.3	

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	1	0	1	0	0	0	0	2	2	3
04:30 PM	4	0	4	0	0	0	0	1	1	5
04:45 PM	2	0	2	0	0	0	0	1	1	3
05:00 PM	3	0	3	0	0	0	0	0	0	3
Total Volume	10	0	10	0	0	0	0	4	4	14
% App. Total	100	0		0	0		0	100		
PHF	.625	.000	.625	.000	.000	.000	.000	.500	.500	.700

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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

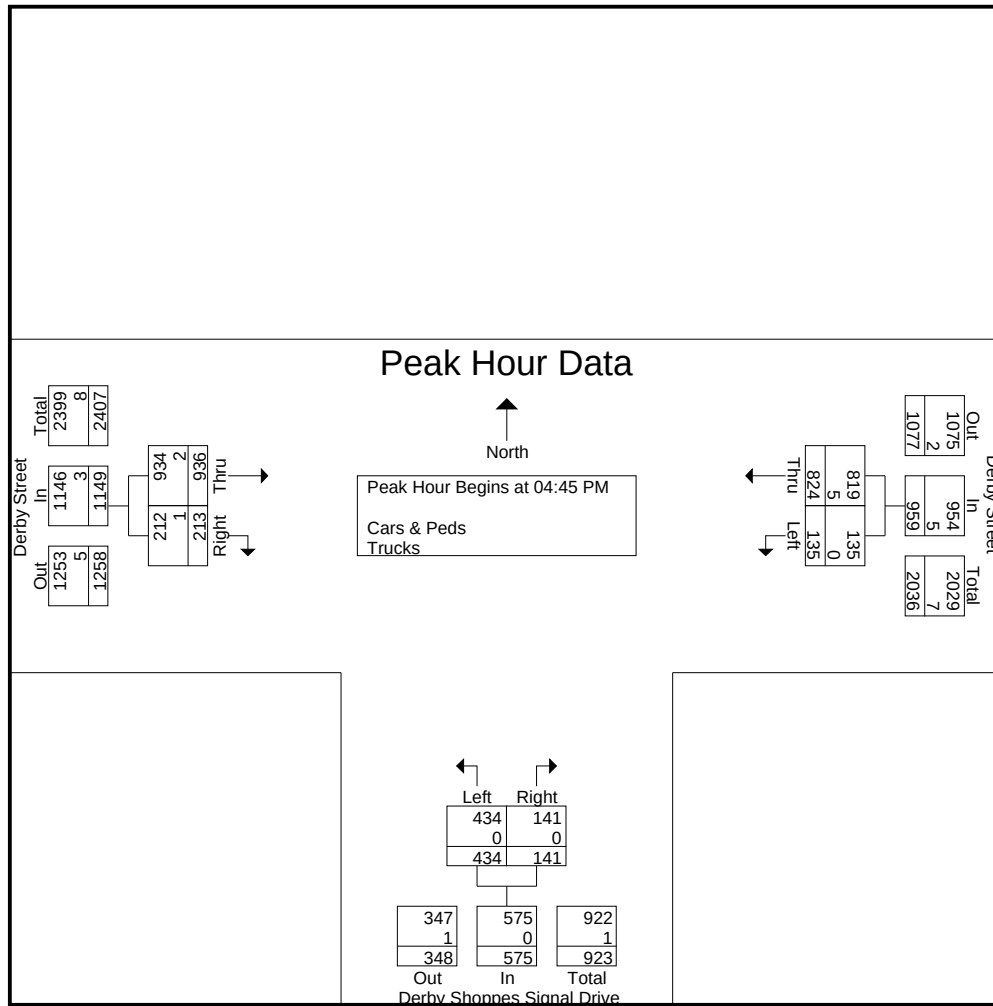
File Name : 04263EE

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	186	31	217	28	116	144	53	239	292	653
05:00 PM	235	36	271	35	116	151	63	240	303	725
05:15 PM	214	28	242	37	115	152	46	216	262	656
05:30 PM	189	40	229	41	87	128	51	241	292	649
Total Volume	824	135	959	141	434	575	213	936	1149	2683
% App. Total	85.9	14.1		24.5	75.5		18.5	81.5		
PHF	.877	.844	.885	.860	.935	.946	.845	.971	.948	.925
Cars & Peds	819	135	954	141	434	575	212	934	1146	2675
% Cars & Peds	99.4	100	99.5	100	100	100	99.5	99.8	99.7	99.7
Trucks	5	0	5	0	0	0	1	2	3	8
% Trucks	0.6	0	0.5	0	0	0	0.5	0.2	0.3	0.3



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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263EEE

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks												
	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Exclu. Total	Inclu. Total	Int. Total
Start Time	Thru	Left	Peds	Right	Left	Peds	Right	Thru	Peds			
11:00 AM	188	47	0	32	117	0	81	149	0	0	614	614
11:15 AM	184	32	0	36	121	0	83	156	0	0	612	612
11:30 AM	179	40	0	42	116	1	95	158	0	1	630	631
11:45 AM	189	41	0	58	125	0	106	156	0	0	675	675
Total	740	160	0	168	479	1	365	619	0	1	2531	2532
12:00 PM	169	51	0	57	130	0	90	158	0	0	655	655
12:15 PM	189	65	0	46	126	0	86	170	0	0	682	682
12:30 PM	178	49	0	50	120	0	103	156	0	0	656	656
12:45 PM	190	51	0	49	129	0	95	163	0	0	677	677
Total	726	216	0	202	505	0	374	647	0	0	2670	2670
Grand Total	1466	376	0	370	984	1	739	1266	0	1	5201	5202
Apprch %	79.6	20.4		27.3	72.7		36.9	63.1				
Total %	28.2	7.2		7.1	18.9		14.2	24.3		0	100	
Cars & Peds	1458	376		370	982		739	1259		0	0	5184
% Cars & Peds	99.5	100	0	100	99.8	0	100	99.4	0	0	0	99.7
Trucks	8	0		0	2		0	7		0	0	18
% Trucks	0.5	0	0	0	0.2	100	0	0.6	0	0	0	0.3

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			Int. Total
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	169	51	220	57	130	187	90	158	248	655
12:15 PM	189	65	254	46	126	172	86	170	256	682
12:30 PM	178	49	227	50	120	170	103	156	259	656
12:45 PM	190	51	241	49	129	178	95	163	258	677
Total Volume	726	216	942	202	505	707	374	647	1021	2670
% App. Total	77.1	22.9		28.6	71.4		36.6	63.4		
PHF	.955	.831	.927	.886	.971	.945	.908	.951	.986	.979
Cars & Peds	722	216	938	202	504	706	374	645	1019	2663
% Cars & Peds	99.4	100	99.6	100	99.8	99.9	100	99.7	99.8	99.7
Trucks	4	0	4	0	1	1	0	2	2	7
% Trucks	0.6	0	0.4	0	0.2	0.1	0	0.3	0.2	0.3

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S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263EEE

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Derby Street From East		Derby Shoppes Signal Drive From South		Derby Street From West		
Start Time	Thru	Left	Right	Left	Right	Thru	Int. Total
11:00 AM	2	0	0	0	0	2	4
11:15 AM	1	0	0	0	0	2	3
11:30 AM	1	0	0	0	0	1	2
11:45 AM	0	0	0	1	0	0	1
Total	4	0	0	1	0	5	10
12:00 PM	1	0	0	0	0	0	1
12:15 PM	1	0	0	1	0	1	3
12:30 PM	1	0	0	0	0	1	2
12:45 PM	1	0	0	0	0	0	1
Total	4	0	0	1	0	2	7
Grand Total	8	0	0	2	0	7	17
Apprch %	100	0	0	100	0	100	
Total %	47.1	0	0	11.8	0	41.2	

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 11:00 AM										
11:00 AM	2	0	2	0	0	0	0	2	2	4
11:15 AM	1	0	1	0	0	0	0	2	2	3
11:30 AM	1	0	1	0	0	0	0	1	1	2
11:45 AM	0	0	0	0	1	1	0	0	0	1
Total Volume	4	0	4	0	1	1	0	5	5	10
% App. Total	100	0		0	100		0	100		
PHF	.500	.000	.500	.000	.250	.250	.000	.625	.625	.625

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

S: Derby Shoppes Signalized Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

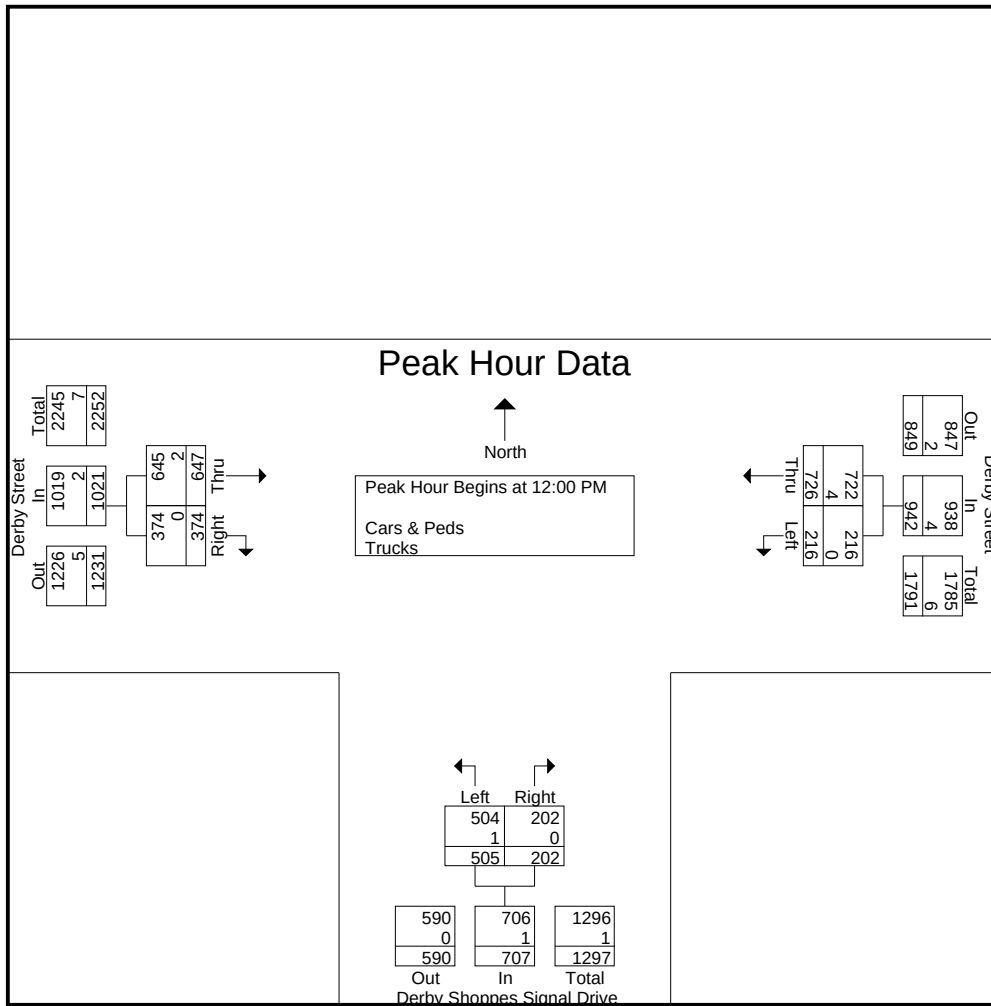
File Name : 04263EEE

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

	Derby Street From East			Derby Shoppes Signal Drive From South			Derby Street From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	169	51	220	57	130	187	90	158	248	655
12:15 PM	189	65	254	46	126	172	86	170	256	682
12:30 PM	178	49	227	50	120	170	103	156	259	656
12:45 PM	190	51	241	49	129	178	95	163	258	677
Total Volume	726	216	942	202	505	707	374	647	1021	2670
% App. Total	77.1	22.9		28.6	71.4		36.6	63.4		
PHF	.955	.831	.927	.886	.971	.945	.908	.951	.986	.979
Cars & Peds	722	216	938	202	504	706	374	645	1019	2663
% Cars & Peds	99.4	100	99.6	100	99.8	99.9	100	99.7	99.8	99.7
Trucks	4	0	4	0	1	1	0	2	2	7
% Trucks	0.6	0	0.4	0	0.2	0.1	0	0.3	0.2	0.3



Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263F

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
07:00 AM	0	0	0	0	0	218	5	1	4	0	0	0	3	122	1	0	1	353	354
07:15 AM	0	0	0	0	0	270	9	0	2	0	0	0	0	138	0	0	0	419	419
07:30 AM	1	0	0	0	1	235	8	0	6	0	0	0	1	148	0	0	0	400	400
07:45 AM	1	0	1	0	1	241	13	0	13	0	0	0	3	162	1	0	0	436	436
Total	2	0	1	0	2	964	35	1	25	0	0	0	7	570	2	0	1	1608	1609
08:00 AM	3	0	0	0	4	247	15	0	16	0	2	0	2	159	2	0	0	450	450
08:15 AM	0	0	0	0	5	243	17	0	9	0	0	0	3	168	5	0	0	450	450
08:30 AM	0	0	0	0	4	236	21	0	13	0	0	0	4	154	5	0	0	437	437
08:45 AM	2	0	1	0	2	286	22	0	10	0	1	0	4	149	4	0	0	481	481
Total	5	0	1	0	15	1012	75	0	48	0	3	0	13	630	16	0	0	1818	1818
Grand Total	7	0	2	0	17	1976	110	1	73	0	3	0	20	1200	18	0	1	3426	3427
Apprch %	77.8	0	22.2		0.8	94	5.2		96.1	0	3.9		1.6	96.9	1.5				
Total %	0.2	0	0.1		0.5	57.7	3.2		2.1	0	0.1		0.6	35	0.5		0	100	
Cars & Peds	7	0	1		16	1959	109		71	0	1		19	1161	18		0	0	3363
% Cars & Peds	100	0	50	0	94.1	99.1	99.1	100	97.3	0	33.3	0	95	96.8	100	0	0	0	98.1
Trucks	0	0	1		1	17	1		2	0	2		1	39	0		0	0	64
% Trucks	0	0	50	0	5.9	0.9	0.9	0	2.7	0	66.7	0	5	3.2	0	0	0	0	1.9

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	3	0	0	3	4	247	15	266	16	0	2	18	2	159	2	163	450
08:15 AM	0	0	0	0	5	243	17	265	9	0	0	9	3	168	5	176	450
08:30 AM	0	0	0	0	4	236	21	261	13	0	0	13	4	154	5	163	437
08:45 AM	2	0	1	3	2	286	22	310	10	0	1	11	4	149	4	157	481
Total Volume	5	0	1	6	15	1012	75	1102	48	0	3	51	13	630	16	659	1818
% App. Total	83.3	0	16.7		1.4	91.8	6.8		94.1	0	5.9		2	95.6	2.4		
PHF	.417	.000	.250	.500	.750	.885	.852	.889	.750	.000	.375	.708	.813	.938	.800	.936	.945
Cars & Peds	5	0	0	5	14	1003	74	1091	47	0	1	48	12	612	16	640	1784
% Cars & Peds	100	0	0	83.3	93.3	99.1	98.7	99.0	97.9	0	33.3	94.1	92.3	97.1	100	97.1	98.1
Trucks	0	0	1	1	1	9	1	11	1	0	2	3	1	18	0	19	34
% Trucks	0	0	100	16.7	6.7	0.9	1.3	1.0	2.1	0	66.7	5.9	7.7	2.9	0	2.9	1.9

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263F

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Office Park Drive From North			Derby Street From East			Derby Shoppes Unsignal Drive From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	0	0	0	2	0	1	0	0	0	6	0	9
07:15 AM	0	0	0	0	2	0	0	0	0	0	8	0	10
07:30 AM	0	0	0	0	1	0	0	0	0	0	4	0	5
07:45 AM	0	0	0	0	3	0	0	0	0	0	3	0	6
Total	0	0	0	0	8	0	1	0	0	0	21	0	30
08:00 AM	0	0	0	0	1	0	1	0	2	0	4	0	8
08:15 AM	0	0	0	0	3	0	0	0	0	0	4	0	7
08:30 AM	0	0	0	1	1	0	0	0	0	1	4	0	7
08:45 AM	0	0	1	0	4	1	0	0	0	0	6	0	12
Total	0	0	1	1	9	1	1	0	2	1	18	0	34
Grand Total	0	0	1	1	17	1	2	0	2	1	39	0	64
Apprch %	0	0	100	5.3	89.5	5.3	50	0	50	2.5	97.5	0	
Total %	0	0	1.6	1.6	26.6	1.6	3.1	0	3.1	1.6	60.9	0	

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	1	0	1	1	0	2	3	0	4	0	4	8
08:15 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	4	0	4	7
08:30 AM	0	0	0	0	1	1	0	2	0	0	0	0	1	4	0	5	7
08:45 AM	0	0	1	1	0	4	1	5	0	0	0	0	0	6	0	6	12
Total Volume	0	0	1	1	1	9	1	11	1	0	2	3	1	18	0	19	34
% App. Total	0	0	100		9.1	81.8	9.1		33.3	0	66.7		5.3	94.7	0		
PHF	.000	.000	.250	.250	.250	.563	.250	.550	.250	.000	.250	.250	.250	.750	.000	.792	.708

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

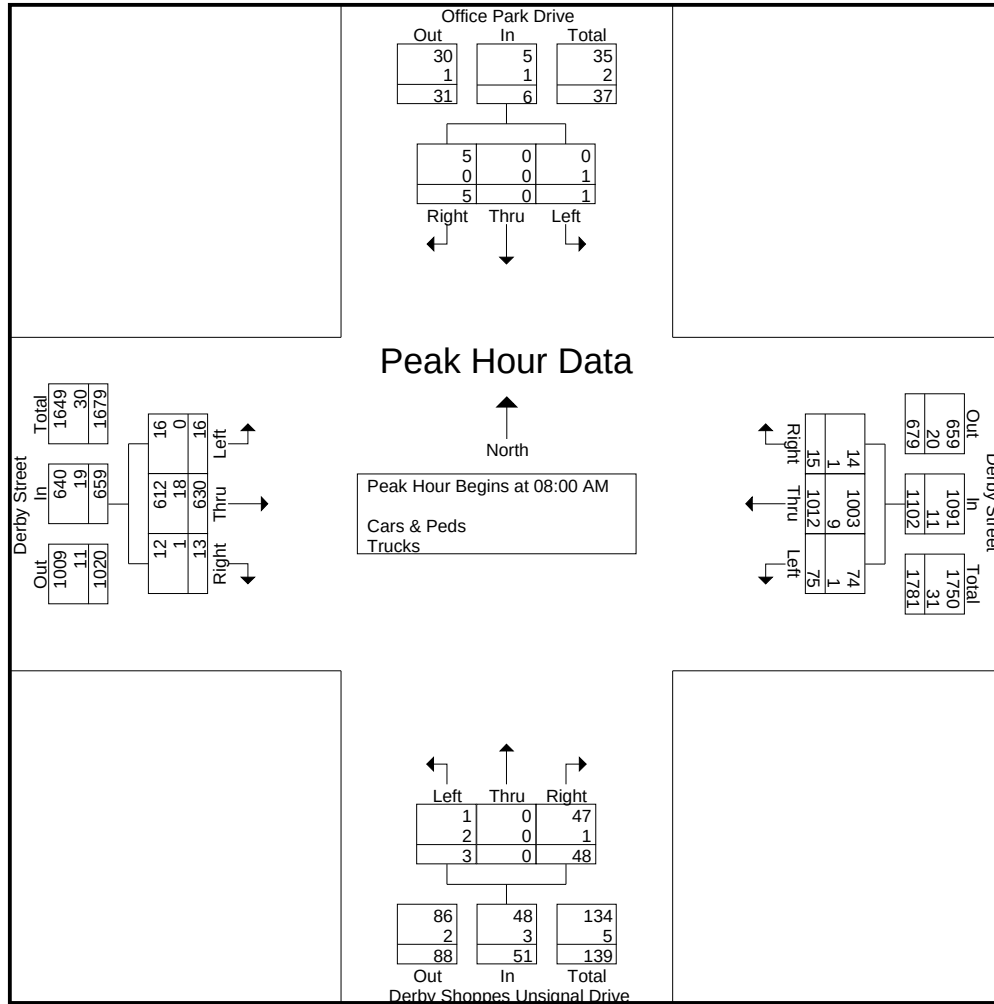
File Name : 04263F

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	3	0	0	3	4	247	15	266	16	0	2	18	2	159	2	163	450
08:15 AM	0	0	0	0	5	243	17	265	9	0	0	9	3	168	5	176	450
08:30 AM	0	0	0	0	4	236	21	261	13	0	0	13	4	154	5	163	437
08:45 AM	2	0	1	3	2	286	22	310	10	0	1	11	4	149	4	157	481
Total Volume	5	0	1	6	15	1012	75	1102	48	0	3	51	13	630	16	659	1818
% App. Total	83.3	0	16.7		1.4	91.8	6.8		94.1	0	5.9		2	95.6	2.4		
PHF	.417	.000	.250	.500	.750	.885	.852	.889	.750	.000	.375	.708	.813	.938	.800	.936	.945
Cars & Peds	5	0	0	5	14	1003	74	1091	47	0	1	48	12	612	16	640	1784
% Cars & Peds	100	0	0	83.3	93.3	99.1	98.7	99.0	97.9	0	33.3	94.1	92.3	97.1	100	97.1	98.1
Trucks	0	0	1	1	1	9	1	11	1	0	2	3	1	18	0	19	34
% Trucks	0	0	100	16.7	6.7	0.9	1.3	1.0	2.1	0	66.7	5.9	7.7	2.9	0	2.9	1.9



Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263FF

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
04:00 PM	2	0	2	0	0	215	74	0	75	0	0	1	5	214	2	0	1	589	590
04:15 PM	5	0	1	0	1	231	66	0	78	1	0	3	8	238	0	1	4	629	633
04:30 PM	4	0	7	0	5	238	73	0	105	2	0	1	10	223	1	0	1	668	669
04:45 PM	5	0	3	0	8	216	77	0	104	1	0	3	14	254	2	0	3	684	687
Total	16	0	13	0	14	900	290	0	362	4	0	8	37	929	5	1	9	2570	2579
05:00 PM	7	1	4	0	1	264	97	0	102	0	0	0	13	261	1	0	0	751	751
05:15 PM	8	0	4	0	2	243	114	0	109	0	0	0	10	245	0	0	0	735	735
05:30 PM	5	0	3	0	0	222	93	0	102	0	1	0	15	269	1	0	0	711	711
05:45 PM	4	1	3	0	1	201	91	0	104	0	1	0	12	234	0	0	0	652	652
Total	24	2	14	0	4	930	395	0	417	0	2	0	50	1009	2	0	0	2849	2849
Grand Total	40	2	27	0	18	1830	685	0	779	4	2	8	87	1938	7	1	9	5419	5428
Apprch %	58	2.9	39.1		0.7	72.2	27		99.2	0.5	0.3		4.3	95.4	0.3				
Total %	0.7	0	0.5		0.3	33.8	12.6		14.4	0.1	0		1.6	35.8	0.1		0.2	99.8	
Cars & Peds	40	2	27		18	1820	685		779	4	2		87	1931	7		0	0	5411
% Cars & Peds	100	100	100	0	100	99.5	100	0	100	100	100	100	100	99.6	100	100	0	0	99.7
Trucks	0	0	0		0	10	0		0	0	0		0	7	0		0	0	17
% Trucks	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0.4	0	0	0	0	0.3

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	0	3	8	8	216	77	301	104	1	0	105	14	254	2	270	684
05:00 PM	7	1	4	12	1	264	97	362	102	0	0	102	13	261	1	275	751
05:15 PM	8	0	4	12	2	243	114	359	109	0	0	109	10	245	0	255	735
05:30 PM	5	0	3	8	0	222	93	315	102	0	1	103	15	269	1	285	711
Total Volume	25	1	14	40	11	945	381	1337	417	1	1	419	52	1029	4	1085	2881
% App. Total	62.5	2.5	35		0.8	70.7	28.5		99.5	0.2	0.2		4.8	94.8	0.4		
PHF	.781	.250	.875	.833	.344	.895	.836	.923	.956	.250	.250	.961	.867	.956	.500	.952	.959
Cars & Peds	25	1	14	40	11	940	381	1332	417	1	1	419	52	1027	4	1083	2874
% Cars & Peds	100	100	100	100	100	99.5	100	99.6	100	100	100	100	100	99.8	100	99.8	99.8
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
% Trucks	0	0	0	0	0	0.5	0	0.4	0	0	0	0	0	0.2	0	0.2	0.2

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263FF

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Office Park Drive From North			Derby Street From East			Derby Shoppes Unsignal Drive From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
04:15 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
04:30 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
04:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
Total	0	0	0	0	7	0	0	0	0	0	6	0	13
05:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	0	0	0	0	0	1	0	4
Grand Total	0	0	0	0	10	0	0	0	0	0	7	0	17
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	58.8	0	0	0	0	0	41.2	0	

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	0	3	4
04:30 PM	0	0	0	0	0	4	0	4	0	0	0	0	0	1	0	1	5
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
05:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	0	10	0	10	0	0	0	0	0	5	0	5	15
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.417	.000	.417	.750

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

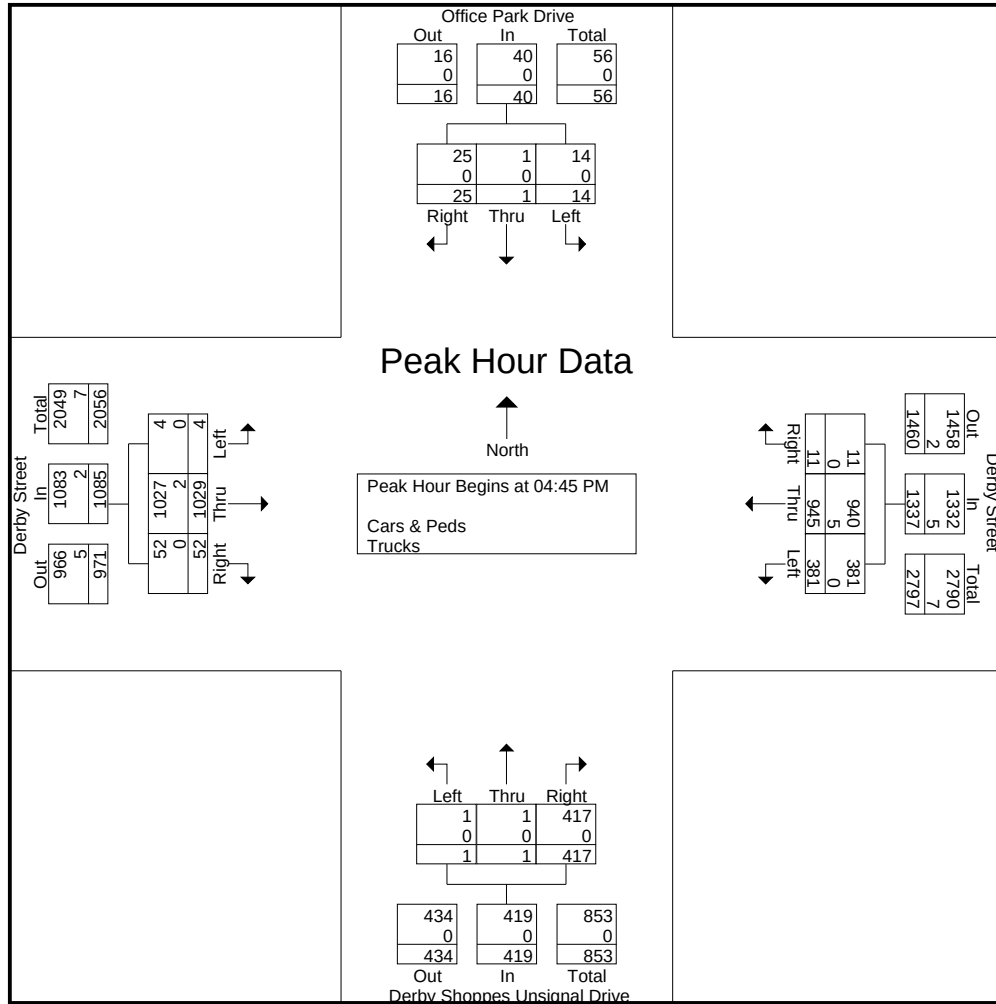
File Name : 04263FF

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	0	3	8	8	216	77	301	104	1	0	105	14	254	2	270	684
05:00 PM	7	1	4	12	1	264	97	362	102	0	0	102	13	261	1	275	751
05:15 PM	8	0	4	12	2	243	114	359	109	0	0	109	10	245	0	255	735
05:30 PM	5	0	3	8	0	222	93	315	102	0	1	103	15	269	1	285	711
Total Volume	25	1	14	40	11	945	381	1337	417	1	1	419	52	1029	4	1085	2881
% App. Total	62.5	2.5	35		0.8	70.7	28.5		99.5	0.2	0.2		4.8	94.8	0.4		
PHF	.781	.250	.875	.833	.344	.895	.836	.923	.956	.250	.250	.961	.867	.956	.500	.952	.959
Cars & Peds	25	1	14	40	11	940	381	1332	417	1	1	419	52	1027	4	1083	2874
% Cars & Peds	100	100	100	100	100	99.5	100	99.6	100	100	100	100	100	99.8	100	99.8	99.8
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
% Trucks	0	0	0	0	0	0.5	0	0.4	0	0	0	0	0	0.2	0	0.2	0.2



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N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263FFF

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
11:00 AM	1	0	0	0	1	235	112	0	100	0	0	1	12	173	0	0	1	634	635
11:15 AM	0	0	1	0	0	212	147	0	104	0	0	0	10	181	1	0	0	656	656
11:30 AM	2	1	0	0	1	216	130	0	108	0	0	0	5	188	0	0	0	651	651
11:45 AM	0	0	0	0	0	234	135	0	105	0	0	1	10	202	0	0	1	686	687
Total	3	1	1	0	2	897	524	0	417	0	0	2	37	744	1	0	2	2627	2629
12:00 PM	0	0	0	0	0	219	154	0	132	0	0	0	8	205	1	0	0	719	719
12:15 PM	1	1	0	0	2	258	149	0	137	0	0	3	13	204	1	0	3	766	769
12:30 PM	0	0	0	0	1	231	135	0	131	0	0	0	9	200	0	0	0	707	707
12:45 PM	0	0	0	0	1	245	127	0	137	0	0	0	13	192	2	0	0	717	717
Total	1	1	0	0	4	953	565	0	537	0	0	3	43	801	4	0	3	2909	2912
Grand Total	4	2	1	0	6	1850	1089	0	954	0	0	5	80	1545	5	0	5	5536	5541
Apprch %	57.1	28.6	14.3		0.2	62.8	37		100	0	0		4.9	94.8	0.3				
Total %	0.1	0	0		0.1	33.4	19.7		17.2	0	0		1.4	27.9	0.1		0.1	99.9	
Cars & Peds	4	2	1		6	1841	1089		954	0	0		80	1538	5		0	0	5525
% Cars & Peds	100	100	100	0	100	99.5	100	0	100	0	0	100	100	99.5	100	0	0	0	99.7
Trucks	0	0	0		0	9	0		0	0	0		0	7	0		0	0	16
% Trucks	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0.5	0	0	0	0	0.3

Start Time	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	219	154	373	132	0	0	132	8	205	1	214	719
12:15 PM	1	1	0	2	2	258	149	409	137	0	0	137	13	204	1	218	766
12:30 PM	0	0	0	0	1	231	135	367	131	0	0	131	9	200	0	209	707
12:45 PM	0	0	0	0	1	245	127	373	137	0	0	137	13	192	2	207	717
Total Volume	1	1	0	2	4	953	565	1522	537	0	0	537	43	801	4	848	2909
% App. Total	50	50	0		0.3	62.6	37.1		100	0	0		5.1	94.5	0.5		
PHF	.250	.250	.000	.250	.500	.923	.917	.930	.980	.000	.000	.980	.827	.977	.500	.972	.949
Cars & Peds	1	1	0	2	4	948	565	1517	537	0	0	537	43	799	4	846	2902
% Cars & Peds	100	100	0	100	100	99.5	100	99.7	100	0	0	100	100	99.8	100	99.8	99.8
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
% Trucks	0	0	0	0	0	0.5	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263FFF

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Office Park Drive From North			Derby Street From East			Derby Shoppes Unsignal Drive From South			Derby Street From West			Int. Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
11:00 AM	0	0	0	0	2	0	0	0	0	0	2	0	4
11:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
11:30 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	4	0	0	0	0	0	5	0	9
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
12:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	5	0	0	0	0	0	2	0	7
Grand Total	0	0	0	0	9	0	0	0	0	0	7	0	16
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	56.2	0	0	0	0	0	43.8	0	

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				Int. Total
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
11:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	5	0	5	9
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.625	.000	.625	.563

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Office Dr./Shoppes Unsignalized Dr.

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

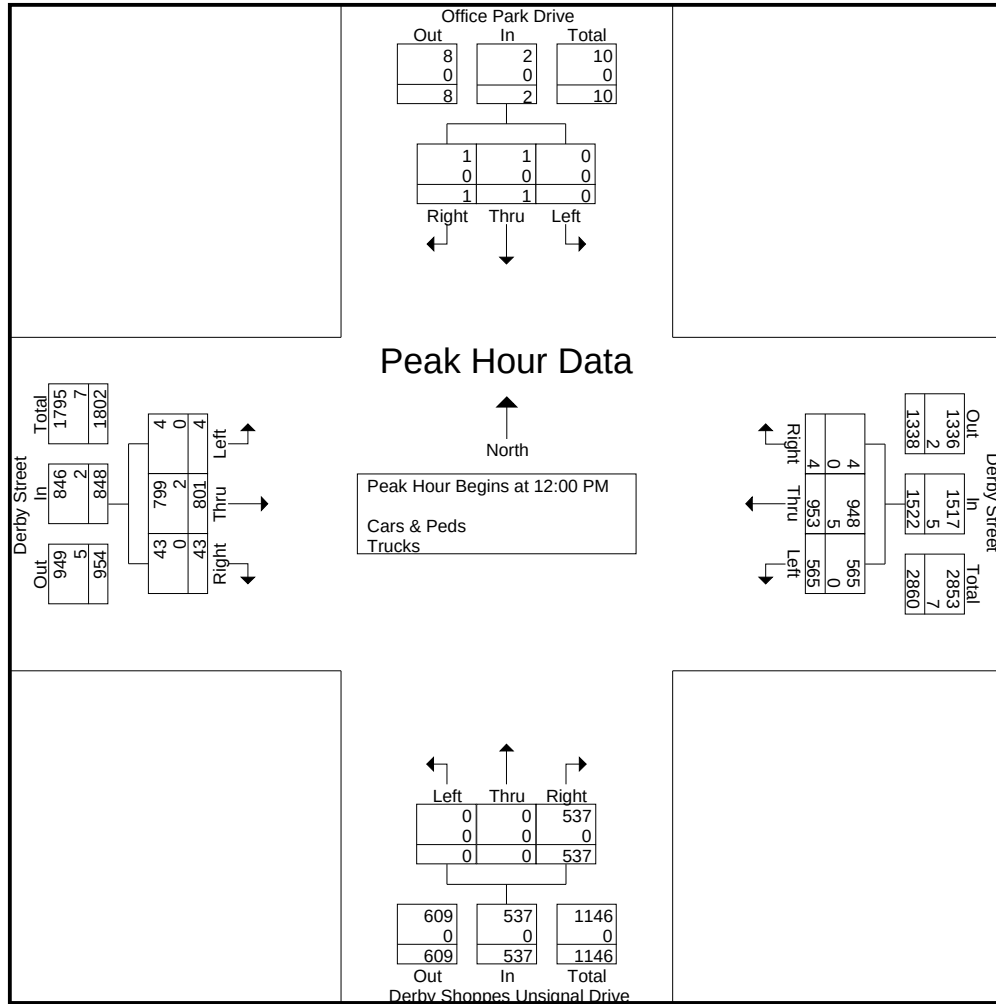
File Name : 04263FFF

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

	Office Park Drive From North				Derby Street From East				Derby Shoppes Unsignal Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	219	154	373	132	0	0	132	8	205	1	214	719
12:15 PM	1	1	0	2	2	258	149	409	137	0	0	137	13	204	1	218	766
12:30 PM	0	0	0	0	1	231	135	367	131	0	0	131	9	200	0	209	707
12:45 PM	0	0	0	0	1	245	127	373	137	0	0	137	13	192	2	207	717
Total Volume	1	1	0	2	4	953	565	1522	537	0	0	537	43	801	4	848	2909
% App. Total	50	50	0		0.3	62.6	37.1		100	0	0		5.1	94.5	0.5		
PHF	.250	.250	.000	.250	.500	.923	.917	.930	.980	.000	.000	.980	.827	.977	.500	.972	.949
Cars & Peds	1	1	0	2	4	948	565	1517	537	0	0	537	43	799	4	846	2902
% Cars & Peds	100	100	0	100	100	99.5	100	99.7	100	0	0	100	100	99.8	100	99.8	99.8
Trucks	0	0	0	0	0	5	0	5	0	0	0	0	0	2	0	2	7
% Trucks	0	0	0	0	0	0.5	0	0.3	0	0	0	0	0	0.2	0	0.2	0.2



Transportation Data Corporation

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t (781) 587-0086 f (781) 587-0189

N/S: Cushing Street/Office Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263G

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
07:00 AM	52	0	2	1	1	173	0	0	0	0	0	0	1	73	49	0	1	351	352
07:15 AM	68	0	1	0	8	215	1	0	1	0	0	0	1	88	51	0	0	434	434
07:30 AM	61	0	2	0	25	171	1	0	1	0	2	0	2	95	59	0	0	419	419
07:45 AM	75	1	7	0	6	173	1	0	2	0	0	1	2	107	67	0	1	441	442
Total	256	1	12	1	40	732	3	0	4	0	2	1	6	363	226	0	2	1645	1647
08:00 AM	72	0	3	0	4	197	4	0	0	1	0	1	1	113	59	0	1	454	455
08:15 AM	86	0	7	0	4	181	2	0	1	0	0	0	4	115	57	0	0	457	457
08:30 AM	77	1	7	0	12	187	3	0	3	0	2	0	3	104	58	0	0	457	457
08:45 AM	107	0	5	0	4	203	1	0	0	0	0	0	2	109	48	0	0	479	479
Total	342	1	22	0	24	768	10	0	4	1	2	1	10	441	222	0	1	1847	1848
Grand Total	598	2	34	1	64	1500	13	0	8	1	4	2	16	804	448	0	3	3492	3495
Apprch %	94.3	0.3	5.4		4.1	95.1	0.8		61.5	7.7	30.8		1.3	63.4	35.3				
Total %	17.1	0.1	1		1.8	43	0.4		0.2	0	0.1		0.5	23	12.8		0.1	99.9	
Cars & Peds	587	2	34		64	1491	11		8	1	4		16	782	428		0	0	3431
% Cars & Peds	98.2	100	100	100	100	99.4	84.6	0	100	100	100	100	100	97.3	95.5	0	0	0	98.2
Trucks	11	0	0		0	9	2		0	0	0		0	22	20		0	0	64
% Trucks	1.8	0	0	0	0	0.6	15.4	0	0	0	0	0	0	2.7	4.5	0	0	0	1.8

Start Time	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	72	0	3	75	4	197	4	205	0	1	0	1	1	113	59	173	454
08:15 AM	86	0	7	93	4	181	2	187	1	0	0	1	4	115	57	176	457
08:30 AM	77	1	7	85	12	187	3	202	3	0	2	5	3	104	58	165	457
08:45 AM	107	0	5	112	4	203	1	208	0	0	0	0	2	109	48	159	479
Total Volume	342	1	22	365	24	768	10	802	4	1	2	7	10	441	222	673	1847
% App. Total	93.7	0.3	6		3	95.8	1.2		57.1	14.3	28.6		1.5	65.5	33		
PHF	.799	.250	.786	.815	.500	.946	.625	.964	.333	.250	.250	.350	.625	.959	.941	.956	.964
Cars & Peds	336	1	22	359	24	763	8	795	4	1	2	7	10	430	215	655	1816
% Cars & Peds	98.2	100	100	98.4	100	99.3	80.0	99.1	100	100	100	100	100	97.5	96.8	97.3	98.3
Trucks	6	0	0	6	0	5	2	7	0	0	0	0	0	11	7	18	31
% Trucks	1.8	0	0	1.6	0	0.7	20.0	0.9	0	0	0	0	0	2.5	3.2	2.7	1.7

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

t (781) 587-0086 f (781) 587-0189

N/S: Cushing Street/Office Drive

E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263G

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Cushing Street From North			Derby Street From East			62 Derby Offices Drive From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	1	0	0	0	0	0	0	0	0	0	5	2	8
07:15 AM	1	0	0	0	2	0	0	0	0	0	2	6	11
07:30 AM	2	0	0	0	0	0	0	0	0	0	2	3	7
07:45 AM	1	0	0	0	2	0	0	0	0	0	2	2	7
Total	5	0	0	0	4	0	0	0	0	0	11	13	33
08:00 AM	0	0	0	0	1	0	0	0	0	0	2	2	5
08:15 AM	1	0	0	0	2	2	0	0	0	0	2	2	9
08:30 AM	1	0	0	0	1	0	0	0	0	0	2	2	6
08:45 AM	4	0	0	0	1	0	0	0	0	0	5	1	11
Total	6	0	0	0	5	2	0	0	0	0	11	7	31
Grand Total	11	0	0	0	9	2	0	0	0	0	22	20	64
Apprch %	100	0	0	0	81.8	18.2	0	0	0	0	52.4	47.6	
Total %	17.2	0	0	0	14.1	3.1	0	0	0	0	34.4	31.2	

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	5	2	7	8
07:15 AM	1	0	0	1	0	2	0	2	0	0	0	0	0	2	6	8	11
07:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	2	3	5	7
07:45 AM	1	0	0	1	0	2	0	2	0	0	0	0	0	2	2	4	7
Total Volume	5	0	0	5	0	4	0	4	0	0	0	0	0	11	13	24	33
% App. Total	100	0	0		0	100	0		0	0	0		0	45.8	54.2		
PHF	.625	.000	.000	.625	.000	.500	.000	.500	.000	.000	.000	.000	.000	.550	.542	.750	.750

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

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N/S: Cushing Street/Office Drive

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City, State: Hingham, MA

Client: C&C/J. Morgan

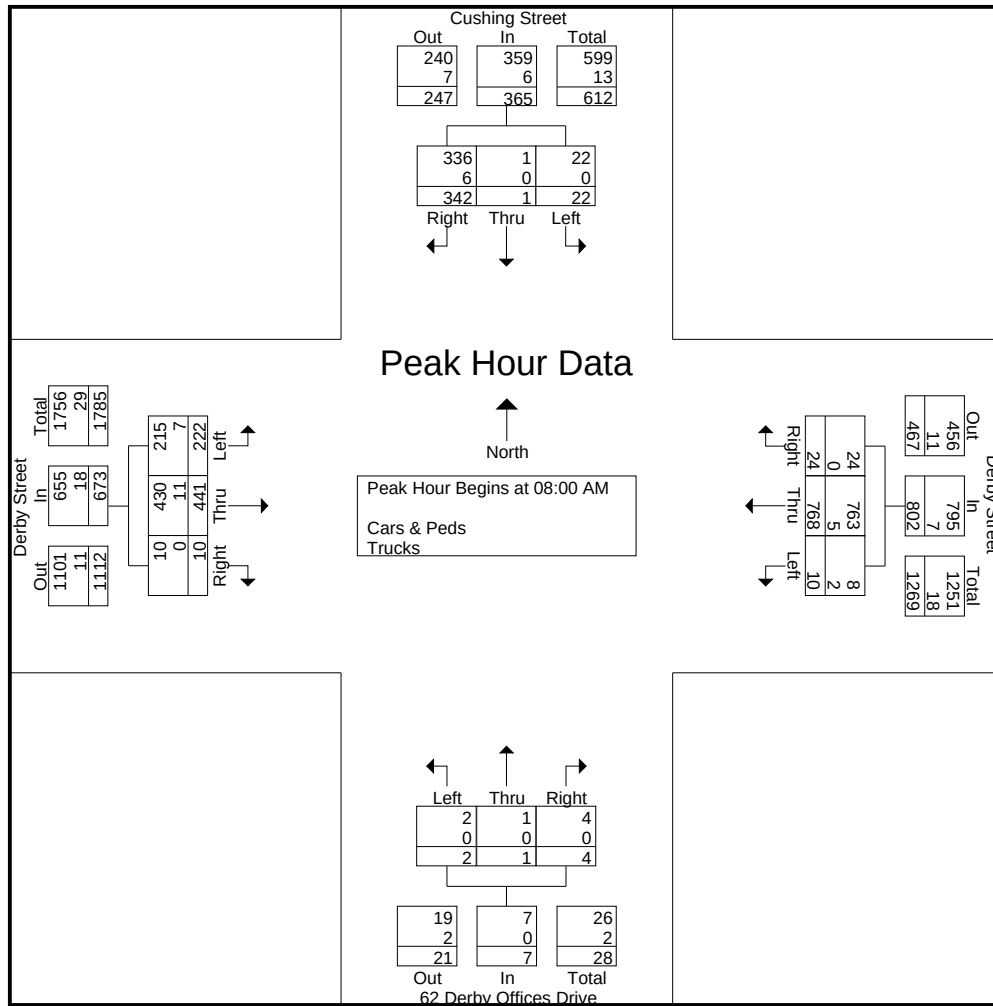
File Name : 04263G

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	72	0	3	75	4	197	4	205	0	1	0	1	1	113	59	173	454
08:15 AM	86	0	7	93	4	181	2	187	1	0	0	1	4	115	57	176	457
08:30 AM	77	1	7	85	12	187	3	202	3	0	2	5	3	104	58	165	457
08:45 AM	107	0	5	112	4	203	1	208	0	0	0	0	2	109	48	159	479
Total Volume	342	1	22	365	24	768	10	802	4	1	2	7	10	441	222	673	1847
% App. Total	93.7	0.3	6		3	95.8	1.2		57.1	14.3	28.6		1.5	65.5	33		
PHF	.799	.250	.786	.815	.500	.946	.625	.964	.333	.250	.250	.350	.625	.959	.941	.956	.964
Cars & Peds	336	1	22	359	24	763	8	795	4	1	2	7	10	430	215	655	1816
% Cars & Peds	98.2	100	100	98.4	100	99.3	80.0	99.1	100	100	100	100	100	97.5	96.8	97.3	98.3
Trucks	6	0	0	6	0	5	2	7	0	0	0	0	0	11	7	18	31
% Trucks	1.8	0	0	1.6	0	0.7	20.0	0.9	0	0	0	0	0	2.5	3.2	2.7	1.7



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File Name : 04263GG

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

Start Time	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
04:00 PM	98	0	2	0	11	184	0	0	3	3	3	0	6	177	113	0	0	600	600
04:15 PM	123	1	7	0	7	175	1	0	1	0	0	0	2	213	97	0	0	627	627
04:30 PM	110	4	6	0	5	197	1	0	0	2	5	0	7	213	105	0	0	655	655
04:45 PM	127	2	7	0	9	179	2	2	4	4	4	1	1	239	119	1	4	697	701
Total	458	7	22	0	32	735	4	2	8	9	12	1	16	842	434	1	4	2579	2583
05:00 PM	125	0	2	2	9	229	2	0	5	3	5	0	4	257	109	0	2	750	752
05:15 PM	152	0	10	0	8	204	2	0	1	1	2	0	1	209	145	0	0	735	735
05:30 PM	125	0	3	0	15	189	1	0	4	1	3	1	3	233	134	0	1	711	712
05:45 PM	111	0	4	0	22	182	3	0	0	2	5	0	2	211	125	1	1	667	668
Total	513	0	19	2	54	804	8	0	10	7	15	1	10	910	513	1	4	2863	2867
Grand Total	971	7	41	2	86	1539	12	2	18	16	27	2	26	1752	947	2	8	5442	5450
Apprch %	95.3	0.7	4		5.3	94	0.7		29.5	26.2	44.3		1	64.3	34.8				
Total %	17.8	0.1	0.8		1.6	28.3	0.2		0.3	0.3	0.5		0.5	32.2	17.4		0.1	99.9	
Cars & Peds	965	7	41		86	1534	12		18	16	27		26	1750	942		0	0	5432
% Cars & Peds	99.4	100	100	100	100	99.7	100	100	100	100	100	100	100	99.9	99.5	100	0	0	99.7
Trucks	6	0	0		0	5	0		0	0	0		0	2	5		0	0	18
% Trucks	0.6	0	0	0	0	0.3	0	0	0	0	0	0	0	0.1	0.5	0	0	0	0.3

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	127	2	7	136	9	179	2	190	4	4	4	12	1	239	119	359	697
05:00 PM	125	0	2	127	9	229	2	240	5	3	5	13	4	257	109	370	750
05:15 PM	152	0	10	162	8	204	2	214	1	1	2	4	1	209	145	355	735
05:30 PM	125	0	3	128	15	189	1	205	4	1	3	8	3	233	134	370	711
Total Volume	529	2	22	553	41	801	7	849	14	9	14	37	9	938	507	1454	2893
% App. Total	95.7	0.4	4		4.8	94.3	0.8		37.8	24.3	37.8		0.6	64.5	34.9		
PHF	.870	.250	.550	.853	.683	.874	.875	.884	.700	.563	.700	.712	.563	.912	.874	.982	.964
Cars & Peds	525	2	22	549	41	799	7	847	14	9	14	37	9	937	506	1452	2885
% Cars & Peds	99.2	100	100	99.3	100	99.8	100	99.8	100	100	100	100	100	99.9	99.8	99.9	99.7
Trucks	4	0	0	4	0	2	0	2	0	0	0	0	0	1	1	2	8
% Trucks	0.8	0	0	0.7	0	0.2	0	0.2	0	0	0	0	0	0.1	0.2	0.1	0.3

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E/W: Derby Street

City, State: Hingham, MA

Client: C&C/J. Morgan

File Name : 04263GG

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

Groups Printed- Trucks

	Cushing Street From North			Derby Street From East			62 Derby Offices Drive From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	1	0	0	0	0	0	1	2	4
04:30 PM	2	0	0	0	2	0	0	0	0	0	0	1	5
04:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	3
Total	3	0	0	0	4	0	0	0	0	0	1	5	13
05:00 PM	2	0	0	0	1	0	0	0	0	0	0	0	3
05:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	1	0	0	0	0	0	1	0	5
Grand Total	6	0	0	0	5	0	0	0	0	0	2	5	18
Apprch %	100	0	0	0	100	0	0	0	0	0	28.6	71.4	
Total %	33.3	0	0	0	27.8	0	0	0	0	0	11.1	27.8	

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	3	4
04:30 PM	2	0	0	2	0	2	0	2	0	0	0	0	0	0	1	1	5
04:45 PM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	1	1	3
05:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total Volume	5	0	0	5	0	5	0	5	0	0	0	0	0	1	4	5	15
% App. Total	100	0	0		0	100	0		0	0	0		0	20	80		
PHF	.625	.000	.000	.625	.000	.625	.000	.625	.000	.000	.000	.000	.000	.250	.500	.417	.750

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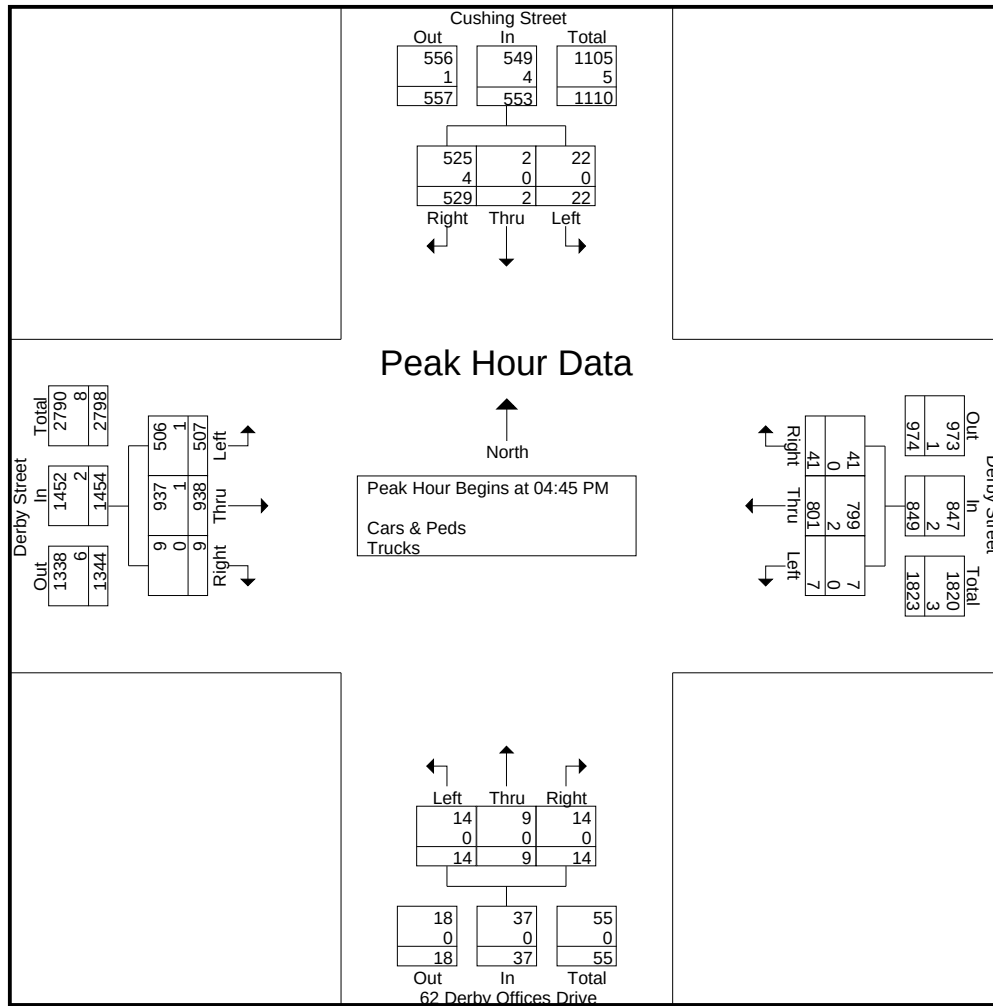
File Name : 04263GG

Site Code : 04263

Start Date : 6/14/2012

Page No : 1

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	127	2	7	136	9	179	2	190	4	4	4	12	1	239	119	359	697
05:00 PM	125	0	2	127	9	229	2	240	5	3	5	13	4	257	109	370	750
05:15 PM	152	0	10	162	8	204	2	214	1	1	2	4	1	209	145	355	735
05:30 PM	125	0	3	128	15	189	1	205	4	1	3	8	3	233	134	370	711
Total Volume	529	2	22	553	41	801	7	849	14	9	14	37	9	938	507	1454	2893
% App. Total	95.7	0.4	4		4.8	94.3	0.8		37.8	24.3	37.8		0.6	64.5	34.9		
PHF	.870	.250	.550	.853	.683	.874	.875	.884	.700	.563	.700	.712	.563	.912	.874	.982	.964
Cars & Peds	525	2	22	549	41	799	7	847	14	9	14	37	9	937	506	1452	2885
% Cars & Peds	99.2	100	100	99.3	100	99.8	100	99.8	100	100	100	100	100	99.9	99.8	99.9	99.7
Trucks	4	0	0	4	0	2	0	2	0	0	0	0	0	1	1	2	8
% Trucks	0.8	0	0	0.7	0	0.2	0	0.2	0	0	0	0	0	0.1	0.2	0.1	0.3



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Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Cars & Peds - Trucks

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				Exclu. Total	Inclu. Total	Int. Total
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds			
11:00 AM	159	0	2	0	9	199	0	0	0	0	0	0	0	176	93	0	0	638	638
11:15 AM	151	0	6	0	3	206	1	0	0	1	1	1	2	194	108	0	1	673	674
11:30 AM	155	0	5	0	9	197	0	0	0	0	2	0	2	201	103	0	0	674	674
11:45 AM	171	0	7	0	9	200	0	0	1	0	0	1	0	201	121	1	2	710	712
Total	636	0	20	0	30	802	1	0	1	1	3	2	4	772	425	1	3	2695	2698
12:00 PM	159	0	7	1	6	207	0	0	1	0	1	0	1	209	120	1	2	711	713
12:15 PM	175	0	5	2	6	227	1	0	2	0	2	0	6	195	116	1	3	735	738
12:30 PM	169	0	4	0	9	195	0	3	1	0	0	0	2	213	102	0	3	695	698
12:45 PM	182	0	8	0	3	192	0	0	0	1	0	0	0	198	130	0	0	714	714
Total	685	0	24	3	24	821	1	3	4	1	3	0	9	815	468	2	8	2855	2863
Grand Total	1321	0	44	3	54	1623	2	3	5	2	6	2	13	1587	893	3	11	5550	5561
Apprch %	96.8	0	3.2		3.2	96.7	0.1		38.5	15.4	46.2		0.5	63.7	35.8				
Total %	23.8	0	0.8		1	29.2	0		0.1	0	0.1		0.2	28.6	16.1		0.2	99.8	
Cars & Peds	1316	0	44		54	1619	2		5	2	6		13	1583	890		0	0	5545
% Cars & Peds	99.6	0	100	100	100	99.8	100	100	100	100	100	100	100	99.7	99.7	100	0	0	99.7
Trucks	5	0	0		0	4	0		0	0	0		0	4	3		0	0	16
% Trucks	0.4	0	0	0	0	0.2	0	0	0	0	0	0	0	0.3	0.3	0	0	0	0.3

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	159	0	7	166	6	207	0	213	1	0	1	2	1	209	120	330	711
12:15 PM	175	0	5	180	6	227	1	234	2	0	2	4	6	195	116	317	735
12:30 PM	169	0	4	173	9	195	0	204	1	0	0	1	2	213	102	317	695
12:45 PM	182	0	8	190	3	192	0	195	0	1	0	1	0	198	130	328	714
Total Volume	685	0	24	709	24	821	1	846	4	1	3	8	9	815	468	1292	2855
% App. Total	96.6	0	3.4		2.8	97	0.1		50	12.5	37.5		0.7	63.1	36.2		
PHF	.941	.000	.750	.933	.667	.904	.250	.904	.500	.250	.375	.500	.375	.957	.900	.979	.971
Cars & Peds	682	0	24	706	24	819	1	844	4	1	3	8	9	814	467	1290	2848
% Cars & Peds	99.6	0	100	99.6	100	99.8	100	99.8	100	100	100	100	100	99.9	99.8	99.8	99.8
Trucks	3	0	0	3	0	2	0	2	0	0	0	0	0	1	1	2	7
% Trucks	0.4	0	0	0.4	0	0.2	0	0.2	0	0	0	0	0	0.1	0.2	0.2	0.2

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Client: C&C/J. Morgan

File Name : 04263GGG

Site Code : 04263

Start Date : 6/16/2012

Page No : 1

Groups Printed- Trucks

	Cushing Street From North			Derby Street From East			62 Derby Offices Drive From South			Derby Street From West			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
11:00 AM	1	0	0	0	1	0	0	0	0	0	1	1	4
11:15 AM	0	0	0	0	1	0	0	0	0	0	2	0	3
11:30 AM	1	0	0	0	0	0	0	0	0	0	0	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	2	0	0	0	0	0	3	2	9
12:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
12:30 PM	2	0	0	0	0	0	0	0	0	0	0	1	3
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	3	0	0	0	2	0	0	0	0	0	1	1	7
Grand Total	5	0	0	0	4	0	0	0	0	0	4	3	16
Apprch %	100	0	0	0	100	0	0	0	0	0	57.1	42.9	
Total %	31.2	0	0	0	25	0	0	0	0	0	25	18.8	

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 11:00 AM																	
11:00 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	1	1	2	4
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
11:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	2	0	2	0	0	0	0	0	3	2	5	9
% App. Total	100	0	0		0	100	0		0	0	0		0	60	40		
PHF	.500	.000	.000	.500	.000	.500	.000	.500	.000	.000	.000	.000	.000	.375	.500	.625	.563

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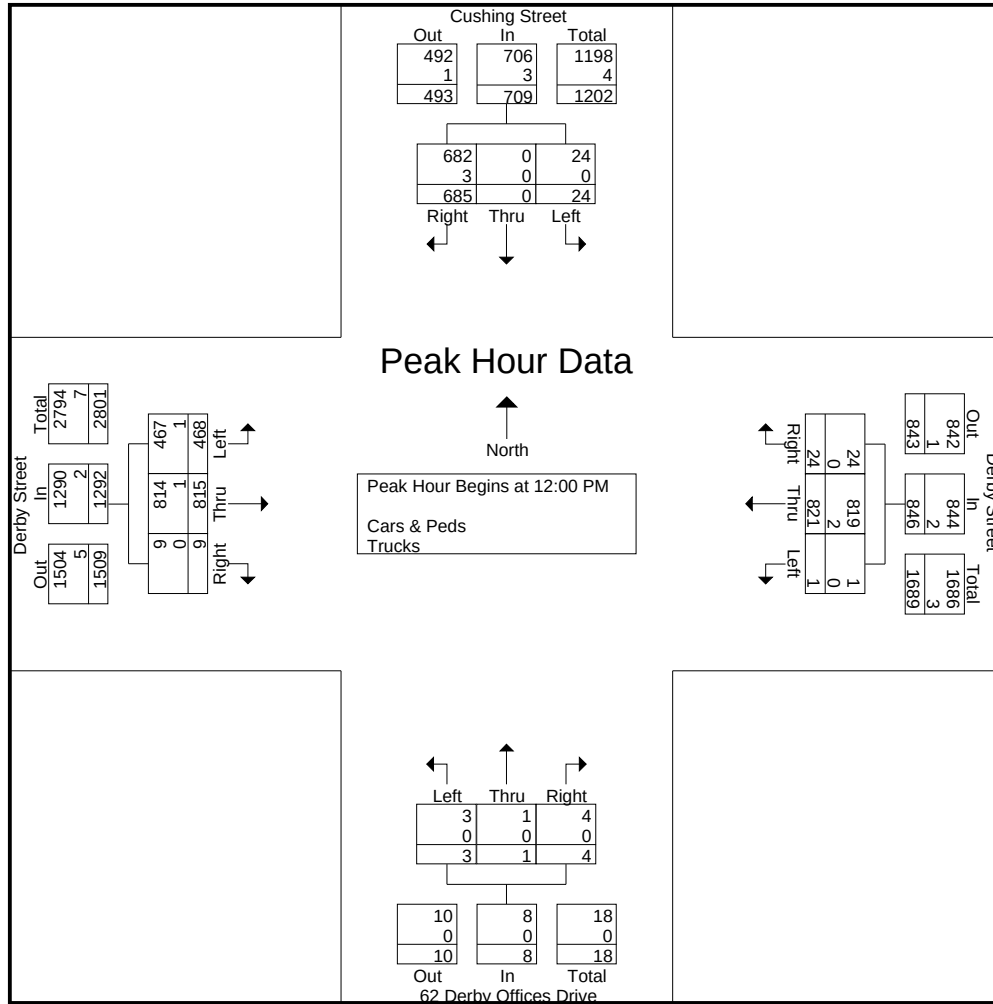
File Name : 04263GGG

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Start Date : 6/16/2012

Page No : 1

	Cushing Street From North				Derby Street From East				62 Derby Offices Drive From South				Derby Street From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	159	0	7	166	6	207	0	213	1	0	1	2	1	209	120	330	711
12:15 PM	175	0	5	180	6	227	1	234	2	0	2	4	6	195	116	317	735
12:30 PM	169	0	4	173	9	195	0	204	1	0	0	1	2	213	102	317	695
12:45 PM	182	0	8	190	3	192	0	195	0	1	0	1	0	198	130	328	714
Total Volume	685	0	24	709	24	821	1	846	4	1	3	8	9	815	468	1292	2855
% App. Total	96.6	0	3.4		2.8	97	0.1		50	12.5	37.5		0.7	63.1	36.2		
PHF	.941	.000	.750	.933	.667	.904	.250	.904	.500	.250	.375	.500	.375	.957	.900	.979	.971
Cars & Peds	682	0	24	706	24	819	1	844	4	1	3	8	9	814	467	1290	2848
% Cars & Peds	99.6	0	100	99.6	100	99.8	100	99.8	100	100	100	100	100	99.9	99.8	99.8	99.8
Trucks	3	0	0	3	0	2	0	2	0	0	0	0	0	1	1	2	7
% Trucks	0.4	0	0	0.4	0	0.2	0	0.2	0	0	0	0	0	0.1	0.2	0.2	0.2



Appendix B

Accident Data

- *MassDOT Accident Reports*
 - *Crash Rate Worksheets*

MASSHIGHWAY MassHighway Crash Report for HINGHAM in the year 2007																					
Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2144292	HINGHAM	04-Jan-2007	6:54 PM	Non-fatal injury	3	1	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Passenger car	Dry	Dark - lighted roadway	Clear/Clear		DERBY STREET / RAMP-DERBY ST TO RT 3 NB Rte 3 S				
2145641	HINGHAM	22-Jan-2007	10:03 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Cloudy/Snow		DERBY STREET			BRIDGE	
2150214	HINGHAM	31-Jan-2007	8:12 AM	Property damage only (none injured)	3	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Southbound / V2:Southbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Clear/Clear	CUSHING STREET / DERBY STREET					
2166777	HINGHAM	04-Mar-2007	12:39 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2166775	HINGHAM	04-Mar-2007	6:53 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear		89 DERBY STREET				
2168541	HINGHAM	14-Mar-2007	8:37 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET				PLAZA ENTRANCE	
2172015	HINGHAM	26-Mar-2007	5:50 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	Wet	Dusk	Rain/Rain		DERBY STREET / Rte 3				
2179370	HINGHAM	19-Apr-2007	8:02 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 N					
2187911	HINGHAM	04-May-2007	4:47 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		100 DERBY STREET				
2197879	HINGHAM	28-May-2007	11:12 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Turning right	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Single-unit truck (2-axis, 6-tire)	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2198633	HINGHAM	11-Jun-2007	8:10 AM	Property damage only (none injured)	2	0	0	Angle	V1: Unknown / V2:Turning left	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Cloudy/Cloudy		90 DERBY STREET				
2198624	HINGHAM	11-Jun-2007	3:44 PM	Property damage only (none injured)	3	0	0	Angle	V1: Turning left / V2:Travelling straight ahead / V3:Travelling straight ahead	V1:Southbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car / V3:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3					
2207040	HINGHAM	06-Jul-2007	9:03 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / CUSHING STREET					
2339083	HINGHAM	19-Jul-2007	6:50 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Entering traffic lane / V2:Slowing or stopped in traffic	V1:Not reported / V2:Not reported	V1: Not reported / V2: Not reported	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dusk	Clear	Rte 3 / DERBY STREET	PILGRIM HIGHWAY				
2217039	HINGHAM	23-Jul-2007	3:20 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Entering traffic lane / V2:Entering traffic lane	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 N					
2219810	HINGHAM	06-Aug-2007	4:36 PM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Cloudy/Cloudy		100 DERBY STREET				
2229751	HINGHAM	13-Sep-2007	5:23 PM	Non-fatal injury	2	1	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2239208	HINGHAM	18-Sep-2007	9:01 AM	Non-fatal injury	2	2	0	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 S					
2239191	HINGHAM	21-Sep-2007	6:06 PM	Property damage only (none injured)	3	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Westbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car / V3:Passenger car	Dry	Dusk	Clear/Clear	CUSHING STREET / DERBY STREET					
2239302	HINGHAM	27-Sep-2007	12:49 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Changing lanes	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2239287	HINGHAM	01-Oct-2007	7:45 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Unknown heavy truck, cannot classify / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					
2357371	HINGHAM	04-Oct-2007	2:08 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Other / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Dry	Daylight	Clear		PILGRIM HIGHWAY Rte 3 S / DERBY STREET		Exit 15 on Rte 3 S	EXIT RAMP	
2245966	HINGHAM	12-Oct-2007	5:48 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Cloudy/Cloudy		90 DERBY STREET				
2245176	HINGHAM	22-Oct-2007	11:07 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Dry	Daylight	Clear/Clear		128 DERBY STREET				
2260719	HINGHAM	25-Oct-2007	4:46 PM	Non-fatal injury	2	1	0	Rear-end	V1: Turning right / V2:Turning right	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2250006	HINGHAM	27-Oct-2007	11:08 AM	Non-fatal injury	2	1	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	Dry	Daylight	Rain/Cloudy		DERBY STREET Rte 3 / Rte 3				
2403836	HINGHAM	06-Nov-2007	12:05 PM	Property damage only (none injured)	2	0	0	Not reported	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Passenger car	Wet	Daylight	Rain		DERBY STREET Rte 3 / Rte 3				
2249712	HINGHAM	09-Nov-2007	5:05 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Dry	Dark - lighted roadway	Clear/Clear	CUSHING STREET / DERBY STREET					
2249716	HINGHAM	10-Nov-2007	11:38 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy		DERBY STREET Rte 3 / Rte 3				
2256151	HINGHAM	14-Nov-2007	4:59 PM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear		90 DERBY STREET				
2308416	HINGHAM	19-Nov-2007	4:01 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Dark - lighted roadway	Clear	DERBY STREET / CUSHING STREET					
2265336	HINGHAM	26-Nov-2007	3:00 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain/Rain		100 DERBY STREET			SERVICE ROAD	
2265365	HINGHAM	29-Nov-2007	7:30 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	CUSHING STREET / DERBY STREET					
2273739	HINGHAM	21-Dec-2007	7:39 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Dark - roadway not lighted	Rain/Rain	DERBY STREET / Rte 3					
2268488	HINGHAM	28-Dec-2007	8:54 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Cloudy/Cloudy		100 DERBY STREET				

massDOT MassDOT Crash Report for HINGHAM for the year 2008																					
Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2298832	HINGHAM	11-Jan-2008	7:51 PM	Property damage only (none injured)	2	0	0	Head-on	V1: Turning left / V2: Travelling straight ahead	V1: Eastbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Passenger car	Wet	Dark - roadway not lighted	Clear/Clear	DERBY STREET / Rte 3					
2292135	HINGHAM	18-Feb-2008	9:59 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Entering traffic lane / V2: Entering traffic lane	V1: Northbound / V2: Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Passenger car	Wet	Daylight	Cloudy/Rain	DERBY STREET / Rte 3					
2293280	HINGHAM	27-Feb-2008	5:53 PM	Non-fatal injury	2	1	0	Angle	V1: Turning left / V2: Travelling straight ahead	V1: Southbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2302470	HINGHAM	14-Mar-2008	9:58 PM	Non-fatal injury	2	2	0	Angle	V1: Travelling straight ahead / V2: Turning left	V1: Westbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2: Passenger car	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET	87 DERBY STREET				
2302446	HINGHAM	19-Mar-2008	6:17 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2: Travelling straight ahead	V1: Northbound / V2: Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Rain/Rain	CUSHING STREET / DERBY STREET					
2310585	HINGHAM	05-Apr-2008	5:39 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1: Westbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					
2315986	HINGHAM	14-Apr-2008	6:47 PM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2: Slowing or stopped in traffic	V1: Eastbound / V2: Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy		DERBY STREET Rte 3 N / Rte 3		Exit 15 on Rte 3 N		
2310609	HINGHAM	16-Apr-2008	00:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1: Eastbound	V1: Collision with curb	V1: Passenger car	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2325529	HINGHAM	09-May-2008	3:20 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2: Travelling straight ahead	V1: Southbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Rain/Rain	DERBY STREET / Rte 3 N					
2454814	HINGHAM	19-May-2008	3:10 PM	Non-fatal injury	2	2	0	Rear-end	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1: Southbound / V2: Southbound	V1: Not reported / V2: Not reported	V1: Unknown heavy truck, cannot classify	Dry	Daylight	Clear		DERBY STREET Rte 3 / Rte 3		Exit 15 on Rte 3		
2331191	HINGHAM	27-May-2008	2:29 PM	Property damage only (none injured)	3	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead	V1: Eastbound / V2: Eastbound / V3: Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2: Single-unit truck (2-axle, 6-tire) / V3: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2335067	HINGHAM	02-Jun-2008	5:56 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning right / V2: Turning right	V1: Northbound / V2: Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2335042	HINGHAM	05-Jun-2008	1:50 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2: Travelling straight ahead	V1: Southbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Rain/Cloudy	DERBY STREET / Rte 3					
2373766	HINGHAM	10-Jun-2008	4:05 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2: Changing lanes	V1: Westbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Passenger car	Dry	Daylight	Clear/Clear		87 DERBY STREET				
2345160	HINGHAM	12-Jun-2008	1:13 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2: Travelling straight ahead	V1: Southbound / V2: Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2: Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2357748	HINGHAM	23-Jul-2008	5:16 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2: Travelling straight ahead	V1: Eastbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Passenger car	Wet	Daylight	Cloudy/Rain	DERBY STREET				OVERPASS BRIDGE	
2359495	HINGHAM	28-Jul-2008	6:48 PM	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic	V1: Eastbound / V2: Eastbound	V1: Collision with motor vehicle in traffic / V2: Other	V1: Passenger car / V2: Passenger car	Dry	Daylight	Clear/Other		90 DERBY STREET				
2452697	HINGHAM	06-Aug-2008	1:20 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Slowing or stopped in traffic / V2: Not reported	V1: Northbound / V2: Northbound	V1: Not reported / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2: Passenger car	Wet	Daylight	Rain		DERBY STREET / CUSHING STREET				
2364532	HINGHAM	13-Aug-2008	10:07 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2: Travelling straight ahead	V1: Northbound / V2: Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / Rte 3					

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2374150	HINGHAM	20-Aug-2008	5:08 PM	Property damage only (none injured)	2	0	0	Single vehicle crash	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Other / V2: Overturn/rollover	V1: Passenger car / V2:Motorcycle	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2404511	HINGHAM	13-Nov-2008	6:20 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Bus (seats for more than 15 people, including driver)	Wet	Dark - lighted roadway	Cloudy/Cloudy	DERBY STREET / OLD DERBY STREET					
2405149	HINGHAM	17-Nov-2008	5:58 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / Rte 3 N					
2411357	HINGHAM	19-Nov-2008	5:57 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - roadway not lighted	Clear/Clear	DERBY STREET / Rte 3					
2411545	HINGHAM	07-Dec-2008	6:05 PM	Non-fatal injury	3	1	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Passenger car	Wet	Dark - lighted roadway	Snow/Snow		100 DERBY STREET				
2411025	HINGHAM	14-Dec-2008	7:24 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / Rte 3 S					
2476836	HINGHAM	19-Dec-2008	3:45 PM	Property damage only (none injured)	2	0	0	Not reported	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Southbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Snow	Daylight	Snow	DERBY STREET / PILGRIM HIGHWAY					
2414578	HINGHAM	23-Dec-2008	4:44 PM	Non-fatal injury	3	2	0	Angle	V1: Turning left / V2:Travelling straight ahead / V3:Slowing or stopped in traffic	V1:Eastbound / V2:Westbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Passenger car	Wet	Daylight	Cloudy/Other	DERBY STREET / Rte 3 N					
2421890	HINGHAM	24-Dec-2008	1:09 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Turning left	V1:Northbound	V1: Overturn/rollover	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dark - roadway not lighted	Cloudy/Rain		PILGRIM HIGHWAY Rte 3 / DERBY STREET		Exit 15 on Rte 3		
2421882	HINGHAM	24-Dec-2008	11:00 AM	Non-fatal injury	2	1	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Cloudy/Rain		128 OLD DERBY STREET / DERBY STREET				
2441143	HINGHAM	25-Dec-2008	9:17 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - roadway not lighted	Clear/Clear	DERBY STREET / Rte 3 N					
2414386	HINGHAM	26-Dec-2008	10:00 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Leaving traffic lane	V1:Westbound	V1: Other	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2414366	HINGHAM	27-Dec-2008	12:31 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Wet	Daylight	Rain/Rain	DERBY STREET / Rte 3 S					

massDOT MassDOT Crash Report for HINGHAM for the year 2009																					
Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2442874	HINGHAM	16-Jan-2009	1:11 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Eastbound	V1: Collision with animal - deer	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dark - lighted roadway	Cloudy/Cloudy		100 DERBY STREET				
2442724	HINGHAM	27-Jan-2009	6:12 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Turning right	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / OLD DERBY STREET				DERBY STREET SHOPS	
2446892	HINGHAM	04-Mar-2009	5:32 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3					
2465320	HINGHAM	31-Mar-2009	4:32 PM	Non-fatal injury	2	1	0	Rear-end	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Unknown	Unknown	Unknown/Unknown	DERBY STREET / SERVICE ROAD				100 DERBY STREET	
2468734	HINGHAM	01-May-2009	7:30 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 N					
2472920	HINGHAM	01-May-2009	6:02 PM	Non-fatal injury	2	1	0	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		100 DERBY STREET				
2484191	HINGHAM	05-Jun-2009	3:38 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear		90 DERBY STREET			PLAZA SERVICE ROAD	
2500951	HINGHAM	09-Jul-2009	2:12 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					
2499451	HINGHAM	17-Jul-2009	11:52 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Other / V2: Other	V1: Single-unit truck (2-axle, 6-tire) / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Other	DERBY STREET / Rte 3 S					
2501188	HINGHAM	19-Jul-2009	11:26 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		100 DERBY STREET			DERBY SHOPPES	
2501209	HINGHAM	21-Jul-2009	4:10 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Rain	DERBY STREET / Rte 3 S					
2508714	HINGHAM	14-Aug-2009	4:18 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Turning left	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					
2525351	HINGHAM	07-Sep-2009	5:01 PM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with guardrail	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		100 DERBY STREET				
2518830	HINGHAM	10-Sep-2009	9:41 AM	Property damage only (none injured)	3	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:Westbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Cloudy		101 DERBY STREET				
2517131	HINGHAM	17-Sep-2009	9:13 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 N					
2521402	HINGHAM	21-Sep-2009	9:54 AM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Turning left	V1:Southbound / V2:Eastbound	V1: Other / V2: Other	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Other	DERBY STREET / Rte 3					
2534941	HINGHAM	30-Sep-2009	10:18 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	CUSHING STREET / DERBY STREET					

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2533012	HINGHAM	03-Oct-2009	2:52 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3					
2531350	HINGHAM	09-Oct-2009	4:48 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2531328	HINGHAM	11-Oct-2009	7:21 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	CUSHING STREET / DERBY STREET					
2547656	HINGHAM	27-Oct-2009	5:16 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Wet	Daylight	Cloudy/Cloudy		100 DERBY STREET				
2546698	HINGHAM	04-Nov-2009	10:35 AM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET / CUSHING STREET					
2546685	HINGHAM	09-Nov-2009	4:09 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Westbound	V1: Collision with tree	V1: Not reported	Dry	Dark - lighted roadway	Clear/Clear		DERBY STREET / CUSHING STREET				
2552343	HINGHAM	30-Nov-2009	10:41 AM	Non-fatal injury	2	2	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with curb	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / OLD DERBY STREET / Rte 3 N					
2552334	HINGHAM	01-Dec-2009	5:20 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Turning right	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - lighted roadway	Clear/Clear		99 DERBY STREET				
2556796	HINGHAM	10-Dec-2009	10:30 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	CUSHING STREET / DERBY STREET					
2566025	HINGHAM	18-Dec-2009	1:32 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Eastbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2566003	HINGHAM	18-Dec-2009	8:52 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning right / V2:Turning right	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		80 DERBY STREET				
2565990	HINGHAM	26-Dec-2009	4:00 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Turning left	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dusk	Cloudy/Cloudy	CUSHING STREET / DERBY STREET					
2555136	HINGHAM	30-Dec-2009	12:58 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Single-unit truck (2-axle, 6-tire)	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 S					
2565973	HINGHAM	30-Dec-2009	2:37 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		99 DERBY STREET				

 MassDOT Crash Report for HINGHAM for the year 2010																					
Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2573862	HINGHAM	04-Jan-2010	4:39 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Dark - lighted roadway	Cloudy/Cloudy		100 DERBY STREET				
2573855	HINGHAM	05-Jan-2010	8:12 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 N					
2575326	HINGHAM	09-Jan-2010	11:30 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3					
2575209	HINGHAM	09-Jan-2010	4:58 PM	Non-fatal injury	2	2	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	DERBY STREET / Rte 3					
2579418	HINGHAM	15-Feb-2010	5:01 PM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dusk	Clear/Clear		PILGRIM HIGHWAY Rte 3 S / DERBY STREET				
2597719	HINGHAM	12-Mar-2010	12:40 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy	RAMP-RT 3 NB TO DERBY ST / DERBY STREET					
2587554	HINGHAM	23-Mar-2010	4:50 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Cloudy/Rain	DERBY STREET / Rte 3 N					
2587546	HINGHAM	24-Mar-2010	8:07 AM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Cloudy	DERBY STREET / Rte 3 S					
2587535	HINGHAM	28-Mar-2010	3:29 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Cloudy	DERBY STREET / Rte 3					
2587518	HINGHAM	30-Mar-2010	11:44 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Northbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Rain	DERBY STREET / Rte 3 N					
2589087	HINGHAM	03-Apr-2010	1:15 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning right / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	CUSHING STREET / DERBY STREET					
2600040	HINGHAM	09-May-2010	9:54 AM	Non-fatal injury	2	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear		98 DERBY STREET			DERBY SHOPPES ENTRANCE	
2600033	HINGHAM	09-May-2010	6:05 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		DERBY STREET			DERBY STREET SHOPS	
2614777	HINGHAM	27-May-2010	3:31 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Changing lanes / V2:Changing lanes	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Not reported	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / OLD DERBY STREET					
2614363	HINGHAM	07-Jun-2010	12:18 PM	Non-fatal injury	3	1	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound / V3:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		100 DERBY STREET				
2616329	HINGHAM	12-Jun-2010	3:57 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Not reported / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		90 DERBY STREET				
2616323	HINGHAM	12-Jun-2010	6:52 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Northbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 N					

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection	Distance from Nearest Milemarker	Distance from Nearest Exit	Distance from Nearest Landmark	Non Motorist Type
2610094	HINGHAM	15-Jun-2010	6:52 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Not Reported		Rte 3 N / RAMP-DERBY ST TO RT 3 NB				
2615431	HINGHAM	20-Jun-2010	10:41 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Leaving traffic lane / V2:Slowing or stopped in traffic	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Cloudy	DERBY STREET / Rte 3 N					
2615426	HINGHAM	22-Jun-2010	12:54 PM	Non-fatal injury	2	2	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Cloudy	DERBY STREET / Rte 3 N					
2620757	HINGHAM	25-Jun-2010	00:00 AM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Dark - roadway not lighted	Clear		Rte 3 N / DERBY STREET				
2617846	HINGHAM	30-Jun-2010	6:12 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		100 DERBY STREET				
2639706	HINGHAM	23-Jul-2010	1:41 AM	Property damage only (none injured)	3	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:Westbound / V2:Westbound / V3:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy		101 DERBY STREET				
2639710	HINGHAM	28-Jul-2010	9:33 AM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear		101 DERBY STREET				
2635298	HINGHAM	29-Jul-2010	12:28 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Cloudy		PILGRIM HIGHWAY Rte 3 N / DERBY STREET				
2635297	HINGHAM	29-Jul-2010	1:17 PM	Non-fatal injury	2	1	0	Head-on	V1: Changing lanes / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		92 DERBY STREET				
2634827	HINGHAM	04-Aug-2010	10:22 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Dark - lighted roadway	Clear/Clear	CUSHING STREET / DERBY STREET					
2664635	HINGHAM	20-Oct-2010	5:26 PM	Non-fatal injury	2	3	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Not reported	Dry	Daylight	Clear/Clear	CUSHING STREET / DERBY STREET					
2662570	HINGHAM	29-Oct-2010	3:38 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Not reported / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Single-unit truck (2-axle, 6-tire) / V2:Passenger car	Dry	Daylight	Clear/Clear	DERBY STREET / Rte 3 S					
2694850	HINGHAM	07-Nov-2010	2:37 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Rain	DERBY STREET / ACCESS ROAD				BERTUCCI'S	
2724469	HINGHAM	10-Nov-2010	10:15 AM	Non-fatal injury	2	1	0	Rear-end	V1: Slowing or stopped in traffic / V2:Turning right	V1:Northbound / V2:Northbound	V1: Not reported / V2: Not reported	V1: Not reported / V2:Not reported	Dry	Daylight	Clear	DERBY STREET Rte 3 / Rte 3					
2678226	HINGHAM	16-Nov-2010	12:46 PM	Non-fatal injury	3	2	0	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead / V3:Slowing or stopped in traffic	V1:Westbound / V2:Westbound / V3:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic / V3: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V3:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear		100 DERBY STREET			DERBY STREET SHOPPES	
2682744	HINGHAM	02-Dec-2010	3:19 PM	Property damage only (none injured)	2	0	0	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Clear	DERBY STREET / RAMP-DERBY ST TO RT 3 SB					
2692189	HINGHAM	18-Dec-2010	3:02 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear		90 DERBY STREET				

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

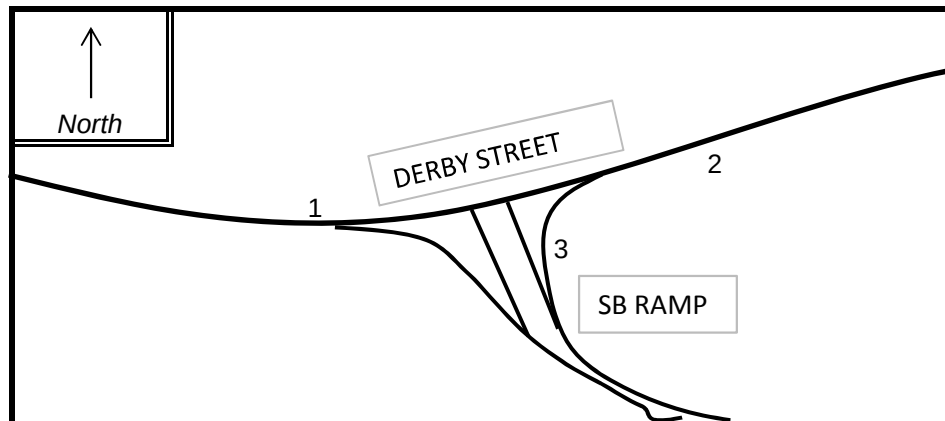
DISTRICT : 5 UNSIGNALIZED : ☒ X SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : DERBY STREET

MINOR STREET(S) : ROUTE 3 SOUTHBOUND EXIT 15 RAMP

INTERSECTION
DIAGRAM
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	DERBY EB	DERBY WB	RAMP NB			
PEAK HOURLY VOLUMES (AM/PM) :	1,245	940	715			2,900

" K " FACTOR :

0.070

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

41,429

TOTAL # OF CRASHES :

11

OF YEARS :

4

AVERAGE # OF CRASHES PER YEAR (A) :

2.75

CRASH RATE CALCULATION :

0.18

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : _____

Project Title & Date : Derby Street Corridor- June 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

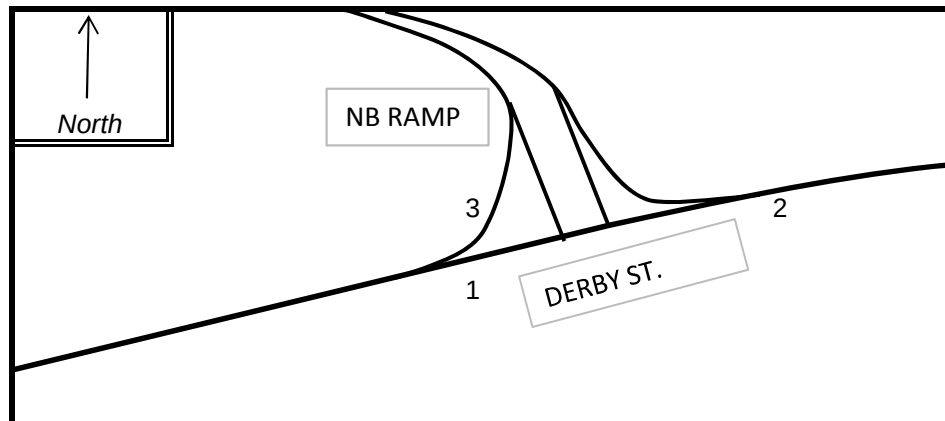
DISTRICT : 5 UNSIGNALIZED : ☒ X SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : DERBY STREET

MINOR STREET(S) : ROUTE 3 NORTHBOUND EXIT 15 RAMP

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	DERBY EB	DERBY WB	RAMP SB			
PEAK HOURLY VOLUMES (AM/PM) :	1,400	1,275	285			2,960

" K " FACTOR :

0.070

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

42,286

TOTAL # OF CRASHES :

25

OF YEARS :

4

AVERAGE # OF CRASHES PER YEAR (A) :

6.25

CRASH RATE CALCULATION :

0.40

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : _____

Project Title & Date : Derby Street Corridor - February 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

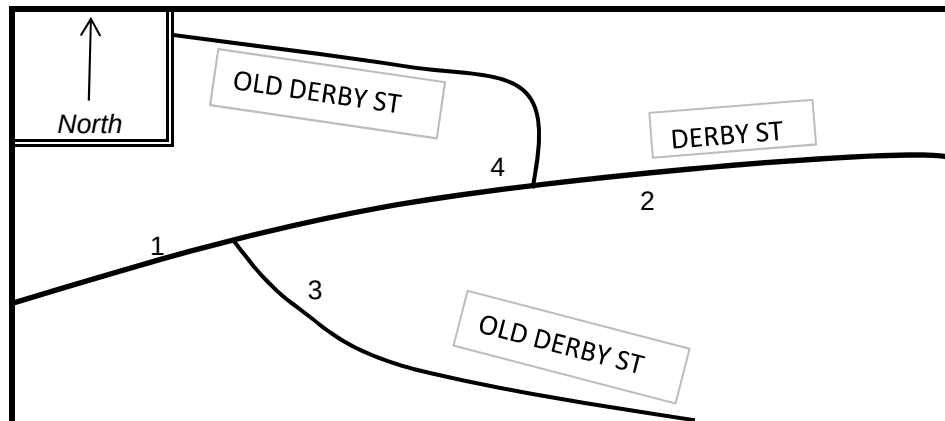
DISTRICT : 5 UNSIGNALIZED : ☒ X SIGNALIZED : ☐

~ INTERSECTION DATA ~

MAJOR STREET : DERBY STREET

MINOR STREET(S) : OLD DERBY STREET

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	1,335	1,285	30	25		2,675

" K " FACTOR :

0.070

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

38,214

TOTAL # OF CRASHES :

16

OF YEARS :

4

AVERAGE # OF CRASHES PER YEAR (A) :

4.00

CRASH RATE CALCULATION :

0.29

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : _____

Project Title & Date : Derby Street Corridor, February 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

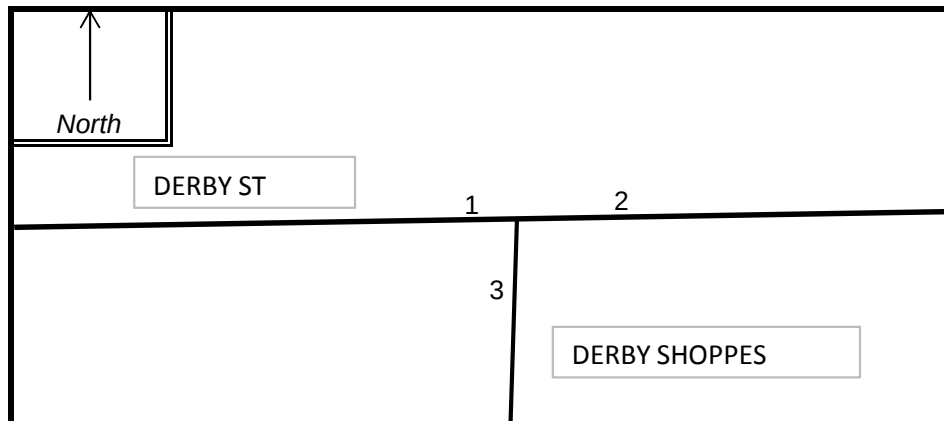
DISTRICT : 5 UNSIGNALIZED : ☐ SIGNALIZED : ☒

~ INTERSECTION DATA ~

MAJOR STREET : DERBY STREET

MINOR STREET(S) : DERBY SHOPPES MAIN ENTRANCE

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB			
PEAK HOURLY VOLUMES (AM/PM) :	1,155	985	575			2,715

" K " FACTOR :

0.070

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

38,786

TOTAL # OF CRASHES :

32

OF YEARS :

4

AVERAGE # OF CRASHES PER YEAR (A) :

8.00

CRASH RATE CALCULATION :

0.57

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : _____

Project Title & Date : Derby Street Corridor, February 2013

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

DISTRICT : 5 UNSIGNALIZED : ☐ SIGNALIZED : ☒

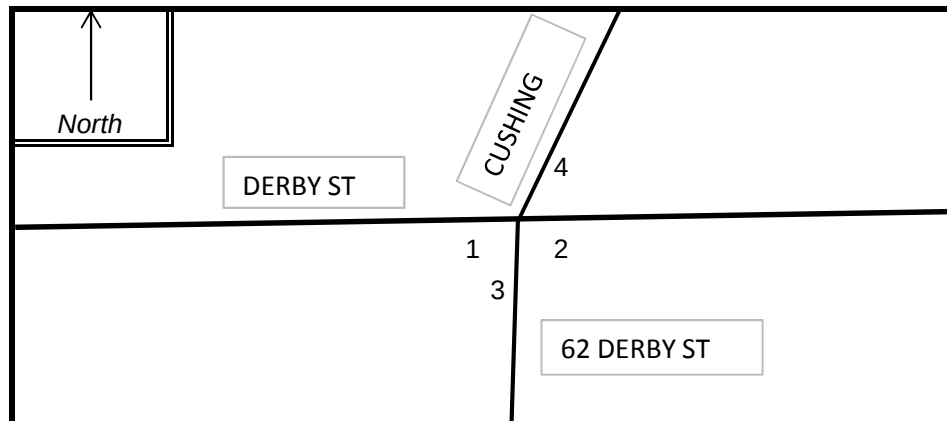
~ INTERSECTION DATA ~

MAJOR STREET : DERBY STREET

MINOR STREET(S) : CUSHING STREET

62 DERBY STREET DRIVEWAY

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	1,460	850	40	552		2,902

" K " FACTOR :

0.070

INTERSECTION ADT (V) = TOTAL DAILY
APPROACH VOLUME :

41,457

TOTAL # OF CRASHES :

16

OF
YEARS :

4

AVERAGE # OF
CRASHES PER YEAR (A) :

4.00

CRASH RATE CALCULATION :

0.26

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : _____

Project Title & Date : Derby Street Corridor - June 2013

SEGMENT CRASH RATE WORKSHEET

CITY/TOWN : HINGHAM COUNT DATE : Jun-12

DISTRICT : 5

~ SEGMENT DATA ~

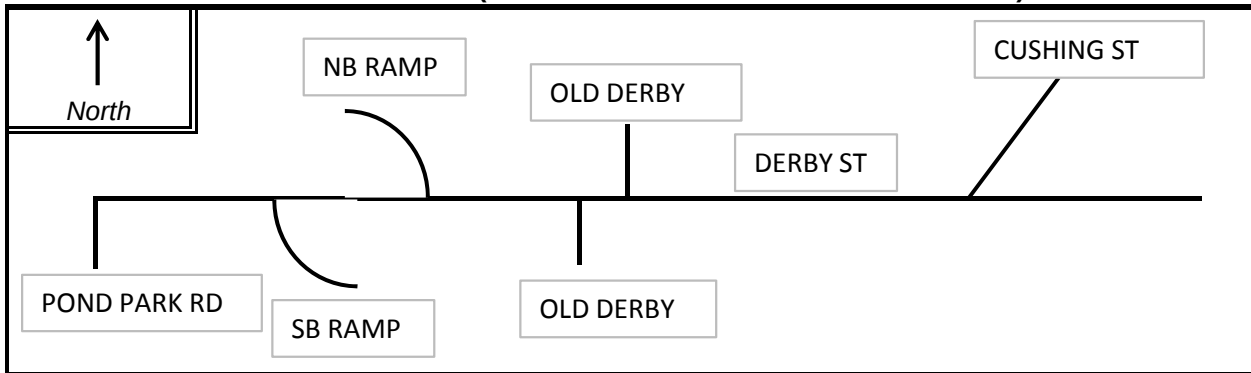
ROADWAY NAME: DERBY STREET

START POINT: POND PARK ROAD

END POINT: CUSHING STREET

FUNCTIONAL CLASSIFICATION OF ROADWAY: URBAN MINOR ARTERIAL

ROADWAY DIAGRAM (LABEL ROADWAY AND CROSS STREETS)



AVERAGE DAILY TRAFFIC

SEGMENT LENGTH IN MILES (L): **0.8**

AVERAGE DAILY TRAFFIC VOLUME (V): **27,900**

TOTAL # OF CRASHES:

132

OF
YEARS :

4

AVERAGE # OF
CRASHES PER YEAR (A) :

33.00

CRASH RATE
CALCULATION :

4.05

RATE =

$$\frac{(A * 1,000,000)}{(L * V * 365)}$$

Comments : _____

Project Title & Date: Reconstruction and Related Work on Derby Street

Appendix C
Traffic Signal Warrant Analysis

DRAFT

Warrants Summary													
Information													
Analyst	JGM					Intersection	Route 3 SB Ramps at Derby St.						
Agency/Co	CHA					Jurisdiction	Town of Hingham / MassDOT						
Date Performed	7/15/2013					Units	U.S. Customary						
Project ID	Derby Street Corridor					Time Period Analyzed	2012 Existing						
East/West Street	Derby Street					North/South Street	Route 3 SB Ramps						
File Name	Warrants SB Ramps.xhy					Major Street	East-West						
Project Description <i>Derby Street Corridor</i>													
General						Roadway Network							
Major Street Speed (mph)	40					☐ Population < 10,000	Two Major Routes						☐
Nearest Signal (ft)	700					☒ Coordinated Signal System	Weekend Count						☐
Crashes (per year)	3					☐ Adequate Trials of Alternatives	5-yr Growth Factor						0
Geometry and Traffic	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Number of lanes, N	0	1	0	0	1	0	1	0	0	0	0	0	
Lane usage	TR			LT			L						
Vehicle Volume Averages (vph)	0	474	0	0	753	0	102	0	0	0	0	0	
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	
Warrant 1: Eight-Hour Vehicular Volume												☒	
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												☐	
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												☒	
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												☐	
Warrant 2: Four-Hour Vehicular Volume												☒	
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☒	
Warrant 3: Peak Hour												☐	
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												☐	
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☐	
Warrant 4: Pedestrian Volume												☐	
4 A. Four Hour Volumes --or--												☐	
4 B. One-Hour Volumes												☐	
Warrant 5: School Crossing												☐	
5. Student Volumes --and--												☐	
5. Gaps Same Period												☐	
Warrant 6: Coordinated Signal System												☒	
6. Degree of Platooning (Predominant direction or both directions)												☒	
Warrant 7: Crash Experience												☐	
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												☐	
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												☐	

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☒
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

Warrants Summary												
Information												
Analyst	JGM					Intersection	Route 3 NB Ramps at Derby St.					
Agency/Co	CHA					Jurisdiction	Town of Hingham / MassDOT					
Date Performed	7/15/2013					Units	U.S. Customary					
Project ID	Derby Street Corridor					Time Period Analyzed	2012 Existing					
East/West Street	Derby Street					North/South Street	Route 3 NB Ramps					
File Name	Warrants NB Ramps.xhy					Major Street	East-West					
Project Description <i>Derby Street Corridor</i>												
General						Roadway Network						
Major Street Speed (mph)	40	☐	Population < 10,000				Two Major Routes				☐	
Nearest Signal (ft)	1400	☒	Coordinated Signal System				Weekend Count				☐	
Crashes (per year)	6	☒	Adequate Trials of Alternatives				5-yr Growth Factor				0	
Geometry and Traffic	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N	0	1	0	0	1	0	0	0	0	1	0	0
Lane usage		LT			T					L		
Vehicle Volume Averages (vph)	0	1020	0	0	512	0	0	0	0	96	0	0
Peds (ped/h) / Gaps (gaps/h)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Delay (s/veh) / (veh-hr)	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--	--	0 / 0	--
Warrant 1: Eight-Hour Vehicular Volume												☒
1 A. Minimum Vehicular Volumes (Both major approaches --and-- higher minor approach) --or--												☐
1 B. Interruption of Continuous Traffic (Both major approaches --and-- higher minor approach) --or--												☒
1 80% Vehicular --and-- Interruption Volumes (Both major approaches --and-- higher minor approach)												☐
Warrant 2: Four-Hour Vehicular Volume												☒
2 A. Four-Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☒
Warrant 3: Peak Hour												☒
3 A. Peak-Hour Conditions (Minor delay --and-- minor volume --and-- total volume) --or--												☐
3 B. Peak- Hour Vehicular Volumes (Both major approaches --and-- higher minor approach)												☒
Warrant 4: Pedestrian Volume												☐
4 A. Four Hour Volumes --or--												☐
4 B. One-Hour Volumes												☐
Warrant 5: School Crossing												☐
5. Student Volumes --and--												☐
5. Gaps Same Period												☐
Warrant 6: Coordinated Signal System												☒
6. Degree of Platooning (Predominant direction or both directions)												☒
Warrant 7: Crash Experience												☒
7 A. Adequate trials of alternatives, observance and enforcement failed --and--												☒
7 B. Reported crashes susceptible to correction by signal (12-month period) --and--												☒

7 C. 80% Volumes for Warrants 1A, 1B --or-- 4 are satisfied	☒
Warrant 8: Roadway Network	☐
8 A. Weekday Volume (Peak hour total --and-- projected warrants 1, 2 or 3) --or--	☐
8 B. Weekend Volume (Five hours total)	☐
Warrant 9: Grade Crossing	☐
9 A. Grade Crossing within 140 ft --and--	☐
9 B. Peak-Hour Vehicular Volumes	☐

Appendix D

Traffic Analysis Worksheets

- *2011 Existing Conditions Capacity Analysis Worksheets*
- *2021 No-Build Conditions Capacity Analysis Worksheets*
- *2021 Build Conditions Capacity Analysis Worksheets*

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	555	135	285	600	80	40	1	100	15	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.982				0.850			0.850
Flt Protected		0.999		0.950				0.953			0.957	
Satd. Flow (prot)	0	3448	0	1770	1847	0	0	1759	1495	0	1818	1615
Flt Permitted		0.934		0.261							0.969	
Satd. Flow (perm)	0	3223	0	486	1847	0	0	1846	1495	0	1841	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		31			10							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.84	0.84	0.84	0.63	0.63	0.63
Heavy Vehicles (%)	0%	2%	0%	2%	1%	1%	3%	0%	8%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	766	0	297	708	0	0	49	119	0	27	16
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	38.0	38.0	0.0	18.0	56.0	0.0	14.0	14.0	18.0	14.0	14.0	14.0
Total Split (%)	38.4%	38.4%	0.0%	18.2%	56.6%	0.0%	14.1%	14.1%	18.2%	14.1%	14.1%	14.1%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		19.6		36.4	37.9			7.6	17.0		7.4	7.4
Actuated g/C Ratio		0.41		0.76	0.79			0.16	0.36		0.16	0.16
v/c Ratio		0.57		0.46	0.48			0.17	0.22		0.09	0.06
Control Delay		13.6		5.2	5.6			24.3	11.8		24.0	23.8
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		13.6		5.2	5.6			24.3	11.8		24.0	23.8
LOS		B		A	A			C	B		C	C
Approach Delay		13.6			5.5			15.5			23.9	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)		96		29	108			14	21		8	4
Queue Length 95th (ft)		161		52	180			42	53		21	15
Internal Link Dist (ft)		282			644			291			131	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2012 Existing

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				250								
Base Capacity (vph)		2286		788	1695			342	700		341	299
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.34		0.38	0.42			0.14	0.17		0.08	0.05

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 47.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 9.9

Intersection LOS: A

Intersection Capacity Utilization 80.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø1	 ø2	 ø4	 ø9
18 s	38 s	14 s	29 s
 ø6		 ø8	
56 s		14 s	

Lane Group	ø9
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

AM Peak Hour
2012 Existing

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	395	275	95	840	125	400
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.93	0.93	0.90	0.90
Hourly flow rate (vph)	416	289	102	903	139	444
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	724					
pX, platoon unblocked			0.94		0.94	0.94
vC, conflicting volume			416		1523	416
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			352		1525	352
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		0	32
cM capacity (veh/h)			1140		112	655
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	416	289	1005	139	444	
Volume Left	0	0	102	139	0	
Volume Right	0	289	0	0	444	
cSH	1700	1700	1140	112	655	
Volume to Capacity	0.24	0.17	0.09	1.24	0.68	
Queue Length 95th (ft)	0	0	7	228	132	
Control Delay (s)	0.0	0.0	2.3	237.5	21.3	
Lane LOS			A	F	C	
Approach Delay (s)	0.0		2.3	72.8		
Approach LOS				F		
Intersection Summary						
Average Delay			19.5			
Intersection Capacity Utilization			87.2%	ICU Level of Service		E
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

AM Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	↔
Volume (veh/h)	55	740	580	480	80	355
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.91	0.91
Hourly flow rate (vph)	59	787	652	539	88	390
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	652				1556	652
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	652				1556	652
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	93				25	17
cM capacity (veh/h)	898				117	470
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	846	652	539	88	390	
Volume Left	59	0	0	88	0	
Volume Right	0	0	539	0	390	
cSH	898	1700	1700	117	470	
Volume to Capacity	0.07	0.38	0.32	0.75	0.83	
Queue Length 95th (ft)	5	0	0	105	202	
Control Delay (s)	1.7	0.0	0.0	95.5	40.2	
Lane LOS	A			F	E	
Approach Delay (s)	1.7	0.0		50.4		
Approach LOS				F		
Intersection Summary						
Average Delay			10.1			
Intersection Capacity Utilization			86.9%	ICU Level of Service		E
Analysis Period (min)			15			

Derby Street Corridor
9: Derby Street & Old Derby St.

AM Peak Hour
2012 Existing



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	740	80	15	1060	0	5
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)	804	87	16	1152	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				871		
pX, platoon unblocked					0.94	
vC, conflicting volume			891		1457	446
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			891		1359	446
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	99
cM capacity (veh/h)			756		131	566
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	536	355	400	768	5	
Volume Left	0	0	16	0	0	
Volume Right	0	87	0	0	5	
cSH	1700	1700	756	1700	566	
Volume to Capacity	0.32	0.21	0.02	0.45	0.01	
Queue Length 95th (ft)	0	0	2	0	1	
Control Delay (s)	0.0	0.0	0.7	0.0	11.4	
Lane LOS			A		B	
Approach Delay (s)	0.0		0.2		11.4	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			49.9%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

AM Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔↔		↔	
Volume (veh/h)	20	725	1065	20	5	10
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)	22	788	1158	22	5	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.92				0.92	0.92
vC, conflicting volume	1179				1606	590
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1012				1478	368
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				95	98
cM capacity (veh/h)	624				105	582
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	284	525	772	408	16	
Volume Left	22	0	0	0	5	
Volume Right	0	0	0	22	11	
cSH	624	1700	1700	1700	232	
Volume to Capacity	0.03	0.31	0.45	0.24	0.07	
Queue Length 95th (ft)	3	0	0	0	6	
Control Delay (s)	1.3	0.0	0.0	0.0	21.7	
Lane LOS	A				C	
Approach Delay (s)	0.4		0.0		21.7	
Approach LOS					C	
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			44.4%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2012 Existing

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘↗	
Volume (vph)	655	75	50	970	115	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.985				0.978	
Flt Protected			0.950		0.959	
Satd. Flow (prot)	3493	0	1805	3574	3358	0
Flt Permitted			0.950		0.959	
Satd. Flow (perm)	3493	0	1805	3574	3358	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	17				21	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.72	0.72
Heavy Vehicles (%)	2%	0%	0%	1%	1%	14%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	777	0	56	1090	188	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	45.0	0.0	20.0	65.0	25.0	0.0
Total Split (%)	50.0%	0.0%	22.2%	72.2%	27.8%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	56.4		8.2	68.6	9.8	
Actuated g/C Ratio	0.63		0.09	0.76	0.11	
v/c Ratio	0.35		0.34	0.40	0.49	
Control Delay	9.7		42.0	4.0	37.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	9.7		42.0	4.0	37.4	
LOS	A		D	A	D	
Approach Delay	9.7			5.8	37.4	
Approach LOS	A			A	D	
Queue Length 50th (ft)	106		33	57	46	
Queue Length 95th (ft)	170		m62	127	59	
Internal Link Dist (ft)	588			406	244	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2012 Existing



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)			200			
Base Capacity (vph)	2195		279	2723	744	
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	0.35		0.20	0.40	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 10.1

Intersection LOS: B

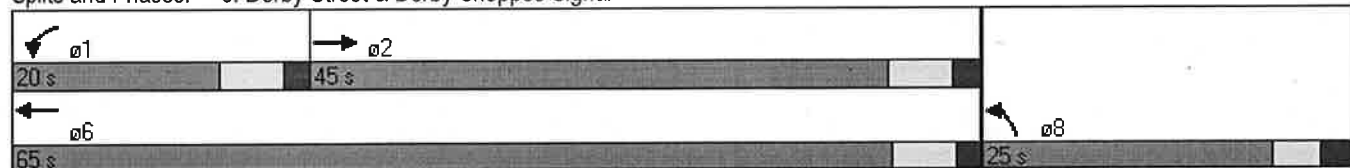
Intersection Capacity Utilization 42.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal



Derby Street Corridor
3: Derby Street & Derby Shoppes

AM Peak Hour
2012 Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	640	15	75	1010	15	5	0	45	0	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.71	0.71	0.71	0.50	0.50	0.50
Hourly flow rate (vph)	21	681	16	83	1122	17	7	0	63	0	0	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		486			490							
pX, platoon unblocked	0.86			0.92			0.90	0.90	0.92	0.90	0.90	0.86
vC, conflicting volume	1139			697			1469	2037	348	1744	2037	569
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	824			494			885	1519	115	1191	1518	158
tC, single (s)	4.1			4.1			8.8	6.5	6.9	9.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			4.2	4.0	3.3	4.5	4.0	3.3
p0 queue free %	97			92			94	100	92	100	100	99
cM capacity (veh/h)	697			986			127	95	841	50	95	741
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	21	454	243	83	748	391	70	10				
Volume Left	21	0	0	83	0	0	7	0				
Volume Right	0	0	16	0	0	17	63	10				
cSH	697	1700	1700	986	1700	1700	538	741				
Volume to Capacity	0.03	0.27	0.14	0.08	0.44	0.23	0.13	0.01				
Queue Length 95th (ft)	2	0	0	7	0	0	11	1				
Control Delay (s)	10.3	0.0	0.0	9.0	0.0	0.0	12.7	9.9				
Lane LOS	B			A			B	A				
Approach Delay (s)	0.3			0.6			12.7	9.9				
Approach LOS							B	A				
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	450	10	10	765	25	5	1	5	25	1	340
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.995			0.939				0.850
Flt Protected	0.950			0.950				0.978			0.954	
Satd. Flow (prot)	1752	3530	0	1504	3557	0	0	1745	0	0	1813	1583
Flt Permitted	0.950			0.950				0.877			0.718	
Satd. Flow (perm)	1752	3530	0	1504	3557	0	0	1565	0	0	1364	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4			14				82
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.35	0.35	0.35	0.82	0.82	0.82
Heavy Vehicles (%)	3%	2%	0%	20%	1%	0%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	234	479	0	10	823	0	0	31	0	0	31	415
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	28.0	58.0	0.0	13.0	43.0	0.0	19.0	19.0	0.0	19.0	19.0	28.0
Total Split (%)	31.1%	64.4%	0.0%	14.4%	47.8%	0.0%	21.1%	21.1%	0.0%	21.1%	21.1%	31.1%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	17.1	62.1		6.1	41.8			13.5			13.0	36.1
Actuated g/C Ratio	0.19	0.69		0.07	0.46			0.15			0.14	0.40
v/c Ratio	0.70	0.20		0.10	0.50			0.13			0.16	0.61
Control Delay	53.9	4.9		41.2	18.8			23.6			36.0	20.4
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	53.9	4.9		41.2	18.8			23.6			36.0	20.4
LOS	D	A		D	B			C			D	C
Approach Delay		21.0			19.0			23.6			21.5	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	143	37		6	164			8			16	145
Queue Length 95th (ft)	218	59		21	241			8			38	186
Internal Link Dist (ft)		410			501			58			154	

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	428	2437		115	1656			247			197	766
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.55	0.20		0.09	0.50			0.13			0.16	0.54

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 20.3
 Intersection Capacity Utilization 61.0%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
13 s	58 s	19 s
 ø5	 ø6	 ø8
28 s	43 s	19 s

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	970	20	60	670	15	135	0	210	65	1	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.953	
Satd. Flow (prot)	0	3530	0	1504	1876	0	0	1805	1599	0	1811	1615
Flt Permitted		0.951		0.126				0.694			0.530	
Satd. Flow (perm)	0	3357	0	199	1876	0	0	1319	1599	0	1007	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		2			1							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.62	0.62	0.62	0.67	0.67	0.67
Heavy Vehicles (%)	0%	2%	0%	20%	1%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	6	1090	22	65	720	16	218	0	339	97	1	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1118	0	65	736	0	0	218	339	0	98	30
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	36.0	36.0	0.0	12.0	48.0	0.0	22.0	22.0	12.0	22.0	22.0	22.0
Total Split (%)	36.4%	36.4%	0.0%	12.1%	48.5%	0.0%	22.2%	22.2%	12.1%	22.2%	22.2%	22.2%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		30.0		43.6	41.6			16.0	29.6		16.0	16.0
Actuated g/C Ratio		0.43		0.63	0.60			0.23	0.43		0.23	0.23
v/c Ratio		0.77		0.24	0.66			0.72	0.50		0.42	0.08
Control Delay		21.4		7.3	12.8			40.7	17.7		29.7	21.9
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		21.4		7.3	12.8			40.7	17.7		29.7	21.9
LOS		C		A	B			D	B		C	C
Approach Delay		21.4			12.3			26.7			27.8	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		205		10	185			87	102		36	10
Queue Length 95th (ft)		277		22	295			99	104		56	22

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2012 Existing

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		1448		275	1133			303	689		231	371
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.77		0.24	0.65			0.72	0.49		0.42	0.08

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 69.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 74.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 13: Derby Street & Pond Park Road

 ø1	 ø2	 ø4	 ø9
12 s	36 s	22 s	29 s
 ø6		 ø8	
48 s		22 s	

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

PM Peak Hour
2012 Existing

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↘	↗
Volume (veh/h)	760	485	280	660	75	640
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.93	0.93	0.90	0.90
Hourly flow rate (vph)	905	577	301	710	83	711
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	724					
pX, platoon unblocked			0.68		0.68	0.68
vC, conflicting volume			905		2217	905
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			625		2553	625
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			54		0	0
cM capacity (veh/h)			657		10	332
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	905	577	1011	83	711	
Volume Left	0	0	301	83	0	
Volume Right	0	577	0	0	711	
cSH	1700	1700	657	10	332	
Volume to Capacity	0.53	0.34	0.46	8.52	2.14	
Queue Length 95th (ft)	0	0	60	Err	1311	
Control Delay (s)	0.0	0.0	12.8	Err	548.5	
Lane LOS			B	F	F	
Approach Delay (s)	0.0		12.8	1539.8		
Approach LOS				F		
Intersection Summary						
Average Delay			376.1			
Intersection Capacity Utilization			104.4%	ICU Level of Service		G
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

PM Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↑	↗	↖	↗
Volume (veh/h)	160	1240	750	525	95	190
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	182	1409	833	583	104	209
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	833				2606	833
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	833				2606	833
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	77				0	43
cM capacity (veh/h)	804				21	367
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	1591	833	583	104	209	
Volume Left	182	0	0	104	0	
Volume Right	0	0	583	0	209	
cSH	804	1700	1700	21	367	
Volume to Capacity	0.23	0.49	0.34	4.94	0.57	
Queue Length 95th (ft)	22	0	0	Err	85	
Control Delay (s)	10.8	0.0	0.0	Err	27.0	
Lane LOS	B			F	D	
Approach Delay (s)	10.8	0.0		3351.0		
Approach LOS				F		
Intersection Summary						
Average Delay		321.2				
Intersection Capacity Utilization		128.8%		ICU Level of Service		H
Analysis Period (min)		15				

Derby Street Corridor
9: Derby Street & Old Derby St.

PM Peak Hour
2012 Existing

						
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑↑	
Volume (veh/h)	1135	200	30	1265	10	20
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)	1234	217	33	1375	11	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				871		
pX, platoon unblocked					0.92	
vC, conflicting volume			1451		2095	726
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1451		2016	726
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			93		71	94
cM capacity (veh/h)			473		38	372
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	822	629	491	917	33	
Volume Left	0	0	33	0	11	
Volume Right	0	217	0	0	22	
cSH	1700	1700	473	1700	94	
Volume to Capacity	0.48	0.37	0.07	0.54	0.35	
Queue Length 95th (ft)	0	0	6	0	34	
Control Delay (s)	0.0	0.0	2.0	0.0	62.5	
Lane LOS			A		F	
Approach Delay (s)	0.0		0.7		62.5	
Approach LOS					F	
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			66.5%		ICU Level of Service	C
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

PM Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	5	1150	1275	10	5	20
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)	5	1250	1386	11	5	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	1397				2027	698
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1223				1922	450
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				90	96
cM capacity (veh/h)	521				54	507
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	422	833	924	473	27	
Volume Left	5	0	0	0	5	
Volume Right	0	0	0	11	22	
cSH	521	1700	1700	1700	189	
Volume to Capacity	0.01	0.49	0.54	0.28	0.14	
Queue Length 95th (ft)	1	0	0	0	12	
Control Delay (s)	0.3	0.0	0.0	0.0	27.2	
Lane LOS	A				D	
Approach Delay (s)	0.1		0.0		27.2	
Approach LOS					D	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			45.6%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2012 Existing

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	↑↑	
Volume (vph)	945	210	135	850	435	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.973				0.964	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	3506	0	1805	3574	3425	0
Flt Permitted			0.950		0.964	
Satd. Flow (perm)	3506	0	1805	3574	3425	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	42				43	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.95	0.95	0.89	0.89	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	995	221	152	955	458	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1216	0	152	955	605	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	51.0	0.0	18.0	69.0	21.0	0.0
Total Split (%)	56.7%	0.0%	20.0%	76.7%	23.3%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	45.6		11.0	62.9	15.5	
Actuated g/C Ratio	0.51		0.12	0.70	0.17	
v/c Ratio	0.68		0.69	0.38	0.97	
Control Delay	18.6		47.5	9.4	64.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	18.6		47.5	9.4	64.8	
LOS	B		D	A	E	
Approach Delay	18.6			14.7	64.8	
Approach LOS	B			B	E	
Queue Length 50th (ft)	257		83	145	166	
Queue Length 95th (ft)	332		m121	202	#275	

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2012 Existing



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	588			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1798		239	2498	625	
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	0.68		0.64	0.38	0.97	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 26.6

Intersection LOS: C

Intersection Capacity Utilization 72.0%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes

ø1 18 s	ø2 51 s	
ø6 69 s		ø8 21 s

Derby Street Corridor
3: Derby Street & Derby Shoppes

PM Peak Hour
2012 Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	1030	50	380	955	10	5	1	415	15	1	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.92	0.92	0.92	0.96	0.96	0.96	0.83	0.83	0.83
Hourly flow rate (vph)	5	1084	53	413	1038	11	5	1	432	18	1	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		486			490							
pX, platoon unblocked	0.85			0.77			0.84	0.84	0.77	0.84	0.84	0.85
vC, conflicting volume	1049			1137			2497	2996	568	2855	3017	524
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	698			566			1588	2181	0	2013	2206	80
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			47			84	94	48	0	93	96
cM capacity (veh/h)	769			778			33	18	835	8	18	823
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	5	723	414	413	692	357	438	49				
Volume Left	5	0	0	413	0	0	5	18				
Volume Right	0	0	53	0	0	11	432	30				
cSH	769	1700	1700	778	1700	1700	648	21				
Volume to Capacity	0.01	0.43	0.24	0.53	0.41	0.21	0.68	2.37				
Queue Length 95th (ft)	1	0	0	79	0	0	130	161				
Control Delay (s)	9.7	0.0	0.0	14.7	0.0	0.0	21.3	1015.8				
Lane LOS	A			B			C	F				
Approach Delay (s)	0.0			4.2			Err	1015.8				
Approach LOS							F	F				
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			Err%	ICU Level of Service				H				
Analysis Period (min)			15									

Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	510	940	10	10	800	40	15	10	15	20	2	530
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.993			0.949				0.850
Flt Protected	0.950			0.950				0.982			0.956	
Satd. Flow (prot)	1787	3567	0	1805	3585	0	0	1771	0	0	1816	1599
Flt Permitted	0.950			0.950				0.871			0.769	
Satd. Flow (perm)	1787	3567	0	1805	3585	0	0	1571	0	0	1461	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			6			21				20
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	520	959	10	11	909	45	21	14	21	24	2	624
Shared Lane Traffic (%)												
Lane Group Flow (vph)	520	969	0	11	954	0	0	56	0	0	26	624
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	40.0	61.0	0.0	13.0	34.0	0.0	16.0	16.0	0.0	16.0	16.0	40.0
Total Split (%)	44.4%	67.8%	0.0%	14.4%	37.8%	0.0%	17.8%	17.8%	0.0%	17.8%	17.8%	44.4%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effect Green (s)	30.8	65.1		6.1	31.1			10.5			10.0	46.8
Actuated g/C Ratio	0.34	0.72		0.07	0.35			0.12			0.11	0.52
v/c Ratio	0.85	0.38		0.09	0.77			0.28			0.16	0.74
Control Delay	46.2	6.1		40.7	32.1			29.3			38.9	22.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	46.2	6.1		40.7	32.1			29.3			38.9	22.2
LOS	D	A		D	C			C			D	C
Approach Delay		20.1			32.2			29.3			22.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	304	73		6	259			18			14	241
Queue Length 95th (ft)	m407	m177		22	#336			40			36	324

Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour
2012 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	675	2581		138	1244			202			162	897
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.77	0.38		0.08	0.77			0.28			0.16	0.70

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.5

Intersection LOS: C

Intersection Capacity Utilization 75.2%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Derby Street & Cushing St.

ø1	ø2	ø4
13 s	61 s	16 s
ø5	ø6	ø8
40 s	34 s	16 s

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	770	5	20	480	10	5	0	30	10	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.950	
Satd. Flow (prot)	0	3606	0	1805	1894	0	0	1687	1615	0	1805	1615
Flt Permitted		0.951		0.246								
Satd. Flow (perm)	0	3430	0	467	1894	0	0	1776	1615	0	1900	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		1			2							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.86	0.86	0.86	0.94	0.94	0.94	0.37	0.37	0.37	0.50	0.50	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%
Adj. Flow (vph)	6	895	6	21	511	11	14	0	81	20	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	907	0	21	522	0	0	14	81	0	20	10
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	44.0	44.0	0.0	12.0	56.0	0.0	14.0	14.0	12.0	14.0	14.0	14.0
Total Split (%)	44.4%	44.4%	0.0%	12.1%	56.6%	0.0%	14.1%	14.1%	12.1%	14.1%	14.1%	14.1%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead				Lead				
Lead-Lag Optimize?	Yes	Yes		Yes				Yes				
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		26.1		28.2	31.8			7.8	11.4		7.9	7.9
Actuated g/C Ratio		0.71		0.76	0.86			0.21	0.31		0.21	0.21
v/c Ratio		0.38		0.03	0.32			0.04	0.16		0.05	0.03
Control Delay		7.2		2.5	3.4			20.6	13.3		20.6	20.6
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		7.2		2.5	3.4			20.6	13.3		20.6	20.6
LOS		A		A	A			C	B		C	C
Approach Delay		7.2			3.4			14.4			20.6	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)		43		1	0			2	15		3	2
Queue Length 95th (ft)		144		6	117			7	17		12	8

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2012 Existing

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		2992		732	1815			498	609		533	453
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.30		0.03	0.29			0.03	0.13		0.04	0.02

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 37

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 47.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø1	 ø2	 ø4	 ø9
12 s	44 s	14 s	29 s
 ø6		 ø8	
56 s		14 s	

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

SAT Peak Hour
2012 Existing

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↙	↗
Volume (veh/h)	540	270	260	480	30	595
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.97	0.97	0.94	0.94
Hourly flow rate (vph)	581	290	268	495	32	633
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	724					
pX, platoon unblocked			0.84		0.84	0.84
vC, conflicting volume			581		1612	581
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411		1632	411
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			73		54	0
cM capacity (veh/h)			978		69	545
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	581	290	763	32	633	
Volume Left	0	0	268	32	0	
Volume Right	0	290	0	0	633	
cSH	1700	1700	978	69	545	
Volume to Capacity	0.34	0.17	0.27	0.46	1.16	
Queue Length 95th (ft)	0	0	28	46	547	
Control Delay (s)	0.0	0.0	6.1	95.7	117.3	
Lane LOS			A	F	F	
Approach Delay (s)	0.0		6.1	116.3		
Approach LOS				F		
Intersection Summary						
Average Delay			35.6			
Intersection Capacity Utilization			81.4%	ICU Level of Service		D
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

SAT Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	↔
Volume (veh/h)	65	1070	600	650	200	140
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.98	0.98	0.94	0.94
Hourly flow rate (vph)	68	1115	612	663	213	149
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	612				1862	612
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	612				1862	612
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				0	70
cM capacity (veh/h)	972				75	495
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	1182	612	663	213	149	
Volume Left	68	0	0	213	0	
Volume Right	0	0	663	0	149	
cSH	972	1700	1700	75	495	
Volume to Capacity	0.07	0.36	0.39	2.83	0.30	
Queue Length 95th (ft)	6	0	0	525	31	
Control Delay (s)	2.2	0.0	0.0	945.7	15.4	
Lane LOS	A			F	C	
Approach Delay (s)	2.2	0.0		562.7		
Approach LOS				F		
Intersection Summary						
Average Delay		73.1				
Intersection Capacity Utilization		112.6%		ICU Level of Service		H
Analysis Period (min)		15				

Derby Street Corridor
9: Derby Street & Old Derby St.

SAT Peak Hour
2012 Existing

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	1020	250	10	1245	5	10
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)	1109	272	11	1353	5	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				871		
pX, platoon unblocked					0.93	
vC, conflicting volume			1380		1943	690
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1380		1859	690
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		91	97
cM capacity (veh/h)			503		60	392
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	739	641	462	902	16	
Volume Left	0	0	11	0	5	
Volume Right	0	272	0	0	11	
cSH	1700	1700	503	1700	138	
Volume to Capacity	0.43	0.38	0.02	0.53	0.12	
Queue Length 95th (ft)	0	0	2	0	10	
Control Delay (s)	0.0	0.0	0.6	0.0	34.5	
Lane LOS			A		D	
Approach Delay (s)	0.0		0.2		34.5	
Approach LOS					D	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			51.4%	ICU Level of Service		A
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

SAT Peak Hour
2012 Existing



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	10	1020	1245	10	0	10
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	1109	1353	11	0	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	1364				1935	682
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1200				1828	449
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	98
cM capacity (veh/h)	535				62	511
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	380	739	902	462	11	
Volume Left	11	0	0	0	0	
Volume Right	0	0	0	11	11	
cSH	535	1700	1700	1700	511	
Volume to Capacity	0.02	0.43	0.53	0.27	0.02	
Queue Length 95th (ft)	2	0	0	0	2	
Control Delay (s)	0.6	0.0	0.0	0.0	12.2	
Lane LOS	A				B	
Approach Delay (s)	0.2		0.0		12.2	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			45.2%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2012 Existing

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘↘	
Volume (vph)	645	375	220	745	510	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.945				0.958	
Flt Protected			0.950		0.965	
Satd. Flow (prot)	3411	0	1805	3574	3408	0
Flt Permitted			0.950		0.965	
Satd. Flow (perm)	3411	0	1805	3574	3408	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	143				64	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.98	0.98	0.93	0.93	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	658	383	237	801	543	213
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1041	0	237	801	756	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	38.0	0.0	24.0	62.0	28.0	0.0
Total Split (%)	42.2%	0.0%	26.7%	68.9%	31.1%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	35.0		15.6	56.9	21.5	
Actuated g/C Ratio	0.39		0.17	0.63	0.24	
v/c Ratio	0.74		0.76	0.35	0.88	
Control Delay	24.7		46.2	9.3	42.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	24.7		46.2	9.3	42.7	
LOS	C		D	A	D	
Approach Delay	24.7			17.7	42.7	
Approach LOS	C			B	D	
Queue Length 50th (ft)	237		128	96	194	
Queue Length 95th (ft)	324		m171	m137	#285	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2012 Existing



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	588			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1413		359	2260	900	
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	0.74		0.66	0.35	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 26.9

Intersection LOS: C

Intersection Capacity Utilization 77.8%

ICU Level of Service D

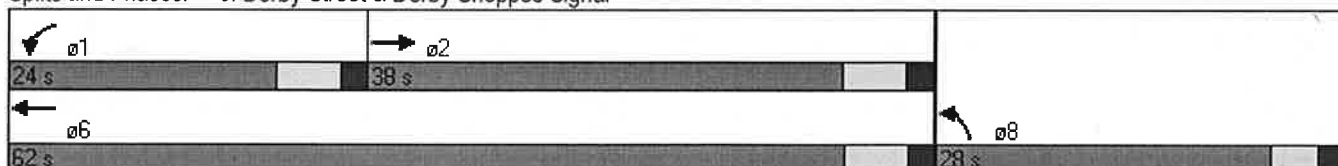
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal



Derby Street Corridor
3: Derby Street & Derby Shoppes

SAT Peak Hour
2012 Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	795	45	560	960	5	0	0	520	0	1	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.98	0.98	0.98	0.25	0.25	0.25
Hourly flow rate (vph)	5	820	46	602	1032	5	0	0	531	0	4	20
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		486			490							
pX, platoon unblocked	0.89			0.85			0.91	0.91	0.85	0.91	0.91	0.89
vC, conflicting volume	1038			866			2596	3095	433	3190	3116	519
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	800			494			2017	2569	0	2673	2591	219
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			35			100	100	43	100	50	97
cM capacity (veh/h)	742			920			9	8	929	2	8	706
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	5	546	320	602	688	349	531	24				
Volume Left	5	0	0	602	0	0	0	0				
Volume Right	0	0	46	0	0	5	531	20				
cSH	742	1700	1700	920	1700	1700	929	45				
Volume to Capacity	0.01	0.32	0.19	0.65	0.40	0.21	0.57	0.53				
Queue Length 95th (ft)	1	0	0	126	0	0	93	49				
Control Delay (s)	9.9	0.0	0.0	16.0	0.0	0.0	13.9	153.8				
Lane LOS	A			C			B	F				
Approach Delay (s)	0.1			5.9			13.9	153.8				
Approach LOS							B	F				
Intersection Summary												
Average Delay	6.8											
Intersection Capacity Utilization	68.9%			ICU Level of Service					C			
Analysis Period (min)	15											

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2012 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	470	835	10	0	830	25	5	1	5	25	0	690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.996			0.939				0.850
Flt Protected	0.950							0.978			0.950	
Satd. Flow (prot)	1805	3603	0	1900	3596	0	0	1745	0	0	1805	1615
Flt Permitted	0.950							0.892			0.743	
Satd. Flow (perm)	1805	3603	0	1900	3596	0	0	1591	0	0	1412	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			10				40
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.90	0.90	0.90	0.50	0.50	0.50	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	480	852	10	0	922	28	10	2	10	27	0	742
Shared Lane Traffic (%)												
Lane Group Flow (vph)	480	862	0	0	950	0	0	22	0	0	27	742
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	30.0	57.0	0.0	13.0	40.0	0.0	20.0	20.0	0.0	20.0	20.0	30.0
Total Split (%)	33.3%	63.3%	0.0%	14.4%	44.4%	0.0%	22.2%	22.2%	0.0%	22.2%	22.2%	33.3%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	24.0	63.7			33.9			14.5			14.0	44.0
Actuated g/C Ratio	0.27	0.71			0.38			0.16			0.16	0.49
v/c Ratio	1.00	0.34			0.70			0.08			0.12	0.92
Control Delay	70.9	7.7			27.0			23.8			34.4	38.5
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	70.9	7.7			27.0			23.8			34.4	38.5
LOS	E	A			C			C			C	D
Approach Delay		30.3			27.0			23.8			38.4	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	278	105			235			6			13	358
Queue Length 95th (ft)	m#465	m163			305			13			37	#609

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2012 Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250											300
Base Capacity (vph)	481	2551			1357			265			220	810
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	1.00	0.34			0.70			0.08			0.12	0.92

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 31.3
Intersection LOS: C
Intersection Capacity Utilization 84.5%
ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Derby Street & Cushing St.

ø1 13 s	ø2 57 s	ø4 20 s
ø5 30 s	ø6 40 s	ø8 20 s

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	610	150	315	660	90	45	1	110	15	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.982				0.850			0.850
Fit Protected		0.999		0.950				0.953			0.957	
Satd. Flow (prot)	0	3448	0	1770	1847	0	0	1759	1495	0	1818	1615
Fit Permitted		0.934		0.223				0.991			0.944	
Satd. Flow (perm)	0	3223	0	415	1847	0	0	1829	1495	0	1794	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		31			10							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.84	0.84	0.84	0.63	0.63	0.63
Heavy Vehicles (%)	0%	2%	0%	2%	1%	1%	3%	0%	8%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	842	0	328	782	0	0	55	131	0	27	16
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	38.0	38.0	0.0	18.0	56.0	0.0	14.0	14.0	18.0	14.0	14.0	14.0
Total Split (%)	38.4%	38.4%	0.0%	18.2%	56.6%	0.0%	14.1%	14.1%	18.2%	14.1%	14.1%	14.1%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		22.0		41.7	43.0			7.7	20.1		7.3	7.3
Actuated g/C Ratio		0.42		0.79	0.81			0.15	0.38		0.14	0.14
v/c Ratio		0.62		0.50	0.52			0.21	0.23		0.11	0.07
Control Delay		15.1		6.5	5.7			27.4	12.8		26.7	26.5
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		15.1		6.5	5.7			27.4	12.8		26.7	26.5
LOS		B		A	A			C	B		C	C
Approach Delay		15.1			5.9			17.1			26.6	
Approach LOS		B			A			B			C	
Queue Length 50th (ft)		127		34	130			18	26		9	5
Queue Length 95th (ft)		181		83	212			49	63		22	15
Internal Link Dist (ft)		282			644			291			131	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 No-Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				250								
Base Capacity (vph)		2120		716	1608			301	627		295	266
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.40		0.46	0.49			0.18	0.21		0.09	0.06

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 53

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 10.8

Intersection LOS: B

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø1	 ø2	 ø4	 ø9
18 s	38 s	14 s	29 s
 ø6		 ø8	
56 s		14 s	

Lane Group	ø9
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

AM Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	435	305	105	925	140	440
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.93	0.93	0.90	0.90
Hourly flow rate (vph)	458	321	113	995	156	489
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	724					
pX, platoon unblocked			0.89		0.89	0.89
vC, conflicting volume			458		1678	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			333		1700	333
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			90		0	23
cM capacity (veh/h)			1095		81	635
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	458	321	1108	156	489	
Volume Left	0	0	113	156	0	
Volume Right	0	321	0	0	489	
cSH	1700	1700	1095	81	635	
Volume to Capacity	0.27	0.19	0.10	1.92	0.77	
Queue Length 95th (ft)	0	0	9	340	180	
Control Delay (s)	0.0	0.0	2.8	540.3	27.1	
Lane LOS			A	F	D	
Approach Delay (s)	0.0		2.8	150.9		
Approach LOS				F		
Intersection Summary						
Average Delay			39.7			
Intersection Capacity Utilization			95.1%	ICU Level of Service		F
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

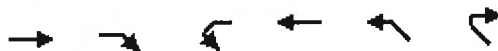
AM Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔	↔	↔	↔
Volume (veh/h)	60	815	640	525	90	390
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.91	0.91
Hourly flow rate (vph)	64	867	719	590	99	429
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	719				1714	719
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	719				1714	719
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	92				0	0
cM capacity (veh/h)	847				93	430
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	931	719	590	99	429	
Volume Left	64	0	0	99	0	
Volume Right	0	0	590	0	429	
cSH	847	1700	1700	93	430	
Volume to Capacity	0.08	0.42	0.35	1.07	1.00	
Queue Length 95th (ft)	6	0	0	162	315	
Control Delay (s)	2.0	0.0	0.0	195.6	73.9	
Lane LOS	A			F	F	
Approach Delay (s)	2.0	0.0		96.7		
Approach LOS				F		
Intersection Summary						
Average Delay			19.1			
Intersection Capacity Utilization			94.9%	ICU Level of Service		F
Analysis Period (min)			15			

Derby Street Corridor
9: Derby Street & Old Derby St.

AM Peak Hour
2022 No-Build



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	815	90	15	1165	0	5
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)	886	98	16	1266	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				871		
pX, platoon unblocked					0.91	
vC, conflicting volume			984		1601	492
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			984		1463	492
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	99
cM capacity (veh/h)			698		108	528
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	591	393	438	844	5	
Volume Left	0	0	16	0	0	
Volume Right	0	98	0	0	5	
cSH	1700	1700	698	1700	528	
Volume to Capacity	0.35	0.23	0.02	0.50	0.01	
Queue Length 95th (ft)	0	0	2	0	1	
Control Delay (s)	0.0	0.0	0.7	0.0	11.9	
Lane LOS			A		B	
Approach Delay (s)	0.0		0.2		11.9	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			52.8%	ICU Level of Service		A
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

AM Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Volume (veh/h)	30	790	1165	20	10	15
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)	33	859	1266	22	11	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.89				0.89	0.89
vC, conflicting volume	1288				1772	644
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1077				1620	353
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				86	97
cM capacity (veh/h)	573				80	578
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	319	572	844	444	27	
Volume Left	33	0	0	0	11	
Volume Right	0	0	0	22	16	
cSH	573	1700	1700	1700	166	
Volume to Capacity	0.06	0.34	0.50	0.26	0.16	
Queue Length 95th (ft)	5	0	0	0	14	
Control Delay (s)	1.9	0.0	0.0	0.0	30.8	
Lane LOS	A				D	
Approach Delay (s)	0.7		0.0		30.8	
Approach LOS					D	
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			53.7%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘↘	
Volume (vph)	725	75	50	1080	115	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.986				0.978	
Flt Protected			0.950		0.959	
Satd. Flow (prot)	3496	0	1805	3574	3358	0
Flt Permitted			0.950		0.959	
Satd. Flow (perm)	3496	0	1805	3574	3358	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	15				21	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.72	0.72
Heavy Vehicles (%)	2%	0%	0%	1%	1%	14%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	851	0	56	1213	188	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	45.0	0.0	20.0	65.0	25.0	0.0
Total Split (%)	50.0%	0.0%	22.2%	72.2%	27.8%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	56.4		8.2	68.6	9.8	
Actuated g/C Ratio	0.63		0.09	0.76	0.11	
v/c Ratio	0.39		0.34	0.45	0.49	
Control Delay	10.0		41.4	4.7	37.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	10.0		41.4	4.7	37.4	
LOS	B		D	A	D	
Approach Delay	10.0			6.3	37.4	
Approach LOS	B			A	D	
Queue Length 50th (ft)	120		33	63	46	
Queue Length 95th (ft)	190		m56	169	59	
Internal Link Dist (ft)	588			406	244	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2022 No-Build



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Turn Bay Length (ft)			200			
Base Capacity (vph)	2196		279	2723	744	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.39		0.20	0.45	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal

ø1 20 s	ø2 45 s	
ø6 65 s		ø8 25 s

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	495	10	10	845	30	5	1	5	30	1	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.995			0.939				0.850
Flt Protected	0.950			0.950				0.978			0.954	
Satd. Flow (prot)	1752	3530	0	1504	3558	0	0	1745	0	0	1813	1583
Flt Permitted	0.950			0.950				0.875			0.709	
Satd. Flow (perm)	1752	3530	0	1504	3558	0	0	1561	0	0	1347	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			5			14				62
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.35	0.35	0.35	0.82	0.82	0.82
Heavy Vehicles (%)	3%	2%	0%	20%	1%	0%	0%	0%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	260	526	0	10	911	0	0	31	0	0	38	463
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	28.0	58.0	0.0	13.0	43.0	0.0	19.0	19.0	0.0	19.0	19.0	28.0
Total Split (%)	31.1%	64.4%	0.0%	14.4%	47.8%	0.0%	21.1%	21.1%	0.0%	21.1%	21.1%	31.1%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	18.2	62.1		6.1	40.7			13.5			13.0	37.2
Actuated g/C Ratio	0.20	0.69		0.07	0.45			0.15			0.14	0.41
v/c Ratio	0.73	0.22		0.10	0.57			0.13			0.19	0.67
Control Delay	55.1	5.0		41.2	20.5			23.6			36.8	23.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	55.1	5.0		41.2	20.5			23.6			36.8	23.2
LOS	E	A		D	C			C			D	C
Approach Delay		21.5			20.7			23.6			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	160	41		6	197			8			19	176
Queue Length 95th (ft)	239	63		21	273			8			44	228
Internal Link Dist (ft)		410			501			58			154	

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	428	2437		115	1612			246			195	755
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.61	0.22		0.09	0.57			0.13			0.19	0.61

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 21.8

Intersection LOS: C

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
13 s	58 s	19 s
 ø5	 ø6	 ø8
28 s	43 s	19 s

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1160	20	65	720	15	150	0	230	70	1	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.953	
Satd. Flow (prot)	0	3534	0	1504	1876	0	0	1805	1599	0	1811	1615
Flt Permitted		0.951		0.118				0.689			0.482	
Satd. Flow (perm)	0	3360	0	187	1876	0	0	1309	1599	0	916	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		2			1							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.62	0.62	0.62	0.67	0.67	0.67
Heavy Vehicles (%)	0%	2%	0%	20%	1%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	6	1303	22	70	774	16	242	0	371	104	1	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1331	0	70	790	0	0	242	371	0	105	30
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	36.0	36.0	0.0	12.0	48.0	0.0	22.0	22.0	12.0	22.0	22.0	22.0
Total Split (%)	36.4%	36.4%	0.0%	12.1%	48.5%	0.0%	22.2%	22.2%	12.1%	22.2%	22.2%	22.2%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		30.0		44.0	42.0			16.0	30.0		16.0	16.0
Actuated g/C Ratio		0.43		0.63	0.60			0.23	0.43		0.23	0.23
v/c Ratio		0.92		0.26	0.70			0.81	0.54		0.50	0.08
Control Delay		31.6		7.6	13.9			48.9	18.6		33.2	22.1
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		31.6		7.6	13.9			48.9	18.6		33.2	22.1
LOS		C		A	B			D	B		C	C
Approach Delay		31.6			13.4			30.5			30.7	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		273		10	209			99	114		40	10
Queue Length 95th (ft)		#410		23	335			110	114		60	22

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 No-Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 No-Build



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		1441		268	1126			299	685		209	369
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.92		0.26	0.70			0.81	0.54		0.50	0.08

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 70

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 79.0%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 13: Derby Street & Pond Park Road

ø1	ø2	ø4	ø9
12 s	36 s	22 s	29 s
ø6		ø8	
48 s		22 s	

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

PM Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	830	535	305	715	85	690
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.93	0.93	0.90	0.90
Hourly flow rate (vph)	988	637	328	769	94	767
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	724					
pX, platoon unblocked			0.62		0.62	0.62
vC, conflicting volume			988		2413	988
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			678		2966	678
tC, single (s)			4.1		6.5	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			43		0	0
cM capacity (veh/h)			575		4	284
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	988	637	1097	94	767	
Volume Left	0	0	328	94	0	
Volume Right	0	637	0	0	767	
cSH	1700	1700	575	4	284	
Volume to Capacity	0.58	0.37	0.57	24.95	2.70	
Queue Length 95th (ft)	0	0	89	Err	1620	
Control Delay (s)	0.0	0.0	19.2	Err	803.0	
Lane LOS			C	F	F	
Approach Delay (s)	0.0		19.2	1811.6		
Approach LOS				F		
Intersection Summary						
Average Delay			441.3			
Intersection Capacity Utilization			112.9%	ICU Level of Service		H
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

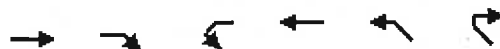
PM Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↑	↱	↰	↱
Volume (veh/h)	175	1355	810	570	105	210
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	199	1540	900	633	115	231
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	900				2838	900
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	900				2838	900
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	74				0	31
cM capacity (veh/h)	759				14	336
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	1739	900	633	115	231	
Volume Left	199	0	0	115	0	
Volume Right	0	0	633	0	231	
cSH	759	1700	1700	14	336	
Volume to Capacity	0.26	0.53	0.37	8.07	0.69	
Queue Length 95th (ft)	26	0	0	Err	121	
Control Delay (s)	11.4	0.0	0.0	Err	36.3	
Lane LOS	B			F	E	
Approach Delay (s)	11.4	0.0		3357.2		
Approach LOS				F		
Intersection Summary						
Average Delay			326.7			
Intersection Capacity Utilization			139.4%		ICU Level of Service	H
Analysis Period (min)			15			

Derby Street Corridor
9: Derby Street & Old Derby St.

PM Peak Hour
2022 No-Build



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	1240	220	35	1365	10	20
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)	1348	239	38	1484	11	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				871		
pX, platoon unblocked					0.89	
vC, conflicting volume			1587		2285	793
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1587		2197	793
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			91		59	94
cM capacity (veh/h)			419		27	336
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	899	688	533	989	33	
Volume Left	0	0	38	0	11	
Volume Right	0	239	0	0	22	
cSH	1700	1700	419	1700	69	
Volume to Capacity	0.53	0.40	0.09	0.58	0.47	
Queue Length 95th (ft)	0	0	7	0	48	
Control Delay (s)	0.0	0.0	2.7	0.0	97.9	
Lane LOS			A		F	
Approach Delay (s)	0.0		1.0		97.9	
Approach LOS					F	
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			72.9%	ICU Level of Service		C
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

PM Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔↔		↔	
Volume (veh/h)	15	1245	1375	10	15	25
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)	16	1353	1495	11	16	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	1505				2209	753
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1295				2098	437
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				58	95
cM capacity (veh/h)	475				39	502
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	467	902	996	509	43	
Volume Left	16	0	0	0	16	
Volume Right	0	0	0	11	27	
cSH	475	1700	1700	1700	92	
Volume to Capacity	0.03	0.53	0.59	0.30	0.47	
Queue Length 95th (ft)	3	0	0	0	51	
Control Delay (s)	1.0	0.0	0.0	0.0	75.5	
Lane LOS	A				F	
Approach Delay (s)	0.4		0.0		75.5	
Approach LOS					F	
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			55.0%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘↘	
Volume (vph)	1050	210	135	945	435	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.975				0.964	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	3514	0	1805	3574	3425	0
Flt Permitted			0.950		0.964	
Satd. Flow (perm)	3514	0	1805	3574	3425	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	37				43	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.95	0.95	0.89	0.89	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	1105	221	152	1062	458	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1326	0	152	1062	605	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	51.0	0.0	18.0	69.0	21.0	0.0
Total Split (%)	56.7%	0.0%	20.0%	76.7%	23.3%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	45.6		11.0	62.9	15.5	
Actuated g/C Ratio	0.51		0.12	0.70	0.17	
v/c Ratio	0.74		0.69	0.43	0.97	
Control Delay	20.2		45.9	10.3	64.8	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	20.2		45.9	10.3	64.8	
LOS	C		D	B	E	
Approach Delay	20.2			14.7	64.8	
Approach LOS	C			B	E	
Queue Length 50th (ft)	296		83	186	166	
Queue Length 95th (ft)	380		m111	m226	#275	

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	588			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1800		239	2498	625	
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	0.74		0.64	0.43	0.97	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 74.9%

ICU Level of Service D

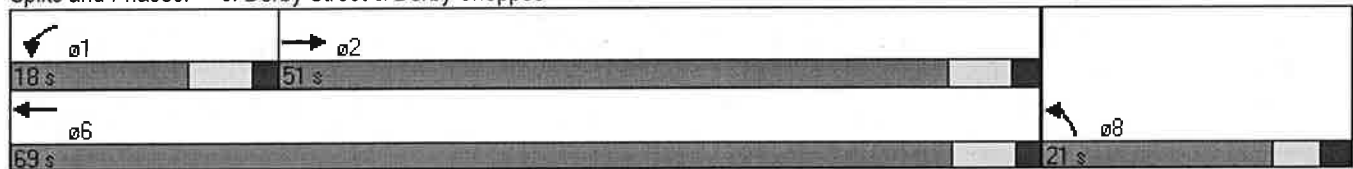
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes



Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	545	1005	10	10	860	45	15	10	15	20	2	565
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.949				0.850
Flt Protected	0.950			0.950				0.982			0.956	
Satd. Flow (prot)	1787	3571	0	1805	3585	0	0	1771	0	0	1816	1599
Flt Permitted	0.950			0.950				0.871			0.769	
Satd. Flow (perm)	1787	3571	0	1805	3585	0	0	1571	0	0	1461	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			6			21				15
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	556	1026	10	11	977	51	21	14	21	24	2	665
Shared Lane Traffic (%)												
Lane Group Flow (vph)	556	1036	0	11	1028	0	0	56	0	0	26	665
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	40.0	61.0	0.0	13.0	34.0	0.0	16.0	16.0	0.0	16.0	16.0	40.0
Total Split (%)	44.4%	67.8%	0.0%	14.4%	37.8%	0.0%	17.8%	17.8%	0.0%	17.8%	17.8%	44.4%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	31.8	65.1		6.1	30.1			10.5			10.0	47.8
Actuated g/C Ratio	0.35	0.72		0.07	0.33			0.12			0.11	0.53
v/c Ratio	0.88	0.40		0.09	0.85			0.28			0.16	0.78
Control Delay	48.5	6.9		40.7	37.2			29.3			38.9	23.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	48.5	6.9		40.7	37.2			29.3			38.9	23.5
LOS	D	A		D	D			C			D	C
Approach Delay		21.5			37.2			29.3			24.1	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	331	94		6	293			18			14	262
Queue Length 95th (ft)	m#459	m203		22	#403			40			36	364

Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	675	2584		138	1203			202			162	895
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.82	0.40		0.08	0.85			0.28			0.16	0.74

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 27.0

Intersection LOS: C

Intersection Capacity Utilization 79.0%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
13 s	61 s	16 s
 ø5	 ø6	 ø8
40 s	34 s	16 s

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	825	5	20	520	10	5	0	35	10	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.950	
Satd. Flow (prot)	0	3606	0	1805	1894	0	0	1687	1615	0	1805	1615
Flt Permitted		0.951		0.214								
Satd. Flow (perm)	0	3430	0	407	1894	0	0	1776	1615	0	1900	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		1			1							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.86	0.86	0.86	0.94	0.94	0.94	0.37	0.37	0.37	0.50	0.50	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%
Adj. Flow (vph)	6	959	6	21	553	11	14	0	95	20	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	971	0	21	564	0	0	14	95	0	20	10
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	44.0	44.0	0.0	12.0	56.0	0.0	14.0	14.0	12.0	14.0	14.0	14.0
Total Split (%)	44.4%	44.4%	0.0%	12.1%	56.6%	0.0%	14.1%	14.1%	12.1%	14.1%	14.1%	14.1%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	None	None		None	None		None	None	None	None	None	None
Act Effct Green (s)		24.6		31.7	35.0			7.6	11.4		7.6	7.6
Actuated g/C Ratio		0.61		0.78	0.86			0.19	0.28		0.19	0.19
v/c Ratio		0.47		0.04	0.34			0.04	0.21		0.06	0.03
Control Delay		8.4		2.4	3.4			21.6	15.2		21.7	21.6
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		8.4		2.4	3.4			21.6	15.2		21.7	21.6
LOS		A		A	A			C	B		C	C
Approach Delay		8.4			3.4			16.0			21.7	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)		47		1	0			3	19		4	2
Queue Length 95th (ft)		156		6	128			8	21		13	8

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 No-Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	29%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		2958		664	1792			439	550		469	399
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.33		0.03	0.31			0.03	0.17		0.04	0.03

Intersection Summary

Area Type: Other

Cycle Length: 99

Actuated Cycle Length: 40.5

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.4

Intersection LOS: A

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø1	 ø2	 ø4	 ø9
12 s	44 s	14 s	29 s
 ø6		 ø8	
56 s		14 s	

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

SAT Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	570	300	285	520	35	630
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.97	0.97	0.94	0.94
Hourly flow rate (vph)	613	323	294	536	37	670
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)	724					
pX, platoon unblocked			0.80		0.80	0.80
vC, conflicting volume			613		1737	613
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			394		1795	394
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			69		25	0
cM capacity (veh/h)			943		49	529
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	
Volume Total	613	323	830	37	670	
Volume Left	0	0	294	37	0	
Volume Right	0	323	0	0	670	
cSH	1700	1700	943	49	529	
Volume to Capacity	0.36	0.19	0.31	0.75	1.27	
Queue Length 95th (ft)	0	0	33	76	674	
Control Delay (s)	0.0	0.0	6.8	189.4	158.4	
Lane LOS			A	F	F	
Approach Delay (s)	0.0		6.8	160.1		
Approach LOS				F		
Intersection Summary						
Average Delay			48.1			
Intersection Capacity Utilization			86.5%	ICU Level of Service		E
Analysis Period (min)			15			

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

SAT Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↩	↩	↩	↩	↩
Volume (veh/h)	70	1160	650	695	215	155
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.98	0.98	0.94	0.94
Hourly flow rate (vph)	73	1208	663	709	229	165
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	663				2017	663
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	663				2017	663
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				0	64
cM capacity (veh/h)	930				60	463
Direction, Lane #	EB 1	WB 1	WB 2	SB 1	SB 2	
Volume Total	1281	663	709	229	165	
Volume Left	73	0	0	229	0	
Volume Right	0	0	709	0	165	
cSH	930	1700	1700	60	463	
Volume to Capacity	0.08	0.39	0.42	3.84	0.36	
Queue Length 95th (ft)	6	0	0	Err	40	
Control Delay (s)	2.9	0.0	0.0	Err	17.0	
Lane LOS	A			F	C	
Approach Delay (s)	2.9	0.0		5817.4		
Approach LOS				F		
Intersection Summary						
Average Delay			752.6			
Intersection Capacity Utilization			121.0%	ICU Level of Service		H
Analysis Period (min)			15			

Derby Street Corridor
9: Derby Street & Old Derby St.

SAT Peak Hour
2022 No-Build



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	1095	275	10	1330	5	10
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)	1190	299	11	1446	5	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				871		
pX, platoon unblocked					0.90	
vC, conflicting volume			1489		2084	745
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1489		1982	745
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		89	97
cM capacity (veh/h)			457		48	361
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	793	696	493	964	16	
Volume Left	0	0	11	0	5	
Volume Right	0	299	0	0	11	
cSH	1700	1700	457	1700	114	
Volume to Capacity	0.47	0.41	0.02	0.57	0.14	
Queue Length 95th (ft)	0	0	2	0	12	
Control Delay (s)	0.0	0.0	0.7	0.0	41.7	
Lane LOS			A		E	
Approach Delay (s)	0.0		0.2		41.7	
Approach LOS					E	
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			53.8%	ICU Level of Service	A	
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

SAT Peak Hour
2022 No-Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Volume (veh/h)	10	1095	1330	10	10	15
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	1190	1446	11	11	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)			668			
pX, platoon unblocked	0.88				0.88	0.88
vC, conflicting volume	1457				2068	728
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1255				1947	432
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				78	97
cM capacity (veh/h)	496				50	510
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	408	793	964	493	27	
Volume Left	11	0	0	0	11	
Volume Right	0	0	0	11	16	
cSH	496	1700	1700	1700	109	
Volume to Capacity	0.02	0.47	0.57	0.29	0.25	
Queue Length 95th (ft)	2	0	0	0	23	
Control Delay (s)	0.7	0.0	0.0	0.0	48.5	
Lane LOS	A				E	
Approach Delay (s)	0.2		0.0		48.5	
Approach LOS					E	
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			47.3%		ICU Level of Service	A
Analysis Period (min)			15			

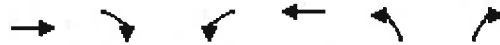
Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2022 No-Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↖↗	
Volume (vph)	720	375	220	835	510	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.949				0.958	
Flt Protected			0.950		0.965	
Satd. Flow (prot)	3426	0	1805	3574	3408	0
Flt Permitted			0.950		0.965	
Satd. Flow (perm)	3426	0	1805	3574	3408	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	115				64	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.98	0.98	0.93	0.93	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	735	383	237	898	543	213
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1118	0	237	898	756	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	38.0	0.0	24.0	62.0	28.0	0.0
Total Split (%)	42.2%	0.0%	26.7%	68.9%	31.1%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	35.0		15.6	56.9	21.5	
Actuated g/C Ratio	0.39		0.17	0.63	0.24	
v/c Ratio	0.80		0.76	0.40	0.88	
Control Delay	28.0		44.9	10.1	42.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	28.0		44.9	10.1	42.7	
LOS	C		D	B	D	
Approach Delay	28.0			17.4	42.7	
Approach LOS	C			B	D	
Queue Length 50th (ft)	275		129	116	194	
Queue Length 95th (ft)	#402		m158	m157	#285	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2022 No-Build



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	588			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1402		359	2260	900	
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	0.80		0.66	0.40	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 79.9%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal

ø1 24 s	ø2 38 s	
ø6 62 s		ø8 28 s

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	500	880	10	0	890	30	5	1	5	30	0	735
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.995			0.939				0.850
Flt Protected	0.950							0.978			0.950	
Satd. Flow (prot)	1805	3603	0	1900	3592	0	0	1745	0	0	1805	1615
Flt Permitted	0.950							0.890			0.743	
Satd. Flow (perm)	1805	3603	0	1900	3592	0	0	1588	0	0	1412	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			10				31
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.90	0.90	0.90	0.50	0.50	0.50	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	510	898	10	0	989	33	10	2	10	32	0	790
Shared Lane Traffic (%)												
Lane Group Flow (vph)	510	908	0	0	1022	0	0	22	0	0	32	790
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	30.0	57.0	0.0	13.0	40.0	0.0	20.0	20.0	0.0	20.0	20.0	30.0
Total Split (%)	33.3%	63.3%	0.0%	14.4%	44.4%	0.0%	22.2%	22.2%	0.0%	22.2%	22.2%	33.3%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	24.0	63.7			33.9			14.5			14.0	44.0
Actuated g/C Ratio	0.27	0.71			0.38			0.16			0.16	0.49
v/c Ratio	1.06	0.36			0.75			0.08			0.15	0.98
Control Delay	87.1	8.4			28.6			23.8			34.8	51.1
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	87.1	8.4			28.6			23.8			34.8	51.1
LOS	F	A			C			C			C	D
Approach Delay		36.7			28.6			23.8			50.4	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	~329	125			260			6			16	411
Queue Length 95th (ft)	m#491	m181			336			13			42	#678

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2022 No-Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250											300
Base Capacity (vph)	481	2551			1355			264			220	805
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	1.06	0.36			0.75			0.08			0.15	0.98

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 37.5
 Intersection LOS: D
 Intersection Capacity Utilization 89.1%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
13 s	57 s	20 s
 ø5	 ø6	 ø8
30 s	40 s	20 s

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	610	150	315	660	90	45	1	110	15	2	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.982				0.850			0.850
Flt Protected		0.999		0.950				0.953			0.957	
Satd. Flow (prot)	0	3448	0	1770	1847	0	0	1759	1495	0	1818	1615
Flt Permitted		0.935		0.251				0.710			0.710	
Satd. Flow (perm)	0	3227	0	468	1847	0	0	1310	1495	0	1349	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		33			10							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.96	0.96	0.84	0.84	0.84	0.63	0.63	0.63
Heavy Vehicles (%)	0%	2%	0%	2%	1%	1%	3%	0%	8%	0%	0%	0%
Adj. Flow (vph)	16	663	163	328	688	94	54	1	131	24	3	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	842	0	328	782	0	0	55	131	0	27	16
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	32.0	32.0	0.0	14.0	46.0	0.0	15.0	15.0	14.0	15.0	15.0	15.0
Total Split (%)	35.6%	35.6%	0.0%	15.6%	51.1%	0.0%	16.7%	16.7%	15.6%	16.7%	16.7%	16.7%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		46.9		74.3	73.5			8.0	33.1		8.0	8.0
Actuated g/C Ratio		0.52		0.83	0.82			0.09	0.37		0.09	0.09
v/c Ratio		0.50		0.47	0.52			0.47	0.24		0.23	0.11
Control Delay		15.2		4.1	3.2			52.3	20.0		42.3	38.8
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		15.2		4.1	3.2			52.3	20.0		42.3	38.8
LOS		B		A	A			D	C		D	D
Approach Delay		15.2			3.5			29.6			41.0	
Approach LOS		B			A			C			D	
Queue Length 50th (ft)		155		22	132			30	49		14	8
Queue Length 95th (ft)		214		m21	85			63	81		28	20

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	32%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

AM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		1699		696	1510			131	549		135	162
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.50		0.47	0.52			0.42	0.24		0.20	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 28 (31%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 11.0

Intersection LOS: B

Intersection Capacity Utilization 86.5%

ICU Level of Service E

Analysis Period (min) 15

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

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø1	 ø2	 ø4	 ø9
14 s	32 s	15 s	29 s
 ø6		 ø8	
46 s		15 s	

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

AM Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑	↑	↑
Volume (vph)	435	305	105	925	140	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		200	100		0	0
Storage Lanes		1	1		1	1
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00
Frt	0.977	0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3312	1441	1770	1881	1770	1599
Flt Permitted			0.390		0.950	
Satd. Flow (perm)	3312	1441	726	1881	1770	1599
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	34	238				489
Link Speed (mph)	30			30	30	
Link Distance (ft)	724			1103	272	
Travel Time (s)	16.5			25.1	6.2	
Peak Hour Factor	0.95	0.95	0.93	0.93	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	2%	1%
Adj. Flow (vph)	458	321	113	995	156	489
Shared Lane Traffic (%)		26%				
Lane Group Flow (vph)	541	238	113	995	156	489
Turn Type		Perm	pm+pt			Free
Protected Phases	2		1	6	8	
Permitted Phases		2	6			Free
Detector Phase	2	2	1	6	8	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	21.5	21.5	9.5	21.5	21.0	
Total Split (s)	55.0	55.0	10.0	65.0	25.0	0.0
Total Split (%)	61.1%	61.1%	11.1%	72.2%	27.8%	0.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	
All-Red Time (s)	1.5	1.5	1.5	1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Min	
Act Effct Green (s)	56.4	56.4	66.3	66.3	13.2	90.0
Actuated g/C Ratio	0.63	0.63	0.74	0.74	0.15	1.00
v/c Ratio	0.26	0.24	0.18	0.72	0.60	0.31
Control Delay	19.1	11.7	5.2	10.1	45.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	11.7	5.2	10.1	45.2	0.5
LOS	B	B	A	B	D	A
Approach Delay	16.8			9.6	11.3	
Approach LOS	B			A	B	
Queue Length 50th (ft)	135	54	14	168	84	0
Queue Length 95th (ft)	188	126	m41	349	138	0

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

AM Peak Hour
2022 Build



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	644			1023	192	
Turn Bay Length (ft)		200	100			
Base Capacity (vph)	2088	992	613	1387	393	1599
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.24	0.18	0.72	0.40	0.31

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 89 (99%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 12.3

Intersection LOS: B

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 12: Derby Street & Route 3 SB Ramps

ø1	ø2	
10 s	55 s	
ø6		ø8
65 s		25 s

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

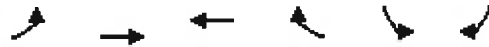
AM Peak Hour
2022 Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↱↱	↰↱		↰↱	↱
Volume (vph)	60	815	640	525	90	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175			0	150	0
Storage Lanes	1			0	2	1
Taper Length (ft)	25			25	25	25
Lane Util. Factor	1.00	0.95	0.95	0.95	0.97	1.00
Frt			0.932			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1641	3539	3316	0	3502	1599
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1641	3539	3316	0	3502	1599
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			297			429
Link Speed (mph)		30	30		30	
Link Distance (ft)		1103	542		325	
Travel Time (s)		25.1	12.3		7.4	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.91	0.91
Heavy Vehicles (%)	10%	2%	1%	2%	0%	1%
Adj. Flow (vph)	64	867	719	590	99	429
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	867	1309	0	99	429
Turn Type	Prot					Free
Protected Phases	5	2	6		4	
Permitted Phases						Free
Detector Phase	5	2	6		4	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	10.0	22.0	22.0		21.5	
Total Split (s)	14.0	60.0	46.0	0.0	30.0	0.0
Total Split (%)	15.6%	66.7%	51.1%	0.0%	33.3%	0.0%
Yellow Time (s)	4.0	4.0	4.0		3.0	
All-Red Time (s)	2.0	2.0	2.0		2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	4.0	5.5	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Min	
Act Effct Green (s)	8.9	70.6	58.0		7.9	90.0
Actuated g/C Ratio	0.10	0.78	0.64		0.09	1.00
v/c Ratio	0.40	0.31	0.58		0.32	0.27
Control Delay	45.1	1.9	7.2		40.8	0.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.1	1.9	7.2		40.8	0.4
LOS	D	A	A		D	A
Approach Delay		4.9	7.2		8.0	
Approach LOS		A	A		A	
Queue Length 50th (ft)	37	30	211		27	0
Queue Length 95th (ft)	77	44	141		51	0

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

AM Peak Hour
2022 Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		1023	462		245	
Turn Bay Length (ft)	175				150	
Base Capacity (vph)	173	2775	2243		953	1599
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.37	0.31	0.58		0.10	0.27

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 88 (98%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 6.6

Intersection LOS: A

Intersection Capacity Utilization 55.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Derby Street & Route 3 NB Ramps

→ ø2		↘ ø4
60 s		30 s
↗ ø5	← ø6	
14 s	46 s	

Derby Street Corridor
9: Derby Street & Old Derby St.

AM Peak Hour
2022 Build

						
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (veh/h)	805	90	15	1165	0	5
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)	875	98	16	1266	0	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	542			871		
pX, platoon unblocked			0.95		0.94	0.95
vC, conflicting volume			973		1590	486
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			865		1251	353
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	99
cM capacity (veh/h)			735		153	616
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	583	389	438	844	5	
Volume Left	0	0	16	0	0	
Volume Right	0	98	0	0	5	
cSH	1700	1700	735	1700	616	
Volume to Capacity	0.34	0.23	0.02	0.50	0.01	
Queue Length 95th (ft)	0	0	2	0	1	
Control Delay (s)	0.0	0.0	0.7	0.0	10.9	
Lane LOS			A		B	
Approach Delay (s)	0.0		0.2		10.9	
Approach LOS					B	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			52.8%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

AM Peak Hour
2022 Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔↔		↔	
Volume (veh/h)	20	790	1165	20	10	15
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)	22	859	1266	22	11	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		745	668			
pX, platoon unblocked	0.89				0.89	0.89
vC, conflicting volume	1288				1750	644
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1077				1574	353
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				88	97
cM capacity (veh/h)	573				88	578
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	
Volume Total	308	572	844	444	27	
Volume Left	22	0	0	0	11	
Volume Right	0	0	0	22	16	
cSH	573	1700	1700	1700	179	
Volume to Capacity	0.04	0.34	0.50	0.26	0.15	
Queue Length 95th (ft)	3	0	0	0	13	
Control Delay (s)	1.3	0.0	0.0	0.0	28.6	
Lane LOS	A				D	
Approach Delay (s)	0.5		0.0		28.6	
Approach LOS					D	
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			46.2%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2022 Build

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵↵	
Volume (vph)	725	75	50	1080	115	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.986				0.978	
Flt Protected			0.950		0.959	
Satd. Flow (prot)	3496	0	1805	3574	3358	0
Flt Permitted			0.950		0.959	
Satd. Flow (perm)	3496	0	1805	3574	3358	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	15				21	
Link Speed (mph)	30			30	30	
Link Distance (ft)	668			486	324	
Travel Time (s)	15.2			11.0	7.4	
Peak Hour Factor	0.94	0.94	0.89	0.89	0.72	0.72
Heavy Vehicles (%)	2%	0%	0%	1%	1%	14%
Adj. Flow (vph)	771	80	56	1213	160	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	851	0	56	1213	188	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	45.0	0.0	20.0	65.0	25.0	0.0
Total Split (%)	50.0%	0.0%	22.2%	72.2%	27.8%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	56.4		8.2	68.6	9.8	
Actuated g/C Ratio	0.63		0.09	0.76	0.11	
v/c Ratio	0.39		0.34	0.45	0.49	
Control Delay	17.2		41.4	4.7	37.4	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	17.2		41.4	4.7	37.4	
LOS	B		D	A	D	
Approach Delay	17.2			6.3	37.4	
Approach LOS	B			A	D	
Queue Length 50th (ft)	181		33	63	46	
Queue Length 95th (ft)	278		m56	169	59	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

AM Peak Hour
2022 Build



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	588			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	2196		279	2723	744	
Starvation Cap Reductn	0		0	0	0	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.39		0.20	0.45	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal

ø1 20 s	ø2 45 s	
ø6 65 s		ø8 25 s

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	495	10	10	845	30	5	1	5	30	1	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.997			0.995			0.939				0.850
Flt Protected	0.950			0.950				0.978			0.954	
Satd. Flow (prot)	1752	3530	0	1504	3558	0	0	1745	0	0	1813	1583
Flt Permitted	0.950			0.950				0.875			0.709	
Satd. Flow (perm)	1752	3530	0	1504	3558	0	0	1561	0	0	1347	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			5			14				62
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.35	0.35	0.35	0.82	0.82	0.82
Heavy Vehicles (%)	3%	2%	0%	20%	1%	0%	0%	0%	0%	0%	0%	2%
Adj. Flow (vph)	260	516	10	10	880	31	14	3	14	37	1	463
Shared Lane Traffic (%)												
Lane Group Flow (vph)	260	526	0	10	911	0	0	31	0	0	38	463
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	28.0	58.0	0.0	13.0	43.0	0.0	19.0	19.0	0.0	19.0	19.0	28.0
Total Split (%)	31.1%	64.4%	0.0%	14.4%	47.8%	0.0%	21.1%	21.1%	0.0%	21.1%	21.1%	31.1%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	18.2	62.1		6.1	40.7			13.5			13.0	37.2
Actuated g/C Ratio	0.20	0.69		0.07	0.45			0.15			0.14	0.41
v/c Ratio	0.73	0.22		0.10	0.57			0.13			0.19	0.67
Control Delay	57.6	2.9		41.2	20.5			23.6			36.8	23.2
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	57.6	2.9		41.2	20.5			23.6			36.8	23.2
LOS	E	A		D	C			C			D	C
Approach Delay		21.0			20.7			23.6			24.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	160	21		6	197			8			19	176
Queue Length 95th (ft)	238	38		21	273			8			44	228

Derby Street Corridor
2: Derby Street & Cushing St.

AM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	428	2437		115	1612			246			195	755
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.61	0.22		0.09	0.57			0.13			0.19	0.61

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
13 s	58 s	19 s
 ø5	 ø6	 ø8
28 s	43 s	19 s

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	1160	20	65	720	15	150	0	230	70	1	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.953	
Satd. Flow (prot)	0	3534	0	1504	1876	0	0	1805	1599	0	1811	1615
Flt Permitted		0.952		0.142				0.689			0.400	
Satd. Flow (perm)	0	3364	0	225	1876	0	0	1309	1599	0	760	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		2			1							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.62	0.62	0.62	0.67	0.67	0.67
Heavy Vehicles (%)	0%	2%	0%	20%	1%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	6	1303	22	70	774	16	242	0	371	104	1	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1331	0	70	790	0	0	242	371	0	105	30
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	29.0	29.0	0.0	8.0	37.0	0.0	24.0	24.0	8.0	24.0	24.0	24.0
Total Split (%)	32.2%	32.2%	0.0%	8.9%	41.1%	0.0%	26.7%	26.7%	8.9%	26.7%	26.7%	26.7%
Maximum Green (s)	23.0	23.0		4.0	31.0		18.0	18.0	4.0	18.0	18.0	18.0
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead		Lag					Lag			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		52.2		62.2	60.2			17.8	27.8		17.8	17.8
Actuated g/C Ratio		0.58		0.69	0.67			0.20	0.31		0.20	0.20
v/c Ratio		0.68		0.33	0.63			0.93	0.75		0.70	0.09
Control Delay		15.5		5.8	4.4			78.7	39.1		59.6	30.4
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		15.5		5.8	4.4			78.7	39.1		59.6	30.4
LOS		B		A	A			E	D		E	C
Approach Delay		15.5			4.5			54.7			53.1	
Approach LOS		B			A			D			D	

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	32%
Maximum Green (s)	20.0
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Derby Street Corridor
13: Derby Street & Pond Park Road

PM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		257		4	80			136	188		56	14
Queue Length 95th (ft)		325		m6	94			142	177		80	28
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		1950		212	1254			262	494		152	323
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.68		0.33	0.63			0.92	0.75		0.69	0.09

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 8 (9%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 22.2

Intersection LOS: C

Intersection Capacity Utilization 79.0%

ICU Level of Service D

Analysis Period (min) 15

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

Splits and Phases: 13: Derby Street & Pond Park Road

 ø2	 ø1	 ø4	 ø9
29 s	8 s	24 s	29 s
 ø6	 ø8		
37 s	24 s		

Lane Group	ø9
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

PM Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑	↖	↗
Volume (vph)	830	535	305	715	85	690
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.941					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3397	0	1805	1881	1570	1615
Flt Permitted			0.075		0.950	
Satd. Flow (perm)	3397	0	142	1881	1570	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	213					525
Link Speed (mph)	30			30	30	
Link Distance (ft)	724			1103	272	
Travel Time (s)	16.5			25.1	6.2	
Peak Hour Factor	0.84	0.84	0.93	0.93	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	1%	15%	0%
Adj. Flow (vph)	988	637	328	769	94	767
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1625	0	328	769	94	767
Turn Type			pm+pt			Free
Protected Phases	2		1	6	8	
Permitted Phases			6			Free
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.0		9.5	22.0	20.0	
Total Split (s)	46.0	0.0	24.0	70.0	20.0	0.0
Total Split (%)	51.1%	0.0%	26.7%	77.8%	22.2%	0.0%
Maximum Green (s)	40.5		18.5	64.5	15.0	
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.5		1.5	1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.0	5.5	5.5	5.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		None	C-Max	Min	
Walk Time (s)	5.0			5.0		
Flash Dont Walk (s)	11.0			11.0		
Pedestrian Calls (#/hr)	0			0		
Act Effct Green (s)	48.0		68.8	68.8	10.7	90.0
Actuated g/C Ratio	0.53		0.76	0.76	0.12	1.00
v/c Ratio	0.85		0.84	0.53	0.51	0.47
Control Delay	16.8		38.2	3.0	45.8	1.0
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	16.8		38.2	3.0	45.8	1.0

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

PM Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	B		D	A	D	A
Approach Delay	16.8			13.6	5.9	
Approach LOS	B			B	A	
Queue Length 50th (ft)	330		82	33	51	0
Queue Length 95th (ft)	#366		m163	51	95	0
Internal Link Dist (ft)	644			1023	192	
Turn Bay Length (ft)			100			
Base Capacity (vph)	1911		455	1438	262	1615
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.85		0.72	0.53	0.36	0.47

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 16 (18%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 13.2

Intersection LOS: B

Intersection Capacity Utilization 75.0%

ICU Level of Service D

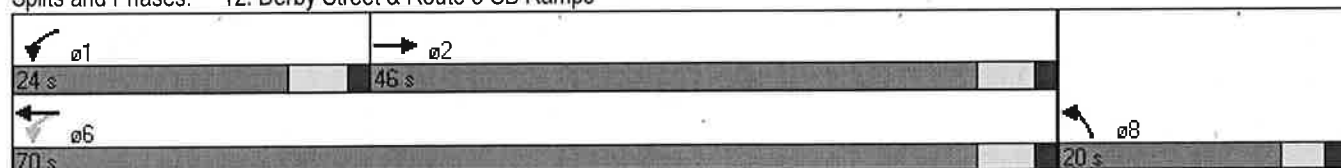
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 12: Derby Street & Route 3 SB Ramps



Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

PM Peak Hour
2022 Build

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	175	1355	810	570	105	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	2	1
Taper Length (ft)	25			25	25	25
Lane Util. Factor	1.00	0.95	0.95	0.95	0.97	1.00
Frt			0.938			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	3610	3372	0	3467	1568
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	3610	3372	0	3467	1568
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			275			231
Link Speed (mph)		30	30		30	
Link Distance (ft)		1103	542		296	
Travel Time (s)		25.1	12.3		6.7	
Peak Hour Factor	0.88	0.88	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	3%
Adj. Flow (vph)	199	1540	900	633	115	231
Shared Lane Traffic (%)						
Lane Group Flow (vph)	199	1540	1533	0	115	231
Turn Type	Prot					Free
Protected Phases	5	2	6		4	
Permitted Phases						Free
Detector Phase	5	2	6		4	
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	
Minimum Split (s)	10.0	22.0	22.0		21.5	
Total Split (s)	18.0	68.0	50.0	0.0	22.0	0.0
Total Split (%)	20.0%	75.6%	55.6%	0.0%	24.4%	0.0%
Maximum Green (s)	12.0	62.0	44.0		16.5	
Yellow Time (s)	4.0	4.0	4.0		3.0	
All-Red Time (s)	2.0	2.0	2.0		2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	4.0	5.5	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	None	C-Max	C-Max		Min	
Walk Time (s)		5.0	5.0		5.0	
Flash Dont Walk (s)		11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)	15.6	70.2	48.6		8.3	90.0
Actuated g/C Ratio	0.17	0.78	0.54		0.09	1.00
v/c Ratio	0.64	0.55	0.79		0.36	0.15
Control Delay	47.0	2.3	9.9		41.0	0.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	47.0	2.3	9.9		41.0	0.2

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

PM Peak Hour
2022 Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
LOS	D	A	A		D	A
Approach Delay		7.4	9.9		13.8	
Approach LOS		A	A		B	
Queue Length 50th (ft)	96	51	95		32	0
Queue Length 95th (ft)	m134	67	176		57	0
Internal Link Dist (ft)		1023	462		216	
Turn Bay Length (ft)	175					
Base Capacity (vph)	313	2814	1947		636	1568
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.64	0.55	0.79		0.18	0.15

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 60 (67%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 68.3%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 10: Derby Street & Route 3 NB Ramps

→ ø2		↘ ø4
68 s		22 s
↙ ø5	← ø6	
18 s	50 s	

Derby Street Corridor
9: Derby Street & Old Derby St.

PM Peak Hour
2022 Build



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑	
Volume (veh/h)	1240	220	35	1365	10	20
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)	1348	239	38	1484	11	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	542			870		
pX, platoon unblocked			0.82		0.89	0.82
vC, conflicting volume			1587		2285	793
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1268		1487	296
tC, single (s)			4.1		7.1	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.6	3.3
p0 queue free %			92		87	96
cM capacity (veh/h)			453		83	576
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	899	688	533	989	33	
Volume Left	0	0	38	0	11	
Volume Right	0	239	0	0	22	
cSH	1700	1700	453	1700	194	
Volume to Capacity	0.53	0.40	0.08	0.58	0.17	
Queue Length 95th (ft)	0	0	7	0	15	
Control Delay (s)	0.0	0.0	2.5	0.0	27.3	
Lane LOS			A		D	
Approach Delay (s)	0.0		0.9		27.3	
Approach LOS					D	
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			72.9%	ICU Level of Service		C
Analysis Period (min)			15			

Derby Street Corridor
29: Derby Street & Old Derby Street

PM Peak Hour
2022 Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	15	1245	1375	10	15	25
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)	16	1353	1495	11	16	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		751	661			
pX, platoon unblocked	0.85				0.91	0.85
vC, conflicting volume	1505				2209	753
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1243				1517	358
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				83	95
cM capacity (veh/h)	473				97	543
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	16	677	677	996	509	43
Volume Left	16	0	0	0	0	16
Volume Right	0	0	0	0	11	27
cSH	473	1700	1700	1700	1700	199
Volume to Capacity	0.03	0.40	0.40	0.59	0.30	0.22
Queue Length 95th (ft)	3	0	0	0	0	20
Control Delay (s)	12.9	0.0	0.0	0.0	0.0	28.1
Lane LOS	B					D
Approach Delay (s)	0.2			0.0		28.1
Approach LOS						D
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			48.3%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↖↗	
Volume (vph)	1050	210	135	945	435	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.975				0.964	
Flt Protected			0.950		0.964	
Satd. Flow (prot)	3514	0	1805	3574	3425	0
Flt Permitted			0.950		0.964	
Satd. Flow (perm)	3514	0	1805	3574	3425	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	37				45	
Link Speed (mph)	30			30	30	
Link Distance (ft)	661			486	324	
Travel Time (s)	15.0			11.0	7.4	
Peak Hour Factor	0.95	0.95	0.89	0.89	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	1%	0%	0%
Adj. Flow (vph)	1105	221	152	1062	458	147
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1326	0	152	1062	605	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	26.3	20.0	
Total Split (s)	51.0	0.0	17.0	68.0	22.0	0.0
Total Split (%)	56.7%	0.0%	18.9%	75.6%	24.4%	0.0%
Maximum Green (s)	44.7		10.9	57.7	18.0	
Yellow Time (s)	4.3		4.3	4.3	3.5	
All-Red Time (s)	2.0		1.8	6.0	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	10.3	4.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Recall Mode	C-Max		None	C-Max	None	
Walk Time (s)	5.0			5.0	5.0	
Flash Dont Walk (s)	11.0			11.0	11.0	
Pedestrian Calls (#/hr)	0			0	0	
Act Effct Green (s)	45.7		10.4	58.2	17.5	
Actuated g/C Ratio	0.51		0.12	0.65	0.19	
v/c Ratio	0.74		0.73	0.46	0.86	
Control Delay	12.2		46.4	8.4	46.3	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	12.2		46.4	8.4	46.3	

Derby Street Corridor
6: Derby Street & Derby Shoppes

PM Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
LOS	B		D	A	D	
Approach Delay	12.2			13.2	46.3	
Approach LOS	B			B	D	
Queue Length 50th (ft)	176		72	178	159	
Queue Length 95th (ft)	223		m101	261	#244	
Internal Link Dist (ft)	581			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1803		219	2312	721	
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	0.74		0.69	0.46	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 63 (70%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 73.7%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes

↙ ø1	→ ø2	↖ ø8
17 s	51 s	22 s
← ø6		
68 s		

Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour

2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	545	1005	10	10	860	45	15	10	15	20	2	565
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.993			0.949				0.850
Flt Protected	0.950			0.950				0.982			0.956	
Satd. Flow (prot)	1787	3571	0	1805	3585	0	0	1771	0	0	1816	1599
Flt Permitted	0.950			0.950				0.866			0.799	
Satd. Flow (perm)	1787	3571	0	1805	3585	0	0	1561	0	0	1518	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			6			21				17
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.71	0.71	0.71	0.85	0.85	0.85
Heavy Vehicles (%)	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Adj. Flow (vph)	556	1026	10	11	977	51	21	14	21	24	2	665
Shared Lane Traffic (%)												
Lane Group Flow (vph)	556	1036	0	11	1028	0	0	56	0	0	26	665
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		3.9	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.0	20.0		10.0	20.0		10.0	10.0		10.0	10.0	10.0
Total Split (s)	40.0	65.0	0.0	10.0	35.0	0.0	15.0	15.0	0.0	15.0	15.0	40.0
Total Split (%)	44.4%	72.2%	0.0%	11.1%	38.9%	0.0%	16.7%	16.7%	0.0%	16.7%	16.7%	44.4%
Maximum Green (s)	34.0	58.7		3.9	28.9		9.5	9.5		9.0	9.0	34.0
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	31.8	66.7		3.9	31.1			9.5			9.0	46.8
Actuated g/C Ratio	0.35	0.74		0.04	0.35			0.11			0.10	0.52
v/c Ratio	0.88	0.39		0.14	0.83			0.30			0.17	0.79
Control Delay	48.1	2.6		45.6	34.7			30.8			40.1	25.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	48.1	2.6		45.6	34.7			30.8			40.1	25.0
LOS	D	A		D	C			C			D	C
Approach Delay		18.5			34.8			30.8			25.5	
Approach LOS		B			C			C			C	

Derby Street Corridor
2: Derby Street & Cushing St.

PM Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	255	45		6	288			19			14	269
Queue Length 95th (ft)	m#441	73		23	#390			40			37	373
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250			125								300
Base Capacity (vph)	675	2647		78	1243			184			152	878
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.82	0.39		0.14	0.83			0.30			0.17	0.76

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.1

Intersection LOS: C

Intersection Capacity Utilization 79.0%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

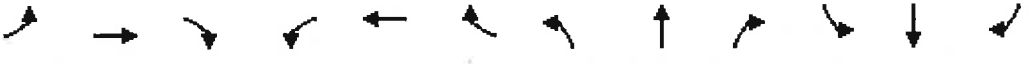
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
10 s	65 s	15 s
 ø5	 ø6	 ø8
40 s	35 s	15 s

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔			↔	↔		↔	↔
Volume (vph)	5	825	5	20	520	10	5	0	35	10	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	250		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.997				0.850			0.850
Flt Protected				0.950				0.950			0.950	
Satd. Flow (prot)	0	3606	0	1805	1894	0	0	1687	1615	0	1805	1615
Flt Permitted		0.952		0.283								
Satd. Flow (perm)	0	3433	0	538	1894	0	0	1776	1615	0	1900	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		1			2							
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		362			724			371			211	
Travel Time (s)		8.2			16.5			8.4			4.8	
Peak Hour Factor	0.86	0.86	0.86	0.94	0.94	0.94	0.37	0.37	0.37	0.50	0.50	0.50
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	7%	0%	0%	0%	0%	0%
Adj. Flow (vph)	6	959	6	21	553	11	14	0	95	20	0	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	971	0	21	564	0	0	14	95	0	20	10
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		Perm
Protected Phases		2		1	6			8	1		4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0		8.0	22.0		12.0	12.0	8.0	12.0	12.0	12.0
Total Split (s)	41.0	41.0	0.0	8.0	49.0	0.0	12.0	12.0	8.0	12.0	12.0	12.0
Total Split (%)	45.6%	45.6%	0.0%	8.9%	54.4%	0.0%	13.3%	13.3%	8.9%	13.3%	13.3%	13.3%
Yellow Time (s)	4.0	4.0		3.0	4.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0		1.0	2.0		3.0	3.0	1.0	3.0	3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	6.0	4.0	6.0	6.0	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lead		Lag					Lag			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)		71.6		78.8	79.2			5.8	11.2		5.9	5.9
Actuated g/C Ratio		0.80		0.88	0.88			0.06	0.12		0.07	0.07
v/c Ratio		0.36		0.04	0.34			0.12	0.47		0.16	0.10
Control Delay		4.3		1.6	2.2			42.0	42.6		42.8	41.6
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay		4.3		1.6	2.2			42.0	42.6		42.8	41.6
LOS		A		A	A			D	D		D	D
Approach Delay		4.3			2.2			42.5			42.4	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)		98		1	48			8	48		11	6
Queue Length 95th (ft)		120		m4	96			11	36		19	12

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 Build

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	29.0
Total Split (s)	29.0
Total Split (%)	32%
Yellow Time (s)	7.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Derby Street Corridor
13: Derby Street & Pond Park Rd.

SAT Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		282			644			291			131	
Turn Bay Length (ft)				250								
Base Capacity (vph)		2732		527	1667			118	201		127	108
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.36		0.04	0.34			0.12	0.47		0.16	0.09

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 6.7

Intersection LOS: A

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 13: Derby Street & Pond Park Rd.

 ø2	 ø1	 ø4	 ø9
41 s	8 s	12 s	29 s
 ø6	 ø8		
49 s	12 s		

Lane Group	ø9
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

SAT Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑	↘	↗
Volume (vph)	570	300	285	520	35	630
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	100		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.948					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3411	0	1805	1900	1805	1615
Flt Permitted			0.241		0.950	
Satd. Flow (perm)	3411	0	458	1900	1805	1615
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	126					635
Link Speed (mph)	30			30	30	
Link Distance (ft)	724			1103	272	
Travel Time (s)	16.5			25.1	6.2	
Peak Hour Factor	0.93	0.93	0.97	0.97	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	613	323	294	536	37	670
Shared Lane Traffic (%)						
Lane Group Flow (vph)	936	0	294	536	37	670
Turn Type			pm+pt			Free
Protected Phases	2		1	6	8	
Permitted Phases			6			Free
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.0		10.0	22.0	22.0	
Total Split (s)	41.0	0.0	27.0	68.0	22.0	0.0
Total Split (%)	45.6%	0.0%	30.0%	75.6%	24.4%	0.0%
Yellow Time (s)	4.0		4.0	4.0	3.0	
All-Red Time (s)	1.5		1.5	1.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.0	5.5	5.5	5.0	4.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	Min	
Act Effct Green (s)	55.7		72.1	72.1	7.4	90.0
Actuated g/C Ratio	0.62		0.80	0.80	0.08	1.00
v/c Ratio	0.43		0.55	0.35	0.25	0.41
Control Delay	6.8		10.6	4.5	42.3	0.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	6.8		10.6	4.5	42.3	0.8
LOS	A		B	A	D	A
Approach Delay	6.8			6.7	3.0	
Approach LOS	A			A	A	
Queue Length 50th (ft)	34		51	87	20	0
Queue Length 95th (ft)	155		128	152	49	0

Derby Street Corridor
12: Derby Street & Route 3 SB Ramps

SAT Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	644			1023	192	
Turn Bay Length (ft)			100			
Base Capacity (vph)	2158		689	1523	341	1615
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.43		0.43	0.35	0.11	0.41

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 5.7
 Intersection Capacity Utilization 57.8%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 12: Derby Street & Route 3 SB Ramps

↙ ø1	→ ø2	
27 s	41 s	
↖ ø6		↗ ø8
68 s		22 s

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

SAT Peak Hour
2022 Build

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	70	1160	650	695	215	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175			0	0	0
Storage Lanes	1			0	2	1
Taper Length (ft)	25			25	25	25
Lane Util. Factor	1.00	0.95	0.95	0.95	0.97	1.00
Frt			0.922			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1787	3610	3311	0	3467	1599
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1787	3610	3311	0	3467	1599
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			450			165
Link Speed (mph)		30	30		30	
Link Distance (ft)		1103	542		289	
Travel Time (s)		25.1	12.3		6.6	
Peak Hour Factor	0.96	0.96	0.98	0.98	0.94	0.94
Heavy Vehicles (%)	1%	0%	0%	1%	1%	1%
Adj. Flow (vph)	73	1208	663	709	229	165
Shared Lane Traffic (%)						
Lane Group Flow (vph)	73	1208	1372	0	229	165
Turn Type	Prot					Perm
Protected Phases	5	2	6		4	
Permitted Phases						4
Detector Phase	5	2	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	22.0	22.0		21.5	21.5
Total Split (s)	15.0	68.0	53.0	0.0	22.0	22.0
Total Split (%)	16.7%	75.6%	58.9%	0.0%	24.4%	24.4%
Yellow Time (s)	4.0	4.0	4.0		3.0	3.0
All-Red Time (s)	2.0	2.0	2.0		2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	4.0	5.5	5.5
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		Min	Min
Act Effct Green (s)	8.8	67.3	54.8		11.2	11.2
Actuated g/C Ratio	0.10	0.75	0.61		0.12	0.12
v/c Ratio	0.42	0.45	0.63		0.53	0.48
Control Delay	43.7	4.6	10.6		41.1	10.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	43.7	4.6	10.6		41.1	10.9
LOS	D	A	B		D	B
Approach Delay		6.8	10.6		28.4	
Approach LOS		A	B		C	
Queue Length 50th (ft)	41	103	201		63	0
Queue Length 95th (ft)	85	140	249		96	54

Derby Street Corridor
10: Derby Street & Route 3 NB Ramps

SAT Peak Hour
2022 Build



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Internal Link Dist (ft)		1023	462		209	
Turn Bay Length (ft)	175					
Base Capacity (vph)	193	2699	2193		636	428
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.38	0.45	0.63		0.36	0.39

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 10: Derby Street & Route 3 NB Ramps

→ ø2		← ø4	
68 s		22 s	
→ ø5	← ø6		
15 s	53 s		

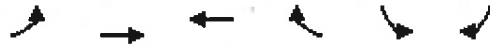
Derby Street Corridor
9: Derby Street & Old Derby St.

SAT Peak Hour
2022 Build

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↘	
Volume (veh/h)	1095	275	10	1335	5	10
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)	1190	299	11	1451	5	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)	542			870		
pX, platoon unblocked			0.86		0.92	0.86
vC, conflicting volume			1489		2087	745
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1252		1505	391
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		95	98
cM capacity (veh/h)			486		102	530
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NW 1	
Volume Total	793	696	495	967	16	
Volume Left	0	0	11	0	5	
Volume Right	0	299	0	0	11	
cSH	1700	1700	486	1700	221	
Volume to Capacity	0.47	0.41	0.02	0.57	0.07	
Queue Length 95th (ft)	0	0	2	0	6	
Control Delay (s)	0.0	0.0	0.7	0.0	22.6	
Lane LOS			A		C	
Approach Delay (s)	0.0		0.2		22.6	
Approach LOS					C	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			53.9%		ICU Level of Service	A
Analysis Period (min)			15			

Derby Street Corridor
8: Derby Street & Old Derby St.

SAT Peak Hour
2022 Build



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	10	1095	1330	10	10	15
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	1190	1446	11	11	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		751	661			
pX, platoon unblocked	0.88				0.92	0.88
vC, conflicting volume	1457				2068	728
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1255				1657	431
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				87	97
cM capacity (veh/h)	496				81	511
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	11	595	595	964	493	27
Volume Left	11	0	0	0	0	11
Volume Right	0	0	0	0	11	16
cSH	496	1700	1700	1700	1700	164
Volume to Capacity	0.02	0.35	0.35	0.57	0.29	0.17
Queue Length 95th (ft)	2	0	0	0	0	14
Control Delay (s)	12.4	0.0	0.0	0.0	0.0	31.2
Lane LOS	B					D
Approach Delay (s)	0.1			0.0		31.2
Approach LOS						D
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			51.2%		ICU Level of Service	A
Analysis Period (min)			15			

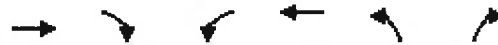
Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2022 Build

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↘	↑↑	↘↘	
Volume (vph)	720	375	220	835	510	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		2	0
Taper Length (ft)		25	25		25	25
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	0.95
Frt	0.949				0.958	
Flt Protected			0.950		0.965	
Satd. Flow (prot)	3426	0	1805	3574	3408	0
Flt Permitted			0.950		0.965	
Satd. Flow (perm)	3426	0	1805	3574	3408	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	119				64	
Link Speed (mph)	30			30	30	
Link Distance (ft)	661			486	324	
Travel Time (s)	15.0			11.0	7.4	
Peak Hour Factor	0.98	0.98	0.93	0.93	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%
Adj. Flow (vph)	735	383	237	898	543	213
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1118	0	237	898	756	0
Turn Type			Prot			
Protected Phases	2		1	6	8	
Permitted Phases						
Detector Phase	2		1	6	8	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	22.3		10.1	22.1	21.5	
Total Split (s)	39.6	0.0	22.4	62.0	28.0	0.0
Total Split (%)	44.0%	0.0%	24.9%	68.9%	31.1%	0.0%
Yellow Time (s)	4.3		4.3	4.3	3.2	
All-Red Time (s)	2.0		1.8	1.8	2.3	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	4.0	6.1	6.1	5.5	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	34.3		16.3	56.9	21.5	
Actuated g/C Ratio	0.38		0.18	0.63	0.24	
v/c Ratio	0.81		0.72	0.40	0.88	
Control Delay	31.1		35.5	5.5	42.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	31.1		35.5	5.5	42.7	
LOS	C		D	A	D	
Approach Delay	31.1			11.8	42.7	
Approach LOS	C			B	D	
Queue Length 50th (ft)	297		127	87	194	
Queue Length 95th (ft)	377		m138	m95	#285	

Derby Street Corridor
6: Derby Street & Derby Shoppes Signal

SAT Peak Hour
2022 Build



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	581			406	244	
Turn Bay Length (ft)			200			
Base Capacity (vph)	1380		327	2260	900	
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	0.81		0.72	0.40	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 26.7

Intersection LOS: C

Intersection Capacity Utilization 79.9%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Derby Street & Derby Shoppes Signal

→ ø2	↶ ø1	↶ ø8
39.6 s	22.4 s	28 s
← ø6		
62 s		

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	500	880	10	0	890	30	5	1	5	30	0	735
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	125		0	0		0	0		300
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.998			0.995			0.939				0.850
Flt Protected	0.950							0.978			0.950	
Satd. Flow (prot)	1805	3603	0	1900	3592	0	0	1745	0	0	1805	1615
Flt Permitted	0.950							0.880			0.743	
Satd. Flow (perm)	1805	3603	0	1900	3592	0	0	1570	0	0	1412	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			4			10				22
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		490			581			138			234	
Travel Time (s)		11.1			13.2			3.1			5.3	
Peak Hour Factor	0.98	0.98	0.98	0.90	0.90	0.90	0.50	0.50	0.50	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	510	898	10	0	989	33	10	2	10	32	0	790
Shared Lane Traffic (%)												
Lane Group Flow (vph)	510	908	0	0	1022	0	0	22	0	0	32	790
Turn Type	Prot			Prot			Perm			Perm		pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases							8			4		4
Detector Phase	5	2		1	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	10.1	20.0		10.1	20.0		10.0	10.0		10.0	10.0	10.1
Total Split (s)	35.0	60.0	0.0	12.0	37.0	0.0	18.0	18.0	0.0	18.0	18.0	35.0
Total Split (%)	38.9%	66.7%	0.0%	13.3%	41.1%	0.0%	20.0%	20.0%	0.0%	20.0%	20.0%	38.9%
Yellow Time (s)	4.3	4.3		4.3	4.3		3.2	3.2		3.6	3.6	4.3
All-Red Time (s)	1.7	2.0		1.8	1.8		2.3	2.3		2.4	2.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.3	4.0	6.1	6.1	4.0	5.5	5.5	4.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag		Lead	Lag							Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							Yes
Recall Mode	None	C-Max		None	C-Max		Max	Max		Max	Max	None
Act Effct Green (s)	28.7	65.7			31.2			12.5			12.0	46.7
Actuated g/C Ratio	0.32	0.73			0.35			0.14			0.13	0.52
v/c Ratio	0.89	0.35			0.82			0.10			0.17	0.93
Control Delay	51.9	7.1			33.5			25.3			37.2	39.2
Queue Delay	0.0	0.0			0.0			0.0			0.0	0.0
Total Delay	51.9	7.1			33.5			25.3			37.2	39.2
LOS	D	A			C			C			D	D
Approach Delay		23.2			33.5			25.3			39.1	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	296	115			276			6			16	385
Queue Length 95th (ft)	m#423	m157			356			13			44	#651

Derby Street Corridor
2: Derby Street & Cushing St.

SAT Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		410			501			58			154	
Turn Bay Length (ft)	250											300
Base Capacity (vph)	582	2631			1247			227			188	854
Starvation Cap Reductn	0	0			0			0			0	0
Spillback Cap Reductn	0	0			0			0			0	0
Storage Cap Reductn	0	0			0			0			0	0
Reduced v/c Ratio	0.88	0.35			0.82			0.10			0.17	0.93

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 30.4

Intersection LOS: C

Intersection Capacity Utilization 89.1%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 2: Derby Street & Cushing St.

 ø1	 ø2	 ø4
12 s	60 s	18 s
 ø5	 ø6	 ø8
35 s	37 s	18 s