

MEMORANDUM

TO: Ms. Erin Carachilo, Calyx Peak Companies
FROM: Jeffrey T. Bandini, P.E., PTOE
DATE: October 20, 2021
RE: Traffic Assessment - Update
Proposed Retail Marijuana Dispensary
251 Summer Street (Route 2A)
Arlington, MA

McMahon Associates has completed an update to the December 14, 2020 traffic assessment for the proposed Retail Marijuana Dispensary (RMD) development to be located at 251 Summer Street (Route 2A) in Arlington, Massachusetts. This memorandum outlines the trip generating characteristics of the proposed project, the surrounding roadway network, crash data, queue observations, and project access. The proposed site layout, as presented in the December 2020 traffic assessment, is considered to remain. This update includes a review of the most recent crash data and queue observations.

Project Description

The existing site, located at 251 Summer Street (Route 2A), houses a commercial building occupied by an auto repair center and dealership. Based on information provided by the client, the proposed project would remove the existing structure and construct a 2,500 square foot (sf) RMD. Access to the site would be provided via two site driveways on the north side of Summer Street (Route 2A), generally in the same location as the existing curb cuts.

The site is bounded by Summer Street (Route 2A) to the south, and residential properties to the west, north, and east. The signalized intersection of Summer Street (Route 2A) and Brattle Street/Symmes Road is located approximately 250 feet east of the project site.

The project site location is shown in Figure 1.



Existing Roadway Network

Summer Street (Route 2A) is classified by the Massachusetts Department of Transportation (MassDOT) as an urban minor arterial under Town of Arlington jurisdiction, primarily providing access to commercial and residential land uses. Summer Street (Route 2A) generally runs in the east-west directions through the Town of Arlington and includes one travel lane in each direction. Sidewalks are provided along both sides of the roadway. No bicycle facilities are provided along Summer Street (Route 2A). The posted speed limit along Summer Street (Route 2A) is 30 miles per hour (mph) in both directions in the vicinity of the project site. Massachusetts Bay Transportation Authority (MBTA) Bus Route 67 provides transit service along Summer Street (Route 2A), with a stop located at the intersection of Summer Street (Route 2A) at Brattle Street/Symmes Road.

Brattle Street, south of Summer Street (Route 2A), is classified as an urban minor arterial under Town of Arlington jurisdiction. Brattle Street, north of Summer Street (Route 2A), is classified as a local road under private jurisdiction. Brattle Street generally runs in a north-south direction with one travel lane in each direction and primarily provides access to residential properties. South of Summer Street (Route 2A), sidewalks are provided along both sides of Brattle Street. Brattle Street has a Town-wide statutory speed limit of 25 mph.

Symmes Road is classified as a local roadway under private jurisdiction, providing access to the Arlington 360 apartment complex and the Brightview Arlington assisted living center. Symmes Road generally runs in a north-south direction and provides one travel lane in each direction. Sidewalks are provided on the east side of the roadway and no bicycle facilities are provided along Symmes Road.

Summer Street (Route 2A) at Brattle/Symmes Road consists of two clustered signalized intersections operating under the same controller. The intersection includes five approaches including Summer Street (Route 2A) eastbound and westbound, Brattle Street northbound and southbound, and Symmes Road southbound. The intersections and lane configurations are outlined below:

West Signal - Summer Street (Route 2A) at Brattle Street

- Summer Street (Route 2A) eastbound - one multi-purpose lane and one channelized right-turn lane.
- Brattle Street northbound – one multi-purpose lane.
- Brattle Street southbound – one exclusive left-turn lane and one shared through/right-turn lane.

East Signal - Summer Street (Route 2A) at Symmes Road

- Summer Street (Route 2A) westbound - one multi-purpose lane.
- Symmes Road southbound – one exclusive right-turn lane and one exclusive left-turn lane.

The intersection is controlled by an actuated traffic signal with three phases for vehicular traffic, including a phase for Summer Street (Route 2A) eastbound and westbound traffic, followed by a phase for northbound and southbound traffic on Brattle Street, and then a phase for southbound Symmes Road traffic. Pedestrian movements are accommodated by a push-button activated exclusive pedestrian phase for the crosswalks which are provided on all the roadway approaches.

Existing Traffic Volumes

Turning Movement Counts (TMC) were obtained from the Town of Arlington within the study area during the weekday afternoon peak period. TMCs were available for the intersection of Summer Street (Route 2A) at Grove Street (conducted on Wednesday, May 16, 2018), located approximately 1,000 feet east of the project

site. These TMCs were used in intersection crash rate calculations (see Crash History section below). To convert the peak hour volumes from the TMCs to an average daily traffic (ADT) value, the peak hour volumes were divided by a K factor (proportion of daily traffic occurring during the peak hour) of 8.1%. The K factor was derived from the traffic counts received from the Town of Arlington as part of the Arlington High School study. A summary of the ADT and weekday afternoon peak hour traffic volumes on Summer Street (Route 2A) are shown in Table 1 and provided as an attachment.

Table 1: Summer Street (Route 2A) Traffic Volumes

Location	Direction	Afternoon	2018 ADT ⁽²⁾
		Peak 2018 ⁽¹⁾	(vpd)
Summer Street (Route 2A)	Eastbound	800	9,300
	Westbound	<u>700</u>	<u>8,400</u>
	TOTAL	1,500	17,700

(1) Peak Hour volumes based on TMCs conducted on Wednesday May 16 2018 at intersection of Summer Street at Grove Street. Peak hour 4:30 PM - 5:30 PM as part of the Arlington High School Study provided by the Town of Arlington.

(2) Average Daily Traffic based on K factor of 8.10% calculated from the Arlington High School Study provided by the Town of Arlington.

As shown in Table 1, the ADT along Summer Street (Route 2A) was approximately 17,700 vehicles per day in 2018 (9,300 eastbound and 8,400 westbound). The weekday afternoon peak hour volume was estimated at approximately 1,500 vehicles per hour in 2018.

Crash History

Crash data for the intersections Summer Street (Route 2A) at Brattle Street/Symmes Road and Summer Street at the two existing site driveways was obtained from MassDOT for the most recent five-year period available. This data includes complete yearly crash summaries for the year 2014 through the year 2018. Over the five-year period analyzed, there were no reported crashes on Summer Street (Route 2A) in the vicinity of the project site driveways.

There were seven reported crashes at the signalized intersection of Summer Street (Route 2A) at Brattle Street/Symmes Road over the five-year period analyzed. One of these reported crashes was an angle collision, five were rear-end collisions, and one was a single vehicle crash. Of the seven reported crashes, two resulted in personal injury, three resulted in property damage only, and two were of unknown severity. No reported crashes involved pedestrians or bicycles. Based on the entering traffic volumes, the intersection has a calculated crash rate of 0.20 crashes per million entering vehicles. This is lower than both the statewide and MassDOT District 4 crash rates for signalized intersections, which are 0.78 and 0.73 crashes per million entering vehicles, respectively. The crash summary is provided as an attachment.

Project Trip Generation

To estimate the number of vehicle trips associated with the project site, the Institute of Transportation Engineers' (ITE) publication, *Trip Generation Manual*, 10th Edition, was referenced. ITE is a national research

organization of transportation professionals, and the *Trip Generation Manual, 10th Edition* provides traffic generation information for various land uses compiled from studies conducted by members nationwide. Vehicle trip estimates for the proposed RMD were developed based on data presented in this publication for Land Use Code (LUC) 882 – Marijuana Dispensary. Table 2 presents the number of vehicle trips projected to be generated by the proposed 2,500 sf RMD.

Table 2: Trip Generation for Proposed RMD

Description	Size	Weekday PM			Saturday Midday		
		In	Out	Total	In	Out	Total
Marijuana Dispensary ⁽¹⁾	2,500 s.f.	27	27	54	46	46	92

(1) ITE Land Use Code 882 (Marijuana Dispensary), based on 2,500 s.f.

As shown in Table 2, the proposed RMD is estimated to result in approximately 54 vehicle trips (27 entering and 27 exiting) during the weekday afternoon peak hour, and approximately 92 new vehicle trips (46 entering and 46 exiting) during the Saturday midday peak hour. Based on the existing pedestrian accommodations, nearby bike facilities, and proximity to MBTA bus stops, it is anticipated that a portion of patrons accessing the site would travel via alternative modes rather than by vehicle. However, to present a conservative analysis, no multi-modal credit was applied to the trip generation calculations in Table 2.

Sight Distance

A field visit was completed on October 13, 2021 to confirm the available sight distance at the existing West Site Driveway and East Site Driveway on Summer Street (Route 2A), as originally presented in the December 2020 traffic assessment. The posted speed limit along Summer Street (Route 2A) within the vicinity of the project site is 30 mph in both directions. The American Association of State Highway and Transportation Officials (AASHTO) publication, *A Policy on Geometric Design, 2018 Edition*, defines minimum and recommended sight distances at intersections. The minimum sight distance is based on the required stopping sight distance (SSD) for vehicles traveling along the main roadway. The recommended sight distance allows vehicles to enter the main street traffic flow without requiring the mainline traffic to slow to less than 70% of their speed and is referred to as intersection sight distance (ISD). According to AASHTO, “If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient time to anticipate and avoid collisions.” Due to the existing width of the West Site Driveway, sight distance was measured from the furthest possible driver eye location to the west to present a conservative analysis with respect to the horizontal curve along Summer Street (Route 2A) to the west of the site.

Table 3 below summarizes the AASHTO sight distance standards for the posted speed limit of 30 mph on Summer Street (Route 2A) and the available sight distance at the site driveways.

Table 3: Sight Distance

Location	Direction	Posted Speed Limit (mph)	SSD Required ¹	ISD Recommended ²	Sight Distance Measured	Meets SSD Requirements?	Meets ISD Recommendation?
Summer Street (Route 2A) at West Site Driveway ³	Looking Left (East)	30	200'	330'	470'	Yes	Yes
	Looking Right (West)	30	200'	290'	290'	Yes	Yes
Summer Street (Route 2A) at East Site Driveway	Looking Left (East)	30	200'	330'	500'+	Yes	Yes
	Looking Right (West)	30	200'	290'	400'	Yes	Yes

1 AASHTO required stopping sight distance (see AASHTO Table 3-1) for posted speed limit on Summer Street (Route 2A).

2 AASHTO recommended intersection sight distance (see AASHTO Equations 9-1 and 9-2) for posted speed limit on Summer Street (Route 2A).

3 Sight distance measured from western edge of existing driveway curb cut on Summer Street (Route 2A) to present a conservative analysis with respect to the horizontal curve along Summer Street (Route 2A).

As shown in Table 3, the available sight distance along Summer Street (Route 2A) at the West Site Driveway and the East Site Driveway exceeds the AASHTO required SSD and recommended ISD for the posted speed limit of 30 mph. The October 13, 2021 site visit verified that the sight distance criteria is consistent with what was presented in the December 2020 traffic assessment.

Queue Observations

Queue length observations were conducted at the Summer Street (Route 2A) eastbound approach to the signalized intersection at Brattle Street/Symmes Road. The queue length observations were performed for a one-hour period on Wednesday, October 13, 2021, during the weekday afternoon peak period between 4:30 PM and 5:30 PM. The queue observations were consistent with the peak hour from the Summer Street (Route 2A) at Grove Street traffic counts, and the anticipated weekday afternoon peak hour of the RMD. The observation consisted of measuring the vehicle queue length every one to two minutes during the peak hour, depending on vehicle arrival and movement of vehicles through the Summer Street (Route 2A) at Brattle/Symmes Road intersection. The results of the queue observations are shown in Table 4 and are provided as an attachment.

Table 4: Eastbound Summer Street (Route 2A) Approach Queue Lengths

	# of Vehicles	Queue Length (ft) ⁽¹⁾
50th Percentile	6	150
95th Percentile	15	370
Max	18	450

(1) Considers a 25 ft vehicle length

As shown in Table 4, during 50% of the data collection for weekday afternoon peak period, the eastbound vehicle queue along Summer Street (Route 2A) approaching the intersection at Brattle Street/Symmes Road was shorter than the 200 feet to the West Site Driveway. Although the 95th percentile and maximum observed queues extended beyond the West Site Driveway, the eastbound queue cleared every signal cycle, creating sufficient vehicle gaps to allow vehicles to turn left out of the site from both the West Site Driveway and East Site Driveway.

Findings

The proposed RMD is to be located in at 251 Summer Street (Route 2A) in Arlington, MA. Below is a summary of the findings of the traffic assessment completed for the project.

- Based on a review of the proposed project, a conservative estimate of vehicle trips to the site would result in an increase of less than 4% on Summer Street (Route 2A) during the weekday afternoon peak hour.
- A review of the crash history at the existing site driveways indicates no crashes occurred at the West Driveway and East Driveway between 2014 and 2018.
- Based on AASHTO guidelines, the required sight distance is exceeded looking both directions along Summer Street (Route 2A) from the both the West Driveway and East Driveway locations.
- The proposed RMD is not anticipated to have a significant impact on the safety and operations of Summer Street (Route 2A) or the surrounding roadway network.

Attachments

- Turning Movement Count Data
- Crash Summary
- Queue Length Observations

ATTACHMENT 1

Turning Movement Count Data

Table 7
Crash Data Comparison: FDR (1995–97) to MassDOT (2005–09)

Intersection	FDR 1995 to 1997				MassDOT 2005 to 2009					Crash Rate
	1995	1996	1997	Crash Rate	2005	2006	2007	2008	2009	
Brattle/Hemlock Streets at Summer Street	6	2	4	0.65	1	2	1	3	1	0.25

Traffic Volumes

MPO staff collected turning-movement counts at the intersection on April 26, 2012. The data were recorded in 15-minute intervals for the peak traffic periods in the morning, from 7:00 to 9:00 AM, and in the evening, from 4:00 to 6:00 PM. Traffic count summaries are provided in Appendix A. Traffic volumes for three different years are listed in Table 8 for three different analysis scenarios:

- 1998 FDR “Before” Existing Conditions
- 2020 FDR “Projected” Build Conditions
- 2012 “After” Conditions

As indicated in Table 8, the overall traffic volumes remained the same from the 1998 FDR to the 2012 volumes. Traffic volumes never increased to anywhere near the demand projected for 2020.

Table 8
Traffic Volume Comparison

Scenario	Brattle St.			Hemlock Street			Summer Street						Total	
	Northbound			Southbound			Eastbound			Westbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
AM	1998 FDR “Before”	50	28	68	170	57	27	4	550	0	72	558	0	1,584
	2020 FDR Projected”	55	31	75	188	63	30	4	607	0	79	616	0	1,748
	2012 “After”	38	22	40	113	58	33	11	575	37	45	567	50	1,589
PM	1998 FDR “Before”	36	29	74	70	26	23	17	670	0	50	530	0	1,525
	2020 FDR Projected”	39	32	82	77	29	25	19	740	0	55	585	0	1,683
	2012 “After”	33	16	48	61	19	21	17	594	38	39	582	88	1,556

Note: LT = left turn; TH = through traffic; and RT = right turn.

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Summer Street (Route 2A)					Grove Street				Summer Street (Route 2A)					Total	
	from East					from South				from West						
	Thru	Left	U-Turn	Total		Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total			
6:00 AM	22	10	0	32		8	1	0	9	4	37	0	41	82		
6:15 AM	44	26	0	70		12	2	0	14	13	69	0	82	166		
6:30 AM	56	27	0	83		18	2	0	20	10	70	0	80	183		
6:45 AM	96	34	0	130		22	5	0	27	10	127	0	137	294		
Total	218	97	0	315		60	10	0	70	37	303	0	340	725		
7:00 AM	85	33	0	118		30	9	0	39	13	147	0	160	317		
7:15 AM	96	58	0	154		35	7	0	42	23	156	0	179	375		
7:30 AM	119	54	0	173		38	9	0	47	13	162	0	175	395		
7:45 AM	134	77	0	211		46	5	0	51	31	167	0	198	460		
Total	434	222	0	656		149	30	0	179	80	632	0	712	1547		
8:00 AM	137	61	0	198		43	13	0	56	26	167	0	193	447		
8:15 AM	116	60	0	176		39	7	0	46	22	154	0	176	398		
8:30 AM	116	43	0	159		28	11	0	39	12	132	0	144	342		
8:45 AM	97	52	0	149		28	4	0	32	12	119	0	131	312		
Total	466	216	0	682		138	35	0	173	72	572	0	644	1499		
9:00 AM	97	31	0	128		21	14	0	35	10	119	0	129	292		
9:15 AM	108	29	0	137		22	7	0	29	10	91	0	101	267		
9:30 AM	85	41	0	126		38	8	0	46	4	100	1	105	277		
9:45 AM	80	30	0	110		27	11	0	38	11	99	0	110	258		
Total	370	131	0	501		108	40	0	148	35	409	1	445	1094		
Grand Total	1488	666	0	2154		455	115	0	570	224	1916	1	2141	4865		
Approach %	69.1	30.9	0.0			79.8	20.2	0.0		10.5	89.5	0.0				
Total %	30.6	13.7	0.0	44.3		9.4	2.4	0.0	11.7	4.6	39.4	0.0	44.0			
Exiting Leg Total	2371					890					1604					4865
Cars	1442	652	0	2094		443	110	0	553	218	1859	1	2078	4725		
% Cars	96.9	97.9	0.0	97.2		97.4	95.7	0.0	97.0	97.3	97.0	100.0	97.1	97.1		
Exiting Leg Total	2302					870					1553					4725
Heavy Vehicles	46	14	0	60		12	5	0	17	6	57	0	63	140		
% Heavy Vehicles	3.1	2.1	0.0	2.8		2.6	4.3	0.0	3.0	2.7	3.0	0.0	2.9	2.9		
Exiting Leg Total	69					20					51					140

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:30 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	119	54	0	173	38	9	0	47	13	162	0	175	395
7:45 AM	134	77	0	211	46	5	0	51	31	167	0	198	460
8:00 AM	137	61	0	198	43	13	0	56	26	167	0	193	447
8:15 AM	116	60	0	176	39	7	0	46	22	154	0	176	398
Total Volume	506	252	0	758	166	34	0	200	92	650	0	742	1700
% Approach Total	66.8	33.2	0.0		83.0	17.0	0.0		12.4	87.6	0.0		
PHF	0.923	0.818	0.000	0.898	0.902	0.654	0.000	0.893	0.742	0.973	0.000	0.937	0.924
Cars	492	248	0	740	162	34	0	196	88	633	0	721	1657
Cars %	97.2	98.4	0.0	97.6	97.6	100.0	0.0	98.0	95.7	97.4	0.0	97.2	97.5
Heavy Vehicles	14	4	0	18	4	0	0	4	4	17	0	21	43
Heavy Vehicles %	2.8	1.6	0.0	2.4	2.4	0.0	0.0	2.0	4.3	2.6	0.0	2.8	2.5
Cars Enter Leg	492	248	0	740	162	34	0	196	88	633	0	721	1657
Heavy Enter Leg	14	4	0	18	4	0	0	4	4	17	0	21	43
Total Entering Leg	506	252	0	758	166	34	0	200	92	650	0	742	1700
Cars Exiting Leg				795				336				526	1657
Heavy Exiting Leg				21				8				14	43
Total Exiting Leg				816				344				540	1700

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 Location: **S: Grove Street**
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 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Cars-Combined (Motorcycles, Cars, Light Goods)

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	22	10	0	32	8	1	0	9	4	37	0	41	82
6:15 AM	43	26	0	69	12	2	0	14	13	69	0	82	165
6:30 AM	55	27	0	82	18	2	0	20	10	68	0	78	180
6:45 AM	95	33	0	128	20	4	0	24	10	123	0	133	285
Total	215	96	0	311	58	9	0	67	37	297	0	334	712
7:00 AM	83	33	0	116	29	7	0	36	13	142	0	155	307
7:15 AM	91	56	0	147	33	6	0	39	22	150	0	172	358
7:30 AM	113	54	0	167	36	9	0	45	13	161	0	174	386
7:45 AM	132	77	0	209	46	5	0	51	31	161	0	192	452
Total	419	220	0	639	144	27	0	171	79	614	0	693	1503
8:00 AM	133	59	0	192	43	13	0	56	23	162	0	185	433
8:15 AM	114	58	0	172	37	7	0	44	21	149	0	170	386
8:30 AM	112	42	0	154	27	11	0	38	12	131	0	143	335
8:45 AM	90	51	0	141	27	4	0	31	12	115	0	127	299
Total	449	210	0	659	134	35	0	169	68	557	0	625	1453
9:00 AM	93	31	0	124	21	14	0	35	10	115	0	125	284
9:15 AM	107	29	0	136	22	7	0	29	10	85	0	95	260
9:30 AM	85	36	0	121	37	7	0	44	4	99	1	104	269
9:45 AM	74	30	0	104	27	11	0	38	10	92	0	102	244
Total	359	126	0	485	107	39	0	146	34	391	1	426	1057
Grand Total	1442	652	0	2094	443	110	0	553	218	1859	1	2078	4725
Approach %	68.9	31.1	0.0		80.1	19.9	0.0		10.5	89.5	0.0		
Total %	30.5	13.8	0.0	44.3	9.4	2.3	0.0	11.7	4.6	39.3	0.0	44.0	
Exiting Leg Total				2302				870				1553	4725

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:30 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	113	54	0	167	36	9	0	45	13	161	0	174	386
7:45 AM	132	77	0	209	46	5	0	51	31	161	0	192	452
8:00 AM	133	59	0	192	43	13	0	56	23	162	0	185	433
8:15 AM	114	58	0	172	37	7	0	44	21	149	0	170	386
Total Volume	492	248	0	740	162	34	0	196	88	633	0	721	1657
% Approach Total	66.5	33.5	0.0		82.7	17.3	0.0		12.2	87.8	0.0		
PHF	0.925	0.805	0.000	0.885	0.880	0.654	0.000	0.875	0.710	0.977	0.000	0.939	0.916
Entering Leg	492	248	0	740	162	34	0	196	88	633	0	721	1657
Exiting Leg				795				336				526	1657
Total				1535				532				1247	3314

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 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
6:30 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
6:45 AM	1	1	0	2	2	1	0	3	0	4	0	4	9
Total	3	1	0	4	2	1	0	3	0	6	0	6	13
7:00 AM	2	0	0	2	1	2	0	3	0	5	0	5	10
7:15 AM	5	2	0	7	2	1	0	3	1	6	0	7	17
7:30 AM	6	0	0	6	2	0	0	2	0	1	0	1	9
7:45 AM	2	0	0	2	0	0	0	0	0	6	0	6	8
Total	15	2	0	17	5	3	0	8	1	18	0	19	44
8:00 AM	4	2	0	6	0	0	0	0	3	5	0	8	14
8:15 AM	2	2	0	4	2	0	0	2	1	5	0	6	12
8:30 AM	4	1	0	5	1	0	0	1	0	1	0	1	7
8:45 AM	7	1	0	8	1	0	0	1	0	4	0	4	13
Total	17	6	0	23	4	0	0	4	4	15	0	19	46
9:00 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
9:15 AM	1	0	0	1	0	0	0	0	0	6	0	6	7
9:30 AM	0	5	0	5	1	1	0	2	0	1	0	1	8
9:45 AM	6	0	0	6	0	0	0	0	1	7	0	8	14
Total	11	5	0	16	1	1	0	2	1	18	0	19	37
Grand Total	46	14	0	60	12	5	0	17	6	57	0	63	140
Approach %	76.7	23.3	0.0		70.6	29.4	0.0		9.5	90.5	0.0		
Total %	32.9	10.0	0.0	42.9	8.6	3.6	0.0	12.1	4.3	40.7	0.0	45.0	
Exiting Leg Total	69				20				51				140
Buses	11	4	0	15	3	1	0	4	2	17	0	19	38
% Buses	23.9	28.6	0.0	25.0	25.0	20.0	0.0	23.5	33.3	29.8	0.0	30.2	27.1
Exiting Leg Total	20				6				12				38
Single-Unit Trucks	28	9	0	37	8	4	0	12	4	35	0	39	88
% Single-Unit	60.9	64.3	0.0	61.7	66.7	80.0	0.0	70.6	66.7	61.4	0.0	61.9	62.9
Exiting Leg Total	43				13				32				88
Articulated Trucks	7	1	0	8	1	0	0	1	0	5	0	5	14
% Articulated	15.2	7.1	0.0	13.3	8.3	0.0	0.0	5.9	0.0	8.8	0.0	7.9	10.0
Exiting Leg Total	6				1				7				14

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:15 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	5	2	0	7	2	1	0	3	1	6	0	7	17
7:30 AM	6	0	0	6	2	0	0	2	0	1	0	1	9
7:45 AM	2	0	0	2	0	0	0	0	0	6	0	6	8
8:00 AM	4	2	0	6	0	0	0	0	3	5	0	8	14
Total Volume	17	4	0	21	4	1	0	5	4	18	0	22	48
% Approach Total	81.0	19.0	0.0		80.0	20.0	0.0		18.2	81.8	0.0		
PHF	0.708	0.500	0.000	0.750	0.500	0.250	0.000	0.417	0.333	0.750	0.000	0.688	0.706
Buses	2	2	0	4	0	0	0	0	1	6	0	7	11
Buses %	11.8	50.0	0.0	19.0	0.0	0.0	0.0	0.0	25.0	33.3	0.0	31.8	22.9
Single-Unit Trucks	11	2	0	13	3	1	0	4	3	10	0	13	30
Single-Unit %	64.7	50.0	0.0	61.9	75.0	100.0	0.0	80.0	75.0	55.6	0.0	59.1	62.5
Articulated Trucks	4	0	0	4	1	0	0	1	0	2	0	2	7
Articulated %	23.5	0.0	0.0	19.0	25.0	0.0	0.0	20.0	0.0	11.1	0.0	9.1	14.6
Buses	2	2	0	4	0	0	0	0	1	6	0	7	11
Single-Unit Trucks	11	2	0	13	3	1	0	4	3	10	0	13	30
Articulated Trucks	4	0	0	4	1	0	0	1	0	2	0	2	7
Total Entering Leg	17	4	0	21	4	1	0	5	4	18	0	22	48

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
Buses	6				3				2				11
Single-Unit Trucks	13				5				12				30
Articulated Trucks	3				0				4				7
Total Exiting Leg	22				8				18				48

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Cars

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	21	10	0	31	7	1	0	8	3	31	0	34	73
6:15 AM	33	18	0	51	12	2	0	14	9	63	0	72	137
6:30 AM	39	19	0	58	17	1	0	18	7	60	0	67	143
6:45 AM	82	20	0	102	18	3	0	21	8	112	0	120	243
Total	175	67	0	242	54	7	0	61	27	266	0	293	596
7:00 AM	69	22	0	91	23	3	0	26	10	127	0	137	254
7:15 AM	84	50	0	134	28	6	0	34	21	128	0	149	317
7:30 AM	100	45	0	145	29	7	0	36	12	144	0	156	337
7:45 AM	125	68	0	193	45	4	0	49	28	143	0	171	413
Total	378	185	0	563	125	20	0	145	71	542	0	613	1321
8:00 AM	120	53	0	173	40	13	0	53	20	153	0	173	399
8:15 AM	108	51	0	159	34	2	0	36	20	144	0	164	359
8:30 AM	101	32	0	133	21	9	0	30	9	114	0	123	286
8:45 AM	81	40	0	121	24	1	0	25	10	108	0	118	264
Total	410	176	0	586	119	25	0	144	59	519	0	578	1308
9:00 AM	85	28	0	113	20	12	0	32	6	103	0	109	254
9:15 AM	90	25	0	115	15	3	0	18	9	77	0	86	219
9:30 AM	80	30	0	110	28	6	0	34	4	87	0	91	235
9:45 AM	61	26	0	87	19	8	0	27	6	84	0	90	204
Total	316	109	0	425	82	29	0	111	25	351	0	376	912
Grand Total	1279	537	0	1816	380	81	0	461	182	1678	0	1860	4137
Approach %	70.4	29.6	0.0		82.4	17.6	0.0		9.8	90.2	0.0		
Total %	30.9	13.0	0.0	43.9	9.2	2.0	0.0	11.1	4.4	40.6	0.0	45.0	
Exiting Leg Total				2058				719				1360	4137

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:30 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	100	45	0	145	29	7	0	36	12	144	0	156	337
7:45 AM	125	68	0	193	45	4	0	49	28	143	0	171	413
8:00 AM	120	53	0	173	40	13	0	53	20	153	0	173	399
8:15 AM	108	51	0	159	34	2	0	36	20	144	0	164	359
Total Volume	453	217	0	670	148	26	0	174	80	584	0	664	1508
% Approach Total	67.6	32.4	0.0		85.1	14.9	0.0		12.0	88.0	0.0		
PHF	0.906	0.798	0.000	0.868	0.822	0.500	0.000	0.821	0.714	0.954	0.000	0.960	0.913
Entering Leg	453	217	0	670	148	26	0	174	80	584	0	664	1508
Exiting Leg				732				297				479	1508
Total				1402				471				1143	3016

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Light Goods Vehicle

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	1	0	0	1	1	0	0	1	1	6	0	7	9
6:15 AM	9	8	0	17	0	0	0	0	4	6	0	10	27
6:30 AM	16	8	0	24	1	1	0	2	3	8	0	11	37
6:45 AM	13	13	0	26	2	1	0	3	2	10	0	12	41
Total	39	29	0	68	4	2	0	6	10	30	0	40	114
7:00 AM	13	11	0	24	6	4	0	10	3	15	0	18	52
7:15 AM	7	6	0	13	5	0	0	5	1	22	0	23	41
7:30 AM	13	9	0	22	7	2	0	9	1	17	0	18	49
7:45 AM	7	9	0	16	1	1	0	2	3	18	0	21	39
Total	40	35	0	75	19	7	0	26	8	72	0	80	181
8:00 AM	13	6	0	19	3	0	0	3	3	9	0	12	34
8:15 AM	6	6	0	12	3	5	0	8	1	5	0	6	26
8:30 AM	11	8	0	19	6	2	0	8	3	17	0	20	47
8:45 AM	9	11	0	20	3	3	0	6	2	7	0	9	35
Total	39	31	0	70	15	10	0	25	9	38	0	47	142
9:00 AM	8	3	0	11	1	2	0	3	4	12	0	16	30
9:15 AM	17	4	0	21	7	4	0	11	1	8	0	9	41
9:30 AM	5	6	0	11	9	1	0	10	0	12	1	13	34
9:45 AM	11	4	0	15	8	3	0	11	4	8	0	12	38
Total	41	17	0	58	25	10	0	35	9	40	1	50	143
Grand Total	159	112	0	271	63	29	0	92	36	180	1	217	580
Approach %	58.7	41.3	0.0		68.5	31.5	0.0		16.6	82.9	0.5		
Total %	27.4	19.3	0.0	46.7	10.9	5.0	0.0	15.9	6.2	31.0	0.2	37.4	
Exiting Leg Total				243				148				189	580

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

6:45 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:45 AM	13	13	0	26	2	1	0	3	2	10	0	12	41
7:00 AM	13	11	0	24	6	4	0	10	3	15	0	18	52
7:15 AM	7	6	0	13	5	0	0	5	1	22	0	23	41
7:30 AM	13	9	0	22	7	2	0	9	1	17	0	18	49
Total Volume	46	39	0	85	20	7	0	27	7	64	0	71	183
% Approach Total	54.1	45.9	0.0		74.1	25.9	0.0		9.9	90.1	0.0		
PHF	0.885	0.750	0.000	0.817	0.714	0.438	0.000	0.675	0.583	0.727	0.000	0.772	0.880
Entering Leg	46	39	0	85	20	7	0	27	7	64	0	71	183
Exiting Leg				84				46				53	183
Total				169				73				124	366

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Buses

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
6:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
6:45 AM	0	0	0	0	2	0	0	2	0	2	0	2	4
Total	2	0	0	2	2	0	0	2	0	3	0	3	7
7:00 AM	2	0	0	2	0	1	0	1	0	0	0	0	3
7:15 AM	0	1	0	1	0	0	0	0	0	3	0	3	4
7:30 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	3	1	0	4	0	1	0	1	0	6	0	6	11
8:00 AM	1	1	0	2	0	0	0	0	1	0	0	1	3
8:15 AM	0	1	0	1	0	0	0	0	1	3	0	4	5
8:30 AM	1	1	0	2	1	0	0	1	0	1	0	1	4
8:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	3	3	0	6	1	0	0	1	2	5	0	7	14
9:00 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	3	0	0	3	0	0	0	0	0	3	0	3	6
Grand Total	11	4	0	15	3	1	0	4	2	17	0	19	38
Approach %	73.3	26.7	0.0		75.0	25.0	0.0		10.5	89.5	0.0		
Total %	28.9	10.5	0.0	39.5	7.9	2.6	0.0	10.5	5.3	44.7	0.0	50.0	
Exiting Leg Total	20				6				12				38

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:45 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	2
8:00 AM	1	1	0	2	0	0	0	0	1	0	0	1	3
8:15 AM	0	1	0	1	0	0	0	0	1	3	0	4	5
8:30 AM	1	1	0	2	1	0	0	1	0	1	0	1	4
Total Volume	2	3	0	5	1	0	0	1	2	6	0	8	14
% Approach Total	40.0	60.0	0.0		100.0	0.0	0.0		25.0	75.0	0.0		
PHF	0.500	0.750	0.000	0.625	0.250	0.000	0.000	0.250	0.500	0.500	0.000	0.500	0.700
Entering Leg	2	3	0	5	1	0	0	1	2	6	0	8	14
Exiting Leg	7				5				2				14
Total	12				6				10				28

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Single-Unit Trucks

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
6:45 AM	1	1	0	2	0	1	0	1	0	2	0	2	5
Total	1	1	0	2	0	1	0	1	0	3	0	3	6
7:00 AM	0	0	0	0	1	1	0	2	0	4	0	4	6
7:15 AM	4	1	0	5	1	1	0	2	1	3	0	4	11
7:30 AM	3	0	0	3	2	0	0	2	0	0	0	0	5
7:45 AM	1	0	0	1	0	0	0	0	0	3	0	3	4
Total	8	1	0	9	4	2	0	6	1	10	0	11	26
8:00 AM	3	1	0	4	0	0	0	0	2	4	0	6	10
8:15 AM	2	1	0	3	2	0	0	2	0	2	0	2	7
8:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
8:45 AM	4	1	0	5	1	0	0	1	0	3	0	3	9
Total	11	3	0	14	3	0	0	3	2	9	0	11	28
9:00 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
9:15 AM	1	0	0	1	0	0	0	0	0	3	0	3	4
9:30 AM	0	4	0	4	1	1	0	2	0	1	0	1	7
9:45 AM	5	0	0	5	0	0	0	0	1	7	0	8	13
Total	8	4	0	12	1	1	0	2	1	13	0	14	28
Grand Total	28	9	0	37	8	4	0	12	4	35	0	39	88
Approach %	75.7	24.3	0.0		66.7	33.3	0.0		10.3	89.7	0.0		
Total %	31.8	10.2	0.0	42.0	9.1	4.5	0.0	13.6	4.5	39.8	0.0	44.3	
Exiting Leg Total	43				13				32				88

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:15 AM	Summer Street (Route 2A)					Grove Street					Summer Street (Route 2A)					Total	
	from East					from South					from West						
	Thru	Left	U-Turn		Total	Right	Left	U-Turn		Total	Right	Thru	U-Turn		Total		
7:15 AM	4	1		0	5	1		1		0	2	1	3		0	4	11
7:30 AM	3		0		3	2		0		0	2	0	0		0		5
7:45 AM	1		0		1	0		0		0	0	0	3		0	3	4
8:00 AM	3		1		0	4	0		0		0	2	4		0	6	10
Total Volume	11		2		0	13	3		1		0	4	3		10	0	30
% Approach Total	84.6		15.4		0.0		75.0		25.0		0.0		23.1		76.9		0.0
PHF	0.688		0.500		0.000	0.650	0.375		0.250		0.000	0.500	0.375		0.625		0.000
Entering Leg	11		2		0	13	3		1		0	4	3		10		0
Exiting Leg						13						5					12
Total						26						9					25

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Articulated Trucks

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
7:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
7:45 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	4	0	0	4	1	0	0	1	0	2	0	2	7
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	2	0	0	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	0	0	0	0	0	1	0	1	4
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
9:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	2	0	2	3
Grand Total	7	1	0	8	1	0	0	1	0	5	0	5	14
Approach %	87.5	12.5	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	50.0	7.1	0.0	57.1	7.1	0.0	0.0	7.1	0.0	35.7	0.0	35.7	
Exiting Leg Total	6				1				7				14

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:00 AM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total	
	from East				from South				from West					
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	1	0	0	1	1	0	0	1	0	0	0	0	0	2
7:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	2
7:45 AM	1	0	0	1	0	0	0	0	0	0	1	0	1	2
Total Volume	4	0	0	4	1	0	0	1	0	2	0	2		7
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0			
PHF	0.500	0.000	0.000	0.500	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.500		0.875
Entering Leg	4	0	0	4	1	0	0	1	0	2	0	2		7
Exiting Leg				3				0				4		7
Total				7				1				6		14

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**



Bicycles (on Roadway and Crosswalks)

	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	1	6	6
8:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	2	0	0	0	0	2	0	0	0	0	0	0	0	4	0	0	0	4	6
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	1	0	0	0	1	1	0	0	0	0	1	0	3	0	0	0	3	5
Grand Total	2	1	0	0	0	3	1	0	0	0	0	1	2	14	0	0	1	17	21
Approach %	66.7	33.3	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		11.8	82.4	0.0	0.0	5.9		
Total %	9.5	4.8	0.0	0.0	0.0	14.3	4.8	0.0	0.0	0.0	0.0	4.8	9.5	66.7	0.0	0.0	4.8	81.0	
Exiting Leg Total	15						3						3						21

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

8:30 AM	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total	
	from East						from South						from West							
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total		
8:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
9:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	2	3
Total Volume	1	1	0	0	0	2	1	0	0	0	0	1	0	5	0	0	0	0	5	8
% Approach Total	50.0	50.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0			
PHF	0.250	0.250	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.625	0.000	0.000	0.000	0.000	0.625	0.667
Entering Leg	1	1	0	0	0	2	1	0	0	0	0	1	0	5	0	0	0	0	5	8
Exiting Leg	6						1						1						8	
Total	8						2						6						16	

PDI File #: **186252 A**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **6:00 AM**
 End Time: **10:00 AM**
 Class:



Pedestrians

	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	13	1	14	0	0	0	5	7	12	26
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	9	10	11
Total	0	0	0	0	0	0	0	0	0	13	2	15	0	0	0	7	17	24	39
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	5	7	0	0	0	1	1	2	9
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2	3
Total	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	2	3	5
Grand Total	0	0	0	0	0	0	0	0	0	16	10	26	0	0	0	9	20	29	55
Approach %	0	0	0	0	0	0	0	0	0	61.538	38.462		0	0	0	31.034	68.966		
Total %	0	0	0	0	0	0	0	0	0	29.091	18.182	47.273	0	0	0	16.364	36.364	52.727	
Exiting Leg Total	0						26						29						55

Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

7:30 AM	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	13	1	14	0	0	0	5	7	12	26
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	9	10	11
8:00 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	4
Total Volume	0	0	0	0	0	0	0	0	0	15	4	19	0	0	0	7	17	24	43
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	78.9	21.1		0.0	0.0	0.0	29.2	70.8		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.288	1.000	0.339	0.000	0.000	0.000	0.350	0.472	0.500	0.413
Entering Leg	0	0	0	0	0	0	0	0	0	15	4	19	0	0	0	7	17	24	43
Exiting Leg	0						19						24						43
Total	0						38						48						86

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Summer Street (Route 2A)					Grove Street					Summer Street (Route 2A)					Total
	from East					from South					from West					
	Thru	Left	U-Turn	Total		Right	Left	U-Turn	Total		Right	Thru	U-Turn	Total		
1:30 PM	81	24	0	105		33	15	0	48		7	81	1	89		242
1:45 PM	85	28	0	113		28	6	0	34		11	82	0	93		240
Total	166	52	0	218		61	21	0	82		18	163	1	182		482
2:00 PM	110	34	0	144		25	15	0	40		13	95	0	108		292
2:15 PM	107	33	0	140		36	13	0	49		12	84	0	96		285
2:30 PM	122	45	0	167		56	20	0	76		15	100	0	115		358
2:45 PM	128	30	0	158		54	14	0	68		10	134	0	144		370
Total	467	142	0	609		171	62	0	233		50	413	0	463		1305
3:00 PM	111	32	0	143		49	16	0	65		11	107	0	118		326
3:15 PM	106	30	0	136		43	14	0	57		9	119	0	128		321
3:30 PM	113	27	0	140		57	14	0	71		9	116	0	125		336
3:45 PM	114	19	0	133		40	12	0	52		11	109	0	120		305
Total	444	108	0	552		189	56	0	245		40	451	0	491		1288
4:00 PM	140	34	0	174		50	14	0	64		12	109	0	121		359
4:15 PM	104	34	0	138		61	20	0	81		8	132	0	140		359
4:30 PM	117	39	0	156		57	12	0	69		7	140	0	147		372
4:45 PM	109	34	0	143		57	14	0	71		8	118	0	126		340
Total	470	141	0	611		225	60	0	285		35	499	0	534		1430
5:00 PM	137	23	0	160		70	14	0	84		14	153	0	167		411
5:15 PM	139	32	0	171		76	18	0	94		15	169	0	184		449
Total	276	55	0	331		146	32	0	178		29	322	0	351		860
Grand Total	1823	498	0	2321		792	231	0	1023		172	1848	1	2021		5365
Approach %	78.5	21.5	0.0			77.4	22.6	0.0			8.5	91.4	0.0			
Total %	34.0	9.3	0.0	43.3		14.8	4.3	0.0	19.1		3.2	34.4	0.0	37.7		
Exiting Leg Total	2640					670					2055					5365
Cars	1782	485	0	2267		783	224	0	1007		167	1817	1	1985		5259
% Cars	97.8	97.4	0.0	97.7		98.9	97.0	0.0	98.4		97.1	98.3	100.0	98.2		98.0
Exiting Leg Total	2600					652					2007					5259
Heavy Vehicles	41	13	0	54		9	7	0	16		5	31	0	36		106
% Heavy Vehicles	2.2	2.6	0.0	2.3		1.1	3.0	0.0	1.6		2.9	1.7	0.0	1.8		2.0
Exiting Leg Total	40					18					48					106

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

4:30 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:30 PM	117	39	0	156	57	12	0	69	7	140	0	147	372
4:45 PM	109	34	0	143	57	14	0	71	8	118	0	126	340
5:00 PM	137	23	0	160	70	14	0	84	14	153	0	167	411
5:15 PM	139	32	0	171	76	18	0	94	15	169	0	184	449
Total Volume	502	128	0	630	260	58	0	318	44	580	0	624	1572
% Approach Total	79.7	20.3	0.0		81.8	18.2	0.0		7.1	92.9	0.0		
PHF	0.903	0.821	0.000	0.921	0.855	0.806	0.000	0.846	0.733	0.858	0.000	0.848	0.875
Cars	497	126	0	623	257	58	0	315	44	573	0	617	1555
Cars %	99.0	98.4	0.0	98.9	98.8	100.0	0.0	99.1	100.0	98.8	0.0	98.9	98.9
Heavy Vehicles	5	2	0	7	3	0	0	3	0	7	0	7	17
Heavy Vehicles %	1.0	1.6	0.0	1.1	1.2	0.0	0.0	0.9	0.0	1.2	0.0	1.1	1.1
Cars Enter Leg	497	126	0	623	257	58	0	315	44	573	0	617	1555
Heavy Enter Leg	5	2	0	7	3	0	0	3	0	7	0	7	17
Total Entering Leg	502	128	0	630	260	58	0	318	44	580	0	624	1572
Cars Exiting Leg				830				170				555	1555
Heavy Exiting Leg				10				2				5	17
Total Exiting Leg				840				172				560	1572

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Cars-Combined (Motorcycles, Cars, Light Goods)

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	79	24	0	103	33	15	0	48	7	77	1	85	236
1:45 PM	83	27	0	110	28	6	0	34	11	79	0	90	234
Total	162	51	0	213	61	21	0	82	18	156	1	175	470
2:00 PM	104	34	0	138	24	15	0	39	12	90	0	102	279
2:15 PM	103	33	0	136	34	11	0	45	12	83	0	95	276
2:30 PM	120	43	0	163	55	20	0	75	14	99	0	113	351
2:45 PM	123	29	0	152	54	13	0	67	10	132	0	142	361
Total	450	139	0	589	167	59	0	226	48	404	0	452	1267
3:00 PM	109	31	0	140	48	16	0	64	10	104	0	114	318
3:15 PM	103	27	0	130	43	12	0	55	8	118	0	126	311
3:30 PM	110	26	0	136	57	13	0	70	8	115	0	123	329
3:45 PM	112	18	0	130	40	12	0	52	11	108	0	119	301
Total	434	102	0	536	188	53	0	241	37	445	0	482	1259
4:00 PM	138	34	0	172	49	14	0	63	12	107	0	119	354
4:15 PM	101	33	0	134	61	19	0	80	8	132	0	140	354
4:30 PM	116	39	0	155	56	12	0	68	7	138	0	145	368
4:45 PM	108	33	0	141	57	14	0	71	8	116	0	124	336
Total	463	139	0	602	223	59	0	282	35	493	0	528	1412
5:00 PM	136	22	0	158	69	14	0	83	14	153	0	167	408
5:15 PM	137	32	0	169	75	18	0	93	15	166	0	181	443
Total	273	54	0	327	144	32	0	176	29	319	0	348	851
Grand Total	1782	485	0	2267	783	224	0	1007	167	1817	1	1985	5259
Approach %	78.6	21.4	0.0		77.8	22.2	0.0		8.4	91.5	0.1		
Total %	33.9	9.2	0.0	43.1	14.9	4.3	0.0	19.1	3.2	34.6	0.0	37.7	
Exiting Leg Total				2600				652				2007	5259

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

4:30 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:30 PM	116	39	0	155	56	12	0	68	7	138	0	145	368
4:45 PM	108	33	0	141	57	14	0	71	8	116	0	124	336
5:00 PM	136	22	0	158	69	14	0	83	14	153	0	167	408
5:15 PM	137	32	0	169	75	18	0	93	15	166	0	181	443
Total Volume	497	126	0	623	257	58	0	315	44	573	0	617	1555
% Approach Total	79.8	20.2	0.0		81.6	18.4	0.0		7.1	92.9	0.0		
PHF	0.907	0.808	0.000	0.922	0.857	0.806	0.000	0.847	0.733	0.863	0.000	0.852	0.878
Entering Leg	497	126	0	623	257	58	0	315	44	573	0	617	1555
Exiting Leg				830				170				555	1555
Total				1453				485				1172	3110

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	2	0	0	2	0	0	0	0	0	4	0	4	6
1:45 PM	2	1	0	3	0	0	0	0	0	3	0	3	6
Total	4	1	0	5	0	0	0	0	0	7	0	7	12
2:00 PM	6	0	0	6	1	0	0	1	1	5	0	6	13
2:15 PM	4	0	0	4	2	2	0	4	0	1	0	1	9
2:30 PM	2	2	0	4	1	0	0	1	1	1	0	2	7
2:45 PM	5	1	0	6	0	1	0	1	0	2	0	2	9
Total	17	3	0	20	4	3	0	7	2	9	0	11	38
3:00 PM	2	1	0	3	1	0	0	1	1	3	0	4	8
3:15 PM	3	3	0	6	0	2	0	2	1	1	0	2	10
3:30 PM	3	1	0	4	0	1	0	1	1	1	0	2	7
3:45 PM	2	1	0	3	0	0	0	0	0	1	0	1	4
Total	10	6	0	16	1	3	0	4	3	6	0	9	29
4:00 PM	2	0	0	2	1	0	0	1	0	2	0	2	5
4:15 PM	3	1	0	4	0	1	0	1	0	0	0	0	5
4:30 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
4:45 PM	1	1	0	2	0	0	0	0	0	2	0	2	4
Total	7	2	0	9	2	1	0	3	0	6	0	6	18
5:00 PM	1	1	0	2	1	0	0	1	0	0	0	0	3
5:15 PM	2	0	0	2	1	0	0	1	0	3	0	3	6
Total	3	1	0	4	2	0	0	2	0	3	0	3	9
Grand Total	41	13	0	54	9	7	0	16	5	31	0	36	106
Approach %	75.9	24.1	0.0		56.3	43.8	0.0		13.9	86.1	0.0		
Total %	38.7	12.3	0.0	50.9	8.5	6.6	0.0	15.1	4.7	29.2	0.0	34.0	
Exiting Leg Total				40				18				48	106
Buses	12	5	0	17	2	4	0	6	3	8	0	11	34
% Buses	29.3	38.5	0.0	31.5	22.2	57.1	0.0	37.5	60.0	25.8	0.0	30.6	32.1
Exiting Leg Total				10				8				16	34
Single-Unit Trucks	25	8	0	33	6	3	0	9	2	21	0	23	65
% Single-Unit	61.0	61.5	0.0	61.1	66.7	42.9	0.0	56.3	40.0	67.7	0.0	63.9	61.3
Exiting Leg Total				27				10				28	65
Articulated Trucks	4	0	0	4	1	0	0	1	0	2	0	2	7
% Articulated	9.8	0.0	0.0	7.4	11.1	0.0	0.0	6.3	0.0	6.5	0.0	5.6	6.6
Exiting Leg Total				3				0				4	7

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

2:00 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
2:00 PM	6	0	0	6	1	0	0	1	1	5	0	6	13
2:15 PM	4	0	0	4	2	2	0	4	0	1	0	1	9
2:30 PM	2	2	0	4	1	0	0	1	1	1	0	2	7
2:45 PM	5	1	0	6	0	1	0	1	0	2	0	2	9
Total Volume	17	3	0	20	4	3	0	7	2	9	0	11	38
% Approach Total	85.0	15.0	0.0		57.1	42.9	0.0		18.2	81.8	0.0		
PHF	0.708	0.375	0.000	0.833	0.500	0.375	0.000	0.438	0.500	0.450	0.000	0.458	0.731
Buses	7	0	0	7	2	1	0	3	0	3	0	3	13
Buses %	41.2	0.0	0.0	35.0	50.0	33.3	0.0	42.9	0.0	33.3	0.0	27.3	34.2
Single-Unit Trucks	9	3	0	12	2	2	0	4	2	6	0	8	24
Single-Unit %	52.9	100.0	0.0	60.0	50.0	66.7	0.0	57.1	100.0	66.7	0.0	72.7	63.2
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1
Articulated %	5.9	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Buses	7	0	0	7	2	1	0	3	0	3	0	3	13
Single-Unit Trucks	9	3	0	12	2	2	0	4	2	6	0	8	24
Articulated Trucks	1	0	0	1	0	0	0	0	0	0	0	0	1

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**



Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
Total Entering Leg	17	3	0	20	4	3	0	7	2	9	0	11	38
Buses				5				0				8	13
Single-Unit Trucks				8				5				11	24
Articulated Trucks				0				0				1	1
Total Exiting Leg				13				5				20	38

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Cars

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	69	19	0	88	29	13	0	42	5	71	0	76	206
1:45 PM	71	23	0	94	23	4	0	27	9	72	0	81	202
Total	140	42	0	182	52	17	0	69	14	143	0	157	408
2:00 PM	95	30	0	125	22	13	0	35	7	78	0	85	245
2:15 PM	94	27	0	121	27	11	0	38	10	74	0	84	243
2:30 PM	114	40	0	154	51	19	0	70	13	92	0	105	329
2:45 PM	112	26	0	138	48	9	0	57	7	122	0	129	324
Total	415	123	0	538	148	52	0	200	37	366	0	403	1141
3:00 PM	97	30	0	127	42	16	0	58	10	99	0	109	294
3:15 PM	92	25	0	117	35	10	0	45	7	102	0	109	271
3:30 PM	103	20	0	123	50	12	0	62	7	101	0	108	293
3:45 PM	100	18	0	118	33	11	0	44	9	92	0	101	263
Total	392	93	0	485	160	49	0	209	33	394	0	427	1121
4:00 PM	126	28	0	154	44	14	0	58	10	95	0	105	317
4:15 PM	93	27	0	120	53	16	0	69	8	116	0	124	313
4:30 PM	108	36	0	144	50	12	0	62	6	124	0	130	336
4:45 PM	98	31	0	129	51	12	0	63	7	107	0	114	306
Total	425	122	0	547	198	54	0	252	31	442	0	473	1272
5:00 PM	124	20	0	144	62	13	0	75	13	144	0	157	376
5:15 PM	124	31	0	155	72	16	0	88	12	152	0	164	407
Total	248	51	0	299	134	29	0	163	25	296	0	321	783
Grand Total	1620	431	0	2051	692	201	0	893	140	1641	0	1781	4725
Approach %	79.0	21.0	0.0		77.5	22.5	0.0		7.9	92.1	0.0		
Total %	34.3	9.1	0.0	43.4	14.6	4.3	0.0	18.9	3.0	34.7	0.0	37.7	
Exiting Leg Total				2333				571				1821	4725

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

4:30 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:30 PM	108	36	0	144	50	12	0	62	6	124	0	130	336
4:45 PM	98	31	0	129	51	12	0	63	7	107	0	114	306
5:00 PM	124	20	0	144	62	13	0	75	13	144	0	157	376
5:15 PM	124	31	0	155	72	16	0	88	12	152	0	164	407
Total Volume	454	118	0	572	235	53	0	288	38	527	0	565	1425
% Approach Total	79.4	20.6	0.0		81.6	18.4	0.0		6.7	93.3	0.0		
PHF	0.915	0.819	0.000	0.923	0.816	0.828	0.000	0.818	0.731	0.867	0.000	0.861	0.875
Entering Leg	454	118	0	572	235	53	0	288	38	527	0	565	1425
Exiting Leg				762				156				507	1425
Total				1334				444				1072	2850

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Light Goods Vehicle

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	9	4	0	13	4	2	0	6	2	6	1	9	28
1:45 PM	12	4	0	16	5	2	0	7	2	7	0	9	32
Total	21	8	0	29	9	4	0	13	4	13	1	18	60
2:00 PM	9	4	0	13	2	2	0	4	5	12	0	17	34
2:15 PM	9	6	0	15	7	0	0	7	2	9	0	11	33
2:30 PM	6	3	0	9	4	1	0	5	1	6	0	7	21
2:45 PM	11	3	0	14	6	4	0	10	3	10	0	13	37
Total	35	16	0	51	19	7	0	26	11	37	0	48	125
3:00 PM	12	1	0	13	6	0	0	6	0	4	0	4	23
3:15 PM	11	1	0	12	8	2	0	10	1	15	0	16	38
3:30 PM	6	6	0	12	7	1	0	8	1	12	0	13	33
3:45 PM	12	0	0	12	7	1	0	8	2	16	0	18	38
Total	41	8	0	49	28	4	0	32	4	47	0	51	132
4:00 PM	12	6	0	18	5	0	0	5	2	12	0	14	37
4:15 PM	8	6	0	14	8	3	0	11	0	16	0	16	41
4:30 PM	8	3	0	11	5	0	0	5	1	14	0	15	31
4:45 PM	10	2	0	12	5	2	0	7	1	8	0	9	28
Total	38	17	0	55	23	5	0	28	4	50	0	54	137
5:00 PM	11	2	0	13	6	1	0	7	1	9	0	10	30
5:15 PM	12	1	0	13	3	2	0	5	3	14	0	17	35
Total	23	3	0	26	9	3	0	12	4	23	0	27	65
Grand Total	158	52	0	210	88	23	0	111	27	170	1	198	519
Approach %	75.2	24.8	0.0		79.3	20.7	0.0		13.6	85.9	0.5		
Total %	30.4	10.0	0.0	40.5	17.0	4.4	0.0	21.4	5.2	32.8	0.2	38.2	
Exiting Leg Total				258				79				182	519

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

3:30 PM	Summer Street (Route 2A)					Grove Street					Summer Street (Route 2A)					Total
	from East					from South					from West					
	Thru	Left	U-Turn		Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total			
3:30 PM	6	6	0		12	7	1	0	8	1	12	0	13	33		
3:45 PM	12	0	0		12	7	1	0	8	2	16	0	18	38		
4:00 PM	12	6	0		18	5	0	0	5	2	12	0	14	37		
4:15 PM	8	6	0		14	8	3	0	11	0	16	0	16	41		
Total Volume	38	18	0		56	27	5	0	32	5	56	0	61	149		
% Approach Total	67.9	32.1	0.0			84.4	15.6	0.0		8.2	91.8	0.0				
PHF	0.792	0.750	0.000		0.778	0.844	0.417	0.000	0.727	0.625	0.875	0.000	0.847	0.909		
Entering Leg	38	18	0		56	27	5	0	32	5	56	0	61	149		
Exiting Leg					83				23				43	149		
Total					139				55				104	298		

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Buses

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
1:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	1	0	1	2
2:00 PM	4	0	0	4	1	0	0	1	0	1	0	1	6
2:15 PM	0	0	0	0	1	1	0	2	0	1	0	1	3
2:30 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
2:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	7	0	0	7	2	1	0	3	0	3	0	3	13
3:00 PM	0	1	0	1	0	0	0	0	1	1	0	2	3
3:15 PM	0	3	0	3	0	2	0	2	1	0	0	1	6
3:30 PM	1	0	0	1	0	1	0	1	1	0	0	1	3
3:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	1	5	0	6	0	3	0	3	3	2	0	5	14
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	0	0	0	0	0	1	0	1	2
5:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	2	0	0	2	0	0	0	0	0	1	0	1	3
Grand Total	12	5	0	17	2	4	0	6	3	8	0	11	34
Approach %	70.6	29.4	0.0		33.3	66.7	0.0		27.3	72.7	0.0		
Total %	35.3	14.7	0.0	50.0	5.9	11.8	0.0	17.6	8.8	23.5	0.0	32.4	
Exiting Leg Total	10				8				16				34

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

3:00 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
3:00 PM	0	1	0	1	0	0	0	0	1	1	0	2	3
3:15 PM	0	3	0	3	0	2	0	2	1	0	0	1	6
3:30 PM	1	0	0	1	0	1	0	1	1	0	0	1	3
3:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	2
Total Volume	1	5	0	6	0	3	0	3	3	2	0	5	14
% Approach Total	16.7	83.3	0.0		0.0	100.0	0.0		60.0	40.0	0.0		
PHF	0.250	0.417	0.000	0.500	0.000	0.375	0.000	0.375	0.750	0.500	0.000	0.625	0.583
Entering Leg	1	5	0	6	0	3	0	3	3	2	0	5	14
Exiting Leg				2				8				4	14
Total				8				11				9	28

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Single-Unit Trucks

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
1:45 PM	1	1	0	2	0	0	0	0	0	3	0	3	5
Total	3	1	0	4	0	0	0	0	0	4	0	4	8
2:00 PM	1	0	0	1	0	0	0	0	1	4	0	5	6
2:15 PM	4	0	0	4	1	1	0	2	0	0	0	0	6
2:30 PM	0	2	0	2	1	0	0	1	1	0	0	1	4
2:45 PM	4	1	0	5	0	1	0	1	0	2	0	2	8
Total	9	3	0	12	2	2	0	4	2	6	0	8	24
3:00 PM	2	0	0	2	1	0	0	1	0	2	0	2	5
3:15 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
3:30 PM	2	1	0	3	0	0	0	0	0	1	0	1	4
3:45 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
Total	9	1	0	10	1	0	0	1	0	4	0	4	15
4:00 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
4:15 PM	2	1	0	3	0	1	0	1	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:45 PM	1	1	0	2	0	0	0	0	0	1	0	1	3
Total	3	2	0	5	1	1	0	2	0	5	0	5	12
5:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
5:15 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
Total	1	1	0	2	2	0	0	2	0	2	0	2	6
Grand Total	25	8	0	33	6	3	0	9	2	21	0	23	65
Approach %	75.8	24.2	0.0		66.7	33.3	0.0		8.7	91.3	0.0		
Total %	38.5	12.3	0.0	50.8	9.2	4.6	0.0	13.8	3.1	32.3	0.0	35.4	
Exiting Leg Total	27				10				28				65

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

2:00 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
2:00 PM	1	0	0	1	0	0	0	0	1	4	0	5	6
2:15 PM	4	0	0	4	1	1	0	2	0	0	0	0	6
2:30 PM	0	2	0	2	1	0	0	1	1	0	0	1	4
2:45 PM	4	1	0	5	0	1	0	1	0	2	0	2	8
Total Volume	9	3	0	12	2	2	0	4	2	6	0	8	24
% Approach Total	75.0	25.0	0.0		50.0	50.0	0.0		25.0	75.0	0.0		
PHF	0.563	0.375	0.000	0.600	0.500	0.500	0.000	0.500	0.500	0.375	0.000	0.400	0.750
Entering Leg	9	3	0	12	2	2	0	4	2	6	0	8	24
Exiting Leg				8				5				11	24
Total				20				9				19	48

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Articulated Trucks

	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
1:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	2	0	2	2
2:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 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
4:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	3	1	0	0	1	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 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	4	0	0	4	1	0	0	1	0	2	0	2	7
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	57.1	0.0	0.0	57.1	14.3	0.0	0.0	14.3	0.0	28.6	0.0	28.6	
Exiting Leg Total	3				0				4				7

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

3:45 PM	Summer Street (Route 2A)				Grove Street				Summer Street (Route 2A)				Total
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
4:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	3	0	0	3	1	0	0	1	0	0	0	0	4
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.375	0.000	0.000	0.375	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.500
Entering Leg	3	0	0	3	1	0	0	1	0	0	0	0	4
Exiting Leg				1				0				3	4
Total				4				1				3	8

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	2	3
3:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Total	2	0	0	0	0	2	1	0	0	0	0	1	0	1	0	0	0	1	4
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Grand Total	2	0	0	0	0	2	2	1	0	0	0	3	1	3	0	0	0	4	9
Approach %	100.0	0.0	0.0	0.0	0.0		66.7	33.3	0.0	0.0	0.0		25.0	75.0	0.0	0.0	0.0		
Total %	22.2	0.0	0.0	0.0	0.0	22.2	22.2	11.1	0.0	0.0	0.0	33.3	11.1	33.3	0.0	0.0	0.0	44.4	
Exiting Leg Total	5						1						3						9

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

2:15 PM	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
2:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
3:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	2	4
% Approach Total	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0		
PHF	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.500	0.500
Entering Leg	1	0	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	2	4
Exiting Leg	2						1						1						4
Total	3						2						3						8

PDI File #: **186252 AA**
 Location: **S: Grove Street**
 Location: **E: Summer Street (Route 2A) W: Summer Street (Route 2A)**
 City, State: **Arlington, MA**
 Client: **Bryant Associates/ T. Brayton**
 Site Code: **M17079MA**
 Count Date: **Wednesday, May 16, 2018**
 Start Time: **1:30 PM**
 End Time: **5:30 PM**
 Class:



Pedestrians

	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total	
	from East						from South						from West							
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total		
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2	3
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	2	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	13	0	13	14
2:45 PM	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	1	0	1	11
Total	0	0	0	0	0	0	0	0	0	0	6	8	14	0	0	0	14	0	14	28
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	5	0	5	7
3:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	9	0	9	12
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	2	3	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	1	1	2	6
Total	0	0	0	0	0	0	0	0	0	0	2	5	7	0	0	0	4	3	7	14
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	1	4	5	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	4	0	4	6
Total	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	5	4	9	13
Grand Total	0	0	0	0	0	0	0	0	0	0	12	17	29	0	0	0	34	7	41	70
Approach %	0	0	0	0	0	0	0	0	0	0	41.379	58.621		0	0	0	82.927	17.073		
Total %	0	0	0	0	0	0	0	0	0	0	17.143	24.286	41.429	0	0	0	48.571	10	58.571	
Exiting Leg Total	0						29						41						70	

Peak Hour Analysis from 01:30 PM to 05:30 PM begins at:

2:15 PM	Summer Street (Route 2A)						Grove Street						Summer Street (Route 2A)						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
2:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	13	0	13	14
2:45 PM	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	1	0	1	11
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	5	0	5	7
Total Volume	0	0	0	0	0	0	0	0	0	5	10	15	0	0	0	19	0	19	34
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.417	0.375	0.000	0.000	0.000	0.365	0.000	0.365	0.607
Entering Leg	0	0	0	0	0	0	0	0	0	5	10	15	0	0	0	19	0	19	34
Exiting Leg	0						15						19						34
Total	0						30						38						68

ATTACHMENT 2

Crash Summary

CRASH ANALYSIS

Arlington RMD - 251 Summer Street

Arlington, MA

	Summer Street (Route 2A) at Site Driveways	Summer Street (Route 2A) at Brattle Street/Symmes Road
Year		
2014	0	2
2015	0	1
2016	0	1
2017	0	1
2018	0	2
<i>Total</i>	<i>0</i>	<i>7</i>
Type		
Angle	0	1
Rear-end	0	5
Sideswipe	0	0
Head-on	0	0
Pedestrian	0	0
Bicycle	0	0
Single Vehicle	0	1
Other	0	0
Unknown	0	0
<i>Total</i>	<i>0</i>	<i>7</i>
Severity		
Property Damage	0	3
Personal Injury	0	2
Fatality	0	0
Unknown	0	2
<i>Total</i>	<i>0</i>	<i>7</i>
Weather		
Clear	0	6
Cloudy	0	1
Rain	0	0
Snow	0	0
Sleet	0	0
Fog	0	0
Other	0	0
Unknown	0	0
<i>Total</i>	<i>0</i>	<i>7</i>
Time		
7:00 AM to 9:00 AM	0	0
9:00 AM to 4:00 PM	0	2
4:00 PM to 6:00 PM	0	2
6:00 PM to 7:00 AM	0	3
Total	0	7
Crash Rate	n/a	0.20
State Average	n/a	0.78
District 4 Average	n/a	0.73

Source: MassDOT

ATTACHMENT 3

Queue Length Observations

QUEUE OBSERVATION SHEET


Project: Arlington RMD
 Date: 10/13/2021
 Time: 4:30 PM - 5:30 PM
 Intersection: Summer Street (Route 2A) and Brattle Street/Symmes Road
 Approach: EB
 Observer: LCY

Time	Queue (# of vehicles)	Queue (ft) ⁽¹⁾
4:30 PM	12	300
4:32 PM	7	175
4:34 PM	11	275
4:36 PM	6	150
4:38 PM	4	100
4:39 PM	11	275
4:41 PM	3	75
4:42 PM	4	100
4:44 PM	4	100
4:46 PM	5	125
4:48 PM	6	150
4:50 PM	3	75
4:51 PM	5	125
4:53 PM	0	0
4:55 PM	5	125
4:56 PM	8	200
4:58 PM	4	100
5:00 PM	3	75
5:01 PM	4	100
5:02 PM	7	175
5:04 PM	8	200
5:06 PM	8	200
5:08 PM	6	150
5:11 PM	5	125
5:13 PM	14	350
5:15 PM	12	300
5:17 PM	18	450
5:18 PM	2	50
5:20 PM	13	325
5:22 PM	11	275
5:23 PM	3	75
5:25 PM	9	225
5:27 PM	6	150
5:29 PM	6	150
5:30 PM	8	200

(1) Assumes a 25 ft veh length

MAX Queue	18	450
50th %ile	6	150
95 %ile	15	370