

SIRA Naturals
240 Elm Street
Somerville, Massachusetts

Traffic Impact and Access Study



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Prepared by:
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A. EXECUTIVE SUMMARY

A1. Introduction

Design Consultants, Inc. (DCI) has prepared this Traffic Impact and Access Study (TIAS) to analyze the potential impact that the proposed Marijuana Retailer at 240 Elm Street (“Project”) will have on surrounding traffic operations in Somerville. The site is currently occupied by a medical marijuana facility that is operating and generating trips both to and from the site. The facility will replace medical point-of-sale stations with adult-use point-of-sale stations.

A2. Study Area

The following intersections, determined by DCI in conjunction with the City of Somerville, were examined in this traffic study. Figure A2.1 shows the study intersections and Figure A2.2 shows the study intersections relative to the larger transportation network:

- Elm Street at Holland Street/College Avenue/Dover Street/Day Street (Davis Square Intersection)
- Elm Street at Chester Street
- Elm Street at Grove Street and Bowers Avenue
- Highland Avenue at Grove Street

A3. Safety Analysis

A safety analysis was performed at each of the study intersections based on crash data from the Massachusetts Department of Transportation (MassDOT) from 2017 to 2019, the most recent three (3) full years of data available.

The data was analyzed to look for high crash locations and analyze possible contributing factors. Of the four (4) intersections analyzed as part of this study, all study intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were no reported fatal crashes. Approximately 89% of all reported crashes occurred outside of the peak periods (7am to 9am and 4pm to 6pm). Additionally, five (5) of the 27 crashes involved either a pedestrian or bicyclist and zero (0) of these crashes resulted in a fatality. With the minimal number of additional vehicle-trips as part of the Project, there is expected to be no decrease in safety for pedestrians and bicyclists traveling through the study area. As such, there are no safety issues that require mitigation as part of this traffic study. The detailed safety analysis and crash data is contained in Section B4 of this report.

A4. Trip Generation

Trip generation was calculated via two methods. The first method takes into account estimated customer, employee, and service/delivery trips. Using this method, it is expected that the site will generate zero (0) vehicle-trips during the Weekday AM peak hour, 14 vehicle-trips during the Weekday PM peak hour, and 144 vehicle-trips during a typical weekday. For comparison, rates from the ITE *Trip Generation Manual, 10th Edition*, were calculated. According to ITE, the site is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 26 vehicle-trips

during the Weekday PM peak hour, and 302 vehicle-trips during a typical Weekday. Both methods account for a 75% reduction for non-vehicular trips to the site. Further discussion and calculations are provided in Section D1.

A5. Intersection Capacity Analysis

Capacity analyses were performed at each of the study intersections to assess traffic operations under three scenarios: 2020 Existing, 2027 No-Build, and 2027 Build. The 2020 Existing Conditions analysis is based on current traffic counts carried out in the study area along with existing traffic control. The 2027 No-Build scenario reflects traffic adjustments due to a compounded annual growth rate to a seven-year horizon to the year 2027. The 2027 Build scenario uses projected traffic volumes after the redevelopment, taking into account the additional traffic as a result of the Project. To be conservative, no credit was taken for the vehicle-trips that are currently being made to the existing facility.

A summary table showing the results of the capacity analyses is shown in Table A5-1. As shown, the proposed Marijuana Retailer is not expected to have a significant impact on the surrounding traffic network. There is one (1) movement that declines in level of service going from the No-Build to Build scenarios. This decline in LOS is a function of the left-turn slip lane being removed from Highland Avenue to Elm Street that the City will be implementing in the near future, not due to Project-related traffic. Detailed analyses of each scenario are included later in this report.

Table A5-1: Level-of-Service Summary

ID	Roadway	Movement	2020 Existing Conditions		2027 No-Build Conditions		2027 Build Conditions	
			Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak Hour	Weekday PM Peak Hour
1	Holland Street at Highland Avenue and Day Street and College Avenue	SB TR	C	C	C	C	C	C
		NW L	C	B	C	B	C	C
		NW T	C	C	C	C	C	C
		NW R	A	A	A	A	A	A
		NE R	A	A	A	A	A	A
		SW L	B	A	B	A	B	A
		SW LTR	A	A	A	A	A	A
	Overall		B	B	B	B	B	B
2*	Elm Street at Chester Street	SB TR	A	A	A	A	A	A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A
		Overall	N/A	N/A	N/A	N/A	N/A	N/A
3*	Elm Street at Bowers Avenue and Grove Street	SB LT	A	A	A	A	A	A
		NE TR	C	D	C	D	C	D
		SW L	E	F	E	F	E	F
		Overall	N/A	N/A	N/A	N/A	N/A	N/A
4*	Highland Avenue at Grove Street	NW LTR	A	A	A	A	A	A
		NE LT	F	F	F	F	E	F
		Overall	N/A	N/A	N/A	N/A	N/A	N/A

*Unsignalized Intersection

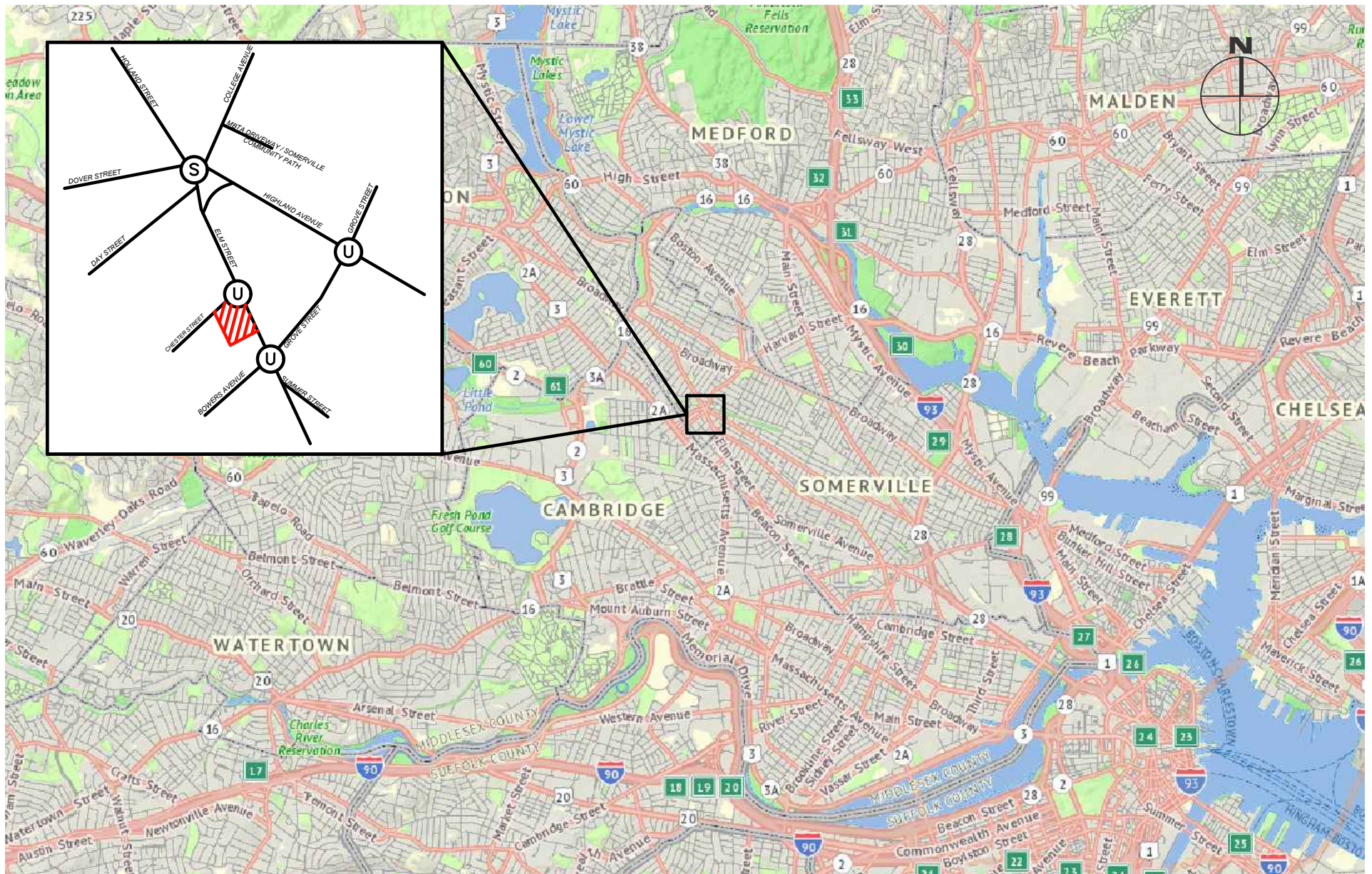
A7. Conclusion

This Traffic Impact and Access Study was created to assess and analyze any potential impact the proposed Marijuana Retailer at 240 Elm Street will have on surrounding traffic operations in Somerville.

From a safety perspective, recent data shows that all four (4) of the study intersections have crash rates that are below both the District 4 and Statewide averages. Additionally, there were zero (0) reported fatal injuries, and approximately 89% of all reported crashes occurred outside of the peak hours. Capacity analyses were performed for each of the four (4) study intersections for the Weekday AM and Weekday PM peak hours. In order to determine the specific impact that the proposed Project may have on traffic operations, analyses were carried out for 2020 Existing, 2027 No-Build, and 2027 Build conditions. One (1) movement and zero (0) overall intersections decline in Level of Service going from the No-Build to Build scenarios. As such, the Project is not expected to have a significant impact on the surrounding traffic network.



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240 ELM STREET
SOMERVILLE, MA

LOCUS MAP

PROJECT NO.: 2020-048

DATE: SEPTEMBER 2020

SCALE: N.T.S. FIGURE A2.2

B. EXISTING CONDITIONS

B1. Study Area

The following intersections, all located in Somerville, were examined in this traffic study:

- Elm Street at Holland Street/College Avenue/Dover Street/Day Street (Davis Square Intersection)
- Elm Street at Chester Street
- Elm Street at Grove Street and Bowers Avenue
- Highland Avenue at Grove Street

This section describes the geometric elements of the intersections, including intersection alignments, lane widths, channelization islands and medians, sidewalk widths, pedestrian curb cut ramps and crosswalks, bicycle lane treatments, and locations of bus stops.

B1.1 Study Intersections

Elm Street at Holland Street/College Avenue/Dover Street/Day Street (Davis Square Intersection)

The Davis Square intersection is a six-legged, signalized intersection. Highland Avenue is a two-lane, one-way roadway approaching from the southeast. College Avenue is a two-lane, two-way roadway approaching from the north. Holland Avenue is a two-lane, two-way roadway approaching from the northwest. Dover Street is a one-lane, one-way roadway departing the intersection to the west. Day Street is a one-lane, one-way roadway approaching the intersection from the southwest and is right-turn only onto Elm Street, which is a two-lane roadway departing the intersection to the southeast. All of the roadways at the intersection are classified as Urban Minor Arterials and are under City of Somerville jurisdiction.



Source: ©2020 Google Earth

Highland Avenue

- Approaches from the east and has an approximate curb-to-curb width of 35 feet, as measured across the crosswalk.
- Metered parking is permitted on both sides of the roadway east of the intersection.
- Four approach lanes: Exclusive right-turn lane, through lane, exclusive left-turn lane, and a left-turn slip lane onto Elm Street.
- Designated bicycle lane separating the thru and right-turn lanes with a bicycle box provided in front of the left-turn and through approach lanes.
- Has sidewalks on each side of the roadway and a paved crosswalk with ADA ramps across the approach.

College Avenue

- Approaches from the north and has an approximate curb-to-curb width of 45 feet, as measured across the crosswalk.
- Two approach lanes: right-turn/through/left-turn lane and exclusive left-turn lane.
- Has sidewalks on each side of the roadway and a paved crosswalk with ADA ramps across the approach.

Holland Street

- Approaches the intersection from the northwest and has an approximate curb-to-curb width of 52 feet, as measured across the crosswalk.
- Two approach lanes: through lane and through/right-turn lane.
- Has sidewalks on each side of the roadway and a paved crosswalk with ADA ramps across the approach.

Dover Street

- Departs the intersection to the west and has an approximate curb-to-curb width of 25 feet, measured across the crosswalk.
- Has sidewalks on each side of the roadway and a paved crosswalk with ADA ramps across the approach.

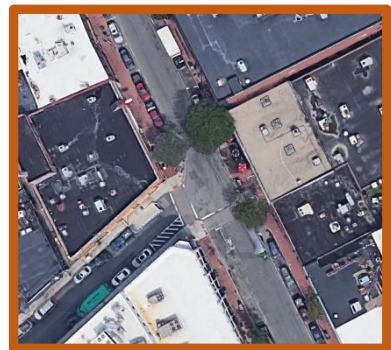
Day Street

- Approaches the intersection from the southwest and has an approximate curb-to-curb width of 26 feet, measured across the crosswalk.
- Has sidewalks on each side of the roadway and a paved crosswalk with ADA ramps across the approach.

Additionally, Elm Street departs the intersection to the southeast and carries two travel lanes. There is a pedestrian island in the intersection shortens the crossing distances across Highland Avenue and Elm Street. Additionally, a painted bump out on the corner of Highland Avenue and College Avenue with flexible posts and painted yield markings is provided for pedestrians crossing College Avenue.

Elm Street at Chester Street

Elm Street at Chester Street is a three-legged, unsignalized intersection. Elm Street is a two-lane, one-way roadway approaching from the north and departing the intersection to the south and has an approximate curb-to-curb width of 40 feet. Chester Street is a one-lane, one-way roadway departing to the southwest and has an approximate curb-to-curb width of 28 feet. Elm Street is functionally classified as an Urban Minor Arterial and Chester Street is functionally classified as a Local Road. Both roadways are under City of Somerville jurisdiction.

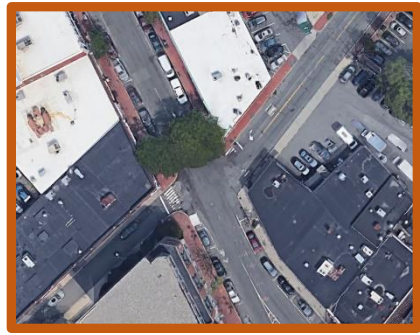


Source: ©2020 Google Earth

Metered parking is permitted along both sides of both roadways. Sidewalks are provided on both sides of each roadway and there are crosswalks with ADA ramps across each leg of the intersection.

Elm Street at Grove Street and Bowers Avenue

Elm Street at Grove Street and Bowers Avenue is a four-legged, signalized intersection. Elm Street is a two-lane, two-way roadway approaching from the north and departing to the south and has an approximate curb-to-curb width of 40 feet. Grove Street is a two-lane, two-way roadway approaching from the northeast and has an approximate curb-to-curb width of 27 feet. Bowers Avenue is a one-lane, one-way roadway approaching from the southwest and has an approximate curb-to-curb width of 18 feet. Elm Street is functionally classified as an Urban Minor Arterial and Grove Street and Bowers Avenue are functionally classified as an Local Roads. All roadways are under City of Somerville jurisdiction.

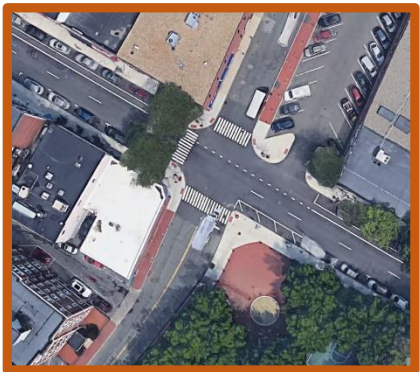


Source: ©2020 Google Earth

Metered parking is permitted along both sides of Elm Street to the north and south of the intersection. Private parking for residents is provided on the north side of Bowers Avenue. Sidewalks are provided on both sides of each of the roadways at the intersection. There are marked crosswalks with ADA ramps for the Elm Street approach from the north, the Bowers Avenue approach, and the Grove Street approach at the intersection. Bump outs are provided for the Elm Street crosswalk.

Highland Avenue at Grove Street

Highland Avenue at Grove Street is a four-legged, unsignalized intersection. Highland Avenue is a two-lane, one-way roadway approaching from the southeast and has an approximate curb-to-curb width of 40 feet east of the intersection and 27 feet west of the intersection. Grove Street is a two-lane, two-way roadway approaching from the northeast and has an approximately curb-to-curb width of 36 feet south of the intersection and 27 feet north of the intersection. There are two departing lanes along Highland Avenue and one departing lane along Grove Street. Highland Avenue is functionally classified as an Urban Minor Arterial and Grove Street is functionally classified as a Local Road. Both roadways are under City of Somerville jurisdiction.



Source: ©2020 Google Earth

Parking is permitted on both sides of Highland Avenue on each side of the intersection. Sidewalks are provided on both sides of each of the roadways at the intersection. There are marked crosswalks with ADA ramps across both Grove Street approaches and across Highland Avenue northwest of the intersection. Bump outs are provided for the Highland Avenue crosswalk.

B2. Accessibility and Multi-Modal Transportation

This section describes the existing facilities at the study area intersections and within the entire study area.

Pedestrian Facilities

Pedestrian connectivity in the area is facilitated by existing sidewalks, crosswalks, and ADA ramps. Sidewalks are provided at all study intersections and crosswalks are provided across most approaches. A crosswalk is not provided at the Highland Avenue approach from the west at the intersection of Highland Avenue at Grove Street. At the Davis Square intersection, pedestrian signals give concurrent crossing phases. The Highland Avenue and College Avenue crossings are given lead pedestrian intervals (LPI). Sidewalks within the study area range from 6.5 to 12 feet in width. A number of traffic calming and pedestrian enhancement features are provided within the study area. At the intersection of Elm Street at Chester Street, curb bump outs beyond the parking lane shorten the crossing distance across Elm Street and Chester Street. At the intersection of Elm Street at Grove Street and Bower Street, curb bump outs beyond the parking lane shorten the crossing distance across Elm Street. The Somerville Community Path is located .20 miles north of the Project and can be accessed via Grove Street.

Bicycle Facilities

Within the study area, there is a dedicated 5-foot bicycle lane along Highland Avenue between Cutter Avenue and College Avenue and a painted green bicycle box is provided along the Highland Avenue approach to the intersection of Elm Street, College Avenue, Dover Street, and Day Street. Bicycle sharrows are painted along Holland Street and Elm Street. Additionally, access to the Somerville Community Path is located .20 miles from the Project site. The Somerville Community Path provides bicycle and pedestrian access between Lowell Street in Somerville and Massachusetts Avenue in Cambridge, where it becomes the Alewife Linear Park, and is approximately 1.3 miles in length. Alewife Linear Park connects to the Minuteman Commuter Bikeway, which provides access to the towns of Arlington, Lexington, and Bedford. A BlueBikes Station is located in Davis Square, approximately 0.15 miles northwest of the Project, adjacent to the Davis MBTA station. BlueBikes is a public bike share with station facilities in Boston, Brookline, Cambridge and Somerville. Covered bicycle parking is provided at the Davis Square Station T stop. Figure B2.1 shows the bicycle network map in Somerville and the facilities that connect to Davis Square.



Figure B2.1: Somerville Bicycle Network Map

Massachusetts Bay Transportation Authority (MBTA)

Bus Routes within Study Area:

Within the study area near the Project site, there are six (6) MBTA Bus Routes that service the site. MBTA Bus Routes 87, 88, 89, 90, 94, and 96 serve the Elm Street at Chester Street stop directly in front of the project site.

Bus Route 87 runs between Arlington Center or Clarendon Hill and Lechmere Station, a stop on the MBTA Green Line in Cambridge. Approximately 16 (eight inbound and eight outbound) buses travel through the study area during the Weekday AM peak period and approximately 16 (nine inbound and seven outbound) buses stop in the study area during the Weekday PM Peak period.

Bus Route 88 runs between Clarendon Hill and Lechmere Station. Approximately 17 (nine inbound and eight outbound) buses travel through the study area during the Weekday AM peak period and approximately 14 (seven inbound and seven outbound) buses stop in the study area during the Weekday PM Peak period.

Bus Route 89 runs between Clarendon Hill or Davis Square Station, a stop on the MBTA Red Line and Sullivan Station, a stop on the MBTA Orange Line. Approximately 12 (four inbound and eight outbound) buses travel through the study area during the Weekday AM peak period and approximately 10 (four inbound and six outbound) buses travel through the study area during the Weekday PM Peak period.

Bus Route 90 runs between Davis Square Station and Wellington Station. Approximately 6 (three inbound and three outbound) buses travel through the study area during the Weekday AM peak period and approximately 6 (three inbound and three outbound) buses travel through the study area during the Weekday PM Peak period.

Bus Route 94 runs between Medford Square and Davis Square Station. Approximately 10 (five inbound and five outbound) buses travel through the study area during the Weekday AM peak period and approximately 10 (five inbound and five outbound) buses travel through the study area during the Weekday PM Peak period.

Bus Route 96 runs between Medford Square and Harvard Station, a stop on the MBTA Red Line. Approximately 8 (two inbound and six outbound) buses travel through the study area during the Weekday AM peak period and approximately 11 (five inbound and six outbound) buses travel through the study area during the Weekday PM Peak period.

Subway (T) Stops

Davis Square Station, a stop on the MBTA Red Line, is located approximately 0.15 miles from the Project site. Davis Square Station allows passengers to access the Red Line or any one of six bus routes mentioned previously. The Red Line runs between Alewife Station in Cambridge and Braintree Station in Braintree or Ashmont Station in Boston. The Red Line provides service through Cambridge at Porter Square, Harvard Square, Central Square, Kendall Square, and into Downtown Boston. Inbound service to Ashmont/Braintree has train headways of 3 to 5 minutes during the Weekday AM peak period and 3 to 6 minutes during the Weekday PM peak period. Outbound service to Alewife has train headways of 1 to 8 minutes during the Weekday AM peak period and 2 to 7 minutes in the Weekday PM peak period.

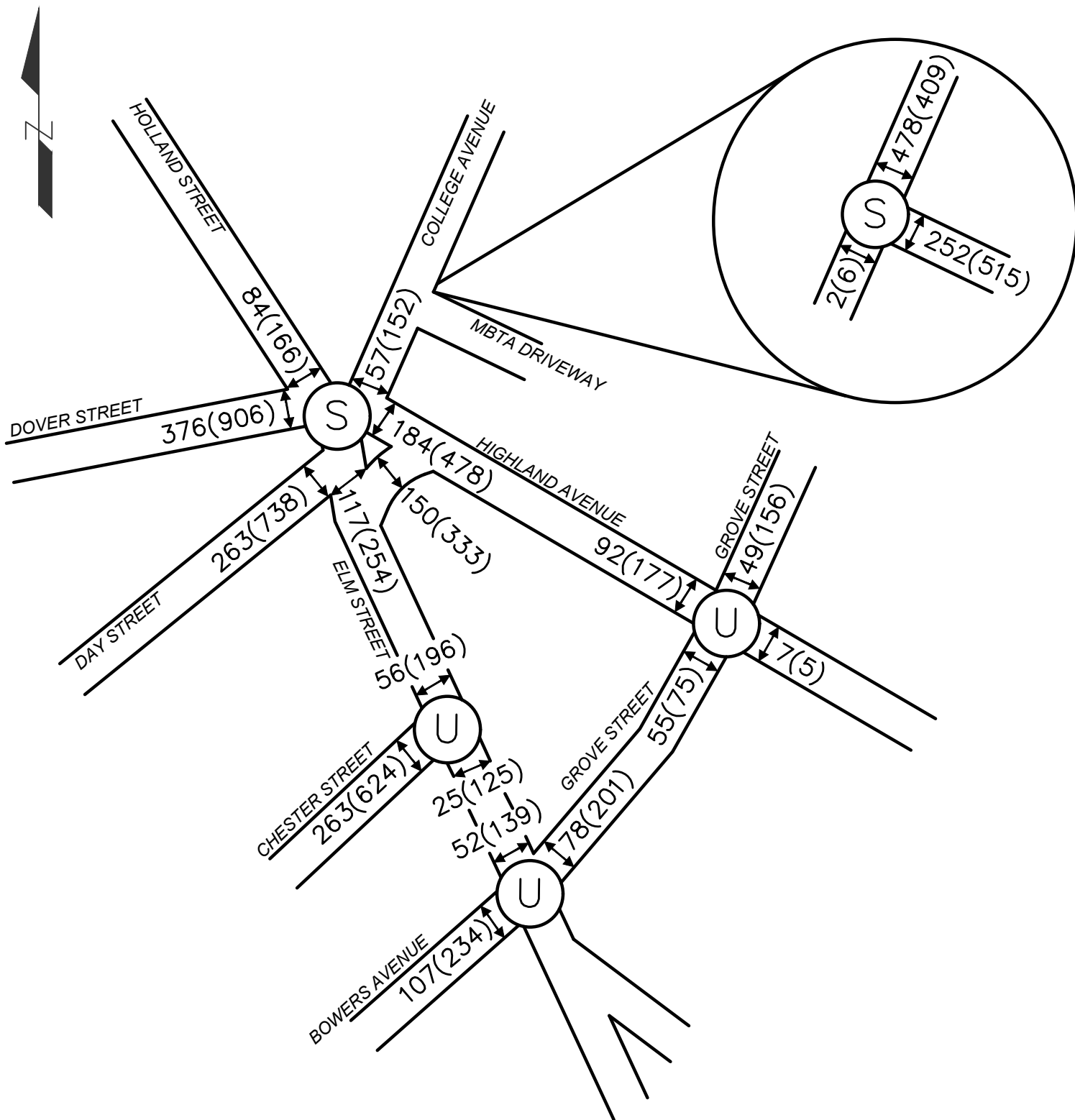
B3. Traffic Volumes

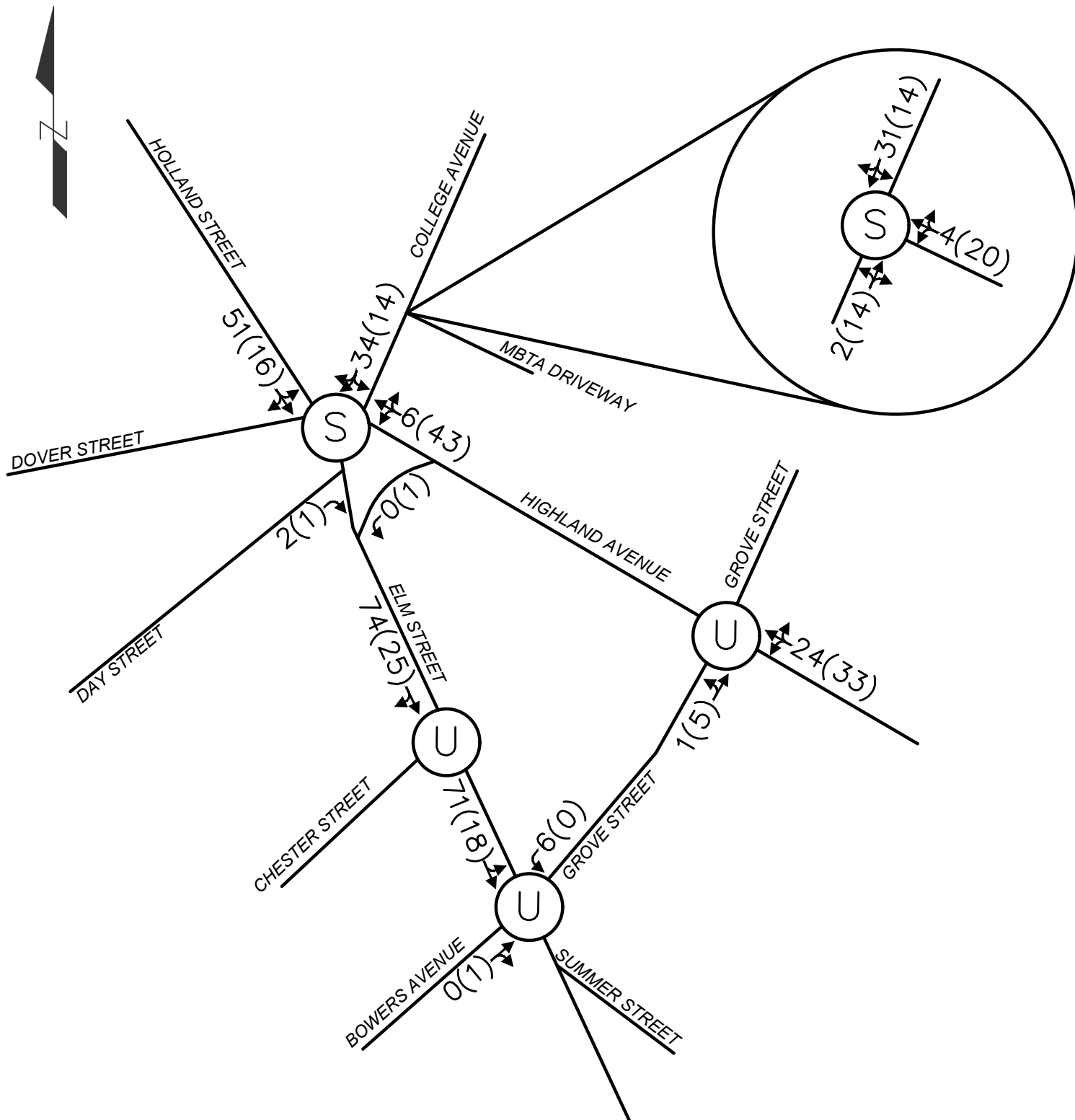
B3.1 Existing Traffic Counts

DCI received traffic data from the City of Somerville that included turning movement count (TMC) data. This data was collected by Precision Data Industries, LLC (PDI) in November 2017 at each of the study intersections. To provide analysis for separate peak hours during the day, PDI collected data during the Weekday AM (7am to 9am) and Weekday PM (4pm to 6pm) peak periods for all study intersections on a typical Tuesday. The counts were taken during a week not containing a holiday and when all area schools were in session. Since the traffic data was collected in 2017, it was determined, in conjunction with the City of Somerville Planning Department, to project the data to 2020 using a 0.25 percent growth rate due to the ongoing COVID-19 pandemic. The projected data will be used for the 2020 existing conditions capacity analysis. The traffic counts included cars, heavy vehicles, pedestrians, and bicycles. Existing pedestrian volumes can be found in Figure B3.1 and existing bicycle volumes can be found in Figure B3.2. The 2017 traffic volumes have been attached in Appendix B.

B3.2 Seasonal Adjustment

The 2019 Weekday Seasonal Axle Correction Factors from MassDOT were obtained to determine if the existing traffic counts should be adjusted. The seasonal correction factor for the roadway classifications of the roadways within the study area in November is 0.99. To provide a more conservative analysis, the existing traffic volumes were not adjusted for the Weekday Seasonal Correction Factor. The unadjusted existing peak hour traffic volumes are shown in Figure B3.3. The 2019 Weekday Seasonal Axle Correction Factors worksheet has been attached in Appendix B.

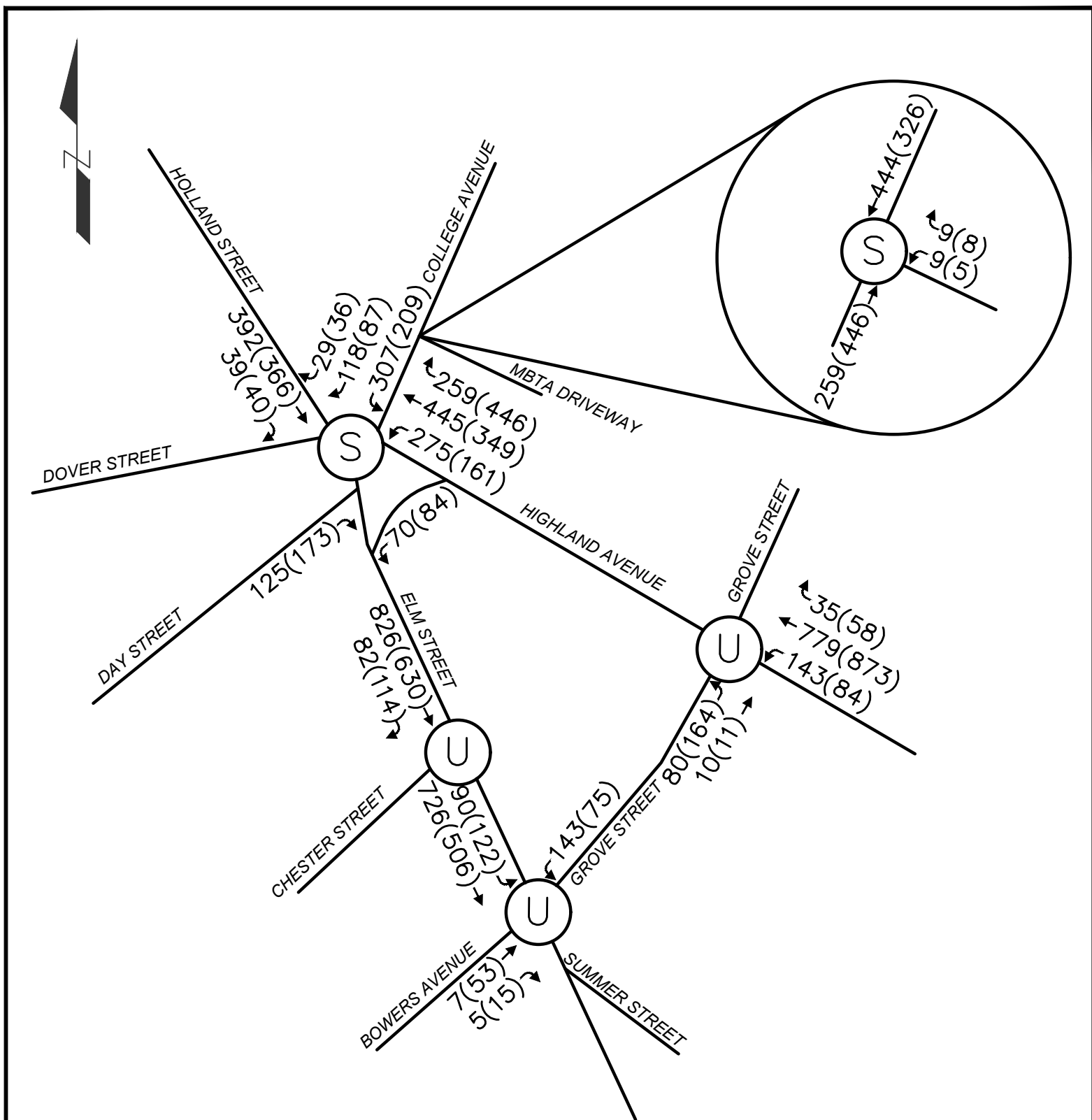




Legend

XX(YY) → Weekday AM(PM) 2020 Existing Peak Hour Bicycle Volumes

Note: Imbalances due to numerous curb cuts and side streets not shown
 S = Signalized Intersection; U = Unsignalized Intersection



B4. Safety Analysis

Intersection safety is one measure of assessing the performance of an intersection and can also have an impact on overall intersection operations. This section reviews historical crash data to identify any potential safety concerns.

B4.1 Existing Crash Data and Analysis

Crash data from MassDOT for years 2017 through 2019 was reviewed for each study intersection. This data represents the most recent three (3) full years of data available through the MassDOT crash database. The MassDOT crash records offered the following information:

- Crash Location (General or Specific) / Direction of vehicle(s) involved
- Date / Time
- Roadway surface conditions / Light conditions / Weather conditions
- Crash Severity / Manner of Collision
- Type of non-motorist involved (if applicable)

The compiled data, in conjunction with engineering judgement, yielded a summary of crashes that may be used to identify general crash patterns and potential factors contributing to the predominant type of incidents at each location.

Crash rates can be a useful tool in measuring the safety for an intersection relative to Statewide and District averages for comparable intersection types. Crash rates for intersections are calculated based upon the number of crashes at an intersection and the volume of traffic traveling through an intersection on a daily basis, expressed as crashes per million entering vehicles (c/mev). MassDOT average intersection crash rates are published on a statewide basis and by district for both signalized and unsignalized intersections.

Intersection crash rates were calculated for each of the study area intersections using available crash data for the 3-year period and the traffic volumes for the November 2017 traffic counts which were projected to 2020. The average crash rates for MassDOT District 4 are 0.73 c/mev for signalized intersections and 0.57 c/mev for unsignalized intersections. The average Statewide crash rates are 0.78 c/mev for signalized intersections and 0.57 c/mev for unsignalized intersections. The summary results of the crash analysis are shown in Table B4-1. Detailed crash analysis worksheets for each intersection for years 2017 through 2019 are contained in Appendix C.

Table B4-1: MassDOT Intersection Crash Summary

	<i>Elm Street at Holland Street/ College Avenue/ Dover Street</i>	<i>Elm Street at Chester Street</i>	<i>Elm Street at Grove Street</i>	<i>Highland Ave at Grove Street</i>
Year				
2017	6	0	0	2
2018	3	1	0	0
2019	6	3	1	5
<i>Total</i>	<i>15</i>	<i>4</i>	<i>1</i>	<i>7</i>
Crash Severity				
Property Damage Only	11	2	1	3
Non-fatal Injury	4	2	0	4
Fatal Injury	0	0	0	0
Not Reported, Unknown	0	0	0	0
<i>Total</i>	<i>15</i>	<i>4</i>	<i>1</i>	<i>7</i>
Manner of Collision				
Sideswipe, Same Direction	5	0	0	3
Sideswipe, Opposite Direction	1	0	0	0
Angle	3	2	0	1
Rear-end	1	2	1	2
Head-on	2	0	0	0
Single Vehicle	3	0	0	1
Other, not reported	0	0	0	0
<i>Total</i>	<i>15</i>	<i>4</i>	<i>1</i>	<i>7</i>
Time of Day				
7:00am to 9:00am (AM Peak)	1	0	0	0
4:00pm to 6:00pm (PM Peak)	0	1	0	1
All Other Times	14	3	1	6
<i>Total</i>	<i>15</i>	<i>4</i>	<i>1</i>	<i>7</i>
Non-Motorist Type				
Bicyclist or Pedestrian	3	0	0	2
No Bicyclist or Pedestrian	12	4	1	5
<i>Total</i>	<i>15</i>	<i>4</i>	<i>1</i>	<i>7</i>
Crash Averages				
Avg. Crashes per Year	5.00	1.33	0.33	2.33
Avg. Crash Rate (c/mev)	0.60	0.36	0.08	0.48
District 4 Avg. Crash Rate (c/mev)	0.73	0.57	0.57	0.57
Statewide Avg. Crash Rate (c/mev)	0.78	0.57	0.57	0.57

The Davis Square intersection of **Elm Street at Holland Street/College Avenue/Dover Street** had 15 reported crashes according to the MassDOT crash database during the three-year period from 2017 to 2019. Eleven (11) of the crashes resulted in property damage only and four (4) resulted in non-fatal injuries. Of the 15 crashes, five (5) were sideswipes in the same direction, one (1) was a sideswipe in the opposite direction, three (3) were angled collisions, one (1) was a rear-end collision, two (2) were head-on collisions, and three (3) were single-vehicle collisions. There were three (3) crashes involving pedestrians or bicyclists. The intersection averaged 5.00 crashes per year and has a crash rate of 0.60 crashes per million entering vehicles (c/mev), which is below both the District 4 and Statewide averages for signalized intersections.

The intersection of **Elm Street at Chester Street** had four (4) reported crashes according to the MassDOT crash database during the three-year period from 2017 to 2019. Two (2) of the crashes resulted in property damage only, and two (2) resulted in non-fatal injuries. Of the four (4) crashes, two (2) were angled collisions, and two (2) were rear-end collisions. There were also zero (0) crashes involving pedestrians or bicyclists. The intersection averaged 1.33 crashes per year and has a crash rate of 0.36 c/mev, which is below both the District 4 and Statewide averages for unsignalized intersections.

The intersection of **Elm Street at Grove Street and Bowers Avenue** had one (1) reported crash according to the MassDOT crash database during the three-year period from 2017 to 2019. The one (1) crash resulted in property damage only and was an angled rear-end collision. There were also zero (0) crashes involving pedestrians or bicyclists. The intersection averaged 0.33 crashes per year and has a crash rate of 0.08 c/mev, which is below both the District 4 and Statewide averages for unsignalized intersections.

The intersection of **Highland Avenue at Grove Street** had seven (7) reported crashes according to the MassDOT crash database during the three-year period from 2017 to 2019. Three (3) of the crashes resulted in property damage only, and four (4) resulted in non-fatal injuries. Of the seven (7) crashes, three (3) were sideswipes in the same direction, one (1) was an angled collision, two (2) were rear-end collisions, and one (1) was a single-vehicle collision. There were two (2) crashes involving pedestrians or bicyclists. The intersection averaged 2.33 crashes per year and has a crash rate of 0.48 c/mev, which is below both the District 4 and Statewide averages for unsignalized intersections.

Of four (4) intersections analyzed as part of this study, all of the intersections have crash rates that are below both the District 4 and Statewide averages. There were zero (0) reported fatal crashes and approximately 89% of all reported crashes occurred outside of the peak periods. Additionally, five (5) of the 27 crashes involved either a pedestrian or bicyclist and zero (0) of these crashes resulted in a fatality. With the minimal number of additional vehicle-trips as part of the Project, detailed in Section D, there is expected to be no decrease in safety for pedestrians and bicyclists traveling through the study area. As such, there are no safety issues that require mitigation as part of this Project.

B5. Existing Capacity Analysis

B5.1 Traffic Analysis Criteria

The Highway Capacity Manual (HCM), published by the Transportation Research Board, provides methodologies on how to calculate motor vehicle Level of Service (LOS), average delay, and volume-to-capacity (v/c) ratios. Those terms are commonly used to measure performance levels for freeway sections, ramp junctions, weave sections, and intersections, both signalized and unsignalized.

Level of Service (LOS) is a term used to denote different operating conditions that occur under various traffic volume loads. It is a qualitative measure of the effect of a number of factors including geometrics, speed, travel delay, freedom to maneuver, and safety. The LOS is divided into a range of six letter grades, ranging from A to F, with A being the best and F the worst. A LOS of F is generally considered to be inadequate traffic operation in suburban and urban areas. The delay ranges differ slightly between unsignalized and signalized intersections due to driver expectations and behavior for each LOS. Table B5-1 summarizes the LOS criteria.

Table B5-1: Intersection LOS Thresholds

LOS	Signalized	Unsignalized
	Control Delay (sec/veh)	Control Delay (sec/veh)
A	0-10	0-10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: 2010 Highway Capacity Manual

In this study, intersection performance measures were calculated in the form of average intersection delay, 50th and 95th percentile queue lengths, level-of-service (LOS) for each approach/movement, and the LOS of the overall intersection operations. *Synchro 10.0* was the software used to execute the intersection analysis. *Synchro 10.0*, a software program from Trafficware, uses the methodologies and thresholds outlined within the HCM. This is the preferred/recommended software of MassDOT. Traffic volume represents the travel demand observed and capacity represents the amount of traffic the intersection can accommodate under prevailing conditions. Volume to capacity ratios that approach or exceed 1.0 indicate traffic congestion or poor operating conditions.

Three types of Synchro reports were created to analyze and compare intersection performance:

- Main report – “Int: Lanes, Volumes, Timings”,
- Queuing Analysis Report
- HCM Signalized/Unsignalized Report.

For signalized intersections, LOS is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. The 50th and 95th percentile queue lengths are estimated.

B5.2 Capacity Analysis

The study intersections were analyzed using existing traffic conditions during the Weekday AM and Weekday PM peak hours. Existing intersection lane configurations, signal timing, and traffic control were modelled the same as the current traffic operations. The results of the 2020 Existing

conditions analysis are shown in Table B5-2. Detailed capacity analysis worksheets are included in Appendix E.

As shown in Table B5-2, most movements operate at acceptable levels of service throughout the study area. This analysis serves as a basis for comparison for the No-Build scenario, detailed in the subsequent section.

Table B5-2: 2020 Existing Conditions LOS

ID	Roadway	Movement	2020 Existing Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c ¹	Delay ²	LOS ³	Queue ⁴	v/c ¹	Delay ²	LOS ³	Queue ⁴
1	Holland Street at	SB TR	0.60	26.0	C	86 / 139	0.57	24.5	C	76 / 127
		NW L	0.40	22.3	C	130 / 201	0.24	19.8	B	70 / 118
	Highland Avenue and	NW T	0.73	32.0	C	252 / 379	0.57	26.3	C	180 / 275
		NW R	0.27	1.4	A	0 / 23	0.43	2.0	A	0 / 28
	Day Street and	NE R	0.23	0.9	A	0 / 0	0.29	1.1	A	0 / 0
		SW L	0.45	10.2	B	10 / 14	0.33	4.6	A	5 / 26
	College Avenue	SW LTR	0.38	8.8	A	8 / 12	0.28	4.2	A	4 / 27
	Overall			18.3	B			13.3	B	
2*	Elm Street at Chester Street	SB TR	0.00	0.0	A	N/A	0.00	0.0	A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Overall			N/A	N/A			N/A	N/A	
3*	Elm Street at Bowers Avenue and Grove Street	SB LT	0.19	2.6	A	0 / 6	0.17	4.3	A	0 / 10
		NE TR	0.05	19.6	C	0 / 4	0.37	32.9	D	0 / 40
		SW L	0.58	35.1	E	0 / 83	0.64	72.3	F	0 / 84
	Overall			N/A	N/A			N/A	N/A	
4*	Highland Avenue at Grove Street	NW LTR	0.19	2.9	A	0 / 9	0.19	1.8	A	0 / 5
		NE LT	0.57	51.3	F	0 / 76	1.37	267.5	F	0 / 307
	Overall			N/A	N/A			N/A	N/A	

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50th/95th percentile queue length (if only one queue length is shown, it is the 95th percentile queue length), # = volume for 95th percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; * = Unsignalized Intersection

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C. FUTURE NO-BUILD CONDITIONS

C1. 2027 No-Build Traffic Volumes

Traffic volumes in the study area were projected to the year 2027, which reflects a seven-year planning horizon from the existing year 2020, consistent with *MassDOT Guidelines*. The traffic conditions for the year 2027 were examined under No-Build conditions independent of the proposed Project, including all existing traffic and new traffic.

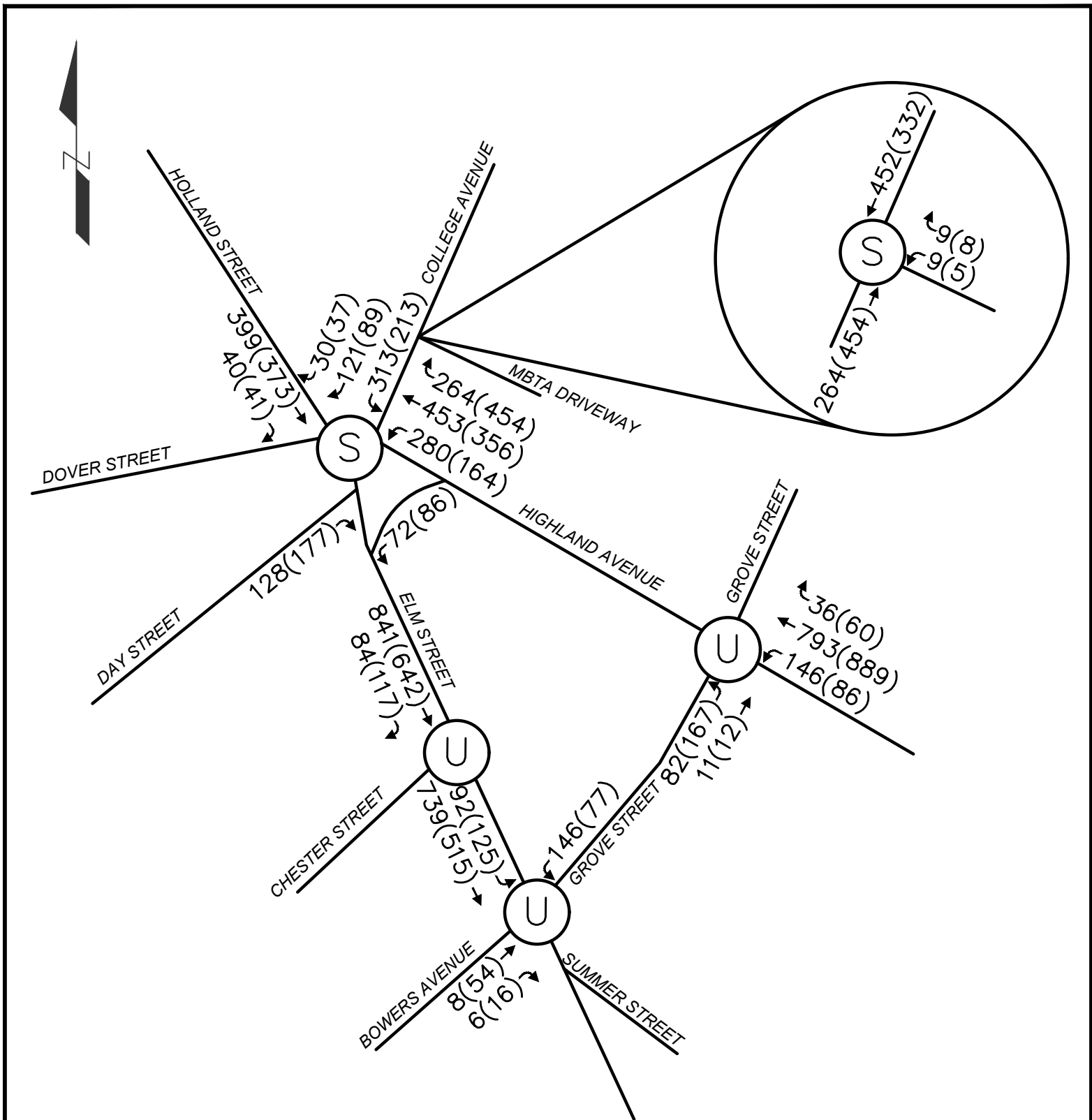
Traffic growth on the local roadway network results from multiple factors, most notably land development in the immediate area and growth in the surrounding region. Two techniques are typically used in combination to estimate this growth. The first technique identifies planned and permitted developments in the vicinity of the study area and assigns estimated traffic generated by the proposed developments to the study area network. The second technique applies an annual percentage increase in traffic growth to all traffic volumes under study. This practice accounts for traffic growth due to regional developments beyond the study area or developments that may be proposed but are not yet permitted. As there are no background developments in the area, only a growth rate was applied to the existing traffic count data to define the “No-Build” traffic volumes for this study. The “No-Build” traffic volumes for this study are shown in Figure C1.1.

Background Developments

DCI contacted the City of Somerville Planning Department to determine if there are any upcoming projects in the area will have an impact on the traffic network. Currently there are no known projects in the immediate area of the study area that will bring a significant amount of traffic to the study intersections.

Background Growth Rate

Based on discussions with the City of Somerville, an annual traffic growth rate for the area of Somerville that the Project site is located was provided. The City of Somerville provided a 0.25 percent compounded annual growth rate to be used. The 0.25 percent annual growth rate was applied to project all existing traffic volumes to a seven-year design horizon to the year 2027.



C2. 2027 No-Build Capacity Analysis

The study intersections were analyzed for 2027 No-Build peak hour traffic conditions during the Weekday AM and Weekday PM Peak hours. For this scenario, the existing lane configurations and existing traffic controls were maintained. The goal of this scenario is to provide a basis for comparison to analyze the potential effects of the proposed Project, as there are no site-specific vehicle-trips considered. As expected, given the increase in trips due to the background growth rate, most of the movements experience an increase in delay going from the Existing scenario to No-Build scenario. The results of this analysis are shown in Table C2-1. Detailed capacity analysis worksheets are included in Appendix E.

Table C2-1: 2027 No-Build Conditions LOS

ID	Roadway	Movement	2027 No-Build Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c ¹	Delay ²	LOS ³	Queue ⁴	v/c ¹	Delay ²	LOS ³	Queue ⁴
1	Holland Street at	SB TR	0.61	26.5	C	89 / 143	0.58	25.0	C	80 / 131
		NW L	0.41	22.4	C	133 / 204	0.24	19.8	B	71 / 120
	Highland Avenue and	NW T	0.74	32.6	C	258 / 388	0.58	26.6	C	185 / 282
		NW R	0.28	1.4	A	0 / 23	0.44	2.0	A	0 / 28
	Day Street and	NE R	0.24	1.0	A	0 / 0	0.30	1.2	A	0 / 0
		SW L	0.46	11.0	B	10 / 14	0.34	4.9	A	5 / 27
	College Avenue	SW LTR	0.39	9.4	A	9 / 13	0.28	4.3	A	4 / 26
	Overall			18.7	B			13.5	B	
2*	Elm Street at Chester Street	SB TR	0.00	0.0	A	N/A	0.00	0.0	A	N/A
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Overall			N/A	N/A			N/A	N/A	
3*	Elm Street at Bowers Avenue and Grove Street	SB LT	0.19	2.6	A	0 / 6	0.17	4.4	A	0 / 10
		NE TR	0.06	19.4	C	0 / 5	0.38	34.1	D	0 / 42
		SW L	0.61	38.3	E	0 / 91	0.68	80.5	F	0 / 91
	Overall			N/A	N/A			N/A	N/A	
4*	Highland Avenue at Grove Street	NW LTR	0.20	2.9	A	0 / 9	0.20	1.8	A	0 / 5
		NE LT	0.61	56.1	F	0 / 83	1.45	297.5	F	0 / 327
	Overall			N/A	N/A			N/A	N/A	

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50th/95th percentile queue length (if only one queue length is shown, it is the 95th percentile queue length), # = volume for 95th percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; * = Unsignalized Intersection

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D. FUTURE BUILD CONDITIONS

D1. Preliminary Trip Generation

Estimated Facility Operations

It is anticipated that the site will operate every day during the following hours:

- 10:00am to 9:00pm (Monday to Sunday)

Given the likelihood of other marijuana retailer facilities opening in the surrounding cities, towns, and neighborhoods, the focus is on meeting the needs of customers mostly within Somerville and a few surrounding neighborhoods. The service area will be largely dependent on the evolving competition in the area as other marijuana retailer facilities are established.

Customers

Customer visits are expected to occur throughout the day with peak hours typically in the afternoon and on the weekends. Given that the facility will not be open until after the Weekday AM peak hour (7am to 9am), there will be zero (0) trips to the facility made by customers.

The facility will be set up as appointment-only for customers. Based on discussions with the client, these appointments will be spaced 15 minutes apart. There will be a maximum of 10 point-of-sale stations in operation with the facility able to accommodate 40 customers per hour.

It is assumed that the Weekday PM peak hour trips will be made mostly by individuals who are on their way home from work. Many of these individuals will be from the surrounding communities. The anticipated client base is expected to become smaller with the opening of more facilities throughout Somerville and surrounding cities and towns. DCI reviewed the Census Data for multiple cities and towns surrounding the site and determined that approximately 50% of trips will be made via a non-vehicular mode to commute. It is expected that the customers of the dispensary will commute in a similar way. Local residents will be able to make trips by walking or biking. Additionally, the Davis Station Subway Stop on the MBTA Red Line is located approximately 800 feet from the Project site. Therefore, in conjunction with the City of Somerville, it was determined that a higher share of trips will be made by non-vehicular mode to the Project site. Given that there will be no on-site parking, and the area lending itself to non-vehicular trips, it was assumed that 75% of trips will be made via non-vehicular modes. A 75% reduction for non-vehicular trips is consistent with other traffic studies of adult-use marijuana facilities in the area that were approved by the City of Somerville. This would result in an estimate of approximately 10 customers per hour making trips via motor vehicle and 30 customers per hour making trips via non-vehicular modes each hour. With each customer making an entering and exiting trip, this would result in 20 vehicle-trips during the Weekday PM peak hour. The census data is included and described further in Section D1.1.

Employees

Home locations for employees will depend on a variety of different factors. The Proponent will be providing a 65% public transportation subsidy for monthly MBTA passes and a 100% subsidy for BlueBike memberships to employees and will highly encourage the use of non-vehicular modes of transportation to work. The Proponent has committed to put an emphasis on hiring local residents from the surrounding community. As such, it is expected that many of them will use non-vehicular modes of transportation to commute to work. Additionally, it is expected that employee shifts will be scheduled so that all trips will occur outside of the peak hours of traffic.

Service/Delivery Patterns

The proposed Marijuana Retailer facility will generate a variety of delivery trips, as described below:

Product – All product will be grown at an off-site facility and delivered to the site. Deliveries will occur along Chester Street on the northwest side of the site within the field of view of an on-site camera and product will enter through the Chester Street entrance. Deliveries will be scheduled to be made during off-peak hours when there is less street activity. Currently deliveries are made twice a week, however, with the addition of adult use it is expected that deliveries will be increased to three to six times per week.

Trash – The Marijuana Retailer will have private trash pick-up and is expected to be serviced once per week. Trash will be stored inside the building and wheeled in bins to the curb on collection days.

Cash – Cash is currently picked up daily at the Project site and will continue to be with the addition of adult use. The timing of both the product deliveries and the cash pick-ups will vary each day to reduce predictability for security reasons, but the client will attempt to schedule most pick-ups for outside of peak commuting hours. Cash pick-up will occur along Chester Street in the same location as the product delivery.

In total, the number of service/delivery trips are expected to be minimal and will be scheduled to occur during off-peak periods. It is estimated that there will be two (2) daily service/delivery trips, zero (0) Weekday AM peak hour trips, and zero (0) Weekday PM peak hour trips.

Based on the customer, employee, and service/delivery trips, the Marijuana Retailer facility is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 20 vehicle-trips during the Weekday PM peak hour, and approximately 224 vehicle-trips on an average weekday. Table D1-1 shows the calculations based on these expected travel patterns.

Table D1-1: Adjusted Vehicle-Trip Generation Calculations per Employee, Customer, and Delivery/Service Travel Patterns

Time Period/ Direction		Project Vehicle-Trips - Marijuana Retailer ¹			
		Customers	Employees	Service/ Delivery	Total
Weekday AM Peak Hour	In	0	0	0	0
	Out	0	0	0	0
	Total	0	0	0	0
Weekday PM Peak Hour	In	10	0	0	10
	Out	10	0	0	10
	Total	20	0	0	20
Weekday Daily	In	110	0	2	112
	Out	110	0	2	112
	Total	220	0	4	224

¹Based on customer, employee, and service/delivery information along with census data

Institute of Transportation Engineers (ITE) Estimates

For comparison, trip estimates were calculated using the *Trip Generation Manual (10th Edition)*, published by the Institute of Transportation Engineers (ITE) in 2017. The *Trip Generation Manual* includes a land use for a marijuana dispensary (Land Use Code 882). The proposed facility will occupy approximately 4,785 square feet of space. Given that the proposed facility will not be open until after the Weekday AM peak hour, it is assumed that no trips will be made during those time periods.

Based on the ITE trip generation rates, it is expected that the Marijuana Retailer facility will generate 26 vehicle-trips during the Weekday PM peak hour and 302 vehicle-trips during a typical weekday. These trip estimates take into account a reduction for non-vehicular trips. The trip estimates using the appointment schedule specified in the previous section will be used for the analysis. These estimates should accurately represent the maximum number of customers in the peak hour and is more representative of the fact that this facility will serve a mainly local customer base. Table D1-2 shows the calculations based on the ITE *Trip Generation Manual*.

Table D1-2: Vehicle-Trip Generation Calculations per ITE *Trip Generation Manual, 10th Edition*

Land Use Code: 882	Marijuana Dispensary		
	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday Daily
Size (per 1,000 Square Feet)	4.785	4.785	4.785
Average Trip Rate	10.44	21.83	252.70
Total Vehicle-Trips (per ITE)	N/A	104	1209
Adjusted Vehicle-Trips (75% Non-Vehicular Trips)	N/A	26	302
Entering %	N/A	50%	50%
Exiting %	N/A	50%	50%
Entering Vehicle-Trips	N/A	13	151
Exiting Vehicle-Trips	N/A	13	151

D1.1 Census Tract Data

As previously mentioned, the site is in an area that has a high rate of pedestrian and bicycle traffic given the access to pedestrian, bicycle, and public transportation facilities. As such, it is expected that many of the trips will be made via non-vehicular modes of transportation. DCI analyzed the census data for Somerville and four surrounding communities, as it can be expected that until other facilities open, some of the trips will be made to the site from these communities. Journey-to-Work data from the 2013 to 2017 Census shows that approximately 49.5 percent of residents in these census tracts get to work by way of car, truck, or van. The other 50.5 percent use public transportation, bicycles, walk to work, or work from home. A detailed breakdown of Means of Transportation to Work Mode Share is shown in Table D1-3. As previously mentioned, it is expected that the number of non-vehicular trips will be greater in the future, as many of the trips will be made by residents of the immediate area and is consistent with previous traffic reports for adult-use facilities approved by the City of Somerville. The US Census Journey to Work data that was used is attached in Appendix D.

Table D1-3: Mode Share Data

MEANS OF TRANSPORTATION TO WORK	Arlington	Cambridge	Everett	Medford	Somerville	Average	Used for TIAS
Car, truck, or van	66.5%	31.0%	69.4%	68.3%	43.8%	49.5%	25.0%
Drove alone	60.5%	27.8%	56.2%	60.0%	3.8%	34.1%	18.8%
Carpooled:	6.0%	3.2%	13.2%	8.3%	5.8%	6.2%	6.2%
In 2-person carpool	4.7%	2.6%	9.6%	6.8%	4.4%	4.8%	4.8%
In 3-person carpool	0.8%	0.3%	2.5%	1.1%	0.9%	0.9%	0.9%
In 4 person carpool	0.5%	0.2%	1.1%	0.3%	0.6%	0.5%	0.5%
Non-Vehicular Modes (Bike, Walk, Transit)	33.5%	69.0%	30.6%	31.7%	56.2%	50.5%	75.0%

D1.2 Existing Trip Generation

As previously mentioned, there is a medical marijuana dispensary currently operational on-site. The dispensary currently operates as appointment-only, utilizing all of the point-of-sale stations for patients. As part of the redevelopment, multiple point-of-sale stations will be converted to serve adult-use customers. There will be one additional point-of-sale station in operation after redevelopment, resulting in an additional four (4) trips to the site per hour. Although there are currently trips to and from the site, these trips were not deducted from the proposed trip generation to provide a conservative analysis.

D2. Trip Distribution

Trip distribution patterns were estimated for site-generated vehicle-trips both to and from the Project site. The estimations are based mainly on the 2011-2015 5-year ACS Commuting Flows and turning movement count (TMC) data. Commuting flows are defined as travel from a city/town of residence to a city/town of work. The total number of commuters in each commuting flow was reported. The following details the three (3) commuting flows of customers visiting the Project site:

Live in Somerville and Work Outside of Somerville

- 18% of commuters in commuting flow
- Assumed to enter/exit study area based on predicted routes from the city/town of work

Work in Somerville and Live Outside of Somerville

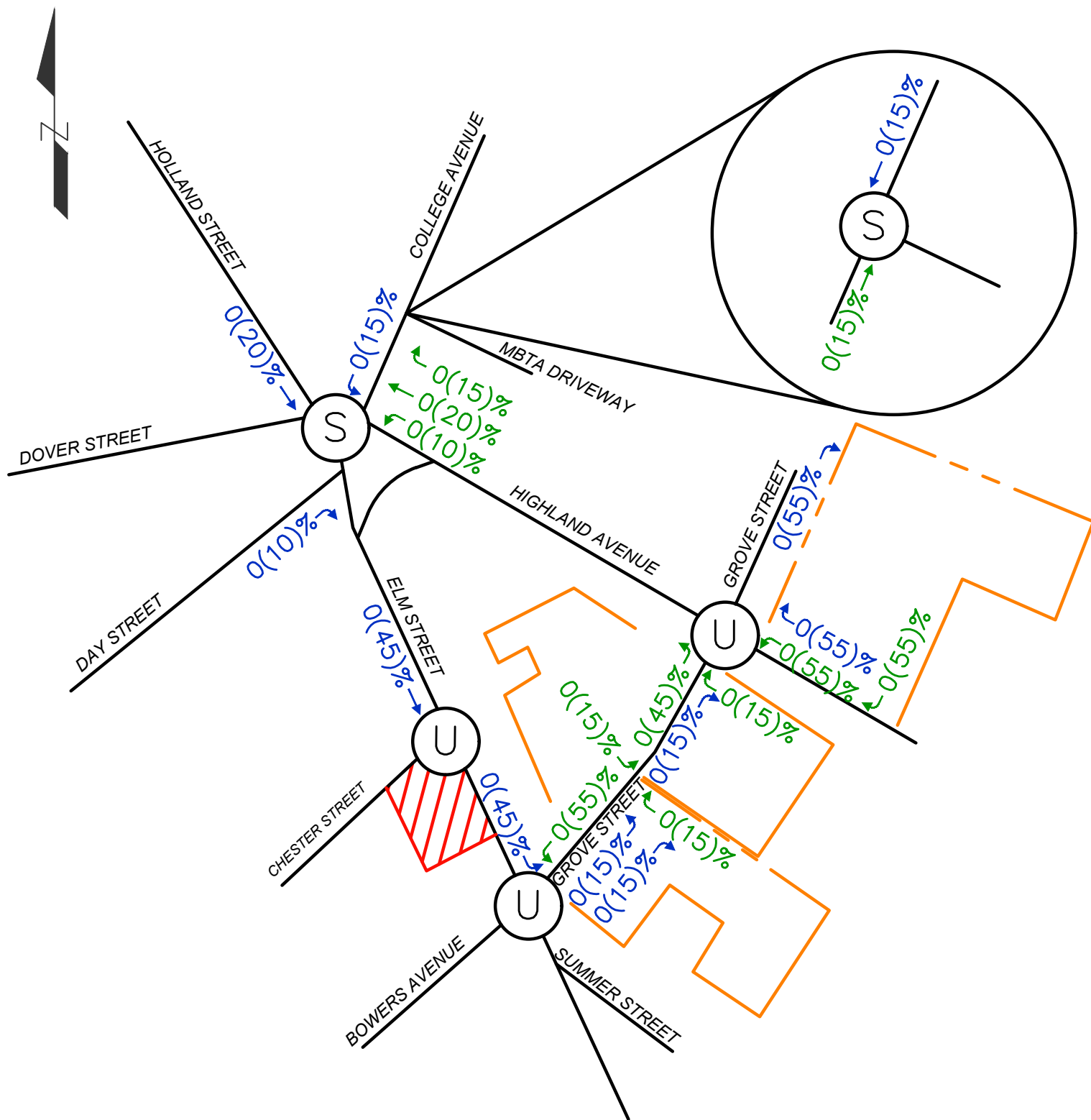
- 67% of commuters in commuting flow
- Assumed to enter/exit study area proportionally based on TMC data

Both Live and Work in Somerville

- 16% of commuters in commuting flow
- Assumed to enter/exit study area proportionally based on TMC data

There is a fourth commuting flow that was considered – those who both live and work outside of Somerville. However, given the low number of estimated vehicle-trips, it was assumed that the commuting flow of people living in Somerville and working outside of Somerville will capture the customer base that visits the site but does not live or work in Somerville. The commuting flows are attached in Appendix D.

Once entering the study area, Project vehicle-trips are assumed to navigate to the closest municipal parking lot and leave the study area in the same direction which they entered from. Based on the logic detailed above, it is expected that 55% of Weekday PM peak hour vehicle trips will be accessing the study area via Highland Avenue, 20% of Weekday PM peak hour vehicle-trips will be accessing the study area via Holland Street, 15% of Weekday PM peak hour vehicle-trips will be accessing the study area via College Avenue, and 10% of Weekday PM peak hour vehicle-trips will be accessing the study area via Day Street. Trip distribution for the Weekday AM peak hour was not calculated because the facility will not be opening until after the Weekday AM peak hour. The trip distribution percentages are shown in Figure D2.1 and the site-generated vehicle-trips are shown in Figure D2.2. The site-generated vehicle-trips were combined with the No-Build volumes in Figure C1.1 to calculate the Build traffic volumes used for future analysis and are shown in Figure D2.3.



Legend

XX(YY) → Weekday AM(PM) Trip Distribution - Entering

XX(YY) → Weekday AM(PM) Trip Distribution - Exiting

[Red Hatched Box] Project Site [Orange Outline Box] Municipal Lot Locations

S = Signalized Intersection; U = Unsignalized Intersection



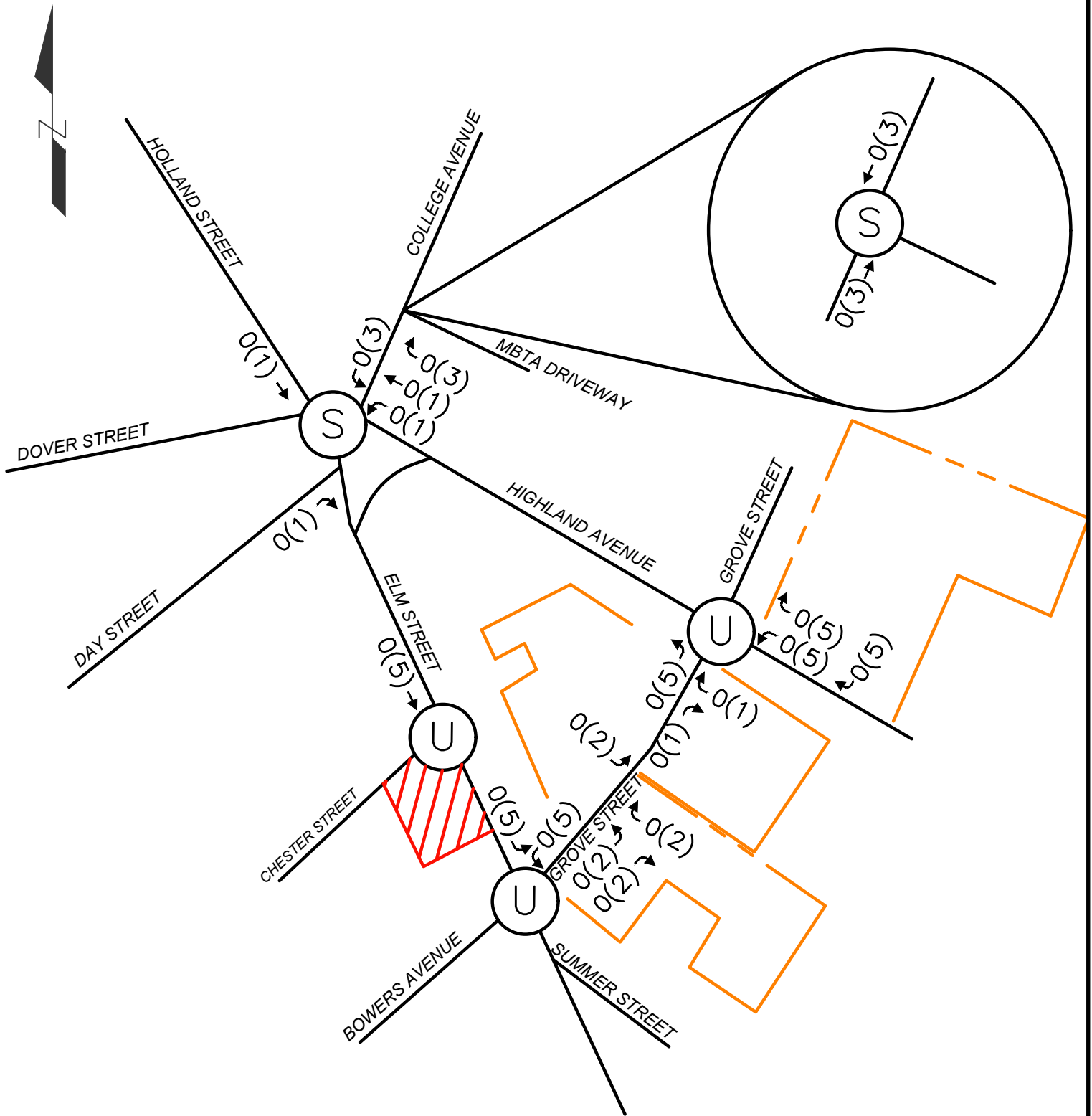
240 ELM STREET
SOMERVILLE, MA

Trip Distribution

PROJECT NO.: 2020-048

DATE: SEPTEMBER 2020

SCALE: N.T.S. Figure D2.1



Legend

XX(YY) → Weekday AM(PM) Site-Generated Vehicle-Trips*

S = Signalized Intersection; U = Unsignalized Intersection

 Project Site  Municipal Lot Locations

* The facility will not open until after the Weekday AM peak hour. There will be zero (0) site-generated vehicle-trips during that time period.



240 ELM STREET
SOMERVILLE, MA

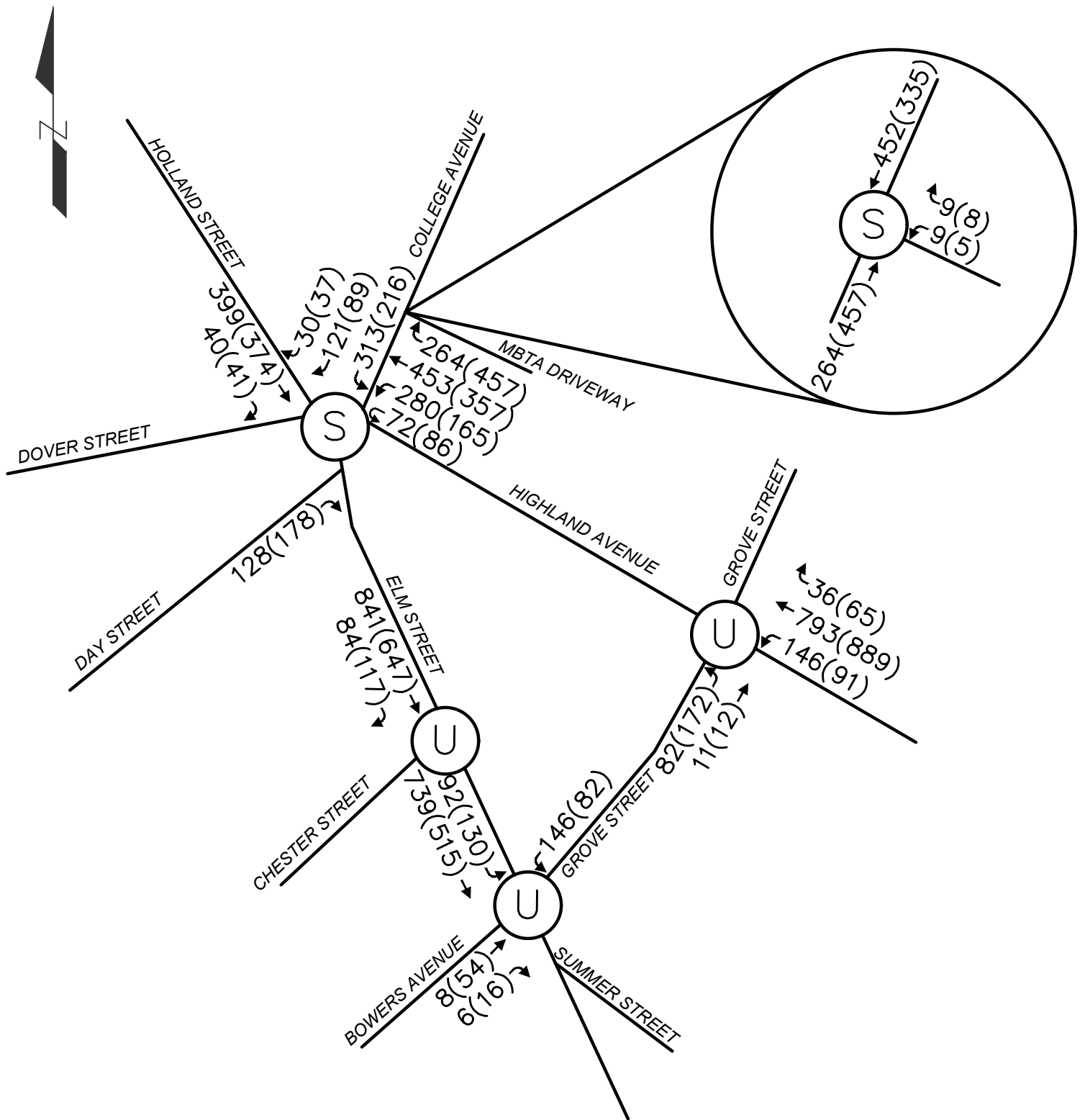
Site-Generated Vehicle-Trips

PROJECT NO.: 2020-048

DATE: SEPTEMBER 2020

SCALE: N.T.S.

Figure D2.2



D4. Intersection Capacity Analysis

The study intersections were analyzed for 2027 Build peak hour traffic conditions during the Weekday AM and Weekday PM peak hours. For each of the study intersections, except the Davis Square intersection, existing traffic control and lane configuration was maintained during the 2027 Build analysis. In the future Somerville plans to close the left-turn slip lane from Highland Avenue onto Elm Street. Therefore, this turning movement was removed from the Synchro model of the future conditions. The results of this analysis are shown in Table D4-1. Compared with Table C2-1 in Section C2, Table D4-1 illustrates minimal changes in delay from the No-Build to Build condition. There is one (1) movement that declines in level of service and zero (0) overall intersections that decline in LOS. The northwesterly left-turn movement along Highland Avenue goes from an LOS B to an LOS C, which represents an increase of approximately 1.9 seconds per vehicle. This is a function of removing the left-turn slip lane from Highland Avenue to Elm Street, which the City plans to implement in the near future. There are no Project-related vehicle-trips added to this movement.

The incremental increases of traffic at the study intersections due to the proposed development will result in minimal impact to traffic operations. As such, no additional mitigation is warranted to accommodate the proposed vehicle-trips. Detailed capacity analysis worksheets are included in Appendix E.

Table D4-1: 2027 Build Conditions LOS

ID	Roadway	Movement	2027 Build Conditions							
			Weekday AM Peak Hour				Weekday PM Peak Hour			
			v/c ¹	Delay ²	LOS ³	Queue ⁴	v/c ¹	Delay ²	LOS ³	Queue ⁴
1	Holland Street at	SB TR	0.61	26.5	C	89 / 143	0.61	25.1	C	80 / 132
		NW L	0.52	24.6	C	177 / 264	0.37	21.7	C	117 / 182
	Highland Avenue and	NW T	0.74	32.6	C	258 / 388	0.58	26.7	C	186 / 283
		NW R	0.28	1.4	A	0 / 23	0.44	2.0	A	0 / 28
	Day Street and	NE R	0.24	1.0	A	0 / 0	0.30	1.2	A	0 / 0
		SW L	0.46	11.0	B	10 / 14	0.34	5.0	A	5 / 28
	College Avenue	SW LTR	0.39	9.4	A	9 / 13	0.29	4.7	A	4 / 25
	Overall			19.2	B			14.1	B	
2*	Elm Street at	SB TR	0.00	0.0	A	N/A	0.00	0.0	A	N/A
	Chester Street	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Overall			N/A	N/A			N/A	N/A	
3*	Elm Street at Bowers Avenue and Grove Street	SB LT	0.18	1.1	A	0 / 6	0.22	2.1	A	0 / 11
		NE TR	0.06	19.4	C	0 / 5	0.39	34.9	D	0 / 43
		SW L	0.61	38.3	E	0 / 91	0.74	91.8	F	0 / 103
	Overall			N/A	N/A			N/A	N/A	
4*	Highland Avenue at Grove Street	NW LTR	0.20	1.6	A	0 / 9	0.33	1.0	A	0 / 6
		NE LT	0.57	48.7	E	0 / 75	1.29	224.6	F	0 / 297
	Overall			N/A	N/A			N/A	N/A	

1 v/c = volume to capacity ratio; 2 Delay = average delay in seconds per vehicle; 3 LOS = Level of Service; 4 Queue = 50th/95th percentile queue length (if only one queue length is shown, it is the 95th percentile queue length), # = volume for 95th percentile cycle exceeds capacity. Queue shown is maximum after two cycles; R = right-turn movement, L = left-turn movement, T = through movement; WB = westbound, EB = eastbound, NB = northbound; * = Unsignalized Intersection

F. CONCLUSION

This Traffic Impact and Access Study was prepared to analyze the potential impact of the development Project at 240 Elm Street in Somerville on vehicle and pedestrian operations in the area.

From a safety perspective, the intersections have been found to be relatively safe. All four (4) study intersections have crash rates that are below both the District 4 and Statewide averages. There were zero (0) reported fatal crashes and approximately 89% of all reported crashes occurred outside of the peak periods. Additionally, five (5) of the 27 crashes involved either a pedestrian or bicyclist and zero (0) of these crashes resulted in a fatality. With the minimal number of additional vehicle-trips as part of the Project, there is expected to be no decrease in safety for pedestrians and bicyclists traveling through the study area. As such, there are no safety issues that require mitigation as part of this Project.

Trip generation was calculated in using two methods. Utilizing the first method, taking into account estimated customer, employee, and service/delivery trips, it is expected that the site will generate zero (0) vehicle-trips during the Weekday AM peak hour, 20 vehicle-trips during the Weekday PM peak hour, and 224 vehicle-trips during a typical weekday. This calculation accounts for the Retailer operating as appointment-only. For comparison, rates from the ITE *Trip Generation Manual, 10th Edition*, were used. According to ITE, the site is expected to generate zero (0) vehicle-trips during the Weekday AM peak hour, 26 vehicle-trips during the Weekday PM peak hour, and 302 vehicle-trips during a typical Weekday. Both calculations account for a 75% reduction for non-vehicular trips to the site, calculated using census data of Somerville and four (4) other surrounding communities.

Capacity analyses were carried out for the four (4) study intersections for the Weekday AM and Weekday PM peak hours. Analyses were carried out for 2020 Existing, 2027 No-Build, and 2027 Build conditions. Based on these analyses, there is one (1) movement that declines in level of service and zero (0) overall intersections that decline in LOS.

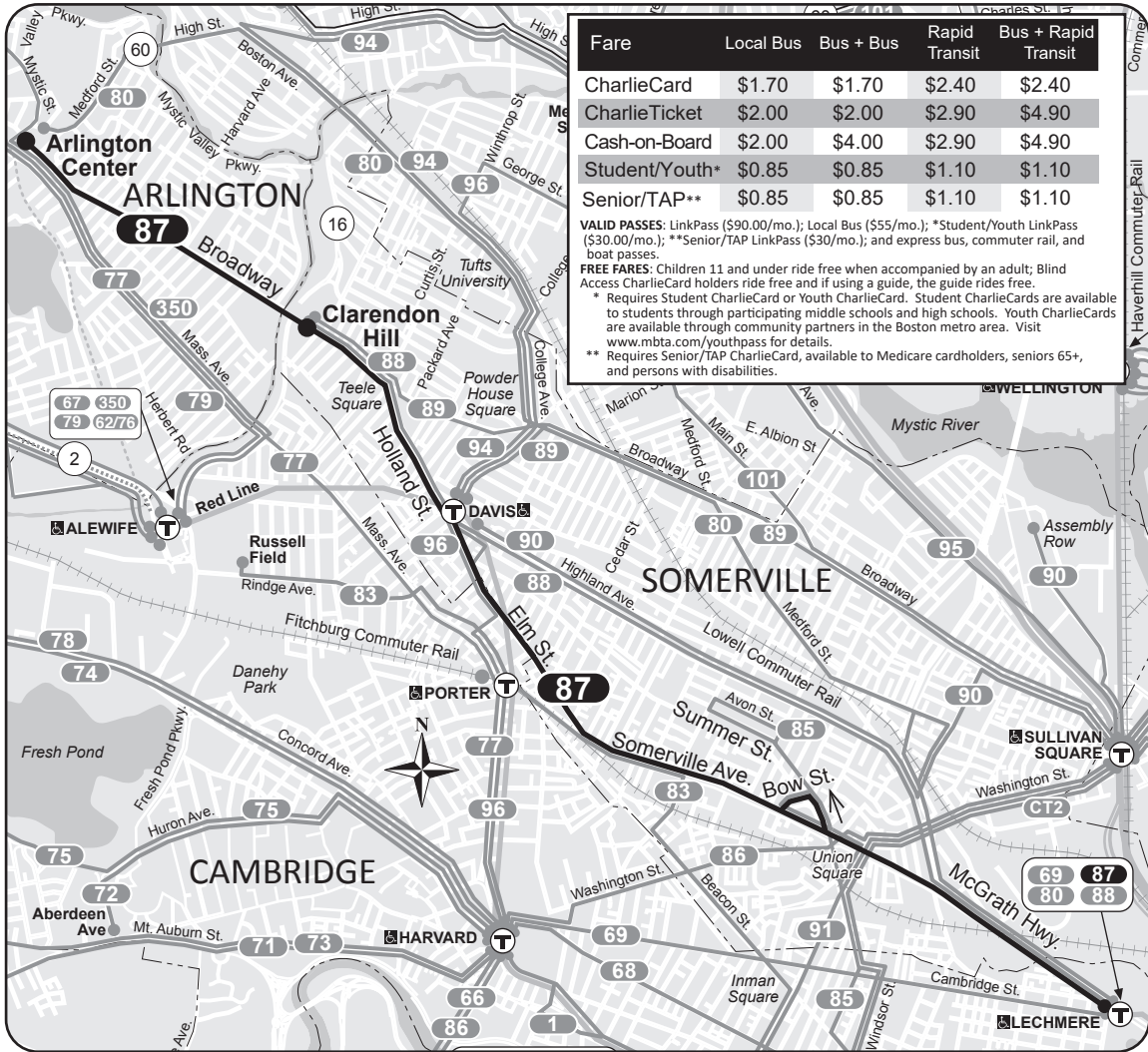
Based on the results of these analyses, DCI believes that the proposed Marijuana Retailer at 240 Elm Street will not have significant impact on intersection safety for all users or traffic operations in Somerville, Massachusetts.

APPENDICES

MULTIMODAL TRANSPORTATION
TRAFFIC COUNTS
SAFETY ANALYSIS
TRIP GENERATION
CAPACITY ANALYSES

APPENDIX A – MULTI-MODAL TRANSPORTATION

Route 87 Arlington Center or Clarendon Hill - Lechmere Station



87

Effective August 30, 2020

Arlington Center or
Clarendon Hill-
Lechmere Station

Serving

- Teele Square
- Davis Station
- Union Square, Somerville
- Red Line
- Green Line



Massachusetts Bay
Transportation Authority

massDOT
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87 Weekday				87 Saturday				87 Sunday															
Inbound				Outbound				Inbound				Outbound				Inbound				Outbound			
Leave Arlington Center	Lv/Arrive Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill	Arrive Arlington Center	Leave Arlington Center	Lv/Arrive Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill	Arrive Arlington Center	Leave Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill		
.....	5:07A	5:10A	5:24A	5:29A	5:40A	5:45A	.....	.....	5:15A	5:18A	5:29A	5:38A	5:50A	5:54A	5:58A	6:00A	6:03A	6:16A	6:38A	6:51A	6:57A
.....	5:27	5:30	5:44	5:52	6:04	6:07	6:10A	.....	5:45	5:48	5:59	6:10	6:22	6:26	6:30	7:00	7:03	7:16	7:38	7:51	7:57	
.....	5:50	5:53	6:07	6:23	6:36	6:40	6:45	6:10A	6:15	6:18	6:33	6:40	6:54	6:58	7:02	8:00	8:03	8:16	8:38	8:51	8:57		
.....	6:08	6:11	6:25	6:38	6:53	6:57	7:02	6:40	6:45	6:48	7:03	7:10	7:24	7:28	7:32	8:55	8:58	9:11	9:34	9:47	9:53		
6:16A	6:23	6:28	6:50	6:55	7:10	7:14	7:19	6:40	6:45	6:48	7:03	7:10	7:24	7:28	7:32	9:28	9:32	9:49	10:14	10:30	10:37		
6:33	6:40	6:45	7:07	7:15	7:30	7:37	7:43	7:10	7:15	7:18	7:33	7:40	7:54	7:58	8:02	10:05	10:09	10:26	10:54	11:12	11:19		
6:49	6:56	7:01	7:23	7:31	7:51	7:58	8:04	7:40	7:45	7:48	8:03	8:10	8:24	8:28	8:33	10:45	10:49	11:08	11:34	11:53	12:00N		
7:06	7:13	7:18	7:47	7:51	8:11	8:18	8:24	8:10	8:15	8:18	8:38	8:41	8:57	9:02	9:07	11:25	11:29	11:53					
7:23	7:30	7:37	8:06	8:09	8:29	8:36	8:42	8:40	8:45	8:48	9:08	9:11	9:27	9:32	9:37	12:05P	12:09P	12:33P	12:14P	12:33P	12:40P		
7:38	7:47	7:54	8:28	8:23	8:43	8:50	8:56	9:10	9:15	9:19	9:38	9:35	9:54	10:00	10:05	1:25	1:29	1:53	2:14	2:33	2:40		
7:54	8:04	8:11	8:47	8:47	9:06	9:12	9:17	9:40	9:45	9:49	10:13	10:00	10:19	10:25	10:30	2:05	2:08	2:30	2:54	3:13	3:20		
8:12	8:22	8:29	9:03	9:16	9:36	9:42	9:47	10:10	10:15	10:19	10:43	10:20	10:40	10:46	10:52	2:45	2:48	3:10	3:34	3:53	4:00		
8:30	8:40	8:47	9:17	9:40	10:00	10:06	10:11	10:35	10:40	10:44	11:08	10:50	11:10	11:16	11:22	3:25	3:28	3:50	4:13	4:33	4:40		
8:48	8:58	9:04	9:33	10:09	10:29	10:35	10:40	11:07	11:12	11:16	11:42	11:16	11:36	11:42	11:48	4:05	4:08	4:30	4:53	5:13	5:20		
9:08	9:16	9:22	9:51	10:38	10:58	11:04	11:09	11:35	11:41	11:45	12:14P	11:42	12:02P	12:08P	12:14P	4:45	4:48	5:10	5:34	5:54	6:01		
9:29	9:37	9:43	10:11	11:08	11:28	11:34	11:39									5:25	5:28	5:50	6:14	6:31	6:38		
9:53	10:01	10:06	10:30	11:40	12:00N	12:06P	12:11P	12:25P	12:31	12:35	1:03	12:32	12:52	12:58	1:04	6:05	6:08	6:30	6:55	7:12	7:19		
10:19	10:24	10:29	10:53					12:50	12:56	1:00	1:27	12:57	1:17	1:23	1:29	6:45	6:48	7:10	7:36	7:50	7:57		
10:45	10:50	10:55	11:19	12:10P	12:30P	12:36P	12:41P	1:15	1:20	1:23	1:50	1:22	1:42	1:48	1:54	7:25	7:28	7:43	8:16	8:30	8:37		
11:15	11:20	11:25	11:49	12:38	12:58	1:04	1:09	1:41	1:46	1:49	2:16	1:47	2:07	2:13	2:19	8:05	8:08	8:23	8:55	9:09	9:16		
11:45	11:50	11:55	12:19P	1:08	1:28	1:36	1:41	2:06	2:11	2:14	2:41	2:12	2:32	2:38	2:44	8:45	8:48	9:03	9:35	9:49	9:56		
12:20P	12:25P	12:30P	12:54P	2:05	2:27	2:36	2:41	2:31	2:36	2:39	3:06	2:37	2:57	3:03	3:09	9:25	9:28	9:45	10:15	10:28	10:32		
12:50	12:55	1:00	1:24	2:34	2:56	3:05	3:10	2:56	3:01	3:04	3:31	3:02	3:22	3:28	3:34	10:05	10:08	10:22	10:50	11:03	11:07		
1:20	1:25	1:30	1:54	3:00	3:22	3:31	3:36	3:21	3:26	3:29	3:56	3:27	3:47	3:53	3:59	10:45	10:48	11:02	11:30	11:43	11:47		
1:52	1:57	2:02	2:26	3:17	3:39	3:48	3:53	3:46	3:51	3:54	4:21	3:52	4:12	4:18	4:24	11:20	11:23	11:37	12:00M	12:11A	12:15A		
2:19	2:24	2:29	2:53	3:36	3:58	4:07	4:12	4:11	4:16	4:19	4:46	4:17	4:37	4:43	4:49	11:55	11:58	12:12A	12:35A	12:46	12:50		
2:35	2:40	2:45	3:09	3:56	4:18	4:27	4:33	4:36	4:41	4:44	5:11	4:42	5:02	5:08	5:14	12:25A	12:28A	12:42	w 1:18	1:29	1:33		
2:55	3:00	3:05	3:29	4:21	4:44	4:55	5:02	5:01	5:06	5:09	5:35	5:07	5:27	5:33	5:39	12:55	12:58	1:12					
3:16	3:21	3:26	3:50	4:41	5:05	5:16	5:23	5:26	5:31	5:34	6:00	5:32	5:51	5:57	6:03								
3:40	3:45	3:50	4:14	5:03	5:27	5:38	5:45	5:51	5:56	5:59	6:25	5:55	6:14	6:20	6:26								
3:59	4:04	4:09	4:33	5:24	5:48	5:59	6:05	6:16	6:21	6:24	6:50	6:18	6:37	6:43	6:49								
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4:39	4:44	4:50	5:16	6:04	6:27	6:36	6:42	7:22	7:26	7:29	7:52	7:22	7:41	7:47	7:53								
4:57	5:02	5:08	5:34	6:24	6:47	6:56	7:01	7:57	8:01	8:04	8:27	8:05	8:23	8:29								
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5:37	5:42	5:48	6:14	7:00	7:20	7:28	7:32	9:20	9:23	9:39	9:30	9:46	9:52								
5:57	6:02	6:08	6:33	7:25	7:45	7:53	7:57	9:57	10:00	10:16	10:05	10:21	10:27								
6:17	6:22	6:28	6:51	7:55	8:12	8:19	.....	.....	10:32	10:35	10:51	10:40	10:55	11:01	.....							
6:37	6:41	6:45	7:08	8:25	8:42	8:49	.....	.....	11:07	11:10	11:24	11:15	11:28	11:34	.....							
6:57	7:01	7:05	7:28	8:50	9:07	9:14	.....	.....	11:40	11:43	11:57	11:50	12:03A	12:08A	.....							
7:20	7:24	7:28	7:50	9:20	9:37	9:44	.....	.....	12:20A	12:23A	12:35A	12:30A	12:40	12:45	.....							
7:50	7:54	7:57	8:19	9:50	10:07	10:14	.....	.....	12:55	12:58	1:10	w 1:20	1:30	1:35	.....							
.....	8:25	8:28	8:44	10:20	10:37	10:44	.....															
.....	8:55	8:58	9:14	10:50	11:07	11:14	.....															
.....	9:25	9:28	9:44	11:20	11:36	11:41	.....															
.....	9:55	9:58	10:14	11:50	12:04A	12:09A	.....															
.....	10:25	10:28	10:44	12:20A	12:33	12:38	.....															
.....	10:55	10:58	11:14	12:55	1:07	1:12	.....															
.....	11:25	11:28	11:41	w 1:22	1:33	1:38	.....															
.....	12:00M	12:03A	12:16A																				
.....	12:30A	12:33	12:46																				
.....	1:00	1:03	1:16																				

Route 87

Arlington Ctr or Clarendon Hill - Lechmere Sta.

w - Waits for last trolley to arrive at Lechmere Station.

All buses are accessible to persons with disabilities

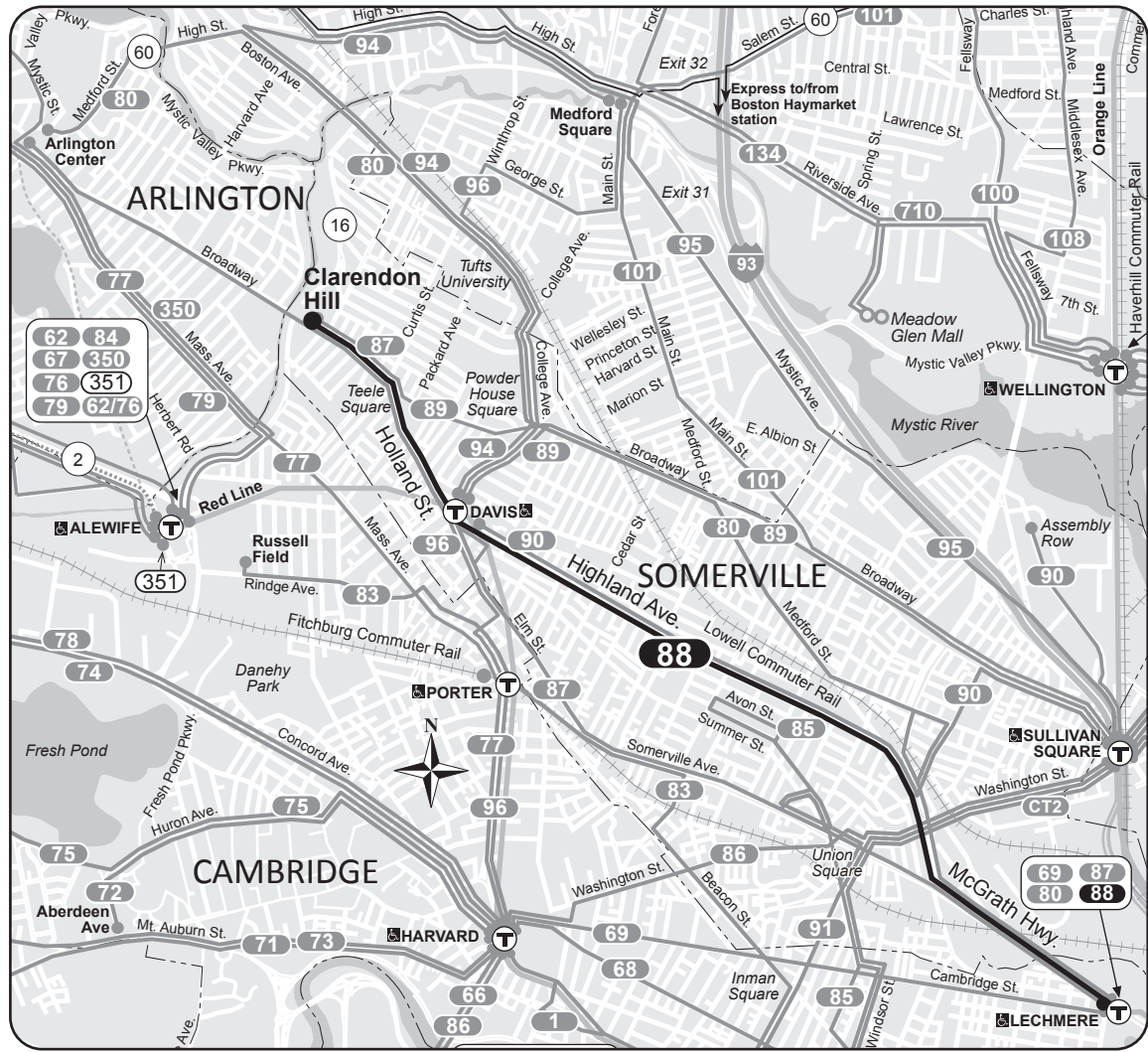
Fares on map side.

Fall 2020 & Winter 2021 Holidays

9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday

11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat

Route 88 Clarendon Hill - Lechmere Station



Schedule Change

88

Effective August 30, 2020

Clarendon Hill- Lechmere Station

Serving

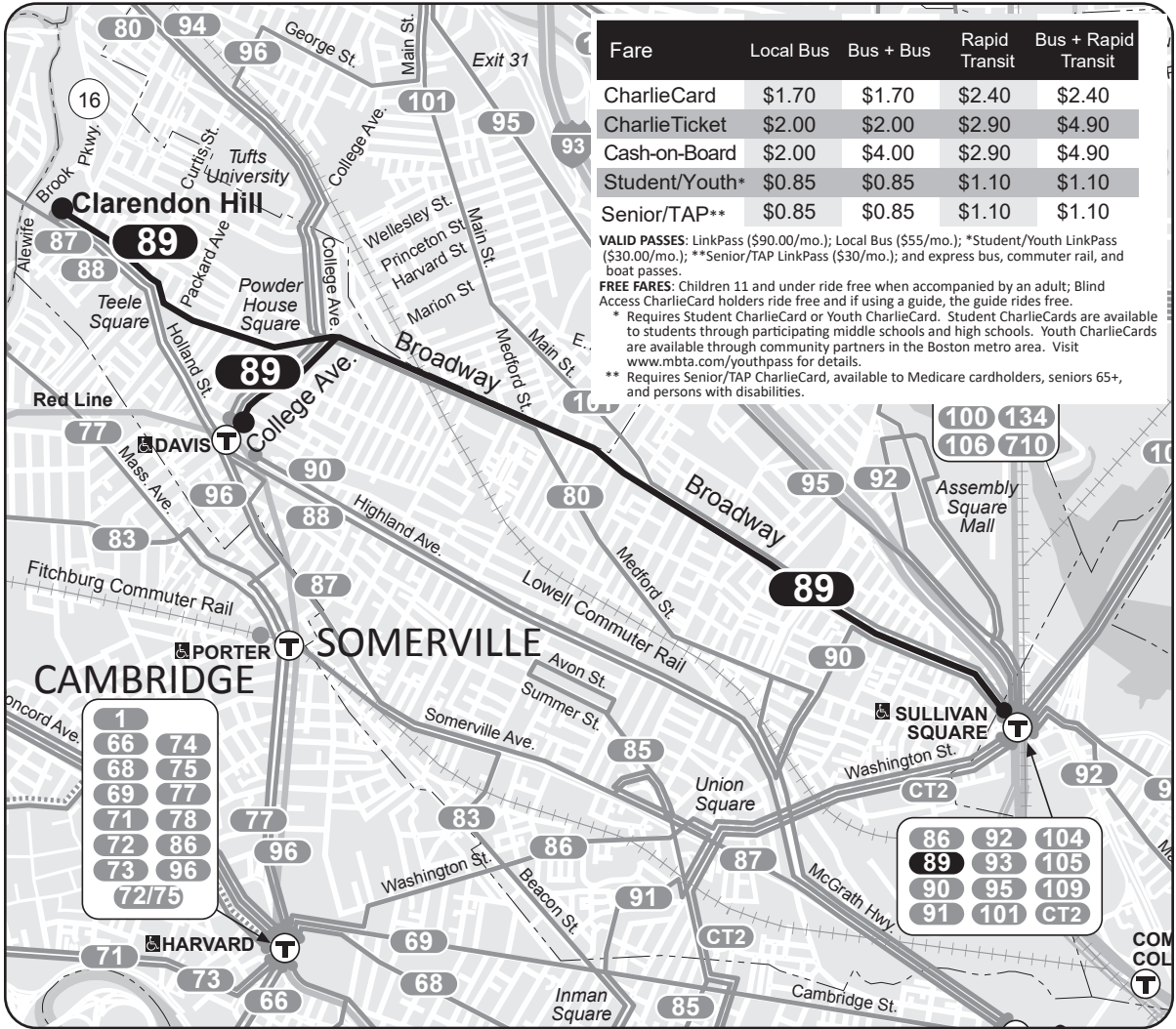
- Teele Square
- Davis Station
- Somerville City Hospital
- Somerville High School
- Somerville City Hall
- Green Line
- Red Line



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Route 89 Clarendon Hill or Davis Square - Sullivan Square Station



89

Effective August 30, 2020

Clarendon Hill or Davis Square-Sullivan Square Station

Serving

- Teele Square
- Powder House Square
- Magoun Square
- Winter Hill
- Red Line
- Orange Line




Massachusetts Bay Transportation Authority **massDOT**
Massachusetts Department of Transportation

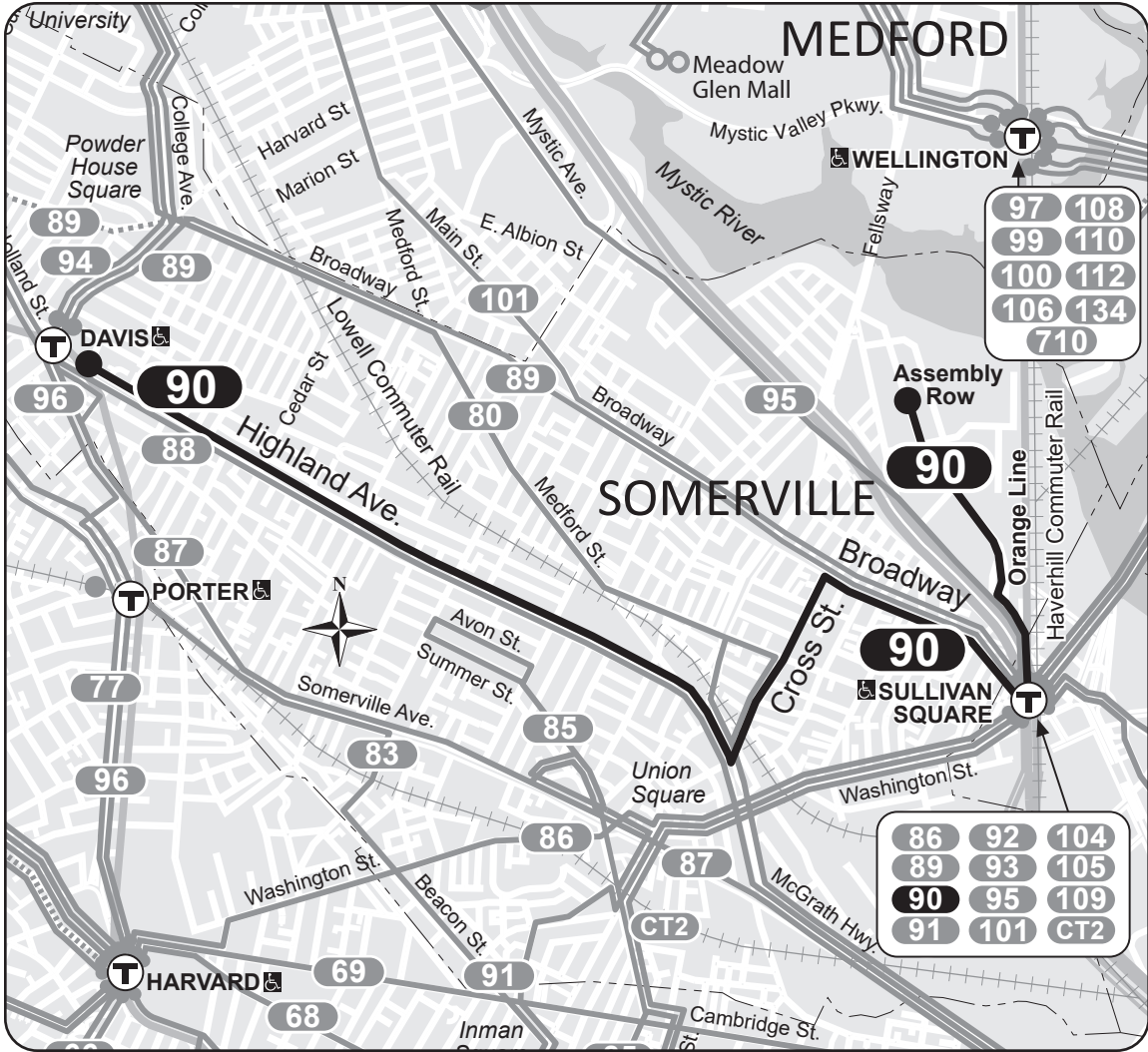
Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

89 Weekday								
Inbound				Outbound				
Leave Clarendon Hill	Leave Davis Square	Arrive Winter Hill	Arrive Sullivan Station	Leave Sullivan Station	Arrive Winter Hill	Arrive Davis Square	Arrive Clarendon Hill	
a 4:31A	4:34A	4:41A	4:50A	4:46A	4:54A	.....	5:04A	
5:05	.....	5:13	5:19	5:25	5:33	.....	5:43	
.....	5:43	5:49	5:55	5:26	5:34	5:42A	.....
5:51	.....	5:59	6:05	5:42	5:50	5:58	.....
.....	6:04	6:10	6:16	5:49	5:57	.....	6:07	
6:08	.....	6:16	6:22	6:01	6:09	6:17	.....
.....	6:19	6:25	6:31	6:07	6:15	6:23	.....
.....	6:29	6:35	6:41	6:12	6:20	.....	6:30	
6:33	.....	6:41	6:47	6:22	6:30	6:42	.....
.....	6:47	6:53	6:59	6:29	6:37	.....	6:47	
6:57	.....	7:05	7:14	6:42	6:50	7:04	.....
.....	7:14	7:20	7:29	6:55	7:03	7:21	.....
.....	7:23	7:29	7:38	7:06	7:14	.....	7:28	
7:34	.....	7:46	7:55	7:19	7:27	7:45	.....
.....	7:51	7:59	8:08	7:32	7:40	.....	7:54	
8:02	.....	8:14	8:23	7:49	7:57	8:15	.....
.....	8:19	8:27	8:36	8:01	8:09	8:27	.....
8:19	.....	8:31	8:39	8:13	8:21	.....	8:35	
.....	8:55	9:03	9:12	8:29	8:37	8:55	.....
8:43	.....	8:59	9:07	8:40	8:48	.....	9:02	
.....	9:21	9:28	9:36	9:03	9:11	9:24	.....
9:09	.....	9:27	9:33	9:31	9:39	9:52	.....
.....	9:55	10:01	10:08	9:59	10:07	10:20	.....
.....	10:23	10:29	10:36	10:23	10:31	10:44	.....
.....	10:47	10:53	11:00	10:48	10:56	11:09	.....
.....	11:12	11:18	11:25	11:12	11:20	11:33	.....
.....	11:36	11:43	11:50	11:37	11:45	11:58	.....
.....	12:01P	12:08P	12:15P	12:01P	12:09P	12:22P	.....
.....	12:26	12:33	12:40	12:26	12:34	12:47	.....
.....	12:51	12:58	1:05	12:53	1:01	1:14	.....
.....	1:18	1:25	1:32	1:20	1:28	.....	1:40P	
1:45P	.....	1:54	2:02	1:47	1:55	.....	2:07	
.....	2:21	2:31	.....	2:15	2:25	.....	2:38	
2:12	.....	2:49	2:59	2:42	2:52	.....	3:05	
2:40	.....	3:18	3:28	3:10	3:20	3:34	.....
.....	3:36	3:43	3:53	3:30	3:40	3:55	.....
3:09	.....	4:05	4:12	3:39	3:49	.....	4:06	
.....	4:21	4:31	.....	4:05	4:15	4:30	.....
4:12	.....	4:34	4:45	4:20	4:30	4:44	.....
.....	4:52	5:03	5:13	4:35	4:45	4:59	.....
.....	5:07	5:18	5:28	4:43	4:53	.....	5:10	
5:15	.....	5:27	5:37	4:53	5:03	5:17	.....
.....	5:23	5:34	5:44	5:03	5:13	5:27	.....
.....	5:33	5:44	5:54	5:13	5:23	.....	5:40	
5:45	.....	5:57	6:04	5:25	5:35	5:49	.....
.....	5:55	6:04	6:10	5:40	5:50	6:04	.....
.....	6:10	6:17	6:23	5:49	5:59	.....	6:16	
6:21	.....	6:31	6:37	5:58	6:06	6:20	.....
.....	6:30	6:37	6:43	6:06	6:14	6:28	.....
.....	6:35	6:42	6:48	6:20	6:28	6:36	.....
.....	6:50	6:57	7:03	6:30	6:38	.....	6:49	
7:02	.....	7:10	7:16	6:50	6:58	7:06	.....
.....	7:16	7:21	7:27	7:10	7:18	7:26	.....
.....	7:33	7:38	7:44	7:39	7:47	7:55	.....
.....	8:01	8:06	8:12	8:08	8:16	8:21	.....
.....	8:30	8:35	8:41	8:36	8:43	8:48	.....
.....	8:54	8:59	9:05	8:58	9:05	9:10	.....
.....	9:14	9:19	9:25	9:36	9:43	9:48	.....
.....	9:53	9:58	10:04	10:13	10:20	10:25	.....
.....	10:30	10:34	10:40	10:50	10:57	11:02	.....
.....	11:07	11:11	11:17	11:27	11:34	11:39	.....
.....	11:44	11:48	11:54	12:04A	12:11A	12:16A	.....
.....	12:19A	12:23A	12:29A	12:36	12:43	12:48	.....
.....	12:53	12:57	1:03	w 1:11	1:18	1:23	.....
.....	1:30	1:34	1:40					

89 Saturday					
Inbound			Outbound		
Leave Davis Square	Arrive Winter Hill	Arrive Sullivan Station	Leave Sullivan Station	Arrive Winter Hill	Arrive Davis Square
a 4:38A	4:46A	4:52A	5:15A	5:20A	5:28A
5:30	5:34	5:40	5:47	5:52	6:00
6:02	6:06	6:12	6:19	6:24	6:32
6:34	6:38	6:45	6:51	6:57	7:06
7:07	7:11	7:18	7:24	7:30	7:39
7:42	7:46	7:53	8:02	8:08	8:17
8:20	8:26	8:33	8:41	8:47	8:56
8:59	9:05	9:12	9:19	9:25	9:35
9:38	9:44	9:53	10:00	10:09	10:20
10:22	10:28	10:37	10:25	10:34	10:45
10:47	10:53	11:02	10:46	10:55	11:06
11:09	11:15	11:24	11:13	11:22	11:33
11:36	11:42	11:51	11:37	11:46	11:57
12:00N	12:07P	12:16P	12:04P	12:13P	12:24P
12:27	12:34	12:43	12:28	12:37	12:48
12:52	12:59	1:08	12:55	1:04	1:15
1:19	1:26	1:35	1:20	1:29	1:40
1:44	1:51	2:00	1:47	1:56	2:07
2:11	2:18	2:27	2:11	2:20	2:31
2:35	2:42	2:51	2:39	2:48	2:59
3:03	3:10	3:19	3:03	3:12	3:23
3:27	3:34	3:43	3:31	3:40	3:51
3:53	4:00	4:09	3:55	4:04	4:15
4:16	4:23	4:32	4:22	4:31	4:42
4:44	4:51	5:00	4:45	4:54	5:05
5:08	5:15	5:24	5:14	5:23	5:34
5:37	5:43	5:52	5:37	5:46	5:57
6:02	6:08	6:14	6:03	6:08	6:19
6:29	6:35	6:41	6:28	6:33	6:44
6:52	6:58	7:04	7:14	7:19	7:29
7:33	7:39	7:45	7:55	8:00	8:10
8:14	8:19	8:25	8:36	8:41	8:51
8:55	9:00	9:06	9:16	9:21	9:31
9:35	9:40	9:46	9:56	10:01	10:11
10:16	10:21	10:27	10:38	10:43	10:53
10:57	11:02	11:08	11:19	11:24	11:34
11:38	11:43	11:49	11:57	12:02A	12:12A
12:16A	12:20A	12:26A	12:35A	12:40	12:48
12:54	12:58	1:04	wc 1:13	1:18	1:26
c 1:31	1:35	1:41			
a - Through service to Haymarket Station from Clarendon Hill. b - Leaves from Haymarket Station at 5:48 am to Clarendon Hill c - To/from Clarendon Hill w - Waits for last train to arrive at Sullivan Station.					
Route 89 Clarendon Hill or Davis Square- Sullivan Square Station					

89 Sunday					
Inbound			Outbound		
Leave Davis Square	Arrive Winter Hill	Arrive Sullivan Station	Leave Sullivan Station	Arrive Winter Hill	Arrive Davis Square
a 5:19A	5:28A	5:35A	b 6:00A	6:07A	6:18A
6:25	6:29	6:35	6:10	6:15	6:23
6:58	7:02	7:08	6:42	6:47	6:55
7:33	7:37	7:43	7:17	7:22	7:30
8:09	8:13	8:19	7:52	7:57	8:05
8:44	8:48	8:54	8:28	8:33	8:41
9:22	9:26	9:33	9:03	9:08	9:16
10:00	10:05	10:12	9:41	9:49	9:57
10:39	10:44	10:51	10:19	10:27	10:35
11:20	11:25	11:32	11:01	11:09	11:17
			11:42	11:50	11:58
12:02P	12:07P	12:14P	12:25P	12:33P	12:41P
12:45	12:50	12:57	1:08	1:16	1:24
1:27	1:32	1:39	1:52	2:00	2:08
2:14	2:19	2:26	2:39	2:47	2:55
3:01	3:08	3:15	3:24	3:32	3:40
3:45	3:52	3:59	4:08	4:16	4:24
4:29	4:36	4:43	4:52	5:00	5:08
5:14	5:21	5:28	5:38	5:46	5:54
5:57	6:04	6:10	6:22	6:27	6:35
6:41	6:47	6:53	7:03	7:08	7:15
7:22	7:28	7:34	7:44	7:49	7:56
8:03	8:09	8:15	8:25	8:30	8:37
8:44	8:50	8:56	9:06	9:11	9:18
9:25	9:31	9:37	9:47	9:52	9:59
10:06	10:11	10:17	10:27	10:32	10:39
10:46	10:51	10:57	11:06	11:11	11:18
11:25	11:30	11:36	11:45	11:50	11:57
12:04A	12:07A	12:13A	12:24A	12:29A	12:36A
12:42	12:45	12:51	w 1:00	1:05	1:12
1:18	1:21	1:27			
 All buses are accessible to persons with disabilities					
Fall 2020 & Winter 2021 Holidays 9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday 11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat					

Route 90 Davis Station - Assembly Row



Schedule Change

90


Effective August 30, 2020

Davis Station-
Assembly Row

Serving

- Sullivan Square Station
- Somerville City Hospital
- Somerville High School
- Somerville City Hall
- Orange Line
- Red Line



 Massachusetts Bay
Transportation Authority *massDOT*
Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

90 Weekday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
6:30A	7:01A	7:02A	6:30A	6:36A	7:00A
7:10	7:41	7:42	7:10	7:16	7:40
7:50	8:22	8:25	7:50	7:56	8:18
8:25	8:59	9:00	8:30	8:36	8:57
9:40	10:06	10:07	9:05	9:11	9:32
10:45	11:08	11:10	10:15	10:21	10:39
11:45	12:08P	12:10P	11:15	11:20	11:37
12:45P	1:08	1:10	12:15P	12:20P	12:37P
1:45	2:08	2:10	1:15	1:20	1:37
2:17	2:40	2:42	2:15	2:21	2:41
2:49	3:17	3:20	2:52	2:58	3:18
3:26	3:55	3:58	3:30	3:37	3:59
4:05	4:35	4:37	4:09	4:16	4:38
4:45	5:15	5:17	4:48	4:55	5:18
5:26	5:56	5:58	5:27	5:35	5:59
6:07	6:37	6:39	6:08	6:14	6:34
6:47	7:10	7:12	6:46	6:52	7:11
7:17	7:38	7:40	7:17	7:22	7:40
8:09	8:30	8:32	7:45	7:50	8:06
8:40	9:01	9:03	8:17	8:22	8:36
9:31	9:52	9:54	9:08	9:13	9:27
			10:00	10:05	10:19

90 Saturday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
7:55A	8:13A	8:15A	7:30A	7:35A	7:49A
8:45	9:04	9:06	8:20	8:25	8:39
9:40	10:02	10:05	9:15	9:20	9:36
10:35	10:57	11:00	10:10	10:15	10:31
11:35	11:57	12:00N	11:05	11:10	11:26
12:35P	12:59P	1:01P	12:05P	12:10P	12:24P
1:35	1:59	2:01	1:05	1:11	1:29
2:40	3:03	3:05	2:05	2:12	2:29
3:40	4:03	4:05	3:10	3:16	3:31
4:40	5:03	5:05	4:10	4:16	4:31
5:40	6:03	6:05	5:10	5:16	5:31
6:40	7:02	7:04	6:10	6:16	6:31
7:40	8:00	8:02	7:10	7:15	7:31
8:40	8:59	9:01	8:10	8:15	8:31
9:35	9:54	9:56	9:10	9:15	9:30
			10:00	10:05	10:20

Route 90

Davis Station-Assembly Row

90 Sunday					
Inbound			Outbound		
Leave Davis Square	Arrive Sullivan Station	Arrive Assembly Row	Leave Assembly Row	Arrive Sullivan Station	Arrive Davis Square
10:30A	10:48A	10:51A	10:55A	11:01A	11:15A
11:20	11:38	11:43	11:50	11:56	12:12P
12:20P	12:41P	12:44P	12:50P	12:57P	1:14P
1:20	1:41	1:44	1:50	1:56	2:14
2:20	2:41	2:45	2:50	2:57	3:14
3:20	3:41	3:45	3:50	3:57	4:12
4:20	4:41	4:45	4:50	4:56	5:11
5:20	5:38	5:42	5:50	5:56	6:11
6:20	6:38	6:42			

All buses are accessible to persons with disabilities

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

VALID PASSES:

LinkPass (\$90.00/mo.); Local Bus (\$55/mo.); *Student/Youth LinkPass (\$30.00/mo.); **Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.

FREE FARES:

Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.

*

Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit www.mbta.com/youthpass for details.

**

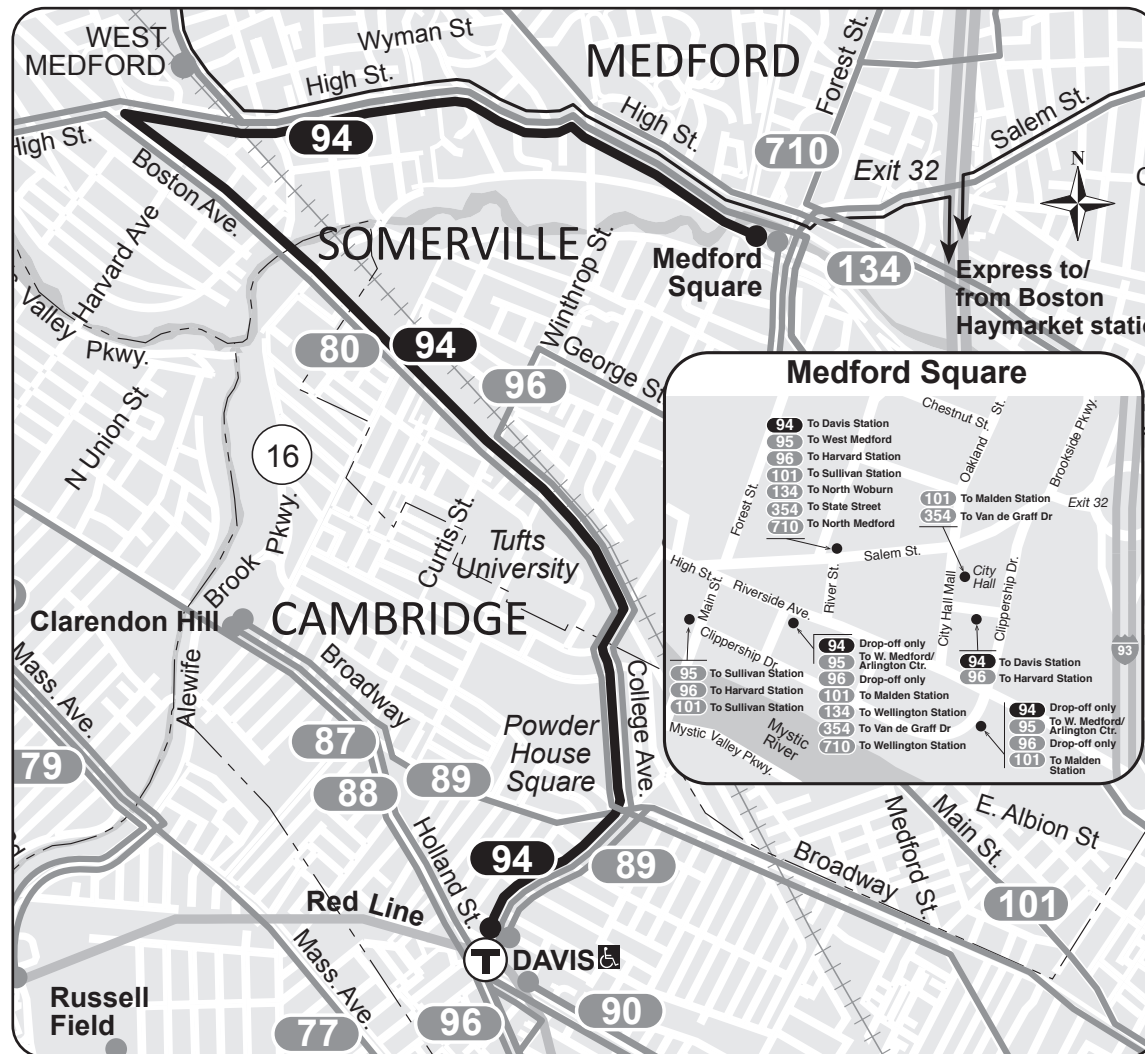
Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Fall 2020 & Winter 2021 Holidays

9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday

11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat

Route 94 Medford Square - Davis Square



Schedule Change

94

Effective August 30, 2020

Medford Square- Davis Square

Serving

- Medford City Hall
- Winthrop Circle
- West Medford
- Medford Hillside
- Tufts University
- Powder House Square
- Red Line



Massachusetts Bay Transportation Authority **massDOT**
Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

94 Weekday					
Inbound			Outbound		
Leave Medford Square	Arrive Powder House Sq.	Arrive Davis Square	Leave Davis Square	Arrive Powder House Sq.	Arrive Medford Square
5:19A	5:31A	5:37A	5:41A	5:43A	5:55A
5:49	6:02	6:09	6:17	6:20	6:39
6:14	6:35	6:42	6:48	6:51	7:10
6:44	7:07	7:14	a 7:05	7:07	7:46
7:15	7:42	7:49	7:52	7:56	8:16
7:35	8:02	8:09	8:20	8:24	8:44
7:55	8:19	8:26	8:40	8:44	9:03
8:24	8:48	8:55	9:05	9:08	9:26
8:49	9:13	9:20	9:28	9:31	9:49
9:10	9:34	9:43	10:00	10:03	10:21
9:55	10:26	10:35	10:45	10:48	11:06
11:14	11:33	11:41	11:50	11:53	12:11P
12:20P	12:45P	12:53P	1:10P	1:13P	1:33
1:40	2:10	2:18	2:25	2:28	2:48
3:00	3:30	3:38	3:45	3:48	4:14
3:37	4:07	4:15	4:20	4:23	4:49
4:00	4:30	4:38	4:45	4:48	5:14
4:25	4:55	5:03	5:10	5:13	5:39
4:55	5:17	5:24	5:35	5:38	6:04
5:20	5:40	5:47	6:00	6:03	6:29
5:45	6:05	6:12	6:25	6:28	6:54
6:10	6:30	6:37	6:50	6:53	7:15
6:35	6:55	7:02	7:15	7:17	7:37
7:10	7:30	7:37	7:40	7:42	8:02
7:42	8:03	8:10	8:15	8:17	8:36
8:15	8:36	8:43	8:15	8:36	8:43
8:55	9:12	9:18	8:55	9:12	9:18
9:45	10:00	10:06	9:45	10:00	10:06
10:40	10:55	11:01	10:40	10:55	11:01
11:32	11:47	11:53	11:32	11:47	11:53
12:20A	12:35A	12:41A	12:20A	12:35A	12:41A

a - Via Medford High School

94 Saturday					
Inbound			Outbound		
Leave Medford Square	Arrive Powder House Sq.	Arrive Davis Square	Leave Davis Square	Arrive Powder House Sq.	Arrive Medford Square
6:45A	6:55A	7:01A	7:10A	7:11A	7:25A
7:35	7:45	7:51	8:00	8:01	8:15
8:27	8:37	8:43	8:57	8:58	9:16
9:22	9:35	9:43	10:02	10:03	10:21
10:30	10:43	10:51	11:13	11:14	11:32
11:25	11:39	11:48	11:55	11:56	12:14P
12:13P	12:27P	12:36P	12:48P	12:49P	1:07
1:00	1:13	1:22	1:39	1:40	1:58
1:47	2:00	2:09	2:20	2:21	2:39
2:37	2:50	2:59	3:13	3:14	3:32
3:26	3:39	3:48	3:57	3:58	4:16
4:06	4:19	4:28	4:40	4:41	4:59
4:58	5:10	5:19	5:28	5:29	5:47
5:46	5:58	6:06	6:25	6:26	6:42
6:40	6:51	6:59	7:20	7:21	7:36
7:40	7:51	7:59	8:23	8:24	8:39
8:50	9:01	9:09	9:27	9:28	9:43
9:47	9:58	10:04	10:20	10:21	10:36
10:50	10:59	11:05	11:21	11:22	11:37
11:25	11:34	11:40	11:46	11:47	12:02A
12:14A	12:23A	12:28A	12:35A	12:36A	12:51

NOTE: For additional service between Medford Square and Davis Square Station please refer to Route 96 schedule card.



All buses are accessible to persons with disabilities

Route 94
Medford Square-Davis Square

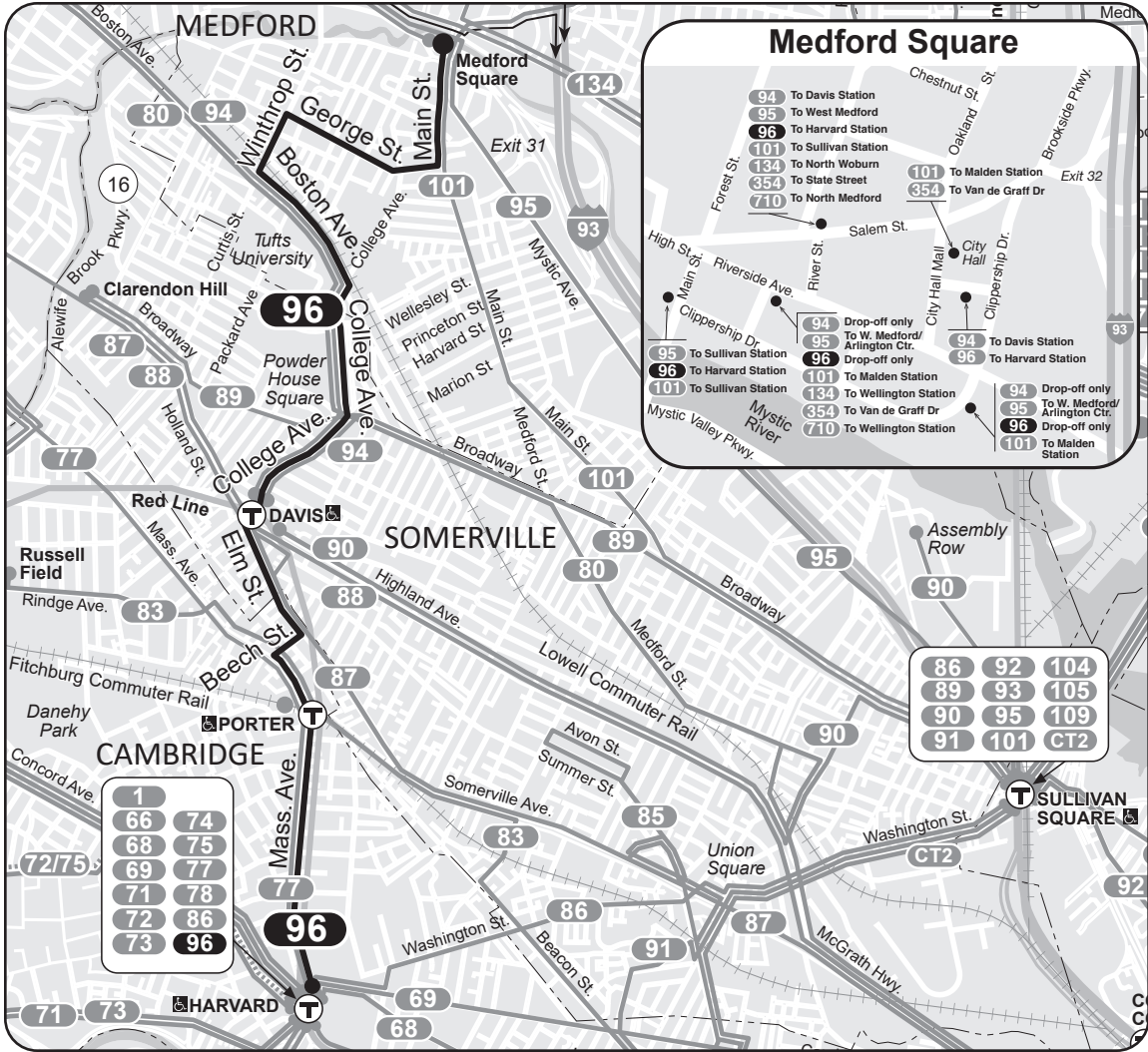
94 Sunday					
Inbound			Outbound		
Leave Medford Square	Arrive Powder House Sq.	Arrive Davis Square	Leave Davis Square	Arrive Powder House Sq.	Arrive Medford Square
6:45A	6:55A	6:59A	7:03A	7:04A	7:18A
7:23	7:32	7:39	7:43	7:44	7:58
8:03	8:13	8:20	8:28	8:29	8:43
9:03	9:14	9:22	9:28	9:29	9:44
10:03	10:14	10:24	10:28	10:29	10:44
11:03	11:14	11:24	11:40	11:41	11:57
12:13P	12:24P	12:34P	12:50P	12:51P	1:06P
1:23	1:35	1:43	2:00	2:01	2:17
2:33	2:46	2:54	3:10	3:11	3:27
3:43	3:52	4:01	4:20	4:21	4:37
4:53	5:02	5:11	5:30	5:31	5:47
6:03	6:12	6:21	6:30	6:31	6:47
7:03	7:12	7:21	7:30	7:31	7:47
8:05	8:14	8:22	8:31	8:32	8:46
9:15	9:26	9:31	9:35	9:36	9:50
10:15	10:24	10:29	10:35	10:36	10:50
11:15	11:24	11:29	11:35	11:36	11:50
12:20A	12:29A	12:34A	12:40A	12:41A	12:52A

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

VALID PASSES: LinkPass (\$90.00/mo.); Local Bus (\$55/mo.); *Student/Youth LinkPass (\$30.00/mo.); **Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit www.mbtta.com/youthpass for details.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Fall 2020 & Winter 2021 Holidays
9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday
11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat

Route 96 Medford Square - Harvard Station



Schedule Change

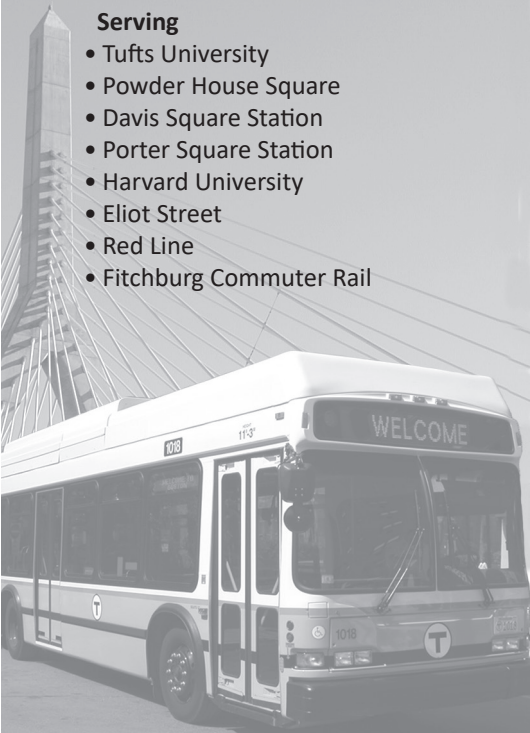
96

Effective August 30, 2020

Medford Square-Harvard Station

Serving

- Tufts University
- Powder House Square
- Davis Square Station
- Porter Square Station
- Harvard University
- Eliot Street
- Red Line
- Fitchburg Commuter Rail




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massDOT
Massachusetts Department of Transportation
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(TTY) 617-222-5146 • www.mbta.com

96 Weekday					
Inbound			Outbound		
Leave Medford Sq.	Arrive Davis Sq.	Arrive Harvard Square	Leave Harvard Square	Lv/Arrive Davis Sq.	Arrive Medford Square
5:35A	5:45A	5:57A	6:00A	6:09A	6:24A
6:00	6:16	6:26	6:29	6:38	6:53
6:19	6:35	6:45	6:50	6:59	7:14
6:37	6:53	7:04	7:10	7:19	7:34
7:00	7:20	7:34	.....	7:40	7:55
a 7:10	7:26	.....	7:40	7:53	8:10
7:20	7:40	7:54	.....	8:03	8:18
a 7:35	7:53	.....	8:00	8:13	8:30
7:40	8:00	8:18	8:25	8:38	8:55
a 7:55	8:15	.....	8:47	9:00	9:15
8:00	8:22	8:40	9:00	9:13	9:28
a 8:12	8:30	.....	9:35	9:48	10:03
8:17	8:39	8:57	10:15	10:28	10:43
a 8:28	8:46	.....	10:50	11:03	11:18
8:37	8:59	9:17	11:30	11:43	11:58
9:05	9:27	9:42			
9:35	9:57	10:11	12:05P	12:18P	12:34P
10:10	10:32	10:46	12:45	12:58	1:14
10:47	11:08	11:24	1:25	1:38	1:54
11:25	11:44	12:00N	2:05	2:18	2:34
			2:45	2:58	3:20
12:05P	12:24P	12:38	3:21	3:38	4:00
12:45	1:06	1:18	3:40	3:57	4:19
1:25	1:46	1:58	4:05	4:22	4:44
2:05	2:26	2:38	4:30	4:47	5:09
2:45	3:06	3:18	4:50	5:07	5:29
3:25	3:46	3:58	5:05	5:22	5:44
4:05	4:26	4:38	5:30	5:47	6:09
4:25	4:46	4:58	5:55	6:12	6:34
4:50	5:10	5:24	6:15	6:32	6:54
5:15	5:34	5:48	6:35	6:52	7:13
5:35	5:54	6:08	7:00	7:13	7:31
5:55	6:14	6:28	7:40	7:53	8:11
6:20	6:39	6:53	8:15	8:28	8:41
7:00	7:19	7:33	8:50	9:03	9:16
7:40	7:55	8:08	9:25	9:38	9:51
8:18	8:33	8:46	10:00	10:13	10:26
8:50	9:04	9:18	10:37	10:50	11:02
9:25	9:38	9:52	11:08	11:16	11:26
10:05	10:18	10:32	12:05A	12:13A	12:23A
10:33	10:46	11:00	w 1:05	1:13	1:23
11:30	11:43	11:57			
12:25A	12:38A	12:52A			

a - To Davis Square Station ONLY.
w- Waits for last train to arrive at Harvard Station.

96 Saturday					
Inbound			Outbound		
Leave Medford Sq.	Arrive Davis Sq.	Arrive Harvard Square	Leave Harvard Square	Arrive Davis Sq.	Arrive Medford Square
5:20A	5:27A	5:39A	5:43A	5:51A	6:02A
6:11	6:18	6:30	6:34	6:42	6:53
7:02	7:09	7:21	7:25	7:34	7:46
7:56	8:03	8:15	8:21	8:30	8:43
8:51	8:58	9:12	9:19	9:29	9:45
9:57	10:07	10:23	10:31	10:41	11:00
10:58	11:11	11:28	11:37	11:47	12:05P
11:38	11:51	12:08P			
			12:17P	12:27P	12:46
12:25P	12:38P	12:55	1:04	1:14	1:33
1:16	1:29	1:46	1:55	2:05	2:23
2:04	2:18	2:36	2:44	2:54	3:12
2:44	2:58	3:16	3:24	3:34	3:52
3:38	3:52	4:10	4:18	4:28	4:44
4:23	4:37	4:55	5:04	5:14	5:30
5:13	5:26	5:43	5:52	6:02	6:18
6:10	6:23	6:40	6:49	6:59	7:15
7:05	7:18	7:35	7:43	7:53	8:09
8:16	8:25	8:40	8:48	8:58	9:14
9:21	9:30	9:45	9:53	10:02	10:16
10:22	10:29	10:41	10:47	10:55	11:09
11:45	11:52	12:04A	12:10A	12:18A	12:29A
12:40A	12:47A	12:59	w 1:05	1:13	1:24

NOTE: For additional service between Medford Square and Davis Square please refer to Route 94 schedule card.

 All buses are accessible to persons with disabilities

Route 96
Medford Square-Harvard Station

96 Sunday					
Inbound			Outbound		
Leave Medford Sq.	Arrive Davis Sq.	Arrive Harvard Square	Leave Harvard Square	Arrive Davis Sq.	Arrive Medford Square
6:05A	6:13A	6:23A	6:30A	6:38A	6:49A
6:55	7:03	7:13	7:20	7:28	7:39
7:45	7:53	8:03	8:10	8:18	8:29
8:35	8:43	8:56	9:00	9:09	9:23
9:25	9:34	9:47	9:55	10:06	10:19
10:25	10:36	10:50	10:55	11:08	11:23
11:25	11:37	11:53			
			12:00N	12:13P	12:28P
12:35P	12:47P	1:03P	1:10	1:23	1:38
1:45	1:57	2:13	2:20	2:33	2:48
2:55	3:05	3:21	3:30	3:43	3:58
4:05	4:15	4:31	4:40	4:53	5:09
5:15	5:25	5:41	5:50	6:03	6:19
6:25	6:35	6:50	6:50	7:03	7:19
7:25	7:33	7:46	7:50	8:01	8:13
8:25	8:33	8:45	8:55	9:06	9:18
9:25	9:32	9:44	9:55	10:05	10:16
10:25	10:32	10:44	10:55	11:05	11:16
11:25	11:31	11:42	11:55	12:04A	12:15A
12:30A	12:36A	12:47A	w 1:05A	1:14	1:24



Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

VALID PASSES: LinkPass (\$90.00/mo.); Local Bus (\$55/mo.); *Student/Youth LinkPass (\$30.00/mo.); **Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit www.mbta.com/youthpass for details.
** Requires Senior/TAP CharlieCard. available to Medicare cardholders. seniors 65+.

Fall 2020 & Winter 2021 Holidays
9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday
11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat

T Fares				
PRICE PER TRIP	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.40	\$2.40
CharlieTicket	\$2.00	\$2.00	\$2.90	\$4.90***
Cash-on-Board	\$2.00	\$4.00	\$2.90	\$4.90***
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10
UNLIMITED TRIP PASSES				
1-Day	\$12.75	\$12.75	\$12.75	\$12.75
7-Day	\$22.50	\$22.50	\$22.50	\$22.50
Monthly	\$55.00	\$55.00	\$90.00	\$90.00
Senior/TAP Monthly \$30.00/month for unlimited travel on Local Bus and Rapid Transit				

VALID PASSES: LinkPass (\$84.50/mo.); Student /Youth LinkPass* (\$30/mo.) ; Senior/TAP LinkPass* (\$30/mo.); and express bus, commuter rail, and boat passes.

FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free: if using a guide, the guide rides free

* Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit www.mbta.com/youthpass for details.

** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

*** For Silver Line SL4 or SL5 pay \$2.75. Also see “transfers.”

TRANSFERS

If paying with a CharlieTicket or CharlieCard, discounted transfers that are available are automatic — just use the same ticket or card throughout your trip. If paying with cash onboard a vehicle, free transfers are only allowed between rapid transit lines and inside paid platform areas at gated stations.

SCHEDULES

Schedules are available at the following stations: Park Street, Airport, Malden, Harvard, Haymarket (Green Line Level), Back Bay and Downtown Crossing (Orange Line Level) or see station personnel. Schedules also available at the Transportation Building (10 Park Plaza), 45 High St, and online at mbta.com.

For real-time subway and bus tracking, download the Transit app on any smartphone.



Rapid Transit

Effective August 30, 2020



Blue Line



Green Line



Orange Line



Red Line



Silver Line



Massachusetts Bay
Transportation Authority

massDOT
Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

Rapid Transit Line	Weekday				Saturday			Sunday		
	First Trip	Peak	Off Peak	Last Trip	First Trip	Arriving Every	Last Trip	First Trip	Arriving Every	Last Trip
Red Line Alewife Braintree	5:24 AM 5:08 AM	9 mins	12-16 mins	12:20 AM 12:17 AM	5:24 AM 5:09 AM	12-16 mins	12:20 AM 12:17 AM	6:08AM 6:00AM	12-16 mins	12:20 AM 12:17 AM
Alewife Ashmont	5:16 AM 5:16 AM	9 mins	12-16 mins	w 12:27 AM w 12:30 AM	5:16 AM 5:16 AM	12-16 mins	w 12:27 AM w 12:30 AM	6:00AM 6:00AM	12-16 mins	w 12:27 AM w 12:30 AM
“M” Ashmont Mattapan	5:17 AM 5:05 AM	5 mins	8-12 Day 26 Late	w 1:05 AM 12:53 AM	5:15 AM 5:05 AM	8-12 Day 26 Early/Late	w 1:05 AM 12:53 AM	6:03AM 5:51AM	8-12 Day 26 Early/Late	w 1:05 AM 12:53 AM
Blue Line Wonderland Orient Heights Bowdoin	5:13 AM 5:14 AM 5:30 AM	5 mins	9-13 mins	12:28 AM 12:33 AM w 1:00 AM	5:25 AM 5:13 AM 5:29 AM	9-13 mins	12:28 AM 12:33 AM w 1:00 AM	5:58AM 6:03AM 6:21AM	9-13 mins	12:28 AM 12:33 AM w 1:00 AM
Orange Line Oak Grove Forest Hills	5:16 AM 5:16 AM	6 mins	9-11 mins	w 12:30 AM w 12:28 AM	5:16 AM 5:16 AM	9-11 mins	w 12:30 AM w 12:28 AM	6:00AM 6:00AM	9-11 mins	w 12:30 AM w 12:28 AM
Green Line* B Boston College Park Street	5:01 AM 5:45 AM	5-6 mins	7-9 mins	12:10 AM w 12:52 AM	4:45 AM ² 5:40 AM	7-8 mins	12:09 AM w 12:52 AM	5:20AM ² 6:12AM	9 mins	12:10 AM w 12:52 AM
C Cleveland Circle North Station	4:57 AM ¹ 5:48 AM	6-8 mins	9-11 mins	12:07 AM w 12:46 AM	4:50 AM ² 5:30 AM	9-10 mins	12:10 AM w 12:46 AM	5:30AM ² 6:06AM	10 mins	12:10 AM w 12:46 AM
D Riverside Government Ctr.	4:56 AM 5:45 AM	6 mins	8-11 mins	12:05 AM w 12:49 AM	4:55 AM 5:38 AM	8-9 mins	12:02 AM w 12:49 AM	5:25AM 6:10AM	11-12 mins	12:05 AM w 12:49 AM
E Lechmere * Heath Street	5:00 AM ⁴ 5:45 AM	6-7 mins	8-10 mins	12:30 AM 12:47 AM ³	5:01 AM 5:39 AM	10 mins	12:30 AM 12:47 AM ³	5:35AM 6:15AM	12 mins	12:30 AM 12:47 AM ³
Silver Line SL1 Logan Airport South Station	5:38 AM 5:40 AM	7-12 mins	10-12 mins	f 1:03 AM w 1:02 AM	5:48 AM 5:45 AM	10-12 mins	1:15 AM w 12:59 AM	5:50AM 6:12AM	10-12 mins	f 1:12 AM w 1:00 AM
SL2 Design Center South Station	6:07 AM 5:44 AM	6 mins	14-16 mins	12:37 AM 12:50 AM	6:03 AM 5:47 AM	14-16 mins	12:35 AM 12:45 AM	6:51AM 6:35AM	14-16 mins	12:51 AM 12:36 AM
SL3 Chelsea Station South Station	4:55 AM 4:20 AM	6-11 mins	8-13 mins	f 1:05 AM w 12:35 AM	5:30 AM 4:56 AM	8-13 mins	1:22 AM w 12:55 AM	6:26AM 5:53AM	8-13 mins	f 1:25 AM w 12:55 AM
SL4 Nubian Station South Station	5:20 AM 5:38 AM	6-11 mins	6-11 mins	12:20 AM 12:37 AM	5:23 AM 5:40 AM	13-20 mins	12:20 AM 12:40 AM	6:02AM 6:20AM	13-20 mins	12:20 AM 12:40 AM
SL5 Nubian Station Downtown Xing	5:15 AM 5:32 AM	11-14 mins	13-20 mins	12:51 AM w 1:07 AM	5:19 AM 5:34 AM	6-11 mins	12:43 AM w 1:00 AM	6:00AM 6:16AM	6-11 mins	12:25 AM w 12:47 AM

Peak Service:
Weekdays 7 AM - 9 AM, 4 PM - 6:30 PM

Green Line Notes:

New and ongoing infrastructure projects may result in diversions on some branches at various times.

See GL service changes at [mbta.com/GLwork](https://www.mbta.com/GLwork)
View service alerts at [mbta.com/alerts](https://www.mbta.com/alerts)

* E trains start/end at North Station for Green Line Extension work – shuttles provided between North Station and Lechmere.

More: [mbta.com/GLEwork](https://www.mbta.com/GLEwork)

1 - The first two C train AM northbound trips run through to Lechmere Station on weekdays.

2 - The first B and second C train AM northbound trips run through to Lechmere Station on weekends.

3 - On weekdays the 12:27 AM trip (weekends the 12:32 AM trip) from Heath St is the last connecting train to other lines downtown. The 12:37AM and 12:47AM trips (weekends the 12:47AM trip) from Heath St. runs in service to Lechmere with no guaranteed connections.

4 - Early morning service from Lechmere to Riverside departs Lechmere at 5:00 AM.

f - After exiting Ted Williams Tunnel bus will only service World Trade Center and South Station stops.

w - Last trips wait at some stations, primarily in the Downtown area, for connecting service. Departure times are approximate.

Fall 2020 & Winter 2021 Holidays
9/7/20: Sunday; 10/12/20 & 11/11/20: Weekday
11/26/20, 12/25/20, & 1/1/21: Sun; 1/18/21 & 2/15/21: Sat

APPENDIX B – TRAFFIC COUNTS



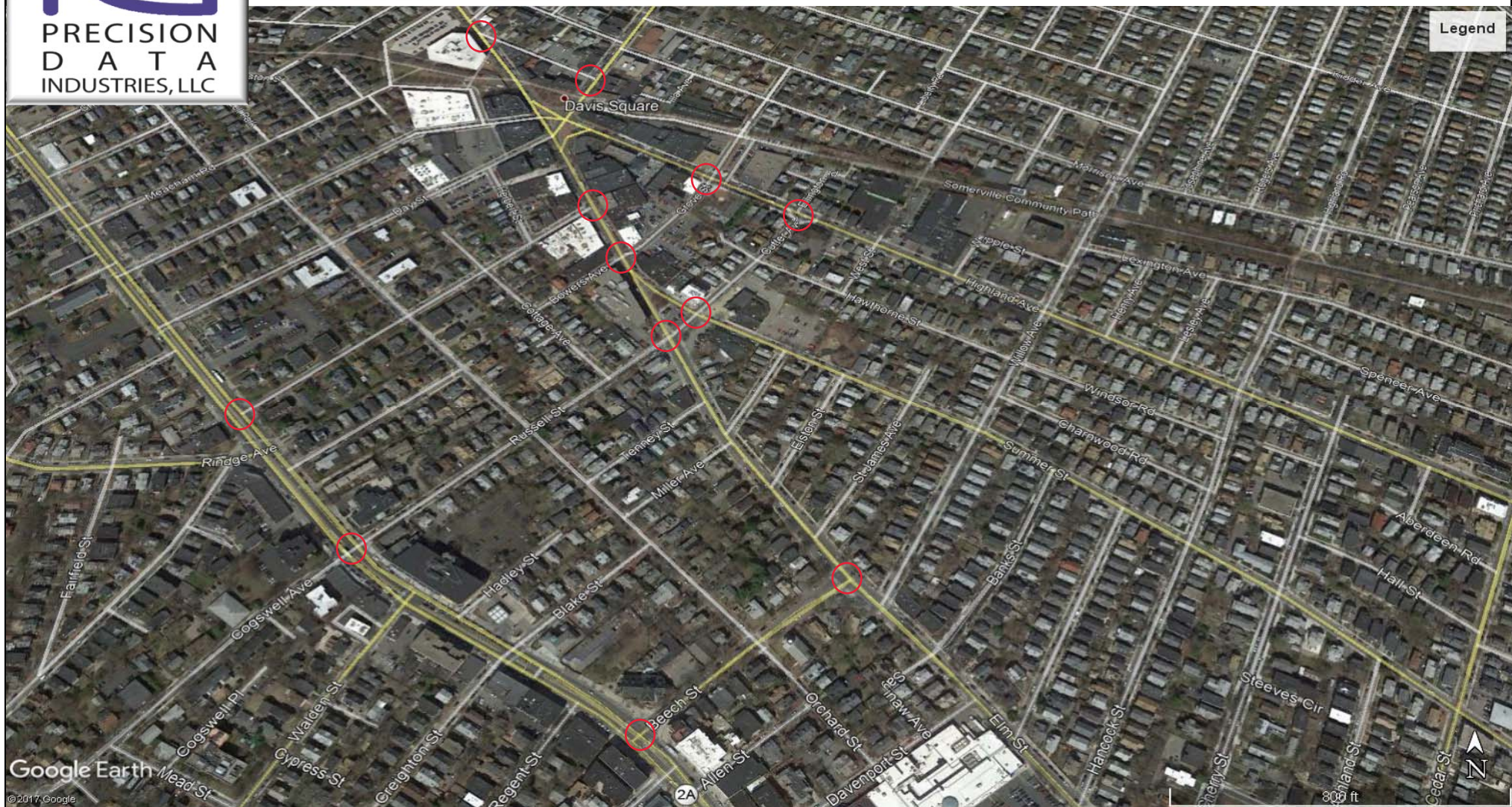
PRECISION
DATA
INDUSTRIES, LLC

PRECISION DATA INDUSTRIES, LLC

Office: 508.875.0100 Fax: 508.875.0118

Email: datarequests@pdillc.com

Traffic Counts with Precision



Client: Toole Design Group, Inc	Engineer: H. Georgallas	Site Code: TBA	Date: Thurs 11/16 & Sat 11/18/17	PDI Job Number: 175971	City, State: Somerville, MA
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PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	9	177	0	186	0	0	0	0	0	0	0	0	186
7:15 AM	16	205	0	221	0	0	0	0	0	0	0	0	221
7:30 AM	9	189	0	198	0	0	0	0	0	0	0	0	198
7:45 AM	18	231	0	249	0	0	0	0	0	0	0	0	249
Total	52	802	0	854	0	0	0	0	0	0	0	0	854
8:00 AM	20	187	0	207	0	0	0	0	0	0	0	0	207
8:15 AM	28	178	0	206	0	0	0	0	0	0	0	0	206
8:30 AM	15	223	0	238	0	0	0	0	0	0	0	0	238
8:45 AM	14	180	0	194	0	0	0	0	0	0	0	0	194
Total	77	768	0	845	0	0	0	0	0	0	0	0	845
Grand Total	129	1570	0	1699	0	0	0	0	0	0	0	0	1699
Approach %	7.6	92.4	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	7.6	92.4	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1570				129				1699
Cars	118	1492	0	1610	0	0	0	0	0	0	0	0	1610
% Cars	91.5	95.0	0.0	94.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.8
Exiting Leg Total	0				1492				118				1610
Heavy Vehicles	11	78	0	89	0	0	0	0	0	0	0	0	89
% Heavy Vehicles	8.5	5.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
Exiting Leg Total	0				78				11				89

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

7:45 AM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	18	231	0	249	0	0	0	0	0	0	0	0	249
8:00 AM	20	187	0	207	0	0	0	0	0	0	0	0	207
8:15 AM	28	178	0	206	0	0	0	0	0	0	0	0	206
8:30 AM	15	223	0	238	0	0	0	0	0	0	0	0	238
Total Volume	81	819	0	900	0	0	0	0	0	0	0	0	900
% Approach Total	9.0	91.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.723	0.886	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904
Cars	75	776	0	851	0	0	0	0	0	0	0	0	851
Cars %	92.6	94.7	0.0	94.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.6
Heavy Vehicles	6	43	0	49	0	0	0	0	0	0	0	0	49
Heavy Vehicles %	7.4	5.3	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
Cars Enter Leg	75	776	0	851	0	0	0	0	0	0	0	0	851
Heavy Enter Leg	6	43	0	49	0	0	0	0	0	0	0	0	49
Total Entering Leg	81	819	0	900	0	0	0	0	0	0	0	0	900
Cars Exiting Leg	0				776				75				851
Heavy Exiting Leg	0				43				6				49
Total Exiting Leg	0				819				81				900

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	6	170	0	176	0	0	0	0	0	0	0	0	176
7:15 AM	14	192	0	206	0	0	0	0	0	0	0	0	206
7:30 AM	9	182	0	191	0	0	0	0	0	0	0	0	191
7:45 AM	17	219	0	236	0	0	0	0	0	0	0	0	236
Total	46	763	0	809	0	0	0	0	0	0	0	0	809
8:00 AM	18	178	0	196	0	0	0	0	0	0	0	0	196
8:15 AM	27	166	0	193	0	0	0	0	0	0	0	0	193
8:30 AM	13	213	0	226	0	0	0	0	0	0	0	0	226
8:45 AM	14	172	0	186	0	0	0	0	0	0	0	0	186
Total	72	729	0	801	0	0	0	0	0	0	0	0	801
Grand Total	118	1492	0	1610	0	0	0	0	0	0	0	0	1610
Approach %	7.3	92.7	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	7.3	92.7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1492				118				1610

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

7:45 AM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	17	219	0	236	0	0	0	0	0	0	0	0	236
8:00 AM	18	178	0	196	0	0	0	0	0	0	0	0	196
8:15 AM	27	166	0	193	0	0	0	0	0	0	0	0	193
8:30 AM	13	213	0	226	0	0	0	0	0	0	0	0	226
Total Volume	75	776	0	851	0	0	0	0	0	0	0	0	851
% Approach Total	8.8	91.2	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.694	0.886	0.000	0.901	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.901
Entering Leg	75	776	0	851	0	0	0	0	0	0	0	0	851
Exiting Leg	0				776				75				851
Total	851				776				75				1702

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	3	7	0	10	0	0	0	0	0	0	0	0	10
7:15 AM	2	13	0	15	0	0	0	0	0	0	0	0	15
7:30 AM	0	7	0	7	0	0	0	0	0	0	0	0	7
7:45 AM	1	12	0	13	0	0	0	0	0	0	0	0	13
Total	6	39	0	45	0	0	0	0	0	0	0	0	45
8:00 AM	2	9	0	11	0	0	0	0	0	0	0	0	11
8:15 AM	1	12	0	13	0	0	0	0	0	0	0	0	13
8:30 AM	2	10	0	12	0	0	0	0	0	0	0	0	12
8:45 AM	0	8	0	8	0	0	0	0	0	0	0	0	8
Total	5	39	0	44	0	0	0	0	0	0	0	0	44
Grand Total	11	78	0	89	0	0	0	0	0	0	0	0	89
Approach %	12.4	87.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	12.4	87.6	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				78				11				89
Large Trucks	11	39	0	50	0	0	0	0	0	0	0	0	50
% Large Trucks	100.0	50.0	0.0	56.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.2
Exiting Leg Total	0				39				11				50
Buses	0	39	0	39	0	0	0	0	0	0	0	0	39
% Buses	0.0	50.0	0.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.8
Exiting Leg Total	0				39				0				39

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

7:45 AM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:45 AM	1	12	0	13	0	0	0	0	0	0	0	0	13
8:00 AM	2	9	0	11	0	0	0	0	0	0	0	0	11
8:15 AM	1	12	0	13	0	0	0	0	0	0	0	0	13
8:30 AM	2	10	0	12	0	0	0	0	0	0	0	0	12
Total Volume	6	43	0	49	0	0	0	0	0	0	0	0	49
% Approach Total	12.2	87.8	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.750	0.896	0.000	0.942	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.942
Large Trucks	6	22	0	28	0	0	0	0	0	0	0	0	28
Large Trucks %	100.0	51.2	0.0	57.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.1
Buses	0	21	0	21	0	0	0	0	0	0	0	0	21
Buses %	0.0	48.8	0.0	42.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9
Trucks Enter Leg	6	22	0	28	0	0	0	0	0	0	0	0	28
Bus Enter Leg	0	21	0	21	0	0	0	0	0	0	0	0	21
Total Entering Leg	6	43	0	49	0	0	0	0	0	0	0	0	49
Trucks Exiting Leg				0				22				6	28
Buses Exiting Leg				0				21				0	21
Total Exiting Leg				0				43				6	49

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	3	3	0	6	0	0	0	0	0	0	0	0	6
7:15 AM	2	7	0	9	0	0	0	0	0	0	0	0	9
7:30 AM	0	3	0	3	0	0	0	0	0	0	0	0	3
7:45 AM	1	6	0	7	0	0	0	0	0	0	0	0	7
Total	6	19	0	25	0	0	0	0	0	0	0	0	25
8:00 AM	2	5	0	7	0	0	0	0	0	0	0	0	7
8:15 AM	1	6	0	7	0	0	0	0	0	0	0	0	7
8:30 AM	2	5	0	7	0	0	0	0	0	0	0	0	7
8:45 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	5	20	0	25	0	0	0	0	0	0	0	0	25
Grand Total	11	39	0	50	0	0	0	0	0	0	0	0	50
Approach %	22.0	78.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	22.0	78.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				39				11				50

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

7:45 AM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
7:45 AM	1	6	0	7	0	0	0	0	0	0	0	0	0	7
8:00 AM	2	5	0	7	0	0	0	0	0	0	0	0	0	7
8:15 AM	1	6	0	7	0	0	0	0	0	0	0	0	0	7
8:30 AM	2	5	0	7	0	0	0	0	0	0	0	0	0	7
Total Volume	6	22	0	28	0	0	0	0	0	0	0	0	0	28
% Approach Total	21.4	78.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.750	0.917	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		1.000
Entering Leg	6	22	0	28	0	0	0	0	0	0	0	0	0	28
Exiting Leg				0				22				6		28
Total				28				22				6		56

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
7:15 AM	0	6	0	6	0	0	0	0	0	0	0	0	6
7:30 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
7:45 AM	0	6	0	6	0	0	0	0	0	0	0	0	6
Total	0	20	0	20	0	0	0	0	0	0	0	0	20
8:00 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
8:15 AM	0	6	0	6	0	0	0	0	0	0	0	0	6
8:30 AM	0	5	0	5	0	0	0	0	0	0	0	0	5
8:45 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	19	0	19	0	0	0	0	0	0	0	0	19
Grand Total	0	39	0	39	0	0	0	0	0	0	0	0	39
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				39				0				39

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

7:45 AM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
7:45 AM	0	6	0	6	0	0	0	0	0	0	0	0	0	6
8:00 AM	0	4	0	4	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	6	0	6	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	5	0	5	0	0	0	0	0	0	0	0	0	5
Total Volume	0	21	0	21	0	0	0	0	0	0	0	0	0	21
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.875	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	0	21	0	21	0	0	0	0	0	0	0	0	0	21
Exiting Leg				0				21					0	21
Total				21				21					0	42

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street						Elm Street						Chester Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
7:15 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
7:45 AM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	0	43	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
8:00 AM	0	24	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
8:15 AM	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
8:30 AM	1	23	0	1	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8:45 AM	0	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Total	1	83	0	1	0	85	0	0	0	0	0	0	0	0	0	0	0	0	0	85
Grand Total	1	126	0	1	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0	128
Approach %	0.8	98.4	0.0	0.8	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total %	0.8	98.4	0.0	0.8	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total	1						126						1						128	

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

8:00 AM	Elm Street						Elm Street						Chester Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
8:00 AM	0	24	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
8:15 AM	0	17	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
8:30 AM	1	23	0	1	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8:45 AM	0	19	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Total Volume	1	83	0	1	0	85	0	0	0	0	0	0	0	0	0	0	0	0	0	85
% Approach Total	1.2	97.6	0.0	1.2	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.865	0.000	0.250	0.000	0.850	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.850
Entering Leg	1	83	0	1	0	85	0	0	0	0	0	0		0	0	0	0	0	0	85
Exiting Leg	1						83						1						85	
Total	86						83						1						170	

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	4	1	5	0	0	0	1	2	3	0	0	0	8	14	22	30
7:15 AM	0	0	0	2	3	5	0	0	0	5	5	10	0	0	0	11	15	26	41
7:30 AM	0	0	0	5	1	6	0	0	0	3	2	5	0	0	0	14	20	34	45
7:45 AM	0	0	0	2	4	6	0	0	0	2	2	4	0	0	0	23	27	50	60
Total	0	0	0	13	9	22	0	0	0	11	11	22	0	0	0	56	76	132	176
8:00 AM	0	0	0	5	11	16	0	0	0	0	4	4	0	0	0	14	25	39	59
8:15 AM	0	0	0	5	5	10	0	0	0	5	2	7	0	0	0	28	24	52	69
8:30 AM	0	0	0	18	6	24	0	0	0	3	7	10	0	0	0	24	31	55	89
8:45 AM	0	0	0	10	3	13	0	0	0	7	6	13	0	0	0	21	20	41	67
Total	0	0	0	38	25	63	0	0	0	15	19	34	0	0	0	87	100	187	284
Grand Total	0	0	0	51	34	85	0	0	0	26	30	56	0	0	0	143	176	319	460
Approach %	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	46.4	53.6		0.0	0.0	0.0	44.8	55.2		
Total %	0.0	0.0	0.0	11.1	7.4	18.5	0.0	0.0	0.0	5.7	6.5	12.2	0.0	0.0	0.0	31.1	38.3	69.3	
Exiting Leg Total	85						56						319						460

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

8:00 AM	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	5	11	16	0	0	0	0	4	4	0	0	0	14	25	39	59
8:15 AM	0	0	0	5	5	10	0	0	0	5	2	7	0	0	0	28	24	52	69
8:30 AM	0	0	0	18	6	24	0	0	0	3	7	10	0	0	0	24	31	55	89
8:45 AM	0	0	0	10	3	13	0	0	0	7	6	13	0	0	0	21	20	41	67
Total Volume	0	0	0	38	25	63	0	0	0	15	19	34	0	0	0	87	100	187	284
% Approach Total	0.0	0.0	0.0	60.3	39.7		0.0	0.0	0.0	44.1	55.9		0.0	0.0	0.0	46.5	53.5		
PHF	0.000	0.000	0.000	0.528	0.568	0.656	0.000	0.000	0.000	0.536	0.679	0.654	0.000	0.000	0.000	0.777	0.806	0.850	0.798
Entering Leg	0	0	0	38	25	63	0	0	0	15	19	34	0	0	0	87	100	187	284
Exiting Leg	63						34						187						284
Total	126						68						374						568

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	18	150	0	168	0	0	0	0	0	0	0	0	168
4:15 PM	26	150	0	176	0	0	0	0	0	0	0	0	176
4:30 PM	27	150	0	177	0	0	0	0	0	0	0	0	177
4:45 PM	38	145	0	183	0	0	0	0	0	0	0	0	183
Total	109	595	0	704	0	0	0	0	0	0	0	0	704
5:00 PM	20	155	0	175	0	0	0	0	0	0	0	0	175
5:15 PM	25	161	0	186	0	0	0	0	0	0	0	0	186
5:30 PM	41	166	0	207	0	0	0	0	0	0	0	0	207
5:45 PM	27	143	0	170	0	0	0	0	0	0	0	0	170
Total	113	625	0	738	0	0	0	0	0	0	0	0	738
Grand Total	222	1220	0	1442	0	0	0	0	0	0	0	0	1442
Approach %	15.4	84.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	15.4	84.6	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1220				222				1442
Cars	221	1178	0	1399	0	0	0	0	0	0	0	0	1399
% Cars	99.5	96.6	0.0	97.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.0
Exiting Leg Total	0				1178				221				1399
Heavy Vehicles	1	42	0	43	0	0	0	0	0	0	0	0	43
% Heavy Vehicles	0.5	3.4	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Exiting Leg Total	0				42				1				43

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

4:45 PM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:45 PM	38	145	0	183	0	0	0	0	0	0	0	0	183
5:00 PM	20	155	0	175	0	0	0	0	0	0	0	0	175
5:15 PM	25	161	0	186	0	0	0	0	0	0	0	0	186
5:30 PM	41	166	0	207	0	0	0	0	0	0	0	0	207
Total Volume	124	627	0	751	0	0	0	0	0	0	0	0	751
% Approach Total	16.5	83.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.756	0.944	0.000	0.907	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.907
Cars	124	607	0	731	0	0	0	0	0	0	0	0	731
Cars %	100.0	96.8	0.0	97.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.3
Heavy Vehicles	0	20	0	20	0	0	0	0	0	0	0	0	20
Heavy Vehicles %	0.0	3.2	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
Cars Enter Leg	124	607	0	731	0	0	0	0	0	0	0	0	731
Heavy Enter Leg	0	20	0	20	0	0	0	0	0	0	0	0	20
Total Entering Leg	124	627	0	751	0	0	0	0	0	0	0	0	751
Cars Exiting Leg	0				607				124				731
Heavy Exiting Leg	0				20				0				20
Total Exiting Leg	0				627				124				751

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	18	143	0	161	0	0	0	0	0	0	0	0	161
4:15 PM	26	144	0	170	0	0	0	0	0	0	0	0	170
4:30 PM	27	144	0	171	0	0	0	0	0	0	0	0	171
4:45 PM	38	143	0	181	0	0	0	0	0	0	0	0	181
Total	109	574	0	683	0	0	0	0	0	0	0	0	683
5:00 PM	20	152	0	172	0	0	0	0	0	0	0	0	172
5:15 PM	25	153	0	178	0	0	0	0	0	0	0	0	178
5:30 PM	41	159	0	200	0	0	0	0	0	0	0	0	200
5:45 PM	26	140	0	166	0	0	0	0	0	0	0	0	166
Total	112	604	0	716	0	0	0	0	0	0	0	0	716
Grand Total	221	1178	0	1399	0	0	0	0	0	0	0	0	1399
Approach %	15.8	84.2	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	15.8	84.2	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1178				221				1399

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

4:45 PM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:45 PM	38	143	0	181	0	0	0	0	0	0	0	0	181
5:00 PM	20	152	0	172	0	0	0	0	0	0	0	0	172
5:15 PM	25	153	0	178	0	0	0	0	0	0	0	0	178
5:30 PM	41	159	0	200	0	0	0	0	0	0	0	0	200
Total Volume	124	607	0	731	0	0	0	0	0	0	0	0	731
% Approach Total	17.0	83.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.756	0.954	0.000	0.914	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.914
Entering Leg	124	607	0	731	0	0	0	0	0	0	0	0	731
Exiting Leg				0				607				124	731
Total				731				607				124	1462

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	7	0	7	0	0	0	0	0	0	0	0	7
4:15 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
4:30 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
4:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	21	0	21	0	0	0	0	0	0	0	0	21
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	0	8	0	8	0	0	0	0	0	0	0	0	8
5:30 PM	0	7	0	7	0	0	0	0	0	0	0	0	7
5:45 PM	1	3	0	4	0	0	0	0	0	0	0	0	4
Total	1	21	0	22	0	0	0	0	0	0	0	0	22
Grand Total	1	42	0	43	0	0	0	0	0	0	0	0	43
Approach %	2.3	97.7	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	2.3	97.7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				42				1				43
Large Trucks	1	7	0	8	0	0	0	0	0	0	0	0	8
% Large Trucks	100.0	16.7	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.6
Exiting Leg Total	0				7				1				8
Buses	0	35	0	35	0	0	0	0	0	0	0	0	35
% Buses	0.0	83.3	0.0	81.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.4
Exiting Leg Total	0				35				0				35

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

5:00 PM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
5:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
5:15 PM	0	8	0	8	0	0	0	0	0	0	0	0	8
5:30 PM	0	7	0	7	0	0	0	0	0	0	0	0	7
5:45 PM	1	3	0	4	0	0	0	0	0	0	0	0	4
Total Volume	1	21	0	22	0	0	0	0	0	0	0	0	22
% Approach Total	4.5	95.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.656	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.688
Large Trucks	1	4	0	5	0	0	0	0	0	0	0	0	5
Large Trucks %	100.0	19.0	0.0	22.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.7
Buses	0	17	0	17	0	0	0	0	0	0	0	0	17
Buses %	0.0	81.0	0.0	77.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.3
Trucks Enter Leg	1	4	0	5	0	0	0	0	0	0	0	0	5
Bus Enter Leg	0	17	0	17	0	0	0	0	0	0	0	0	17
Total Entering Leg	1	21	0	22	0	0	0	0	0	0	0	0	22
Trucks Exiting Leg				0				4				1	5
Buses Exiting Leg				0				17				0	17
Total Exiting Leg				0				21				1	22

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
4:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	0	0	0	0	0	0	0	0	3
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	1	1	0	2	0	0	0	0	0	0	0	0	2
Total	1	4	0	5	0	0	0	0	0	0	0	0	5
Grand Total	1	7	0	8	0	0	0	0	0	0	0	0	8
Approach %	12.5	87.5	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	12.5	87.5	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				7				1				8

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

5:00 PM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
5:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:45 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	2
Total Volume	1	4	0	5	0	0	0	0	0	0	0	0	0	5
% Approach Total	20.0	80.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.250	1.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.625
Entering Leg	1	4	0	5	0	0	0	0	0	0	0	0		5
Exiting Leg				0				4				1		5
Total				5				4				1		10

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
4:15 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
4:30 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
4:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	18	0	18	0	0	0	0	0	0	0	0	18
5:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
5:15 PM	0	7	0	7	0	0	0	0	0	0	0	0	7
5:30 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
5:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	17	0	17	0	0	0	0	0	0	0	0	17
Grand Total	0	35	0	35	0	0	0	0	0	0	0	0	35
Approach %	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				35				0				35

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

4:00 PM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	6
4:15 PM	0	4	0	4	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
Total Volume	0	18	0	18	0	0	0	0	0	0	0	0	0	18
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	18	0	18	0	0	0	0	0	0	0	0	0	18
Exiting Leg				0				18					0	18
Total				18				18					0	36

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	2	3
4:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	4	0	0	0	4	0	0	0	0	1	1	0	0	0	0	0	0	5
4:45 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	1	4
Total	0	13	0	0	0	13	0	0	0	0	1	1	0	0	0	1	2	3	17
5:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	2	23	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25
Grand Total	2	36	0	0	0	38	0	0	0	0	1	1	0	0	0	1	2	3	42
Approach %	5.3	94.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	33.3	66.7		
Total %	4.8	85.7	0.0	0.0	0.0	90.5	0.0	0.0	0.0	0.0	2.4	2.4	0.0	0.0	0.0	2.4	4.8	7.1	
Exiting Leg Total	0						37						5						42

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

5:00 PM	Elm Street						Elm Street						Chester Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total Volume	2	23	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
% Approach Total	8.0	92.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.500	0.719	0.000	0.000	0.000	0.781	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.781
Entering Leg	2	23	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Exiting Leg	0						23						2						25	
Total	25						23						2						50	

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	20	15	35	0	0	0	5	9	14	0	0	0	40	61	101	150
4:15 PM	0	0	0	17	12	29	0	0	0	11	15	26	0	0	0	39	57	96	151
4:30 PM	0	0	0	16	16	32	0	0	0	11	12	23	0	0	0	39	44	83	138
4:45 PM	0	0	0	16	8	24	0	0	0	16	9	25	0	0	0	38	46	84	133
Total	0	0	0	69	51	120	0	0	0	43	45	88	0	0	0	156	208	364	572
5:00 PM	0	0	0	22	23	45	0	0	0	6	13	19	0	0	0	43	76	119	183
5:15 PM	0	0	0	21	19	40	0	0	0	6	16	22	0	0	0	52	89	141	203
5:30 PM	0	0	0	35	25	60	0	0	0	10	21	31	0	0	0	60	102	162	253
5:45 PM	0	0	0	31	20	51	0	0	0	12	41	53	0	0	0	81	121	202	306
Total	0	0	0	109	87	196	0	0	0	34	91	125	0	0	0	236	388	624	945
Grand Total	0	0	0	178	138	316	0	0	0	77	136	213	0	0	0	392	596	988	1517
Approach %	0.0	0.0	0.0	56.3	43.7		0.0	0.0	0.0	36.2	63.8		0.0	0.0	0.0	39.7	60.3		
Total %	0.0	0.0	0.0	11.7	9.1	20.8	0.0	0.0	0.0	5.1	9.0	14.0	0.0	0.0	0.0	25.8	39.3	65.1	
Exiting Leg Total	316						213						988						1517

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

5:00 PM	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	22	23	45	0	0	0	6	13	19	0	0	0	43	76	119	183
5:15 PM	0	0	0	21	19	40	0	0	0	6	16	22	0	0	0	52	89	141	203
5:30 PM	0	0	0	35	25	60	0	0	0	10	21	31	0	0	0	60	102	162	253
5:45 PM	0	0	0	31	20	51	0	0	0	12	41	53	0	0	0	81	121	202	306
Total Volume	0	0	0	109	87	196	0	0	0	34	91	125	0	0	0	236	388	624	945
% Approach Total	0.0	0.0	0.0	55.6	44.4		0.0	0.0	0.0	27.2	72.8		0.0	0.0	0.0	37.8	62.2		
PHF	0.000	0.000	0.000	0.779	0.870	0.817	0.000	0.000	0.000	0.708	0.555	0.590	0.000	0.000	0.000	0.728	0.802	0.772	0.772
Entering Leg	0	0	0	109	87	196	0	0	0	34	91	125	0	0	0	236	388	624	945
Exiting Leg	196						125						624						945
Total	392						250						1248						1890

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	20	144	0	164	0	0	0	0	0	0	0	0	164
11:15 AM	36	171	0	207	0	0	0	0	0	0	0	0	207
11:30 AM	32	178	0	210	0	0	0	0	0	0	0	0	210
11:45 AM	37	172	0	209	0	0	0	0	0	0	0	0	209
Total	125	665	0	790	0	0	0	0	0	0	0	0	790
12:00 PM	37	189	0	226	0	0	0	0	0	0	0	0	226
12:15 PM	31	173	0	204	0	0	0	0	0	0	0	0	204
12:30 PM	33	162	0	195	0	0	0	0	0	0	0	0	195
12:45 PM	44	151	0	195	0	0	0	0	0	0	0	0	195
Total	145	675	0	820	0	0	0	0	0	0	0	0	820
1:00 PM	34	147	0	181	0	0	0	0	0	0	0	0	181
1:15 PM	42	182	0	224	0	0	0	0	0	0	0	0	224
1:30 PM	31	165	0	196	0	0	0	0	0	0	0	0	196
1:45 PM	34	173	0	207	0	0	0	0	0	0	0	0	207
Total	141	667	0	808	0	0	0	0	0	0	0	0	808
Grand Total	411	2007	0	2418	0	0	0	0	0	0	0	0	2418
Approach %	17.0	83.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	17.0	83.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				2007				411				2418
Cars	408	1954	0	2362	0	0	0	0	0	0	0	0	2362
% Cars	99.3	97.4	0.0	97.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.7
Exiting Leg Total	0				1954				408				2362
Heavy Vehicles	3	53	0	56	0	0	0	0	0	0	0	0	56
% Heavy Vehicles	0.7	2.6	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Exiting Leg Total	0				53				3				56

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
11:15 AM	36	171	0	207	0	0	0	0	0	0	0	0	0	207
11:30 AM	32	178	0	210	0	0	0	0	0	0	0	0	0	210
11:45 AM	37	172	0	209	0	0	0	0	0	0	0	0	0	209
12:00 PM	37	189	0	226	0	0	0	0	0	0	0	0	0	226
Total Volume	142	710	0	852	0	0	0	0	0	0	0	0	0	852
% Approach Total	16.7	83.3	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.959	0.939	0.000	0.942	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.942
Cars	140	693	0	833	0	0	0	0	0	0	0	0	0	833
Cars %	98.6	97.6	0.0	97.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.8
Heavy Vehicles	2	17	0	19	0	0	0	0	0	0	0	0	0	19
Heavy Vehicles %	1.4	2.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	140	693	0	833	0	0	0	0	0	0	0	0	0	833
Heavy Enter Leg	2	17	0	19	0	0	0	0	0	0	0	0	0	19
Total Entering Leg	142	710	0	852	0	0	0	0	0	0	0	0	0	852
Cars Exiting Leg	0				693				140				833	
Heavy Exiting Leg	0				17				2				19	
Total Exiting Leg	0				710				142				852	

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	20	138	0	158	0	0	0	0	0	0	0	0	158
11:15 AM	34	165	0	199	0	0	0	0	0	0	0	0	199
11:30 AM	32	176	0	208	0	0	0	0	0	0	0	0	208
11:45 AM	37	169	0	206	0	0	0	0	0	0	0	0	206
Total	123	648	0	771	0	0	0	0	0	0	0	0	771
12:00 PM	37	183	0	220	0	0	0	0	0	0	0	0	220
12:15 PM	30	168	0	198	0	0	0	0	0	0	0	0	198
12:30 PM	33	160	0	193	0	0	0	0	0	0	0	0	193
12:45 PM	44	148	0	192	0	0	0	0	0	0	0	0	192
Total	144	659	0	803	0	0	0	0	0	0	0	0	803
1:00 PM	34	142	0	176	0	0	0	0	0	0	0	0	176
1:15 PM	42	173	0	215	0	0	0	0	0	0	0	0	215
1:30 PM	31	165	0	196	0	0	0	0	0	0	0	0	196
1:45 PM	34	167	0	201	0	0	0	0	0	0	0	0	201
Total	141	647	0	788	0	0	0	0	0	0	0	0	788
Grand Total	408	1954	0	2362	0	0	0	0	0	0	0	0	2362
Approach %	17.3	82.7	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	17.3	82.7	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				1954				408				2362

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:15 AM	34	165	0	199	0	0	0	0	0	0	0	0	199
11:30 AM	32	176	0	208	0	0	0	0	0	0	0	0	208
11:45 AM	37	169	0	206	0	0	0	0	0	0	0	0	206
12:00 PM	37	183	0	220	0	0	0	0	0	0	0	0	220
Total Volume	140	693	0	833	0	0	0	0	0	0	0	0	833
% Approach Total	16.8	83.2	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.946	0.947	0.000	0.947	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.947
Entering Leg	140	693	0	833	0	0	0	0	0	0	0	0	833
Exiting Leg				0				693				140	833
Total				833				693				140	1666

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	6	0	6	0	0	0	0	0	0	0	0	6
11:15 AM	2	6	0	8	0	0	0	0	0	0	0	0	8
11:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
11:45 AM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	2	17	0	19	0	0	0	0	0	0	0	0	19
12:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
12:15 PM	1	5	0	6	0	0	0	0	0	0	0	0	6
12:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
12:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	1	16	0	17	0	0	0	0	0	0	0	0	17
1:00 PM	0	5	0	5	0	0	0	0	0	0	0	0	5
1:15 PM	0	9	0	9	0	0	0	0	0	0	0	0	9
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
Total	0	20	0	20	0	0	0	0	0	0	0	0	20
Grand Total	3	53	0	56	0	0	0	0	0	0	0	0	56
Approach %	5.4	94.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	5.4	94.6	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				53				3				56
Large Trucks	1	27	0	28	0	0	0	0	0	0	0	0	28
% Large Trucks	33.3	50.9	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total	0				27				1				28
Buses	2	26	0	28	0	0	0	0	0	0	0	0	28
% Buses	66.7	49.1	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total	0				26				2				28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
1:00 PM	0	5	0	5	0	0	0	0	0	0	0	0	0	5
1:15 PM	0	9	0	9	0	0	0	0	0	0	0	0	0	9
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	6	0	6	0	0	0	0	0	0	0	0	0	6
Total Volume	0	20	0	20	0	0	0	0	0	0	0	0	0	20
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.556	0.000	0.556	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.556
Large Trucks	0	10	0	10	0	0	0	0	0	0	0	0	0	10
Large Trucks %	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Buses	0	10	0	10	0	0	0	0	0	0	0	0	0	10
Buses %	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Trucks Enter Leg	0	10	0	10	0	0	0	0	0	0	0	0	0	10
Bus Enter Leg	0	10	0	10	0	0	0	0	0	0	0	0	0	10
Total Entering Leg	0	20	0	20	0	0	0	0	0	0	0	0	0	20
Trucks Exiting Leg				0				10					0	10
Buses Exiting Leg				0				10					0	10
Total Exiting Leg				0				20					0	20

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	5	0	5	0	0	0	0	0	0	0	0	5
11:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	9	0	9	0	0	0	0	0	0	0	0	9
12:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
12:15 PM	1	3	0	4	0	0	0	0	0	0	0	0	4
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	1	8	0	9	0	0	0	0	0	0	0	0	9
1:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
1:15 PM	0	3	0	3	0	0	0	0	0	0	0	0	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	10	0	10	0	0	0	0	0	0	0	0	10
Grand Total	1	27	0	28	0	0	0	0	0	0	0	0	28
Approach %	3.6	96.4	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	3.6	96.4	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				27				1				28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
12:15 PM	1	3	0	4	0	0	0	0	0	0	0	0	0	4
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
1:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	3
Total Volume	1	9	0	10	0	0	0	0	0	0	0	0	0	10
% Approach Total	10.0	90.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.250	0.750	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.625
Entering Leg	1	9	0	10	0	0	0	0	0	0	0	0		10
Exiting Leg				0				9				1		10
Total				10				9				1		20

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Elm Street				Elm Street				Chester Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
11:15 AM	2	4	0	6	0	0	0	0	0	0	0	0	6
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	2	8	0	10	0	0	0	0	0	0	0	0	10
12:00 PM	0	4	0	4	0	0	0	0	0	0	0	0	4
12:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	8	0	8	0	0	0	0	0	0	0	0	8
1:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
1:15 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	0	10	0	10	0	0	0	0	0	0	0	0	10
Grand Total	2	26	0	28	0	0	0	0	0	0	0	0	28
Approach %	7.1	92.9	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
Total %	7.1	92.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0				26				2				28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street				Elm Street				Chester Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
11:15 AM	2	4	0	6	0	0	0	0	0	0	0	0	0	6
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
12:00 PM	0	4	0	4	0	0	0	0	0	0	0	0	0	4
Total Volume	2	11	0	13	0	0	0	0	0	0	0	0	0	13
% Approach Total	15.4	84.6	0.0		0.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.250	0.688	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.542
Entering Leg	2	11	0	13	0	0	0	0	0	0	0	0		13
Exiting Leg				0				11				2		13
Total				13				11				2		26

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
11:15 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
11:45 AM	1	10	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	1	23	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	24
12:00 PM	0	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
12:15 PM	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
12:30 PM	1	18	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	0	9	0	0	0	9	0	0	0	1	0	1	0	0	0	0	0	0	10
Total	1	52	0	0	0	53	0	0	0	1	0	1	0	0	0	0	0	0	54
1:00 PM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11
1:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	8	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
1:45 PM	1	12	0	0	0	13	0	0	0	0	0	0	0	0	0	0	1	1	14
Total	1	33	0	1	0	35	0	0	0	0	0	0	0	0	0	0	1	1	36
Grand Total	3	108	0	1	0	112	0	0	0	1	0	1	0	0	0	0	1	1	114
Approach %	2.7	96.4	0.0	0.9	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0		
Total %	2.6	94.7	0.0	0.9	0.0	98.2	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.9	0.9	
Exiting Leg Total	1						109						4						114

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
12:15 PM	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
12:30 PM	1	18	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	0	9	0	0	0	9	0	0	0	1	0	1	0	0	0	0	0	0	10
1:00 PM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11
Total Volume	1	54	0	0	0	55	0	0	0	1	0	1	0	0	0	0	0	0	56
% Approach Total	1.8	98.2	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.750	0.000	0.000	0.000	0.724	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.737
Entering Leg	1	54	0	0	0	55	0	0	0	1	0	1	0	0	0	0	0	0	56
Exiting Leg	0						55						1						56
Total	55						56						1						112

PDI File #: **175971 A**
 Location: **N: Elm Street S: Elm Street**
 Location: **W: Chester Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	35	19	54	0	0	0	13	21	34	0	0	0	51	78	129	217
11:15 AM	0	0	0	21	21	42	0	0	0	15	26	41	0	0	0	43	71	114	197
11:30 AM	0	0	0	29	17	46	0	0	0	19	24	43	0	0	0	66	85	151	240
11:45 AM	0	0	0	23	13	36	0	0	0	18	24	42	0	0	0	73	84	157	235
Total	0	0	0	108	70	178	0	0	0	65	95	160	0	0	0	233	318	551	889
12:00 PM	0	0	0	31	23	54	0	0	0	16	22	38	0	0	0	76	93	169	261
12:15 PM	0	0	0	23	24	47	0	0	0	21	25	46	0	0	0	66	85	151	244
12:30 PM	0	0	0	22	26	48	0	0	0	16	25	41	0	0	0	59	117	176	265
12:45 PM	0	0	0	25	31	56	0	0	0	20	38	58	0	0	0	86	112	198	312
Total	0	0	0	101	104	205	0	0	0	73	110	183	0	0	0	287	407	694	1082
1:00 PM	0	0	0	37	36	73	0	0	0	15	42	57	0	0	0	55	77	132	262
1:15 PM	0	0	0	25	24	49	0	0	0	20	27	47	0	0	0	80	107	187	283
1:30 PM	0	0	0	27	47	74	0	0	0	23	43	66	0	0	0	99	145	244	384
1:45 PM	0	0	0	24	32	56	0	0	0	18	50	68	0	0	0	80	132	212	336
Total	0	0	0	113	139	252	0	0	0	76	162	238	0	0	0	314	461	775	1265
Grand Total	0	0	0	322	313	635	0	0	0	214	367	581	0	0	0	834	1186	2020	3236
Approach %	0.0	0.0	0.0	50.7	49.3		0.0	0.0	0.0	36.8	63.2		0.0	0.0	0.0	41.3	58.7		
Total %	0.0	0.0	0.0	10.0	9.7	19.6	0.0	0.0	0.0	6.6	11.3	18.0	0.0	0.0	0.0	25.8	36.7	62.4	
Exiting Leg Total	635						581						2020						3236

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Elm Street						Elm Street						Chester Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
1:00 PM	0	0	0	37	36	73	0	0	0	15	42	57	0	0	0	55	77	132	262
1:15 PM	0	0	0	25	24	49	0	0	0	20	27	47	0	0	0	80	107	187	283
1:30 PM	0	0	0	27	47	74	0	0	0	23	43	66	0	0	0	99	145	244	384
1:45 PM	0	0	0	24	32	56	0	0	0	18	50	68	0	0	0	80	132	212	336
Total Volume	0	0	0	113	139	252	0	0	0	76	162	238	0	0	0	314	461	775	1265
% Approach Total	0.0	0.0	0.0	44.8	55.2		0.0	0.0	0.0	31.9	68.1		0.0	0.0	0.0	40.5	59.5		
PHF	0.000	0.000	0.000	0.764	0.739	0.851	0.000	0.000	0.000	0.826	0.810	0.875	0.000	0.000	0.000	0.793	0.795	0.794	0.824
Entering Leg	0	0	0	113	139	252	0	0	0	76	162	238	0	0	0	314	461	775	1265
Exiting Leg	252						238						775						1265
Total	504						476						1550						2530

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	175	5	0	180	0	0	17	0	17	0	0	0	0	0	0	0	0	0	0	197	
7:15 AM	0	198	10	0	208	0	0	22	0	22	0	0	0	0	0	0	0	0	0	0	230	
7:30 AM	0	175	12	0	187	0	0	17	0	17	0	0	0	0	0	0	1	2	0	0	3	207
7:45 AM	0	207	23	0	230	0	0	31	0	31	0	0	0	0	0	0	0	0	0	0	0	261
Total	0	755	50	0	805	0	0	87	0	87	0	0	0	0	0	0	1	2	0	0	3	895
8:00 AM	0	167	14	0	181	0	0	44	0	44	0	0	0	0	0	0	2	3	0	0	5	230
8:15 AM	0	149	30	0	179	0	0	34	0	34	0	0	0	0	0	0	1	2	0	0	3	216
8:30 AM	0	197	22	0	219	0	0	32	0	32	0	0	0	1	1	1	1	1	0	0	2	254
8:45 AM	0	156	25	0	181	0	0	40	0	40	0	0	0	0	0	0	0	0	0	0	0	221
Total	0	669	91	0	760	0	0	150	0	150	0	0	0	0	1	1	4	6	0	0	10	921
Grand Total	0	1424	141	0	1565	0	0	237	0	237	0	0	0	1	1	1	5	8	0	0	13	1816
Approach %	0.0	91.0	9.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0			38.5	61.5	0.0	0.0		
Total %	0.0	78.4	7.8	0.0	86.2	0.0	0.0	13.1	0.0	13.1	0.0	0.0	0.0	0.1	0.1		0.3	0.4	0.0	0.0	0.7	
Exiting Leg Total	0					149					1667					0					1816	
Cars	0	1366	119	0	1485	0	0	232	0	232	0	0	0	1	1	1	5	8	0	0	13	1731
% Cars	0.0	95.9	84.4	0.0	94.9	0.0	0.0	97.9	0.0	97.9	0.0	0.0	0.0	100.0	100.0		100.0	100.0	0.0	0.0	100.0	95.3
Exiting Leg Total	0					127					1604					0					1731	
Heavy Vehicles	0	58	22	0	80	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	85
% Heavy Vehicles	0.0	4.1	15.6	0.0	5.1	0.0	0.0	2.1	0.0	2.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	4.7
Exiting Leg Total	0					22					63					0					85	

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

7:45 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue											
	from North					from East					from South					from West											
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total							
7:45 AM	0	207	23	0	230	0	0	31	0	31	0	0	0	0	0	0	0	0	0	0	0	261					
8:00 AM	0	167	14	0	181	0	0	44	0	44	0	0	0	0	0	0	2	3	0	0	5	230					
8:15 AM	0	149	30	0	179	0	0	34	0	34	0	0	0	0	0	0	1	2	0	0	3	216					
8:30 AM	0	197	22	0	219	0	0	32	0	32	0	0	0	0	1	1	1	1	0	0	2	254					
Total Volume	0	720	89	0	809	0	0	141	0	141	0	0	0	0	1	1	4	6	0	0	10	961					
% Approach Total	0.0	89.0	11.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0		40.0	60.0	0.0	0.0							
PHF	0.000	0.870	0.742	0.000	0.879	0.000	0.000	0.801	0.000	0.801	0.000	0.000	0.000	0.250	0.250		0.500	0.500	0.000	0.000	0.500	0.920					
Cars	0	692	73	0	765	0	0	139	0	139	0	0	0	0	1	1	4	6	0	0	10	915					
Cars %	0.0	96.1	82.0	0.0	94.6	0.0	0.0	98.6	0.0	98.6	0.0	0.0	0.0	0.0	100.0	100.0	100.0	100.0	0.0	0.0	100.0	95.2					
Heavy Vehicles	0	28	16	0	44	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	46					
Heavy Vehicles %	0.0	3.9	18.0	0.0	5.4	0.0	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8					
Cars Enter Leg	0	692	73	0	765	0	0	139	0	139	0	0	0	0	1	1	4	6	0	0	10	915					
Heavy Enter Leg	0	28	16	0	44	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	46					
Total Entering Leg	0	720	89	0	809	0	0	141	0	141	0	0	0	0	1	1	4	6	0	0	10	961					
Cars Exiting Leg																										0	915
Heavy Exiting Leg																										0	46
Total Exiting Leg																										0	961

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	168	5	0	173	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	189	
7:15 AM	0	184	9	0	193	0	0	22	0	22	0	0	0	0	0	0	0	0	0	0	215	
7:30 AM	0	170	10	0	180	0	0	16	0	16	0	0	0	0	0	0	1	2	0	0	3	199
7:45 AM	0	196	20	0	216	0	0	30	0	30	0	0	0	0	0	0	0	0	0	0	0	246
Total	0	718	44	0	762	0	0	84	0	84	0	0	0	0	0	0	1	2	0	0	3	849
8:00 AM	0	162	12	0	174	0	0	43	0	43	0	0	0	0	0	0	2	3	0	0	5	222
8:15 AM	0	145	21	0	166	0	0	34	0	34	0	0	0	0	0	0	1	2	0	0	3	203
8:30 AM	0	189	20	0	209	0	0	32	0	32	0	0	0	0	1	1	1	1	0	0	2	244
8:45 AM	0	152	22	0	174	0	0	39	0	39	0	0	0	0	0	0	0	0	0	0	0	213
Total	0	648	75	0	723	0	0	148	0	148	0	0	0	0	1	1	4	6	0	0	10	882
Grand Total	0	1366	119	0	1485	0	0	232	0	232	0	0	0	0	1	1	5	8	0	0	13	1731
Approach %	0.0	92.0	8.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0			38.5	61.5	0.0	0.0		
Total %	0.0	78.9	6.9	0.0	85.8	0.0	0.0	13.4	0.0	13.4	0.0	0.0	0.0	0.1	0.1		0.3	0.5	0.0	0.0	0.8	
Exiting Leg Total	0					127					1604					0					1731	

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

7:45 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:45 AM	0	196	20	0	216	0	0	30	0	30	0	0	0	0	0	0	0	0	0	0	246	
8:00 AM	0	162	12	0	174	0	0	43	0	43	0	0	0	0	0	0	2	3	0	0	5	222
8:15 AM	0	145	21	0	166	0	0	34	0	34	0	0	0	0	0	0	1	2	0	0	3	203
8:30 AM	0	189	20	0	209	0	0	32	0	32	0	0	0	1	1	0	1	1	0	0	2	244
Total Volume	0	692	73	0	765	0	0	139	0	139	0	0	0	1	1	4	6	0	0	10	915	
% Approach Total	0.0	90.5	9.5	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		40.0	60.0	0.0	0.0			
PHF	0.000	0.883	0.869	0.000	0.885	0.000	0.000	0.808	0.000	0.808	0.000	0.000	0.000	0.250	0.250	0.500	0.500	0.000	0.000	0.500	0.930	
Entering Leg	0	692	73	0	765	0	0	139	0	139	0	0	0	1	1	4	6	0	0	10	915	
Exiting Leg	0					79					836					0					915	
Total	765					218					837					10					1830	

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	7	0	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
7:15 AM	0	14	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
7:30 AM	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
7:45 AM	0	11	3	0	14	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	15
Total	0	37	6	0	43	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	46
8:00 AM	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
8:15 AM	0	4	9	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
8:30 AM	0	8	2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
8:45 AM	0	4	3	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
Total	0	21	16	0	37	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	39
Grand Total	0	58	22	0	80	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	85
Approach %	0.0	72.5	27.5	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	68.2	25.9	0.0	94.1	0.0	0.0	5.9	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					22					63					0					85
Large Trucks	0	31	11	0	42	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	47
% Large Trucks	0.0	53.4	50.0	0.0	52.5	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.3
Exiting Leg Total	0					11					36					0					47
Buses	0	27	11	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
% Buses	0.0	46.6	50.0	0.0	47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.7
Exiting Leg Total	0					11					27					0					38

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

7:00 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	7	0	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
7:15 AM	0	14	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
7:30 AM	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
7:45 AM	0	11	3	0	14	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	15
Total Volume	0	37	6	0	43	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	46
% Approach Total	0.0	86.0	14.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.661	0.500	0.000	0.717	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.767
Large Trucks	0	19	3	0	22	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	25
Large Trucks %	0.0	51.4	50.0	0.0	51.2	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.3
Buses	0	18	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Buses %	0.0	48.6	50.0	0.0	48.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.7
Trucks Enter Leg	0	19	3	0	22	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	25
Bus Enter Leg	0	18	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Total Entering Leg	0	37	6	0	43	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	46
Trucks Exiting Leg	0					3					22					0					25
Buses Exiting Leg	0					3					18					0					21
Total Exiting Leg	0					6					40					0					46

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
Total	0	19	3	0	22	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	25
8:00 AM	0	3	1	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	2	5	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	3	1	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
Total	0	12	8	0	20	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	22
Grand Total	0	31	11	0	42	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	47
Approach %	0.0	73.8	26.2	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	66.0	23.4	0.0	89.4	0.0	0.0	10.6	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					11					36					0					47

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

7:15 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	8	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
7:30 AM	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	5	2	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
8:00 AM	0	3	1	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	19	4	0	23	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	26
% Approach Total	0.0	82.6	17.4	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.594	0.500	0.000	0.639	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.722
Entering Leg	0	19	4	0	23	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	26
Exiting Leg	0					4					22					0					26
Total	23					7					22					0					52

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:30 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	0	18	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
8:00 AM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:45 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	9	8	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Grand Total	0	27	11	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Approach %	0.0	71.1	28.9	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	71.1	28.9	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					11					27					0					38

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

7:00 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:30 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total Volume	0	18	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
% Approach Total	0.0	85.7	14.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.375	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	18	3	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Exiting Leg	0					3					18					0					21
Total	21					3					18					0					42

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	9	0	0	0	0	9	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	12	0	0	0	0	12	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
7:30 AM	0	16	0	0	0	0	16	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
7:45 AM	0	7	0	0	0	0	7	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	0	44	0	0	0	0	44	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
8:00 AM	0	24	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
8:15 AM	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
8:30 AM	0	23	0	0	0	0	23	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
8:45 AM	0	18	0	0	0	0	18	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	0	82	0	0	0	0	82	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
Grand Total	0	126	0	0	0	0	126	0	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	91.3	0.0	0.0	0.0	0.0	91.3	0.0	0.0	8.7	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total	0							0							138							0							138

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

8:00 AM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	24	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
8:15 AM	0	17	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17		
8:30 AM	0	23	0	0	0	0	23	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	27		
8:45 AM	0	18	0	0	0	0	18	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	20		
Total Volume	0	82	0	0	0	0	82	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	88		
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.854	0.000	0.000	0.000	0.000	0.854	0.000	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.815		
Entering Leg	0	82	0	0	0	0	82	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	88		
Exiting Leg	0							0							88							0							88
Total	82							6							88							0							176

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	4	3	7	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	8	2	10	25
7:15 AM	0	0	0	0	2	1	3	0	0	0	0	6	7	13	0	0	0	0	0	1	1	0	0	0	0	11	11	22	39
7:30 AM	0	0	0	0	0	6	6	0	0	0	0	1	9	10	0	0	0	0	1	0	1	0	0	0	0	10	16	26	43
7:45 AM	0	0	0	0	1	4	5	0	0	0	0	8	13	21	0	0	0	0	2	0	2	0	0	0	0	14	16	30	58
Total	0	0	0	0	7	14	21	0	0	0	0	19	33	52	0	0	0	0	3	1	4	0	0	0	0	43	45	88	165
8:00 AM	0	0	0	0	9	9	18	0	0	0	0	8	14	22	0	0	0	0	0	0	0	0	0	0	0	7	7	14	54
8:15 AM	0	0	0	0	3	10	13	0	0	0	0	5	7	12	0	0	0	0	0	0	0	0	0	0	0	15	11	26	51
8:30 AM	0	0	0	0	6	10	16	0	0	0	0	8	15	23	0	0	0	0	0	0	0	0	0	0	0	18	19	37	76
8:45 AM	0	0	0	0	1	8	9	0	0	0	0	5	10	15	0	0	0	0	0	0	0	0	0	0	0	10	16	26	50
Total	0	0	0	0	19	37	56	0	0	0	0	26	46	72	0	0	0	0	0	0	0	0	0	0	0	50	53	103	231
Grand Total	0	0	0	0	26	51	77	0	0	0	0	45	79	124	0	0	0	0	3	1	4	0	0	0	0	93	98	191	396
Approach %	0.0	0.0	0.0	0.0	33.8	66.2		0.0	0.0	0.0	0.0	36.3	63.7		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	48.7	51.3		
Total %	0.0	0.0	0.0	0.0	6.6	12.9	19.4	0.0	0.0	0.0	0.0	11.4	19.9	31.3	0.0	0.0	0.0	0.0	0.8	0.3	1.0	0.0	0.0	0.0	0.0	23.5	24.7	48.2	
Exiting Leg Total	77							124							4							191							396

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

7:45 AM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	0	0	0	1	4	5	0	0	0	0	8	13	21	0	0	0	0	2	0	2	0	0	0	0	14	16	30	58
8:00 AM	0	0	0	0	9	9	18	0	0	0	0	8	14	22	0	0	0	0	0	0	0	0	0	0	7	7	14	54	
8:15 AM	0	0	0	0	3	10	13	0	0	0	0	5	7	12	0	0	0	0	0	0	0	0	0	0	15	11	26	51	
8:30 AM	0	0	0	0	6	10	16	0	0	0	0	8	15	23	0	0	0	0	0	0	0	0	0	0	18	19	37	76	
Total Volume	0	0	0	0	19	33	52	0	0	0	0	29	49	78	0	0	0	0	2	0	2	0	0	0	54	53	107	239	
% Approach Total	0.0	0.0	0.0	0.0	36.5	63.5		0.0	0.0	0.0	0.0	37.2	62.8		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.5	49.5		
PHF	0.000	0.000	0.000	0.000	0.528	0.825	0.722	0.000	0.000	0.000	0.000	0.906	0.817	0.848	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.750	0.697	0.723	0.786
Entering Leg	0	0	0	0	19	33	52	0	0	0	0	29	49	78	0	0	0	0	2	0	2	0	0	0	54	53	107	239	
Exiting Leg	52							78							2							107							239
Total	104							156							4							214							478

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	115	36	0	151	0	0	12	0	12	0	0	0	0	0	0	7	0	0	0	7	170
4:15 PM	1	118	41	0	160	0	0	19	0	19	0	0	0	0	0	0	4	0	0	0	4	183
4:30 PM	0	120	29	0	149	0	0	20	0	20	0	0	1	0	1	3	7	0	0	0	10	180
4:45 PM	0	113	27	0	140	0	0	17	0	17	0	0	0	0	0	1	9	0	0	0	10	167
Total	1	466	133	0	600	0	0	68	0	68	0	0	1	0	1	4	27	0	0	0	31	700
5:00 PM	0	125	33	0	158	0	0	19	0	19	0	0	0	0	0	3	17	0	0	0	20	197
5:15 PM	0	131	31	0	162	0	0	17	0	17	0	0	0	0	0	4	13	0	0	0	17	196
5:30 PM	0	136	30	0	166	0	0	14	0	14	0	0	1	0	1	5	11	0	0	0	16	197
5:45 PM	0	110	27	0	137	0	0	24	0	24	0	0	0	0	0	2	11	0	0	0	13	174
Total	0	502	121	0	623	0	0	74	0	74	0	0	1	0	1	14	52	0	0	0	66	764
Grand Total	1	968	254	0	1223	0	0	142	0	142	0	0	2	0	2	18	79	0	0	0	97	1464
Approach %	0.1	79.1	20.8	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		18.6	81.4	0.0	0.0			
Total %	0.1	66.1	17.3	0.0	83.5	0.0	0.0	9.7	0.0	9.7	0.0	0.0	0.1	0.0	0.1	1.2	5.4	0.0	0.0		6.6	
Exiting Leg Total	0					333					1128					3					1464	
Cars	1	932	242	0	1175	0	0	141	0	141	0	0	2	0	2	17	79	0	0	0	96	1414
% Cars	100.0	96.3	95.3	0.0	96.1	0.0	0.0	99.3	0.0	99.3	0.0	0.0	100.0	0.0	100.0	94.4	100.0	0.0	0.0	99.0	96.6	
Exiting Leg Total	0					321					1090					3					1414	
Heavy Vehicles	0	36	12	0	48	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	50
% Heavy Vehicles	0.0	3.7	4.7	0.0	3.9	0.0	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	1.0	3.4	
Exiting Leg Total	0					12					38					0					50	

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

5:00 PM	Elm Street					Grove Street					Elm Street					Bowers Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	125	33	0	158	0	0	19	0	19	0	0	0	0	0	3	17	0	0	20	197
5:15 PM	0	131	31	0	162	0	0	17	0	17	0	0	0	0	0	4	13	0	0	17	196
5:30 PM	0	136	30	0	166	0	0	14	0	14	0	0	1	0	1	5	11	0	0	16	197
5:45 PM	0	110	27	0	137	0	0	24	0	24	0	0	0	0	0	2	11	0	0	13	174
Total Volume	0	502	121	0	623	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	764
% Approach Total	0.0	80.6	19.4	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		21.2	78.8	0.0	0.0		
PHF	0.000	0.923	0.917	0.000	0.938	0.000	0.000	0.771	0.000	0.771	0.000	0.000	0.250	0.000	0.250	0.700	0.765	0.000	0.000	0.825	0.970
Cars	0	485	115	0	600	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	741
Cars %	0.0	96.6	95.0	0.0	96.3	0.0	0.0	100.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	97.0
Heavy Vehicles	0	17	6	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Heavy Vehicles %	0.0	3.4	5.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Cars Enter Leg	0	485	115	0	600	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	741
Heavy Enter Leg	0	17	6	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Total Entering Leg	0	502	121	0	623	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	764
Cars Exiting Leg	0					167					573					1					741
Heavy Exiting Leg	0					6					17					0					23
Total Exiting Leg	0					173					590					1					764

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	111	33	0	144	0	0	11	0	11	0	0	0	0	0	0	7	0	0	0	7	162
4:15 PM	1	112	40	0	153	0	0	19	0	19	0	0	0	0	0	0	4	0	0	0	4	176
4:30 PM	0	114	28	0	142	0	0	20	0	20	0	0	1	0	0	1	2	7	0	0	9	172
4:45 PM	0	110	26	0	136	0	0	17	0	17	0	0	0	0	0	0	1	9	0	0	10	163
Total	1	447	127	0	575	0	0	67	0	67	0	0	1	0	1	3	27	0	0	30	673	
5:00 PM	0	123	31	0	154	0	0	19	0	19	0	0	0	0	0	0	3	17	0	0	20	193
5:15 PM	0	124	29	0	153	0	0	17	0	17	0	0	0	0	0	0	4	13	0	0	17	187
5:30 PM	0	130	30	0	160	0	0	14	0	14	0	0	1	0	1	5	11	0	0	16	191	
5:45 PM	0	108	25	0	133	0	0	24	0	24	0	0	0	0	0	2	11	0	0	13	170	
Total	0	485	115	0	600	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	741	
Grand Total	1	932	242	0	1175	0	0	141	0	141	0	0	2	0	2	17	79	0	0	96	1414	
Approach %	0.1	79.3	20.6	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		17.7	82.3	0.0	0.0			
Total %	0.1	65.9	17.1	0.0	83.1	0.0	0.0	10.0	0.0	10.0	0.0	0.0	0.1	0.0	0.1	1.2	5.6	0.0	0.0	6.8		
Exiting Leg Total	0					321					1090					3					1414	

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

5:00 PM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	123	31	0	154	0	0	19	0	19	0	0	0	0	0	3	17	0	0	20	193
5:15 PM	0	124	29	0	153	0	0	17	0	17	0	0	0	0	0	4	13	0	0	17	187
5:30 PM	0	130	30	0	160	0	0	14	0	14	0	0	1	0	1	5	11	0	0	16	191
5:45 PM	0	108	25	0	133	0	0	24	0	24	0	0	0	0	0	2	11	0	0	13	170
Total Volume	0	485	115	0	600	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	741
% Approach Total	0.0	80.8	19.2	0.0		0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0		21.2	78.8	0.0	0.0		
PHF	0.000	0.933	0.927	0.000	0.938	0.000	0.000	0.771	0.000	0.771	0.000	0.000	0.250	0.000	0.250	0.700	0.765	0.000	0.000	0.825	0.960
Entering Leg	0	485	115	0	600	0	0	74	0	74	0	0	1	0	1	14	52	0	0	66	741
Exiting Leg	0					167					573					1					741
Total	600					241					574					67					1482

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	4	3	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8	
4:15 PM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
4:30 PM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	8
4:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	19	6	0	25	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	27
5:00 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	7	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:30 PM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:45 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	17	6	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Grand Total	0	36	12	0	48	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	50
Approach %	0.0	75.0	25.0	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	0.0		
Total %	0.0	72.0	24.0	0.0	96.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	
Exiting Leg Total	0					12					38					0					50	
Large Trucks	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	8
% Large Trucks	0.0	11.1	16.7	0.0	12.5	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	16.0
Exiting Leg Total	0					2					6					0					8	
Buses	0	32	10	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
% Buses	0.0	88.9	83.3	0.0	87.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.0
Exiting Leg Total	0					10					32					0					42	

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

4:00 PM	Elm Street					Grove Street					Elm Street					Bowers Avenue						
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	4	3	0	7	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8	
4:15 PM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
4:30 PM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	8
4:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Total Volume	0	19	6	0	25	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	27
% Approach Total	0.0	76.0	24.0	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	0.000	0.792	0.500	0.000	0.893	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000		0.250	0.000	0.000	0.000	0.250	0.844
Large Trucks	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	7
Large Trucks %	0.0	15.8	33.3	0.0	20.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	100.0	25.9
Buses	0	16	4	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Buses %	0.0	84.2	66.7	0.0	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	74.1
Trucks Enter Leg	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	1	7
Bus Enter Leg	0	16	4	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total Entering Leg	0	19	6	0	25	0	0	1	0	1	0	0	0	0	0		1	0	0	0	1	27
Trucks Exiting Leg	0					2					5					0					7	
Buses Exiting Leg	0					4					16					0					20	
Total Exiting Leg	0					6					21					0					27	

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1
Approach %	0.0	66.7	33.3	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		
Total %	0.0	50.0	25.0	0.0	75.0	0.0	0.0	12.5	0.0	12.5	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	12.5	
Exiting Leg Total	0					2					6					0					8

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

4:00 PM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	7
% Approach Total	0.0	60.0	40.0	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	0.000	0.250	0.500	0.000	0.417	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.583
Entering Leg	0	3	2	0	5	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	7
Exiting Leg	0					2					5					0					7
Total	5					3					5					1					14

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:15 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	16	4	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
5:00 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	7	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5:30 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	16	6	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Grand Total	0	32	10	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Approach %	0.0	76.2	23.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	76.2	23.8	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					10					32					0					42

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

4:30 PM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	7	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total Volume	0	18	5	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
% Approach Total	0.0	78.3	21.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.643	0.625	0.000	0.639	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.639
Entering Leg	0	18	5	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Exiting Leg	0					5					18					0					23
Total	23					5					18					0					46

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
4:15 PM	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:30 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	15	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	17
5:00 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
5:30 PM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:45 PM	0	6	0	0	0	0	6	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
Total	0	18	0	0	0	0	18	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	2	21
Grand Total	0	33	1	0	0	0	34	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	2	0	3	38
Approach %	0.0	97.1	2.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	0.0	66.7	0.0		
Total %	0.0	86.8	2.6	0.0	0.0	0.0	89.5	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	5.3	0.0	7.9	
Exiting Leg Total	0							3							33							2							38

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

5:00 PM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	
5:30 PM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
5:45 PM	0	6	0	0	0	0	6	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	8
Total Volume	0	18	0	0	0	0	18	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	2	21
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	50.0	0.0	0.0	50.0	0.0		
PHF	0.000	0.643	0.000	0.000	0.000	0.000	0.643	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.656
Entering Leg	0	18	0	0	0	0	18	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	2	21
Exiting Leg	0							2							18							1							21
Total	18							3							18							3							42

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	10	14	24	0	0	0	0	21	20	41	0	0	0	0	0	0	0	0	0	0	0	14	24	38	103
4:15 PM	0	0	0	0	17	18	35	0	0	0	0	10	10	20	0	0	0	0	4	0	4	0	0	0	0	20	22	42	101
4:30 PM	0	0	0	0	22	24	46	0	0	0	0	24	22	46	0	0	0	0	2	2	4	0	0	0	0	17	20	37	133
4:45 PM	0	0	0	0	18	15	33	0	0	0	0	28	12	40	0	0	0	0	3	0	3	0	0	0	0	20	18	38	114
Total	0	0	0	0	67	71	138	0	0	0	0	83	64	147	0	0	0	0	9	2	11	0	0	0	0	71	84	155	451
5:00 PM	0	0	0	0	18	13	31	0	0	0	0	17	19	36	0	0	0	0	1	0	1	0	0	0	0	32	23	55	123
5:15 PM	0	0	0	0	22	13	35	0	0	0	0	30	20	50	0	0	0	0	3	4	7	0	0	0	0	33	26	59	151
5:30 PM	0	0	0	0	18	16	34	0	0	0	0	26	24	50	0	0	0	0	0	1	1	0	0	0	0	32	31	63	148
5:45 PM	0	0	0	0	17	22	39	0	0	0	0	33	32	65	0	0	0	0	0	1	1	0	0	0	0	28	29	57	162
Total	0	0	0	0	75	64	139	0	0	0	0	106	95	201	0	0	0	0	4	6	10	0	0	0	0	125	109	234	584
Grand Total	0	0	0	0	142	135	277	0	0	0	0	189	159	348	0	0	0	0	13	8	21	0	0	0	0	196	193	389	1035
Approach %	0.0	0.0	0.0	0.0	51.3	48.7		0.0	0.0	0.0	0.0	54.3	45.7		0.0	0.0	0.0	0.0	61.9	38.1		0.0	0.0	0.0	0.0	50.4	49.6		
Total %	0.0	0.0	0.0	0.0	13.7	13.0	26.8	0.0	0.0	0.0	0.0	18.3	15.4	33.6	0.0	0.0	0.0	0.0	1.3	0.8	2.0	0.0	0.0	0.0	0.0	18.9	18.6	37.6	
Exiting Leg Total	277							348							21							389							1035

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

5:00 PM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	18	13	31	0	0	0	0	17	19	36	0	0	0	0	1	0	1	0	0	0	32	23	55	123	
5:15 PM	0	0	0	0	22	13	35	0	0	0	0	30	20	50	0	0	0	0	3	4	7	0	0	0	0	33	26	59	151
5:30 PM	0	0	0	0	18	16	34	0	0	0	0	26	24	50	0	0	0	0	0	1	1	0	0	0	0	32	31	63	148
5:45 PM	0	0	0	0	17	22	39	0	0	0	0	33	32	65	0	0	0	0	0	1	1	0	0	0	0	28	29	57	162
Total Volume	0	0	0	0	75	64	139	0	0	0	0	106	95	201	0	0	0	0	4	6	10	0	0	0	0	125	109	234	584
% Approach Total	0.0	0.0	0.0	0.0	54.0	46.0		0.0	0.0	0.0	0.0	52.7	47.3		0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	53.4	46.6		
PHF	0.000	0.000	0.000	0.000	0.852	0.727	0.891	0.000	0.000	0.000	0.000	0.803	0.742	0.773	0.000	0.000	0.000	0.000	0.333	0.375	0.357	0.000	0.000	0.000	0.000	0.947	0.879	0.929	0.901
Entering Leg	0	0	0	0	75	64	139	0	0	0	0	106	95	201	0	0	0	0	4	6	10	0	0	0	0	125	109	234	584
Exiting Leg	139							201							10							234							584
Total	278							402							20							468							1168

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	125	19	0	145	0	0	32	0	32	0	0	0	0	0	4	4	0	0	8	185
11:15 AM	1	138	28	0	167	0	0	42	0	42	0	0	0	0	0	5	1	0	0	6	215
11:30 AM	0	150	35	0	185	0	0	35	0	35	0	0	0	0	0	7	2	0	0	9	229
11:45 AM	0	142	33	0	175	0	0	30	0	30	0	0	0	0	0	6	2	0	0	8	213
Total	2	555	115	0	672	0	0	139	0	139	0	0	0	0	0	22	9	0	0	31	842
12:00 PM	0	149	31	0	180	0	0	34	0	34	0	0	0	0	0	3	0	0	0	3	217
12:15 PM	0	138	36	0	174	0	0	29	0	29	0	0	0	0	0	3	0	0	0	3	206
12:30 PM	0	136	25	0	161	0	0	31	0	31	0	0	0	0	0	4	2	0	0	6	198
12:45 PM	0	123	27	0	150	0	0	31	0	31	0	0	0	0	0	5	2	0	0	7	188
Total	0	546	119	0	665	0	0	125	0	125	0	0	0	0	0	15	4	0	0	19	809
1:00 PM	0	121	31	0	152	0	0	22	0	22	0	0	0	0	0	3	6	0	0	9	183
1:15 PM	0	149	30	0	179	0	0	41	0	41	0	0	0	0	0	1	4	0	0	5	225
1:30 PM	0	127	35	0	162	0	0	30	0	30	0	0	0	0	0	5	1	0	0	6	198
1:45 PM	0	138	36	0	174	0	0	28	0	28	0	0	0	0	0	1	3	0	0	4	206
Total	0	535	132	0	667	0	0	121	0	121	0	0	0	0	0	10	14	0	0	24	812
Grand Total	2	1636	366	0	2004	0	0	385	0	385	0	0	0	0	0	47	27	0	0	74	2463
Approach %	0.1	81.6	18.3	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		63.5	36.5	0.0	0.0		
Total %	0.1	66.4	14.9	0.0	81.4	0.0	0.0	15.6	0.0	15.6	0.0	0.0	0.0	0.0	0.0	1.9	1.1	0.0	0.0	3.0	
Exiting Leg Total	0					393					2068					2					2463
Cars	2	1595	351	0	1948	0	0	382	0	382	0	0	0	0	0	47	27	0	0	74	2404
% Cars	100.0	97.5	95.9	0.0	97.2	0.0	0.0	99.2	0.0	99.2	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	97.6
Exiting Leg Total	0					378					2024					2					2404
Heavy Vehicles	0	41	15	0	56	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	59
% Heavy Vehicles	0.0	2.5	4.1	0.0	2.8	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Exiting Leg Total	0					15					44					0					59

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	1	138	28	0	167	0	0	42	0	42	0	0	0	0	0	5	1	0	0	6	215
11:30 AM	0	150	35	0	185	0	0	35	0	35	0	0	0	0	0	7	2	0	0	9	229
11:45 AM	0	142	33	0	175	0	0	30	0	30	0	0	0	0	0	6	2	0	0	8	213
12:00 PM	0	149	31	0	180	0	0	34	0	34	0	0	0	0	0	3	0	0	0	3	217
Total Volume	1	579	127	0	707	0	0	141	0	141	0	0	0	0	0	21	5	0	0	26	874
% Approach Total	0.1	81.9	18.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		80.8	19.2	0.0	0.0		
PHF	0.250	0.965	0.907	0.000	0.955	0.000	0.000	0.839	0.000	0.839	0.000	0.000	0.000	0.000	0.000	0.750	0.625	0.000	0.000	0.722	0.954
Cars	1	564	121	0	686	0	0	140	0	140	0	0	0	0	0	21	5	0	0	26	852
Cars %	100.0	97.4	95.3	0.0	97.0	0.0	0.0	99.3	0.0	99.3	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	97.5
Heavy Vehicles	0	15	6	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
Heavy Vehicles %	0.0	2.6	4.7	0.0	3.0	0.0	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Cars Enter Leg	1	564	121	0	686	0	0	140	0	140	0	0	0	0	0	21	5	0	0	26	852
Heavy Enter Leg	0	15	6	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
Total Entering Leg	1	579	127	0	707	0	0	141	0	141	0	0	0	0	0	21	5	0	0	26	874
Cars Exiting Leg	0					126					725					1					852
Heavy Exiting Leg	0					6					16					0					22
Total Exiting Leg	0					132					741					1					874

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	1	119	19	0	139	0	0	32	0	32	0	0	0	0	0	4	4	0	0	8	179
11:15 AM	1	134	26	0	161	0	0	41	0	41	0	0	0	0	0	5	1	0	0	6	208
11:30 AM	0	147	35	0	182	0	0	35	0	35	0	0	0	0	0	7	2	0	0	9	226
11:45 AM	0	139	30	0	169	0	0	30	0	30	0	0	0	0	0	6	2	0	0	8	207
Total	2	539	110	0	651	0	0	138	0	138	0	0	0	0	0	22	9	0	0	31	820
12:00 PM	0	144	30	0	174	0	0	34	0	34	0	0	0	0	0	3	0	0	0	3	211
12:15 PM	0	135	35	0	170	0	0	28	0	28	0	0	0	0	0	3	0	0	0	3	201
12:30 PM	0	134	25	0	159	0	0	31	0	31	0	0	0	0	0	4	2	0	0	6	196
12:45 PM	0	121	27	0	148	0	0	31	0	31	0	0	0	0	0	5	2	0	0	7	186
Total	0	534	117	0	651	0	0	124	0	124	0	0	0	0	0	15	4	0	0	19	794
1:00 PM	0	117	30	0	147	0	0	22	0	22	0	0	0	0	0	3	6	0	0	9	178
1:15 PM	0	143	26	0	169	0	0	40	0	40	0	0	0	0	0	1	4	0	0	5	214
1:30 PM	0	127	35	0	162	0	0	30	0	30	0	0	0	0	0	5	1	0	0	6	198
1:45 PM	0	135	33	0	168	0	0	28	0	28	0	0	0	0	0	1	3	0	0	4	200
Total	0	522	124	0	646	0	0	120	0	120	0	0	0	0	0	10	14	0	0	24	790
Grand Total	2	1595	351	0	1948	0	0	382	0	382	0	0	0	0	0	47	27	0	0	74	2404
Approach %	0.1	81.9	18.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		63.5	36.5	0.0	0.0		
Total %	0.1	66.3	14.6	0.0	81.0	0.0	0.0	15.9	0.0	15.9	0.0	0.0	0.0	0.0	0.0	2.0	1.1	0.0	0.0	3.1	
Exiting Leg Total	0					378					2024					2					2404

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	1	134	26	0	161	0	0	41	0	41	0	0	0	0	0	5	1	0	0	6	208
11:30 AM	0	147	35	0	182	0	0	35	0	35	0	0	0	0	0	7	2	0	0	9	226
11:45 AM	0	139	30	0	169	0	0	30	0	30	0	0	0	0	0	6	2	0	0	8	207
12:00 PM	0	144	30	0	174	0	0	34	0	34	0	0	0	0	0	3	0	0	0	3	211
Total Volume	1	564	121	0	686	0	0	140	0	140	0	0	0	0	0	21	5	0	0	26	852
% Approach Total	0.1	82.2	17.6	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		80.8	19.2	0.0	0.0		
PHF	0.250	0.959	0.864	0.000	0.942	0.000	0.000	0.854	0.000	0.854	0.000	0.000	0.000	0.000	0.000	0.750	0.625	0.000	0.000	0.722	0.942
Entering Leg	1	564	121	0	686	0	0	140	0	140	0	0	0	0	0	21	5	0	0	26	852
Exiting Leg	0					126					725					1					852
Total	686					266					725					27					1704

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
11:15 AM	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	7
11:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	16	5	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
12:00 PM	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
12:15 PM	0	3	1	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	12	2	0	14	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	15
1:00 PM	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1:15 PM	0	6	4	0	10	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	11
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	13	8	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
Grand Total	0	41	15	0	56	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	59
Approach %	0.0	73.2	26.8	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	69.5	25.4	0.0	94.9	0.0	0.0	5.1	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					15					44					0					59
Large Trucks	0	22	6	0	28	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	31
% Large Trucks	0.0	53.7	40.0	0.0	50.0	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5
Exiting Leg Total	0					6					25					0					31
Buses	0	19	9	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
% Buses	0.0	46.3	60.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5
Exiting Leg Total	0					9					19					0					28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
11:15 AM	0	4	2	0	6	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	7
11:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total Volume	0	16	5	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
% Approach Total	0.0	76.2	23.8	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.667	0.417	0.000	0.875	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.786
Large Trucks	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
Large Trucks %	0.0	68.8	0.0	0.0	52.4	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.5
Buses	0	5	5	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Buses %	0.0	31.3	100.0	0.0	47.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5
Trucks Enter Leg	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
Bus Enter Leg	0	5	5	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total Entering Leg	0	16	5	0	21	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	22
Trucks Exiting Leg	0					0					12					0					12
Buses Exiting Leg	0					5					5					0					10
Total Exiting Leg	0					5					17					0					22

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11:15 AM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
11:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
12:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	5	1	0	6	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	7
1:00 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:15 PM	0	1	3	0	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	5
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	6	5	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
Grand Total	0	22	6	0	28	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	31
Approach %	0.0	78.6	21.4	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	71.0	19.4	0.0	90.3	0.0	0.0	9.7	0.0	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					6					25					0					31

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11:15 AM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	3
11:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.550	0.000	0.000	0.550	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600
Entering Leg	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	12
Exiting Leg	0					0					12					0					12
Total	11					1					12					0					24

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	5	5	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
12:00 PM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:15 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
1:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 PM	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	7	3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Grand Total	0	19	9	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Approach %	0.0	67.9	32.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	67.9	32.1	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					9					19					0					28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Elm Street					Grove Street					Elm Street					Bowers Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:00 PM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	0	8	5	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
% Approach Total	0.0	61.5	38.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.417	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813
Entering Leg	0	8	5	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Exiting Leg	0					5					8					0					13
Total	13					5					8					0					26

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	3	1	0	0	0	4	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
11:15 AM	0	3	0	0	0	0	3	0	0	3	0	0	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
11:30 AM	0	6	0	0	0	0	6	0	0	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
11:45 AM	0	8	0	0	0	0	8	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	10
Total	0	20	1	0	0	0	21	0	0	8	0	1	3	12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	34
12:00 PM	0	8	0	0	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	10
12:15 PM	0	15	0	0	1	0	16	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
12:30 PM	0	17	0	0	1	0	18	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	0	9	0	0	0	0	9	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	0	49	0	0	2	1	52	0	0	2	0	1	1	4	0	0	0	0	0	0	0	1	0	0	0	0	0	1	57
1:00 PM	0	10	1	0	0	0	11	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
1:15 PM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
1:30 PM	0	10	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
1:45 PM	0	15	0	0	0	0	15	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	17
Total	0	40	1	0	0	0	41	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	44
Grand Total	0	109	2	0	2	1	114	0	0	11	0	2	5	18	0	0	0	0	0	0	0	1	0	0	0	0	2	3	135
Approach %	0.0	95.6	1.8	0.0	1.8	0.9		0.0	0.0	61.1	0.0	11.1	27.8		0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	66.7			
Total %	0.0	80.7	1.5	0.0	1.5	0.7	84.4	0.0	0.0	8.1	0.0	1.5	3.7	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.5	2.2	
Exiting Leg Total	3							9							121							2							135

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:15 PM	0	15	0	0	1	0	16	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
12:30 PM	0	17	0	0	1	0	18	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
12:45 PM	0	9	0	0	0	0	9	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
1:00 PM	0	10	1	0	0	0	11	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Total Volume	0	51	1	0	2	0	54	0	0	2	0	1	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
% Approach Total	0.0	94.4	1.9	0.0	3.7	0.0		0.0	0.0	40.0	0.0	20.0	40.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.250	0.000	0.500	0.000	0.750	0.000	0.000	0.500	0.000	0.250	0.500	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.776	
Entering Leg	0	51	1	0	2	0	54	0	0	2	0	1	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Exiting Leg	2							4							53							0							59
Total	56							9							53							0							118

PDI File #: **175971 B**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Grove Street W: Bowers Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	31	35	66	0	0	0	0	55	45	100	0	0	0	0	0	0	0	0	0	0	0	31	33	64	230
11:15 AM	0	0	0	0	24	34	58	0	0	0	0	71	43	114	0	0	0	0	0	0	0	0	0	0	0	33	41	74	246
11:30 AM	0	0	0	0	30	36	66	0	0	0	0	60	62	122	0	0	0	0	0	0	0	0	0	0	0	28	34	62	250
11:45 AM	0	0	0	0	35	42	77	0	0	0	0	55	65	120	0	0	0	0	0	0	0	0	0	0	0	42	50	92	289
Total	0	0	0	0	120	147	267	0	0	0	0	241	215	456	0	0	0	0	0	0	0	0	0	0	0	134	158	292	1015
12:00 PM	0	0	0	0	45	23	68	0	0	0	0	56	57	113	0	0	0	0	0	0	0	0	0	0	0	42	37	79	260
12:15 PM	0	0	0	0	45	31	76	0	0	0	0	56	51	107	0	0	0	0	0	0	0	0	0	0	0	39	48	87	270
12:30 PM	0	0	0	0	41	29	70	0	0	0	0	58	54	112	0	0	0	0	0	0	0	0	0	0	0	37	64	101	283
12:45 PM	0	0	0	0	32	51	83	0	0	0	0	43	54	97	0	0	0	0	0	3	3	0	0	0	0	55	40	95	278
Total	0	0	0	0	163	134	297	0	0	0	0	213	216	429	0	0	0	0	0	3	3	0	0	0	0	173	189	362	1091
1:00 PM	0	0	0	0	38	32	70	0	0	0	0	72	41	113	0	0	0	0	1	0	1	0	0	0	0	47	43	90	274
1:15 PM	0	0	0	0	38	30	68	0	0	0	0	82	63	145	0	0	0	0	0	3	3	0	0	0	0	44	49	93	309
1:30 PM	0	0	0	0	31	37	68	0	0	0	0	53	72	125	0	0	0	0	1	1	2	0	0	0	0	45	41	86	281
1:45 PM	0	0	0	0	26	46	72	0	0	0	0	62	68	130	0	0	0	0	1	0	1	0	0	0	0	45	45	90	293
Total	0	0	0	0	133	145	278	0	0	0	0	269	244	513	0	0	0	0	3	4	7	0	0	0	0	181	178	359	1157
Grand Total	0	0	0	0	416	426	842	0	0	0	0	723	675	1398	0	0	0	0	3	7	10	0	0	0	0	488	525	1013	3263
Approach %	0.0	0.0	0.0	0.0	49.4	50.6		0.0	0.0	0.0	0.0	51.7	48.3		0.0	0.0	0.0	0.0	30.0	70.0		0.0	0.0	0.0	0.0	48.2	51.8		
Total %	0.0	0.0	0.0	0.0	12.7	13.1	25.8	0.0	0.0	0.0	0.0	22.2	20.7	42.8	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.0	0.0	0.0	15.0	16.1	31.0	
Exiting Leg Total	842							1398							10							1013							3263

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Elm Street							Grove Street							Elm Street							Bowers Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
1:00 PM	0	0	0	0	38	32	70	0	0	0	0	72	41	113	0	0	0	0	1	0	1	0	0	0	0	47	43	90	274
1:15 PM	0	0	0	0	38	30	68	0	0	0	0	82	63	145	0	0	0	0	0	3	3	0	0	0	0	44	49	93	309
1:30 PM	0	0	0	0	31	37	68	0	0	0	0	53	72	125	0	0	0	0	1	1	2	0	0	0	0	45	41	86	281
1:45 PM	0	0	0	0	26	46	72	0	0	0	0	62	68	130	0	0	0	0	1	0	1	0	0	0	0	45	45	90	293
Total Volume	0	0	0	0	133	145	278	0	0	0	0	269	244	513	0	0	0	0	3	4	7	0	0	0	0	181	178	359	1157
% Approach Total	0.0	0.0	0.0	0.0	47.8	52.2		0.0	0.0	0.0	0.0	52.4	47.6		0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	50.4	49.6		
PHF	0.000	0.000	0.000	0.000	0.875	0.788	0.965	0.000	0.000	0.000	0.000	0.820	0.847	0.884	0.000	0.000	0.000	0.000	0.750	0.333	0.583	0.000	0.000	0.000	0.000	0.963	0.908	0.965	0.936
Entering Leg	0	0	0	0	133	145	278	0	0	0	0	269	244	513	0	0	0	0	3	4	7	0	0	0	0	181	178	359	1157
Exiting Leg	278							513							7							359							1157
Total	556							1026							14							718							2314

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	134	1	0	135	0	0	0	0	0	36	0	0	0	36	9	45	0	0	54	225
7:15 AM	0	154	0	0	154	0	0	0	0	0	41	0	0	0	41	7	63	0	0	70	265
7:30 AM	0	146	0	0	146	0	0	0	0	0	44	0	0	0	44	14	58	0	0	72	262
7:45 AM	0	166	0	0	166	0	0	0	0	0	59	0	0	0	59	4	81	0	0	85	310
Total	0	600	1	0	601	0	0	0	0	0	180	0	0	0	180	34	247	0	0	281	1062
8:00 AM	0	150	2	0	152	0	0	0	0	0	58	0	0	0	58	13	71	0	0	84	294
8:15 AM	0	119	0	0	119	0	0	0	0	0	43	0	0	0	43	10	88	0	0	98	260
8:30 AM	0	155	0	0	155	0	0	0	0	0	39	0	0	0	39	11	75	0	0	86	280
8:45 AM	0	126	0	0	126	0	0	0	0	0	52	0	0	0	52	9	77	0	0	86	264
Total	0	550	2	0	552	0	0	0	0	0	192	0	0	0	192	43	311	0	0	354	1098
Grand Total	0	1150	3	0	1153	0	0	0	0	0	372	0	0	0	372	77	558	0	0	635	2160
Approach %	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		12.1	87.9	0.0	0.0		
Total %	0.0	53.2	0.1	0.0	53.4	0.0	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	17.2	3.6	25.8	0.0	0.0	29.4	
Exiting Leg Total	0					933					1227					0					2160
Cars	0	1110	2	0	1112	0	0	0	0	0	346	0	0	0	346	74	546	0	0	620	2078
% Cars	0.0	96.5	66.7	0.0	96.4	0.0	0.0	0.0	0.0	0.0	93.0	0.0	0.0	0.0	93.0	96.1	97.8	0.0	0.0	97.6	96.2
Exiting Leg Total	0					894					1184					0					2078
Heavy Vehicles	0	40	1	0	41	0	0	0	0	0	26	0	0	0	26	3	12	0	0	15	82
% Heavy Vehicles	0.0	3.5	33.3	0.0	3.6	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	7.0	3.9	2.2	0.0	0.0	2.4	3.8
Exiting Leg Total	0					39					43					0					82

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

7:45 AM	Elm Street					Cutter Avenue					Elm Street					Russell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	166	0	0	166	0	0	0	0	0	59	0	0	0	59	4	81	0	0	85	310
8:00 AM	0	150	2	0	152	0	0	0	0	0	58	0	0	0	58	13	71	0	0	84	294
8:15 AM	0	119	0	0	119	0	0	0	0	0	43	0	0	0	43	10	88	0	0	98	260
8:30 AM	0	155	0	0	155	0	0	0	0	0	39	0	0	0	39	11	75	0	0	86	280
Total Volume	0	590	2	0	592	0	0	0	0	0	199	0	0	0	199	38	315	0	0	353	1144
% Approach Total	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		10.8	89.2	0.0	0.0		
PHF	0.000	0.889	0.250	0.000	0.892	0.000	0.000	0.000	0.000	0.000	0.843	0.000	0.000	0.000	0.843	0.731	0.895	0.000	0.000	0.901	0.923
Cars	0	567	1	0	568	0	0	0	0	0	187	0	0	0	187	38	308	0	0	346	1101
Cars %	0.0	96.1	50.0	0.0	95.9	0.0	0.0	0.0	0.0	0.0	94.0	0.0	0.0	0.0	94.0	100.0	97.8	0.0	0.0	98.0	96.2
Heavy Vehicles	0	23	1	0	24	0	0	0	0	0	12	0	0	0	12	0	7	0	0	7	43
Heavy Vehicles %	0.0	3.9	50.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	6.0	0.0	2.2	0.0	0.0	2.0	3.8
Cars Enter Leg	0	567	1	0	568	0	0	0	0	0	187	0	0	0	187	38	308	0	0	346	1101
Heavy Enter Leg	0	23	1	0	24	0	0	0	0	0	12	0	0	0	12	0	7	0	0	7	43
Total Entering Leg	0	590	2	0	592	0	0	0	0	0	199	0	0	0	199	38	315	0	0	353	1144
Cars Exiting Leg	0					496					605					0					1101
Heavy Exiting Leg	0					20					23					0					43
Total Exiting Leg	0					516					628					0					1144

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	132	1	0	133	0	0	0	0	0	35	0	0	0	35	9	43	0	0	52	220
7:15 AM	0	147	0	0	147	0	0	0	0	0	38	0	0	0	38	5	62	0	0	67	252
7:30 AM	0	141	0	0	141	0	0	0	0	0	38	0	0	0	38	13	57	0	0	70	249
7:45 AM	0	159	0	0	159	0	0	0	0	0	53	0	0	0	53	4	80	0	0	84	296
Total	0	579	1	0	580	0	0	0	0	0	164	0	0	0	164	31	242	0	0	273	1017
8:00 AM	0	143	1	0	144	0	0	0	0	0	56	0	0	0	56	13	70	0	0	83	283
8:15 AM	0	117	0	0	117	0	0	0	0	0	40	0	0	0	40	10	86	0	0	96	253
8:30 AM	0	148	0	0	148	0	0	0	0	0	38	0	0	0	38	11	72	0	0	83	269
8:45 AM	0	123	0	0	123	0	0	0	0	0	48	0	0	0	48	9	76	0	0	85	256
Total	0	531	1	0	532	0	0	0	0	0	182	0	0	0	182	43	304	0	0	347	1061
Grand Total	0	1110	2	0	1112	0	0	0	0	0	346	0	0	0	346	74	546	0	0	620	2078
Approach %	0.0	99.8	0.2	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		11.9	88.1	0.0	0.0		
Total %	0.0	53.4	0.1	0.0	53.5	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	16.7	3.6	26.3	0.0	0.0	29.8	
Exiting Leg Total	0					894					1184					0					2078

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

7:45 AM	Elm Street					Cutter Avenue					Elm Street					Russell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	159	0	0	159	0	0	0	0	0	53	0	0	0	53	4	80	0	0	84	296
8:00 AM	0	143	1	0	144	0	0	0	0	0	56	0	0	0	56	13	70	0	0	83	283
8:15 AM	0	117	0	0	117	0	0	0	0	0	40	0	0	0	40	10	86	0	0	96	253
8:30 AM	0	148	0	0	148	0	0	0	0	0	38	0	0	0	38	11	72	0	0	83	269
Total Volume	0	567	1	0	568	0	0	0	0	0	187	0	0	0	187	38	308	0	0	346	1101
% Approach Total	0.0	99.8	0.2	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		11.0	89.0	0.0	0.0		
PHF	0.000	0.892	0.250	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.835	0.000	0.000	0.000	0.835	0.731	0.895	0.000	0.000	0.901	0.930
Entering Leg	0	567	1	0	568	0	0	0	0	0	187	0	0	0	187	38	308	0	0	346	1101
Exiting Leg	0					496					605					0					1101
Total	568					496					792					346					2202

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	5
7:15 AM	0	7	0	0	7	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	13
7:30 AM	0	5	0	0	5	0	0	0	0	0	6	0	0	0	6	1	1	0	0	2	13
7:45 AM	0	7	0	0	7	0	0	0	0	0	6	0	0	0	6	0	1	0	0	1	14
Total	0	21	0	0	21	0	0	0	0	0	16	0	0	0	16	3	5	0	0	8	45
8:00 AM	0	7	1	0	8	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	11
8:15 AM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	7
8:30 AM	0	7	0	0	7	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	11
8:45 AM	0	3	0	0	3	0	0	0	0	0	4	0	0	0	4	0	1	0	0	1	8
Total	0	19	1	0	20	0	0	0	0	0	10	0	0	0	10	0	7	0	0	7	37
Grand Total	0	40	1	0	41	0	0	0	0	0	26	0	0	0	26	3	12	0	0	15	82
Approach %	0.0	97.6	2.4	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0		
Total %	0.0	48.8	1.2	0.0	50.0	0.0	0.0	0.0	0.0	0.0	31.7	0.0	0.0	0.0	31.7	3.7	14.6	0.0	0.0	18.3	
Exiting Leg Total	0					39					43					0					82
Large Trucks	0	31	1	0	32	0	0	0	0	0	16	0	0	0	16	2	8	0	0	10	58
% Large Trucks	0.0	77.5	100.0	0.0	78.0	0.0	0.0	0.0	0.0	0.0	61.5	0.0	0.0	0.0	61.5	66.7	66.7	0.0	0.0	66.7	70.7
Exiting Leg Total	0					25					33					0					58
Buses	0	9	0	0	9	0	0	0	0	0	10	0	0	0	10	1	4	0	0	5	24
% Buses	0.0	22.5	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	38.5	0.0	0.0	0.0	38.5	33.3	33.3	0.0	0.0	33.3	29.3
Exiting Leg Total	0					14					10					0					24

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

7:15 AM	Elm Street					Cutter Avenue					Elm Street					Russell Street										
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
7:15 AM	0	7	0	0	7	0	0	0	0	0	3	0	0	0	3	2	1	0	0	3	13					
7:30 AM	0	5	0	0	5	0	0	0	0	0	6	0	0	0	6	1	1	0	0	2	13					
7:45 AM	0	7	0	0	7	0	0	0	0	0	6	0	0	0	6	0	1	0	0	1	14					
8:00 AM	0	7	1	0	8	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	11					
Total Volume	0	26	1	0	27	0	0	0	0	0	17	0	0	0	17	3	4	0	0	7	51					
% Approach Total	0.0	96.3	3.7	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		42.9	57.1	0.0	0.0							
PHF	0.000	0.929	0.250	0.000	0.844	0.000	0.000	0.000	0.000	0.000	0.708	0.000	0.000	0.000	0.708	0.375	1.000	0.000	0.000	0.583	0.911					
Large Trucks	0	20	1	0	21	0	0	0	0	0	11	0	0	0	11	2	3	0	0	5	37					
Large Trucks %	0.0	76.9	100.0	0.0	77.8	0.0	0.0	0.0	0.0	0.0	64.7	0.0	0.0	0.0	64.7	66.7	75.0	0.0	0.0	71.4	72.5					
Buses	0	6	0	0	6	0	0	0	0	0	6	0	0	0	6	1	1	0	0	2	14					
Buses %	0.0	23.1	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	35.3	0.0	0.0	0.0	35.3	33.3	25.0	0.0	0.0	28.6	27.5					
Trucks Enter Leg	0	20	1	0	21	0	0	0	0	0	11	0	0	0	11	2	3	0	0	5	37					
Bus Enter Leg	0	6	0	0	6	0	0	0	0	0	6	0	0	0	6	1	1	0	0	2	14					
Total Entering Leg	0	26	1	0	27	0	0	0	0	0	17	0	0	0	17	3	4	0	0	7	51					
Trucks Exiting Leg																										
						15					22										0					37
Buses Exiting Leg						7					7										0					14
Total Exiting Leg						22					29										0					51

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3
7:15 AM	0	5	0	0	5	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	2	8
7:30 AM	0	4	0	0	4	0	0	0	0	0	5	0	0	0	5	1	1	0	0	0	2	11
7:45 AM	0	5	0	0	5	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	8
Total	0	15	0	0	15	0	0	0	0	0	9	0	0	0	9	2	4	0	0	0	6	30
8:00 AM	0	6	1	0	7	0	0	0	0	0	2	0	0	0	2	0	1	0	0	0	1	10
8:15 AM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	2	5
8:30 AM	0	5	0	0	5	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	7
8:45 AM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	6
Total	0	16	1	0	17	0	0	0	0	0	7	0	0	0	7	0	4	0	0	0	4	28
Grand Total	0	31	1	0	32	0	0	0	0	0	16	0	0	0	16	2	8	0	0	0	10	58
Approach %	0.0	96.9	3.1	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0			
Total %	0.0	53.4	1.7	0.0	55.2	0.0	0.0	0.0	0.0	0.0	27.6	0.0	0.0	0.0	27.6	3.4	13.8	0.0	0.0	0.0	17.2	
Exiting Leg Total	0					25					33					0					58	

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

7:15 AM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	5	0	0	5	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	8
7:30 AM	0	4	0	0	4	0	0	0	0	0	5	0	0	0	5	1	1	0	0	2	11
7:45 AM	0	5	0	0	5	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	8
8:00 AM	0	6	1	0	7	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	10
Total Volume	0	20	1	0	21	0	0	0	0	0	11	0	0	0	11	2	3	0	0	5	37
% Approach Total	0.0	95.2	4.8	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		40.0	60.0	0.0	0.0		
PHF	0.000	0.833	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.550	0.000	0.000	0.000	0.550	0.500	0.750	0.000	0.000	0.625	0.841
Entering Leg	0	20	1	0	21	0	0	0	0	0	11	0	0	0	11	2	3	0	0	5	37
Exiting Leg	0					15					22					0					37
Total	21					15					33					5					74

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
7:15 AM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	5
7:30 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
7:45 AM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	6
Total	0	6	0	0	6	0	0	0	0	0	7	0	0	0	7	1	1	0	0	2	15
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
Total	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	3	0	0	3	9
Grand Total	0	9	0	0	9	0	0	0	0	0	10	0	0	0	10	1	4	0	0	5	24
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0		
Total %	0.0	37.5	0.0	0.0	37.5	0.0	0.0	0.0	0.0	0.0	41.7	0.0	0.0	0.0	41.7	4.2	16.7	0.0	0.0	20.8	
Exiting Leg Total	0					14					10					0					24

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

7:00 AM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
7:15 AM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	5
7:30 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
7:45 AM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	6
Total Volume	0	6	0	0	6	0	0	0	0	0	7	0	0	0	7	1	1	0	0	2	15
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.000	0.583	0.250	0.250	0.000	0.000	0.500	0.625
Entering Leg	0	6	0	0	6	0	0	0	0	0	7	0	0	0	7	1	1	0	0	2	15
Exiting Leg	0					8					7					0					15
Total	6					8					14					2					30

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	10	0	0	0	0	10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	12
7:15 AM	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	16
7:30 AM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	17
7:45 AM	1	11	0	0	0	0	12	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0	1	17
Total	1	51	0	0	0	0	52	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	3	2	0	0	0	0	5	62
8:00 AM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	32
8:15 AM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	19
8:30 AM	0	25	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8:45 AM	0	17	0	0	0	1	18	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	22
Total	0	85	0	0	0	1	86	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	98
Grand Total	1	136	0	0	0	1	138	0	0	0	0	0	0	0	17	0	0	0	0	0	0	17	3	2	0	0	0	0	5	160
Approach %	0.7	98.6	0.0	0.0	0.0	0.7		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		60.0	40.0	0.0	0.0	0.0	0.0			
Total %	0.6	85.0	0.0	0.0	0.0	0.6	86.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	10.6	1.9	1.3	0.0	0.0	0.0	0.0	3.1		
Exiting Leg Total	1							19							139							1							160	

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

8:00 AM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	0	0	32
8:15 AM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	19
8:30 AM	0	25	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8:45 AM	0	17	0	0	0	1	18	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	22
Total Volume	0	85	0	0	0	1	86	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	0	0	0	0	0	0	98
% Approach Total	0.0	98.8	0.0	0.0	0.0	1.2		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.787	0.000	0.000	0.000	0.250	0.796	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.766	
Entering Leg	0	85	0	0	0	1	86	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	0	0	0	0	0	0	98
Exiting Leg	1							12							85							0							98
Total	87							12							97							0							196

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	1	2	3	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	7	2	9	14
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	4	9	13	17
7:30 AM	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	9	13	22	27
7:45 AM	0	0	0	0	3	1	4	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	6	10	16	22
Total	0	0	0	0	6	5	11	0	0	0	0	0	7	7	0	0	0	0	2	0	2	0	0	0	0	26	34	60	80
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	6	7	13	20
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	10	10	20	25
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	1	7	8	0	0	0	0	1	1	2	0	0	0	0	8	6	14	25
8:45 AM	0	0	0	0	0	3	3	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	9	6	15	23
Total	0	0	0	0	2	5	7	0	0	0	0	4	17	21	0	0	0	0	2	1	3	0	0	0	0	33	29	62	93
Grand Total	0	0	0	0	8	10	18	0	0	0	0	4	24	28	0	0	0	0	4	1	5	0	0	0	0	59	63	122	173
Approach %	0.0	0.0	0.0	0.0	44.4	55.6		0.0	0.0	0.0	0.0	14.3	85.7		0.0	0.0	0.0	0.0	80.0	20.0		0.0	0.0	0.0	0.0	48.4	51.6		
Total %	0.0	0.0	0.0	0.0	4.6	5.8	10.4	0.0	0.0	0.0	0.0	2.3	13.9	16.2	0.0	0.0	0.0	0.0	2.3	0.6	2.9	0.0	0.0	0.0	0.0	34.1	36.4	70.5	
Exiting Leg Total	18							28							5							122							173

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

7:30 AM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	9	13	22	27
7:45 AM	0	0	0	0	3	1	4	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	6	10	16	22
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	6	7	13	20
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	10	10	20	25
Total Volume	0	0	0	0	6	4	10	0	0	0	0	3	7	10	0	0	0	0	3	0	3	0	0	0	0	31	40	71	94
% Approach Total	0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	30.0	70.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	43.7	56.3		
PHF	0.000	0.000	0.000	0.000	0.500	1.000	0.625	0.000	0.000	0.000	0.000	0.250	0.583	0.500	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.775	0.769	0.807	0.870
Entering Leg	0	0	0	0	6	4	10	0	0	0	0	3	7	10	0	0	0	0	3	0	3	0	0	0	0	31	40	71	94
Exiting Leg	10							10							3							71							94
Total	20							20							6							142							188

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	59	0	0	59	0	0	0	0	0	75	0	0	0	75	8	71	0	0	79	213
4:15 PM	0	80	1	0	81	0	0	0	0	0	90	0	0	0	90	5	85	0	0	90	261
4:30 PM	0	95	0	0	95	0	0	0	0	0	78	0	0	0	78	3	108	0	0	111	284
4:45 PM	0	75	0	0	75	0	0	0	0	0	68	0	0	0	68	3	106	0	0	109	252
Total	0	309	1	0	310	0	0	0	0	0	311	0	0	0	311	19	370	0	0	389	1010
5:00 PM	0	84	0	0	84	0	0	0	0	0	87	0	0	0	87	8	99	0	0	107	278
5:15 PM	0	86	0	0	86	0	0	0	0	0	84	0	0	0	84	5	93	0	0	98	268
5:30 PM	0	67	0	0	67	0	0	0	0	0	97	0	0	0	97	5	98	0	0	103	267
5:45 PM	0	70	1	0	71	0	0	0	0	0	67	0	0	0	67	8	98	0	0	106	244
Total	0	307	1	0	308	0	0	0	0	0	335	0	0	0	335	26	388	0	0	414	1057
Grand Total	0	616	2	0	618	0	0	0	0	0	646	0	0	0	646	45	758	0	0	803	2067
Approach %	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		5.6	94.4	0.0	0.0		
Total %	0.0	29.8	0.1	0.0	29.9	0.0	0.0	0.0	0.0	0.0	31.3	0.0	0.0	0.0	31.3	2.2	36.7	0.0	0.0	38.8	
Exiting Leg Total	0					1406					661					0					2067
Cars	0	597	2	0	599	0	0	0	0	0	626	0	0	0	626	45	754	0	0	799	2024
% Cars	0.0	96.9	100.0	0.0	96.9	0.0	0.0	0.0	0.0	0.0	96.9	0.0	0.0	0.0	96.9	100.0	99.5	0.0	0.0	99.5	97.9
Exiting Leg Total	0					1382					642					0					2024
Heavy Vehicles	0	19	0	0	19	0	0	0	0	0	20	0	0	0	20	0	4	0	0	4	43
% Heavy Vehicles	0.0	3.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.5	0.0	0.0	0.5	2.1
Exiting Leg Total	0					24					19					0					43

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

4:30 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	95	0	0	95	0	0	0	0	0	78	0	0	0	78	3	108	0	0	111	284
4:45 PM	0	75	0	0	75	0	0	0	0	0	68	0	0	0	68	3	106	0	0	109	252
5:00 PM	0	84	0	0	84	0	0	0	0	0	87	0	0	0	87	8	99	0	0	107	278
5:15 PM	0	86	0	0	86	0	0	0	0	0	84	0	0	0	84	5	93	0	0	98	268
Total Volume	0	340	0	0	340	0	0	0	0	0	317	0	0	0	317	19	406	0	0	425	1082
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		4.5	95.5	0.0	0.0		
PHF	0.000	0.895	0.000	0.000	0.895	0.000	0.000	0.000	0.000	0.000	0.911	0.000	0.000	0.000	0.911	0.594	0.940	0.000	0.000	0.957	0.952
Cars	0	331	0	0	331	0	0	0	0	0	306	0	0	0	306	19	405	0	0	424	1061
Cars %	0.0	97.4	0.0	0.0	97.4	0.0	0.0	0.0	0.0	0.0	96.5	0.0	0.0	0.0	96.5	100.0	99.8	0.0	0.0	99.8	98.1
Heavy Vehicles	0	9	0	0	9	0	0	0	0	0	11	0	0	0	11	0	1	0	0	1	21
Heavy Vehicles %	0.0	2.6	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.5	0.0	0.2	0.0	0.0	0.2	1.9
Cars Enter Leg	0	331	0	0	331	0	0	0	0	0	306	0	0	0	306	19	405	0	0	424	1061
Heavy Enter Leg	0	9	0	0	9	0	0	0	0	0	11	0	0	0	11	0	1	0	0	1	21
Total Entering Leg	0	340	0	0	340	0	0	0	0	0	317	0	0	0	317	19	406	0	0	425	1082
Cars Exiting Leg	0					711					350					0					1061
Heavy Exiting Leg	0					12					9					0					21
Total Exiting Leg	0					723					359					0					1082

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	56	0	0	56	0	0	0	0	0	72	0	0	0	72	8	70	0	0	78	206
4:15 PM	0	77	1	0	78	0	0	0	0	0	88	0	0	0	88	5	85	0	0	90	256
4:30 PM	0	91	0	0	91	0	0	0	0	0	74	0	0	0	74	3	107	0	0	110	275
4:45 PM	0	74	0	0	74	0	0	0	0	0	66	0	0	0	66	3	106	0	0	109	249
Total	0	298	1	0	299	0	0	0	0	0	300	0	0	0	300	19	368	0	0	387	986
5:00 PM	0	83	0	0	83	0	0	0	0	0	85	0	0	0	85	8	99	0	0	107	275
5:15 PM	0	83	0	0	83	0	0	0	0	0	81	0	0	0	81	5	93	0	0	98	262
5:30 PM	0	65	0	0	65	0	0	0	0	0	94	0	0	0	94	5	97	0	0	102	261
5:45 PM	0	68	1	0	69	0	0	0	0	0	66	0	0	0	66	8	97	0	0	105	240
Total	0	299	1	0	300	0	0	0	0	0	326	0	0	0	326	26	386	0	0	412	1038
Grand Total	0	597	2	0	599	0	0	0	0	0	626	0	0	0	626	45	754	0	0	799	2024
Approach %	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		5.6	94.4	0.0	0.0		
Total %	0.0	29.5	0.1	0.0	29.6	0.0	0.0	0.0	0.0	0.0	30.9	0.0	0.0	0.0	30.9	2.2	37.3	0.0	0.0	39.5	
Exiting Leg Total	0					1382					642					0					2024

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

4:00 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	56	0	0	56	0	0	0	0	0	72	0	0	0	72	8	70	0	0	78	206
4:15 PM	0	77	1	0	78	0	0	0	0	0	88	0	0	0	88	5	85	0	0	90	256
4:30 PM	0	91	0	0	91	0	0	0	0	0	74	0	0	0	74	3	107	0	0	110	275
4:45 PM	0	74	0	0	74	0	0	0	0	0	66	0	0	0	66	3	106	0	0	109	249
Total Volume	0	298	1	0	299	0	0	0	0	0	300	0	0	0	300	19	368	0	0	387	986
% Approach Total	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		4.9	95.1	0.0	0.0		
PHF	0.000	0.819	0.250	0.000	0.821	0.000	0.000	0.000	0.000	0.000	0.852	0.000	0.000	0.000	0.852	0.594	0.860	0.000	0.000	0.880	0.896
Entering Leg	0	298	1	0	299	0	0	0	0	0	300	0	0	0	300	19	368	0	0	387	986
Exiting Leg	0					669					317					0					986
Total	299					669					617					387					1972

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	1	7
4:15 PM	0	3	0	0	3	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	5
4:30 PM	0	4	0	0	4	0	0	0	0	0	4	0	0	0	0	4	0	1	0	0	1	9
4:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	3
Total	0	11	0	0	11	0	0	0	0	0	11	0	0	0	0	11	0	2	0	0	2	24
5:00 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	3
5:15 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	6
5:30 PM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	1	6
5:45 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	4
Total	0	8	0	0	8	0	0	0	0	0	9	0	0	0	0	9	0	2	0	0	2	19
Grand Total	0	19	0	0	19	0	0	0	0	0	20	0	0	0	0	20	0	4	0	0	4	43
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0			0.0	100.0	0.0	0.0		
Total %	0.0	44.2	0.0	0.0	44.2	0.0	0.0	0.0	0.0	0.0	46.5	0.0	0.0	0.0	0.0	46.5	0.0	9.3	0.0	0.0	9.3	
Exiting Leg Total	0					24					19					0					43	
Large Trucks	0	4	0	0	4	0	0	0	0	0	7	0	0	0	0	7	0	2	0	0	2	13
% Large Trucks	0.0	21.1	0.0	0.0	21.1	0.0	0.0	0.0	0.0	0.0	35.0	0.0	0.0	0.0	35.0		0.0	50.0	0.0	0.0	50.0	30.2
Exiting Leg Total	0					9					4					0					13	
Buses	0	15	0	0	15	0	0	0	0	0	13	0	0	0	0	13	0	2	0	0	2	30
% Buses	0.0	78.9	0.0	0.0	78.9	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0	65.0		0.0	50.0	0.0	0.0	50.0	69.8
Exiting Leg Total	0					15					15					0					30	

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

4:00 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street									
	from North					from East					from South					from West									
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total					
4:00 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	1	7			
4:15 PM	0	3	0	0	3	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	5			
4:30 PM	0	4	0	0	4	0	0	0	0	0	4	0	0	0	0	4	0	1	0	0	1	9			
4:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	3			
Total Volume	0	11	0	0	11	0	0	0	0	0	11	0	0	0	0	11	0	2	0	0	2	24			
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0					
PHF	0.000	0.688	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.688	0.000	0.500	0.000	0.000	0.500	0.667			
Large Trucks	0	2	0	0	2	0	0	0	0	0	5	0	0	0	0	5	0	1	0	0	1	8			
Large Trucks %	0.0	18.2	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	45.5	0.0	50.0	0.0	0.0	50.0	33.3			
Buses	0	9	0	0	9	0	0	0	0	0	6	0	0	0	0	6	0	1	0	0	1	16			
Buses %	0.0	81.8	0.0	0.0	81.8	0.0	0.0	0.0	0.0	0.0	54.5	0.0	0.0	0.0	0.0	54.5	0.0	50.0	0.0	0.0	50.0	66.7			
Trucks Enter Leg	0	2	0	0	2	0	0	0	0	0	5	0	0	0	0	5	0	1	0	0	1	8			
Bus Enter Leg	0	9	0	0	9	0	0	0	0	0	6	0	0	0	0	6	0	1	0	0	1	16			
Total Entering Leg	0	11	0	0	11	0	0	0	0	0	11	0	0	0	0	11	0	2	0	0	2	24			
Trucks Exiting Leg																									
Buses Exiting Leg																									
Total Exiting Leg																									

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	3
4:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	5	0	0	0	0	5	0	1	0	0	1	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	1	5
Grand Total	0	4	0	0	4	0	0	0	0	0	7	0	0	0	0	7	0	2	0	0	2	13
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0			0.0	100.0	0.0	0.0		
Total %	0.0	30.8	0.0	0.0	30.8	0.0	0.0	0.0	0.0	0.0	53.8	0.0	0.0	0.0	53.8		0.0	15.4	0.0	0.0	15.4	
Exiting Leg Total	0					9					4					0					13	

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

4:00 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	3
4:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	0	0	0	5	0	0	0	5	0	1	0	0	1	8
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.625	0.000	0.250	0.000	0.000	0.250	0.667
Entering Leg	0	2	0	0	2	0	0	0	0	0	5	0	0	0	5	0	1	0	0	1	8
Exiting Leg	0					6					2					0					8
Total	2					6					7					1					16

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	4
4:15 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	4	0	0	4	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	1	7
4:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Total	0	9	0	0	9	0	0	0	0	0	6	0	0	0	0	6	0	1	0	0	1	16
5:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
5:15 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	6
5:30 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	3
Total	0	6	0	0	6	0	0	0	0	0	7	0	0	0	0	7	0	1	0	0	1	14
Grand Total	0	15	0	0	15	0	0	0	0	0	13	0	0	0	0	13	0	2	0	0	2	30
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0			0.0	100.0	0.0	0.0		
Total %	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	43.3	0.0	0.0	0.0	43.3		0.0	6.7	0.0	0.0	6.7	
Exiting Leg Total	0					15					15					0					30	

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

4:30 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	4	0	0	4	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	7
4:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
5:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
5:15 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	6
Total Volume	0	9	0	0	9	0	0	0	0	0	7	0	0	0	7	0	1	0	0	1	17
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.563	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.000	0.583	0.000	0.250	0.000	0.000	0.250	0.607
Entering Leg	0	9	0	0	9	0	0	0	0	0	7	0	0	0	7	0	1	0	0	1	17
Exiting Leg	0					8					9					0					17
Total	9					8					16					1					34

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	1	0	0	0	1	2	6
4:15 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
4:30 PM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
4:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	
Total	0	16	0	0	0	0	16	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	1	0	0	0	2	3	22
5:00 PM	0	6	0	0	1	0	7	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	15
5:15 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	10
5:30 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	9
5:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	14
Total	0	20	0	0	1	0	21	0	0	0	0	0	2	2	25	0	0	0	0	0	0	25	0	0	0	0	0	0	0	48
Grand Total	0	36	0	0	1	0	37	0	0	0	0	0	2	2	28	0	0	0	0	0	0	28	0	1	0	0	0	2	3	70
Approach %	0.0	97.3	0.0	0.0	2.7	0.0		0.0	0.0	0.0	0.0	0.0	100.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	0.0	0.0	66.7			
Total %	0.0	51.4	0.0	0.0	1.4	0.0	52.9	0.0	0.0	0.0	0.0	0.0	2.9	2.9	40.0	0.0	0.0	0.0	0.0	0.0	40.0		0.0	1.4	0.0	0.0	0.0	2.9	4.3	
Exiting Leg Total	1							31							36							2							70	

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

5:00 PM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	6	0	0	1	0	7	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	15
5:15 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0	0	10	
5:30 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	9	
5:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	10	0	0	0	0	0	10	0	0	0	0	0	0	0	14	
Total Volume	0	20	0	0	1	0	21	0	0	0	0	0	2	2	25	0	0	0	0	0	25	0	0	0	0	0	0	0	48	
% Approach Total	0.0	95.2	0.0	0.0	4.8	0.0		0.0	0.0	0.0	0.0	0.0	100.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.833	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.250	0.250		0.625	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.800	
Entering Leg	0	20	0	0	1	0	21	0	0	0	0	0	2	2	25	0	0	0	0	0	25	0	0	0	0	0	0	0	48	
Exiting Leg	1							27							20							0							48	
Total	22							29							45							0							96	

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	2	1	3	0	0	0	0	1	2	3	0	0	0	0	2	0	2	0	0	0	0	5	14	19	27
4:15 PM	0	0	0	0	2	2	4	0	0	0	0	1	3	4	0	0	0	0	0	1	1	0	0	0	0	2	11	13	22
4:30 PM	0	0	0	0	3	1	4	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	6	4	10	18
4:45 PM	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	11	10	21	33
Total	0	0	0	0	12	7	19	0	0	0	0	4	7	11	0	0	0	0	4	3	7	0	0	0	0	24	39	63	100
5:00 PM	0	0	0	0	6	9	15	0	0	0	0	0	5	5	0	0	0	0	1	0	1	0	0	0	0	13	24	37	58
5:15 PM	0	0	0	0	5	4	9	0	0	0	0	8	5	13	0	0	0	0	1	1	2	0	0	0	0	11	20	31	55
5:30 PM	0	0	0	0	8	2	10	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	17	16	33	47
5:45 PM	0	0	0	0	8	1	9	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	25	13	38	55
Total	0	0	0	0	27	16	43	0	0	0	0	12	18	30	0	0	0	0	2	1	3	0	0	0	0	66	73	139	215
Grand Total	0	0	0	0	39	23	62	0	0	0	0	16	25	41	0	0	0	0	6	4	10	0	0	0	0	90	112	202	315
Approach %	0.0	0.0	0.0	0.0	62.9	37.1		0.0	0.0	0.0	0.0	39.0	61.0		0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	44.6	55.4		
Total %	0.0	0.0	0.0	0.0	12.4	7.3	19.7	0.0	0.0	0.0	0.0	5.1	7.9	13.0	0.0	0.0	0.0	0.0	1.9	1.3	3.2	0.0	0.0	0.0	0.0	28.6	35.6	64.1	
Exiting Leg Total	62							41							10							202							315

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

5:00 PM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	6	9	15	0	0	0	0	0	5	5	0	0	0	0	1	0	1	0	0	0	0	13	24	37	58
5:15 PM	0	0	0	0	5	4	9	0	0	0	0	8	5	13	0	0	0	0	1	1	2	0	0	0	0	11	20	31	55
5:30 PM	0	0	0	0	8	2	10	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	17	16	33	47
5:45 PM	0	0	0	0	8	1	9	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	25	13	38	55
Total Volume	0	0	0	0	27	16	43	0	0	0	0	12	18	30	0	0	0	0	2	1	3	0	0	0	0	66	73	139	215
% Approach Total	0.0	0.0	0.0	0.0	62.8	37.2		0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	47.5	52.5		
PHF	0.000	0.000	0.000	0.000	0.844	0.444	0.717	0.000	0.000	0.000	0.000	0.375	0.900	0.577	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.660	0.760	0.914	0.927
Entering Leg	0	0	0	0	27	16	43	0	0	0	0	12	18	30	0	0	0	0	2	1	3	0	0	0	0	66	73	139	215
Exiting Leg	43							30							3							139							215
Total	86							60							6							278							430

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	104	1	0	105	0	0	0	0	0	76	0	0	0	76	10	61	0	0	71	252
11:15 AM	0	100	3	0	103	0	0	1	0	1	73	0	0	0	73	17	55	0	0	72	249
11:30 AM	0	110	1	0	111	0	0	0	0	0	77	0	0	0	77	10	63	0	0	73	261
11:45 AM	0	95	0	0	95	0	0	0	0	0	49	0	0	0	49	13	88	0	0	101	245
Total	0	409	5	0	414	0	0	1	0	1	275	0	0	0	275	50	267	0	0	317	1007
12:00 PM	0	96	1	0	97	0	0	0	0	0	48	0	0	0	48	7	85	0	0	92	237
12:15 PM	0	105	0	0	105	0	0	0	0	0	64	0	0	0	64	13	68	0	0	81	250
12:30 PM	0	101	1	0	102	0	0	0	0	0	66	0	0	0	66	8	89	0	0	97	265
12:45 PM	0	85	0	0	85	0	0	0	0	0	79	0	0	0	79	4	89	0	0	93	257
Total	0	387	2	0	389	0	0	0	0	0	257	0	0	0	257	32	331	0	0	363	1009
1:00 PM	0	83	0	0	83	0	0	0	0	0	80	0	0	1	81	8	77	0	0	85	249
1:15 PM	0	101	0	0	101	0	0	0	0	0	55	0	0	0	55	11	76	0	0	87	243
1:30 PM	0	81	0	0	81	0	0	0	0	0	69	0	0	0	69	14	62	0	0	76	226
1:45 PM	0	100	2	0	102	0	0	0	0	0	69	0	0	0	69	11	77	0	0	88	259
Total	0	365	2	0	367	0	0	0	0	0	273	0	0	1	274	44	292	0	0	336	977
Grand Total	0	1161	9	0	1170	0	0	1	0	1	805	0	0	1	806	126	890	0	0	1016	2993
Approach %	0.0	99.2	0.8	0.0		0.0	0.0	100.0	0.0		99.9	0.0	0.0	0.1		12.4	87.6	0.0	0.0		
Total %	0.0	38.8	0.3	0.0	39.1	0.0	0.0	0.0	0.0	0.0	26.9	0.0	0.0	0.0	26.9	4.2	29.7	0.0	0.0	33.9	
Exiting Leg Total	0					1704					1289					0					2993
Cars	0	1136	9	0	1145	0	0	1	0	1	782	0	0	1	783	125	884	0	0	1009	2938
% Cars	0.0	97.8	100.0	0.0	97.9	0.0	0.0	100.0	0.0	100.0	97.1	0.0	0.0	100.0	97.1	99.2	99.3	0.0	0.0	99.3	98.2
Exiting Leg Total	0					1675					1263					0					2938
Heavy Vehicles	0	25	0	0	25	0	0	0	0	0	23	0	0	0	23	1	6	0	0	7	55
% Heavy Vehicles	0.0	2.2	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.8	0.7	0.0	0.0	0.7	1.8
Exiting Leg Total	0					29					26					0					55

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	0	105	0	0	105	0	0	0	0	0	64	0	0	0	64	13	68	0	0	81	250
12:30 PM	0	101	1	0	102	0	0	0	0	0	66	0	0	0	66	8	89	0	0	97	265
12:45 PM	0	85	0	0	85	0	0	0	0	0	79	0	0	0	79	4	89	0	0	93	257
1:00 PM	0	83	0	0	83	0	0	0	0	0	80	0	0	1	81	8	77	0	0	85	249
Total Volume	0	374	1	0	375	0	0	0	0	0	289	0	0	1	290	33	323	0	0	356	1021
% Approach Total	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		99.7	0.0	0.0	0.3		9.3	90.7	0.0	0.0		
PHF	0.000	0.890	0.250	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.903	0.000	0.000	0.250	0.895	0.635	0.907	0.000	0.000	0.918	0.963
Cars	0	364	1	0	365	0	0	0	0	0	280	0	0	1	281	33	321	0	0	354	1000
Cars %	0.0	97.3	100.0	0.0	97.3	0.0	0.0	0.0	0.0	0.0	96.9	0.0	0.0	100.0	96.9	100.0	99.4	0.0	0.0	99.4	97.9
Heavy Vehicles	0	10	0	0	10	0	0	0	0	0	9	0	0	0	9	0	2	0	0	2	21
Heavy Vehicles %	0.0	2.7	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.6	0.0	0.0	0.6	2.1
Cars Enter Leg	0	364	1	0	365	0	0	0	0	0	280	0	0	1	281	33	321	0	0	354	1000
Heavy Enter Leg	0	10	0	0	10	0	0	0	0	0	9	0	0	0	9	0	2	0	0	2	21
Total Entering Leg	0	374	1	0	375	0	0	0	0	0	289	0	0	1	290	33	323	0	0	356	1021
Cars Exiting Leg	0					602					398					0					1000
Heavy Exiting Leg	0					11					10					0					21
Total Exiting Leg	0					613					408					0					1021

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	102	1	0	103	0	0	0	0	0	74	0	0	0	74	10	60	0	0	70	247
11:15 AM	0	98	3	0	101	0	0	1	0	1	70	0	0	0	70	17	55	0	0	72	244
11:30 AM	0	108	1	0	109	0	0	0	0	0	77	0	0	0	77	10	62	0	0	72	258
11:45 AM	0	93	0	0	93	0	0	0	0	0	48	0	0	0	48	13	88	0	0	101	242
Total	0	401	5	0	406	0	0	1	0	1	269	0	0	0	269	50	265	0	0	315	991
12:00 PM	0	95	1	0	96	0	0	0	0	0	45	0	0	0	45	7	85	0	0	92	233
12:15 PM	0	101	0	0	101	0	0	0	0	0	62	0	0	0	62	13	68	0	0	81	244
12:30 PM	0	99	1	0	100	0	0	0	0	0	65	0	0	0	65	8	89	0	0	97	262
12:45 PM	0	83	0	0	83	0	0	0	0	0	76	0	0	0	76	4	88	0	0	92	251
Total	0	378	2	0	380	0	0	0	0	0	248	0	0	0	248	32	330	0	0	362	990
1:00 PM	0	81	0	0	81	0	0	0	0	0	77	0	0	1	78	8	76	0	0	84	243
1:15 PM	0	98	0	0	98	0	0	0	0	0	52	0	0	0	52	10	76	0	0	86	236
1:30 PM	0	81	0	0	81	0	0	0	0	0	69	0	0	0	69	14	62	0	0	76	226
1:45 PM	0	97	2	0	99	0	0	0	0	0	67	0	0	0	67	11	75	0	0	86	252
Total	0	357	2	0	359	0	0	0	0	0	265	0	0	1	266	43	289	0	0	332	957
Grand Total	0	1136	9	0	1145	0	0	1	0	1	782	0	0	1	783	125	884	0	0	1009	2938
Approach %	0.0	99.2	0.8	0.0		0.0	0.0	100.0	0.0		99.9	0.0	0.0	0.1		12.4	87.6	0.0	0.0		
Total %	0.0	38.7	0.3	0.0	39.0	0.0	0.0	0.0	0.0	0.0	26.6	0.0	0.0	0.0	26.7	4.3	30.1	0.0	0.0	34.3	
Exiting Leg Total	0					1675					1263					0					2938

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	0	101	0	0	101	0	0	0	0	0	62	0	0	0	62	13	68	0	0	81	244
12:30 PM	0	99	1	0	100	0	0	0	0	0	65	0	0	0	65	8	89	0	0	97	262
12:45 PM	0	83	0	0	83	0	0	0	0	0	76	0	0	0	76	4	88	0	0	92	251
1:00 PM	0	81	0	0	81	0	0	0	0	0	77	0	0	1	78	8	76	0	0	84	243
Total Volume	0	364	1	0	365	0	0	0	0	0	280	0	0	1	281	33	321	0	0	354	1000
% Approach Total	0.0	99.7	0.3	0.0		0.0	0.0	0.0	0.0		99.6	0.0	0.0	0.4		9.3	90.7	0.0	0.0		
PHF	0.000	0.901	0.250	0.000	0.903	0.000	0.000	0.000	0.000	0.000	0.909	0.000	0.000	0.250	0.901	0.635	0.902	0.000	0.000	0.912	0.954
Entering Leg	0	364	1	0	365	0	0	0	0	0	280	0	0	1	281	33	321	0	0	354	1000
Exiting Leg	0					602					398					0					1000
Total	365					602					679					354					2000

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
11:00 AM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	1	5
11:15 AM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	5
11:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
11:45 AM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
Total	0	8	0	0	8	0	0	0	0	0	6	0	0	0	0	6	0	2	0	0	2	16
12:00 PM	0	1	0	0	1	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	4
12:15 PM	0	4	0	0	4	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	6
12:30 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
12:45 PM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	1	6
Total	0	9	0	0	9	0	0	0	0	0	9	0	0	0	0	9	0	1	0	0	1	19
1:00 PM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	1	6
1:15 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	1	7
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	3	0	0	3	0	0	0	0	0	2	0	0	0	0	2	0	2	0	0	2	7
Total	0	8	0	0	8	0	0	0	0	0	8	0	0	0	0	8	1	3	0	0	4	20
Grand Total	0	25	0	0	25	0	0	0	0	0	23	0	0	0	0	23	1	6	0	0	7	55
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0			14.3	85.7	0.0	0.0		
Total %	0.0	45.5	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0	41.8	0.0	0.0	0.0	41.8		1.8	10.9	0.0	0.0	12.7	
Exiting Leg Total	0					29					26					0					55	
Large Trucks	0	16	0	0	16	0	0	0	0	0	11	0	0	0	0	11	0	4	0	0	4	31
% Large Trucks	0.0	64.0	0.0	0.0	64.0	0.0	0.0	0.0	0.0	0.0	47.8	0.0	0.0	0.0	47.8		0.0	66.7	0.0	0.0	57.1	56.4
Exiting Leg Total	0					15					16					0					31	
Buses	0	9	0	0	9	0	0	0	0	0	12	0	0	0	0	12	1	2	0	0	3	24
% Buses	0.0	36.0	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0	0.0	52.2		100.0	33.3	0.0	0.0	42.9	43.6
Exiting Leg Total	0					14					10					0					24	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
12:45 PM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	6
1:00 PM	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	6
1:15 PM	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	7
Total Volume	0	9	0	0	9	0	0	0	0	0	10	0	0	0	10	1	2	0	0	3	22
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.000	0.000	0.833	0.250	0.500	0.000	0.000	0.750	0.786
Large Trucks	0	5	0	0	5	0	0	0	0	0	6	0	0	0	6	0	1	0	0	1	12
Large Trucks %	0.0	55.6	0.0	0.0	55.6	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	60.0	0.0	50.0	0.0	0.0	33.3	54.5
Buses	0	4	0	0	4	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	10
Buses %	0.0	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	40.0	100.0	50.0	0.0	0.0	66.7	45.5
Trucks Enter Leg	0	5	0	0	5	0	0	0	0	0	6	0	0	0	6	0	1	0	0	1	12
Bus Enter Leg	0	4	0	0	4	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	10
Total Entering Leg	0	9	0	0	9	0	0	0	0	0	10	0	0	0	10	1	2	0	0	3	22
Trucks Exiting Leg	0					7					5					0					12
Buses Exiting Leg	0					5					5					0					10
Total Exiting Leg	0					12					10					0					22

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	4
11:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
11:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	5	0	0	5	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	8
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
12:15 PM	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
12:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	3
Total	0	6	0	0	6	0	0	0	0	0	5	0	0	0	5	0	1	0	0	1	12
1:00 PM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	4
1:15 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Total	0	5	0	0	5	0	0	0	0	0	4	0	0	0	4	0	2	0	0	2	11
Grand Total	0	16	0	0	16	0	0	0	0	0	11	0	0	0	11	0	4	0	0	4	31
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	51.6	0.0	0.0	51.6	0.0	0.0	0.0	0.0	0.0	35.5	0.0	0.0	0.0	35.5	0.0	12.9	0.0	0.0	12.9	
Exiting Leg Total	0					15					16					0					31

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	5
12:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	3
1:00 PM	0	2	0	0	2	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	4
Total Volume	0	8	0	0	8	0	0	0	0	0	5	0	0	0	5	0	1	0	0	1	14
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.625	0.000	0.250	0.000	0.000	0.250	0.700
Entering Leg	0	8	0	0	8	0	0	0	0	0	5	0	0	0	5	0	1	0	0	1	14
Exiting Leg	0					6					8					0					14
Total	8					6					13					1					28

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
11:15 AM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
11:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
11:45 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	0	3	0	0	3	0	0	0	0	0	4	0	0	0	4	0	1	0	0	1	8
12:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
Total	0	3	0	0	3	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	7
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
1:15 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	4
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
Total	0	3	0	0	3	0	0	0	0	0	4	0	0	0	4	1	1	0	0	2	9
Grand Total	0	9	0	0	9	0	0	0	0	0	12	0	0	0	12	1	2	0	0	3	24
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		
Total %	0.0	37.5	0.0	0.0	37.5	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	4.2	8.3	0.0	0.0	12.5	
Exiting Leg Total	0					14					10					0					24

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Elm Street					Cutter Avenue					Elm Street					Russell Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:45 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	1	2
1:15 PM	0	2	0	0	2	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	4
Total Volume	0	4	0	0	4	0	0	0	0	0	4	0	0	0	0	4	1	1	0	0	2	10
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0			50.0	50.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500		0.250	0.250	0.000	0.000	0.500	0.625
Entering Leg	0	4	0	0	4	0	0	0	0	0	4	0	0	0	4		1	1	0	0	2	10
Exiting Leg	0					5					5					0					10	
Total	4					5					9					2					20	

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	1	0	0	0	0	1	9
11:15 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	1	0	0	0	0	0	1	14
11:30 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	1	0	0	0	0	0	1	7
11:45 AM	0	9	0	0	0	0	9	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	15
Total	0	25	0	0	0	0	25	0	0	0	0	0	0	0	17	0	0	0	0	0	0	17	2	1	0	0	0	0	3	45
12:00 PM	0	9	0	0	0	0	9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
12:15 PM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	18
12:30 PM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	1	1	2	25
12:45 PM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	13
Total	0	50	0	0	0	0	50	0	0	0	0	0	0	0	14	0	0	0	0	0	0	14	0	0	0	0	1	1	2	66
1:00 PM	0	12	0	0	1	0	13	0	0	0	0	0	1	1	2	0	0	0	1	0	0	3	0	0	0	0	0	0	0	17
1:15 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	1	0	0	0	0	0	1	9
1:30 PM	0	8	0	0	0	0	8	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
1:45 PM	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	16
Total	0	37	0	0	1	0	38	0	0	0	0	0	2	2	8	0	0	0	1	0	0	9	2	1	0	0	0	0	3	52
Grand Total	0	112	0	0	1	0	113	0	0	0	0	0	2	2	39	0	0	0	1	0	0	40	4	2	0	0	1	1	8	163
Approach %	0.0	99.1	0.0	0.0	0.9	0.0		0.0	0.0	0.0	0.0	0.0	100.0		97.5	0.0	0.0	0.0	2.5	0.0		50.0	25.0	0.0	0.0	12.5	12.5			
Total %	0.0	68.7	0.0	0.0	0.6	0.0	69.3	0.0	0.0	0.0	0.0	0.0	1.2	1.2	23.9	0.0	0.0	0.0	0.6	0.0	24.5	2.5	1.2	0.0	0.0	0.6	0.6	4.9		
Exiting Leg Total	1							43							117							2							163	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
12:15 PM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	18	
12:30 PM	0	18	0	0	0	0	18	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	1	1	2	25
12:45 PM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	13	
1:00 PM	0	12	0	0	1	0	13	0	0	0	0	0	1	1	2	0	0	0	0	1	0	3	0	0	0	0	0	0	17	
Total Volume	0	53	0	0	1	0	54	0	0	0	0	0	1	1	15	0	0	0	1	0	16	0	0	0	0	1	1	2	73	
% Approach Total	0.0	98.1	0.0	0.0	1.9	0.0		0.0	0.0	0.0	0.0	0.0	100.0		93.8	0.0	0.0	0.0	6.3	0.0		0.0	0.0	0.0	0.0	50.0	50.0			
PHF	0.000	0.736	0.000	0.000	0.250	0.000	0.750	0.000	0.000	0.000	0.000	0.250	0.250		0.625	0.000	0.000	0.000	0.250	0.000	0.667	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.730	
Entering Leg	0	53	0	0	1	0	54	0	0	0	0	0	1	1	15	0	0	0	1	0	16	0	0	0	0	1	1	2	73	
Exiting Leg	1							16							54							2							73	
Total	55							17							70							4							146	

PDI File #: **175971 C**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Cutter Avenue W: Russell Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	13	7	20	0	0	0	0	7	14	21	0	0	0	0	0	0	0	0	0	0	0	21	23	44	85
11:15 AM	0	0	0	0	5	14	19	0	0	0	0	6	9	15	0	0	0	0	0	2	2	0	0	0	0	13	22	35	71
11:30 AM	0	0	0	0	8	9	17	0	0	0	0	6	3	9	0	0	0	0	1	0	1	0	0	0	0	17	31	48	75
11:45 AM	0	0	0	0	12	5	17	0	0	0	0	6	10	16	0	0	0	0	1	3	4	0	0	0	0	22	27	49	86
Total	0	0	0	0	38	35	73	0	0	0	0	25	36	61	0	0	0	0	2	5	7	0	0	0	0	73	103	176	317
12:00 PM	0	0	0	0	8	10	18	0	0	0	0	2	11	13	0	0	0	0	0	0	0	0	0	0	0	29	30	59	90
12:15 PM	0	0	0	0	6	10	16	0	0	0	0	2	10	12	0	0	0	0	1	0	1	0	0	0	0	32	43	75	104
12:30 PM	0	0	0	0	8	10	18	0	0	0	0	5	17	22	0	0	0	0	0	0	0	0	0	0	0	26	42	68	108
12:45 PM	0	0	0	0	17	9	26	0	0	0	0	9	16	25	0	0	0	0	1	0	1	0	0	0	0	32	23	55	107
Total	0	0	0	0	39	39	78	0	0	0	0	18	54	72	0	0	0	0	2	0	2	0	0	0	0	119	138	257	409
1:00 PM	0	0	0	0	3	6	9	0	0	0	0	7	9	16	0	0	0	0	2	2	4	0	0	0	0	30	26	56	85
1:15 PM	0	0	0	0	9	7	16	0	0	0	0	11	8	19	0	0	0	0	0	0	0	0	0	0	0	39	34	73	108
1:30 PM	0	0	0	0	13	12	25	0	0	0	0	5	11	16	0	0	0	0	0	2	2	0	0	0	0	29	38	67	110
1:45 PM	0	0	0	0	3	11	14	0	0	0	0	7	21	28	0	0	0	0	2	0	2	0	0	0	0	19	27	46	90
Total	0	0	0	0	28	36	64	0	0	0	0	30	49	79	0	0	0	0	4	4	8	0	0	0	0	117	125	242	393
Grand Total	0	0	0	0	105	110	215	0	0	0	0	73	139	212	0	0	0	0	8	9	17	0	0	0	0	309	366	675	1119
Approach %	0.0	0.0	0.0	0.0	48.8	51.2		0.0	0.0	0.0	0.0	34.4	65.6		0.0	0.0	0.0	0.0	47.1	52.9		0.0	0.0	0.0	0.0	45.8	54.2		
Total %	0.0	0.0	0.0	0.0	9.4	9.8	19.2	0.0	0.0	0.0	0.0	6.5	12.4	18.9	0.0	0.0	0.0	0.0	0.7	0.8	1.5	0.0	0.0	0.0	0.0	27.6	32.7	60.3	
Exiting Leg Total	215							212							17							675							1119

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Elm Street							Cutter Avenue							Elm Street							Russell Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:45 PM	0	0	0	0	17	9	26	0	0	0	0	9	16	25	0	0	0	0	1	0	1	0	0	0	0	32	23	55	107
1:00 PM	0	0	0	0	3	6	9	0	0	0	0	7	9	16	0	0	0	0	2	2	4	0	0	0	0	30	26	56	85
1:15 PM	0	0	0	0	9	7	16	0	0	0	0	11	8	19	0	0	0	0	0	0	0	0	0	0	0	39	34	73	108
1:30 PM	0	0	0	0	13	12	25	0	0	0	0	5	11	16	0	0	0	0	0	2	2	0	0	0	0	29	38	67	110
Total Volume	0	0	0	0	42	34	76	0	0	0	0	32	44	76	0	0	0	0	3	4	7	0	0	0	0	130	121	251	410
% Approach Total	0.0	0.0	0.0	0.0	55.3	44.7		0.0	0.0	0.0	0.0	42.1	57.9		0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	51.8	48.2		
PHF	0.000	0.000	0.000	0.000	0.618	0.708	0.731	0.000	0.000	0.000	0.000	0.727	0.688	0.760	0.000	0.000	0.000	0.000	0.375	0.500	0.438	0.000	0.000	0.000	0.000	0.833	0.796	0.860	0.932
Entering Leg	0	0	0	0	42	34	76	0	0	0	0	32	44	76	0	0	0	0	3	4	7	0	0	0	0	130	121	251	410
Exiting Leg	76							76							7							251							410
Total	152							152							14							502							820

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	42	96	1	0	139	0	0	0	0	0	13	29	49	0	91	14	13	9	0	36	266
7:15 AM	61	92	3	0	156	0	0	0	0	0	22	39	34	0	95	8	18	11	0	37	288
7:30 AM	37	117	4	0	158	0	0	0	0	0	14	44	32	0	90	17	20	11	0	48	296
7:45 AM	50	110	2	0	162	0	0	0	0	0	21	51	36	0	108	18	19	12	1	50	320
Total	190	415	10	0	615	0	0	0	0	0	70	163	151	0	384	57	70	43	1	171	1170
8:00 AM	58	88	5	0	151	0	0	0	0	0	41	62	49	0	152	13	26	18	0	57	360
8:15 AM	34	85	1	0	120	0	0	0	0	0	28	42	41	0	111	19	26	16	3	64	295
8:30 AM	49	100	5	0	154	0	0	0	0	0	30	41	40	0	111	16	18	13	0	47	312
8:45 AM	46	84	10	0	140	0	0	0	0	0	21	51	41	0	113	20	25	9	0	54	307
Total	187	357	21	0	565	0	0	0	0	0	120	196	171	0	487	68	95	56	3	222	1274
Grand Total	377	772	31	0	1180	0	0	0	0	0	190	359	322	0	871	125	165	99	4	393	2444
Approach %	31.9	65.4	2.6	0.0		0.0	0.0	0.0	0.0		21.8	41.2	37.0	0.0		31.8	42.0	25.2	1.0		
Total %	15.4	31.6	1.3	0.0	48.3	0.0	0.0	0.0	0.0	0.0	7.8	14.7	13.2	0.0	35.6	5.1	6.8	4.1	0.2	16.1	
Exiting Leg Total	458					386					897					703					2444
Cars	358	749	31	0	1138	0	0	0	0	0	188	336	315	0	839	121	161	95	4	381	2358
% Cars	95.0	97.0	100.0	0.0	96.4	0.0	0.0	0.0	0.0	0.0	98.9	93.6	97.8	0.0	96.3	96.8	97.6	96.0	100.0	96.9	96.5
Exiting Leg Total	431					380					870					677					2358
Heavy Vehicles	19	23	0	0	42	0	0	0	0	0	2	23	7	0	32	4	4	4	0	12	86
% Heavy Vehicles	5.0	3.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	1.1	6.4	2.2	0.0	3.7	3.2	2.4	4.0	0.0	3.1	3.5
Exiting Leg Total	27					6					27					26					86

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

7:45 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	50	110	2	0	162	0	0	0	0	0	21	51	36	0	108	18	19	12	1	50	320
8:00 AM	58	88	5	0	151	0	0	0	0	0	41	62	49	0	152	13	26	18	0	57	360
8:15 AM	34	85	1	0	120	0	0	0	0	0	28	42	41	0	111	19	26	16	3	64	295
8:30 AM	49	100	5	0	154	0	0	0	0	0	30	41	40	0	111	16	18	13	0	47	312
Total Volume	191	383	13	0	587	0	0	0	0	0	120	196	166	0	482	66	89	59	4	218	1287
% Approach Total	32.5	65.2	2.2	0.0		0.0	0.0	0.0	0.0		24.9	40.7	34.4	0.0		30.3	40.8	27.1	1.8		
PHF	0.823	0.870	0.650	0.000	0.906	0.000	0.000	0.000	0.000	0.000	0.732	0.790	0.847	0.000	0.793	0.868	0.856	0.819	0.333	0.852	0.894
Cars	181	372	13	0	566	0	0	0	0	0	120	184	162	0	466	64	88	56	4	212	1244
Cars %	94.8	97.1	100.0	0.0	96.4	0.0	0.0	0.0	0.0	0.0	100.0	93.9	97.6	0.0	96.7	97.0	98.9	94.9	100.0	97.2	96.7
Heavy Vehicles	10	11	0	0	21	0	0	0	0	0	0	12	4	0	16	2	1	3	0	6	43
Heavy Vehicles %	5.2	2.9	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	6.1	2.4	0.0	3.3	3.0	1.1	5.1	0.0	2.8	3.3
Cars Enter Leg	181	372	13	0	566	0	0	0	0	0	120	184	162	0	466	64	88	56	4	212	1244
Heavy Enter Leg	10	11	0	0	21	0	0	0	0	0	0	12	4	0	16	2	1	3	0	6	43
Total Entering Leg	191	383	13	0	587	0	0	0	0	0	120	196	166	0	482	66	89	59	4	218	1287
Cars Exiting Leg	240					221					436					347					1244
Heavy Exiting Leg	15					1					13					14					43
Total Exiting Leg	255					222					449					361					1287

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	39	94	1	0	134	0	0	0	0	0	13	27	47	0	87	13	13	9	0	35	256
7:15 AM	56	88	3	0	147	0	0	0	0	0	22	37	34	0	93	8	15	10	0	33	273
7:30 AM	36	113	4	0	153	0	0	0	0	0	13	39	31	0	83	17	20	11	0	48	284
7:45 AM	44	108	2	0	154	0	0	0	0	0	21	44	34	0	99	18	19	11	1	49	302
Total	175	403	10	0	588	0	0	0	0	0	69	147	146	0	362	56	67	41	1	165	1115
8:00 AM	57	87	5	0	149	0	0	0	0	0	41	60	48	0	149	13	26	17	0	56	354
8:15 AM	34	80	1	0	115	0	0	0	0	0	28	40	41	0	109	17	26	15	3	61	285
8:30 AM	46	97	5	0	148	0	0	0	0	0	30	40	39	0	109	16	17	13	0	46	303
8:45 AM	46	82	10	0	138	0	0	0	0	0	20	49	41	0	110	19	25	9	0	53	301
Total	183	346	21	0	550	0	0	0	0	0	119	189	169	0	477	65	94	54	3	216	1243
Grand Total	358	749	31	0	1138	0	0	0	0	0	188	336	315	0	839	121	161	95	4	381	2358
Approach %	31.5	65.8	2.7	0.0		0.0	0.0	0.0	0.0		22.4	40.0	37.5	0.0		31.8	42.3	24.9	1.0		
Total %	15.2	31.8	1.3	0.0	48.3	0.0	0.0	0.0	0.0	0.0	8.0	14.2	13.4	0.0	35.6	5.1	6.8	4.0	0.2	16.2	
Exiting Leg Total	431					380					870					677					2358

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

7:45 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	44	108	2	0	154	0	0	0	0	0	21	44	34	0	99	18	19	11	1	49	302
8:00 AM	57	87	5	0	149	0	0	0	0	0	41	60	48	0	149	13	26	17	0	56	354
8:15 AM	34	80	1	0	115	0	0	0	0	0	28	40	41	0	109	17	26	15	3	61	285
8:30 AM	46	97	5	0	148	0	0	0	0	0	30	40	39	0	109	16	17	13	0	46	303
Total Volume	181	372	13	0	566	0	0	0	0	0	120	184	162	0	466	64	88	56	4	212	1244
% Approach Total	32.0	65.7	2.3	0.0		0.0	0.0	0.0	0.0		25.8	39.5	34.8	0.0		30.2	41.5	26.4	1.9		
PHF	0.794	0.861	0.650	0.000	0.919	0.000	0.000	0.000	0.000	0.000	0.732	0.767	0.844	0.000	0.782	0.889	0.846	0.824	0.333	0.869	0.879
Entering Leg	181	372	13	0	566	0	0	0	0	0	120	184	162	0	466	64	88	56	4	212	1244
Exiting Leg	240					221					436					347					1244
Total	806					221					902					559					2488

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	3	2	0	0	5	0	0	0	0	0	0	2	2	0	4	1	0	0	0	1	10
7:15 AM	5	4	0	0	9	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	15
7:30 AM	1	4	0	0	5	0	0	0	0	0	1	5	1	0	7	0	0	0	0	0	12
7:45 AM	6	2	0	0	8	0	0	0	0	0	0	7	2	0	9	0	0	1	0	1	18
Total	15	12	0	0	27	0	0	0	0	0	1	16	5	0	22	1	3	2	0	6	55
8:00 AM	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	6
8:15 AM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	2	0	1	0	3	10
8:30 AM	3	3	0	0	6	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	9
8:45 AM	0	2	0	0	2	0	0	0	0	0	1	2	0	0	3	1	0	0	0	1	6
Total	4	11	0	0	15	0	0	0	0	0	1	7	2	0	10	3	1	2	0	6	31
Grand Total	19	23	0	0	42	0	0	0	0	0	2	23	7	0	32	4	4	4	0	12	86
Approach %	45.2	54.8	0.0	0.0		0.0	0.0	0.0	0.0		6.3	71.9	21.9	0.0		33.3	33.3	33.3	0.0		
Total %	22.1	26.7	0.0	0.0	48.8	0.0	0.0	0.0	0.0	0.0	2.3	26.7	8.1	0.0	37.2	4.7	4.7	4.7	0.0	14.0	
Exiting Leg Total	27					6					27					26					86
Large Trucks	12	19	0	0	31	0	0	0	0	0	2	16	5	0	23	3	4	2	0	9	63
% Large Trucks	63.2	82.6	0.0	0.0	73.8	0.0	0.0	0.0	0.0	0.0	100.0	69.6	71.4	0.0	71.9	75.0	100.0	50.0	0.0	75.0	73.3
Exiting Leg Total	18					6					22					17					63
Buses	7	4	0	0	11	0	0	0	0	0	0	7	2	0	9	1	0	2	0	3	23
% Buses	36.8	17.4	0.0	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0	30.4	28.6	0.0	28.1	25.0	0.0	50.0	0.0	25.0	26.7
Exiting Leg Total	9					0					5					9					23

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

7:00 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	3	2	0	0	5	0	0	0	0	0	0	2	2	0	4	1	0	0	0	1	10
7:15 AM	5	4	0	0	9	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	15
7:30 AM	1	4	0	0	5	0	0	0	0	0	1	5	1	0	7	0	0	0	0	0	12
7:45 AM	6	2	0	0	8	0	0	0	0	0	0	7	2	0	9	0	0	1	0	1	18
Total Volume	15	12	0	0	27	0	0	0	0	0	1	16	5	0	22	1	3	2	0	6	55
% Approach Total	55.6	44.4	0.0	0.0		0.0	0.0	0.0	0.0		4.5	72.7	22.7	0.0		16.7	50.0	33.3	0.0		
PHF	0.625	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.571	0.625	0.000	0.611	0.250	0.250	0.500	0.000	0.375	0.764
Large Trucks	10	9	0	0	19	0	0	0	0	0	1	11	3	0	15	0	3	0	0	3	37
Large Trucks %	66.7	75.0	0.0	0.0	70.4	0.0	0.0	0.0	0.0	0.0	100.0	68.8	60.0	0.0	68.2	0.0	100.0	0.0	0.0	50.0	67.3
Buses	5	3	0	0	8	0	0	0	0	0	0	5	2	0	7	1	0	2	0	3	18
Buses %	33.3	25.0	0.0	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0	31.3	40.0	0.0	31.8	100.0	0.0	100.0	0.0	50.0	32.7
Trucks Enter Leg	10	9	0	0	19	0	0	0	0	0	1	11	3	0	15	0	3	0	0	3	37
Bus Enter Leg	5	3	0	0	8	0	0	0	0	0	0	5	2	0	7	1	0	2	0	3	18
Total Entering Leg	15	12	0	0	27	0	0	0	0	0	1	16	5	0	22	1	3	2	0	6	55
Trucks Exiting Leg	11					4					9					13					
Buses Exiting Leg	7					0					4					7					
Total Exiting Leg	18					4					13					20					

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	2	1	0	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	5
7:15 AM	2	4	0	0	6	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	10
7:30 AM	1	3	0	0	4	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	10
7:45 AM	5	1	0	0	6	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	12
Total	10	9	0	0	19	0	0	0	0	0	1	11	3	0	15	0	3	0	0	3	37
8:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	5
8:15 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	2	0	1	0	3	8
8:30 AM	2	3	0	0	5	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	8
8:45 AM	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	5
Total	2	10	0	0	12	0	0	0	0	0	1	5	2	0	8	3	1	2	0	6	26
Grand Total	12	19	0	0	31	0	0	0	0	0	2	16	5	0	23	3	4	2	0	9	63
Approach %	38.7	61.3	0.0	0.0		0.0	0.0	0.0	0.0		8.7	69.6	21.7	0.0		33.3	44.4	22.2	0.0		
Total %	19.0	30.2	0.0	0.0	49.2	0.0	0.0	0.0	0.0	0.0	3.2	25.4	7.9	0.0	36.5	4.8	6.3	3.2	0.0	14.3	
Exiting Leg Total	18					6					22					17					63

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

7:00 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	2	1	0	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	5
7:15 AM	2	4	0	0	6	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	10
7:30 AM	1	3	0	0	4	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	10
7:45 AM	5	1	0	0	6	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	12
Total Volume	10	9	0	0	19	0	0	0	0	0	1	11	3	0	15	0	3	0	0	3	37
% Approach Total	52.6	47.4	0.0	0.0		0.0	0.0	0.0	0.0		6.7	73.3	20.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.500	0.563	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.250	0.550	0.750	0.000	0.625	0.000	0.250	0.000	0.000	0.250	0.771
Entering Leg	10	9	0	0	19	0	0	0	0	0	1	11	3	0	15	0	3	0	0	3	37
Exiting Leg	11					4					9					13					37
Total	30					4					24					16					74

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



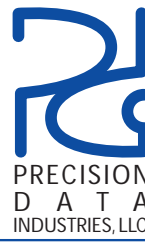
Buses

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	5
7:15 AM	3	0	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	5
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:45 AM	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	6
Total	5	3	0	0	8	0	0	0	0	0	0	5	2	0	7	1	0	2	0	3	18
8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
8:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	2	1	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
Grand Total	7	4	0	0	11	0	0	0	0	0	0	7	2	0	9	1	0	2	0	3	23
Approach %	63.6	36.4	0.0	0.0		0.0	0.0	0.0	0.0		0.0	77.8	22.2	0.0		33.3	0.0	66.7	0.0		
Total %	30.4	17.4	0.0	0.0	47.8	0.0	0.0	0.0	0.0	0.0	0.0	30.4	8.7	0.0	39.1	4.3	0.0	8.7	0.0	13.0	
Exiting Leg Total	9					0					5					9					23

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

7:00 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	5
7:15 AM	3	0	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	5
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
7:45 AM	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	6
Total Volume	5	3	0	0	8	0	0	0	0	0	0	5	2	0	7	1	0	2	0	3	18
% Approach Total	62.5	37.5	0.0	0.0		0.0	0.0	0.0	0.0		0.0	71.4	28.6	0.0		33.3	0.0	66.7	0.0		
PHF	0.417	0.750	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.500	0.000	0.583	0.250	0.000	0.500	0.000	0.750	0.750
Entering Leg	5	3	0	0	8	0	0	0	0	0	0	5	2	0	7	1	0	2	0	3	18
Exiting Leg	7					0					4					7					18
Total	15					0					11					10					36

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	1	9	0	0	0	0	10	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1	0	1	0	0	0	2	14
7:15 AM	2	11	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	14
7:30 AM	2	12	0	0	0	0	14	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	2	2	18
7:45 AM	2	15	0	0	0	0	17	0	0	0	0	0	0	0	2	2	0	0	0	0	4	0	0	1	0	0	0	1	22
Total	7	47	0	0	0	0	54	0	0	0	0	0	0	0	3	3	2	0	0	0	8	1	0	2	0	0	3	6	68
8:00 AM	2	22	0	0	0	0	24	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	1	0	0	0	1	29
8:15 AM	4	15	0	0	0	0	19	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	1	0	0	0	1	24
8:30 AM	3	18	0	0	0	1	22	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	24
8:45 AM	5	15	0	0	0	0	20	0	0	0	0	0	0	0	4	3	1	0	0	0	8	1	0	1	0	0	0	2	30
Total	14	70	0	0	0	1	85	0	0	0	0	0	0	0	8	9	1	0	0	0	18	1	0	3	0	0	0	4	107
Grand Total	21	117	0	0	0	1	139	0	0	0	0	0	0	0	11	12	3	0	0	0	26	2	0	5	0	0	3	10	175
Approach %	15.1	84.2	0.0	0.0	0.0	0.7		0.0	0.0	0.0	0.0	0.0	0.0		42.3	46.2	11.5	0.0	0.0	0.0		20.0	0.0	50.0	0.0	0.0	30.0		
Total %	12.0	66.9	0.0	0.0	0.0	0.6	79.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	6.9	1.7	0.0	0.0	0.0	14.9	1.1	0.0	2.9	0.0	0.0	1.7	5.7	
Exiting Leg Total	18							11							119							27							175

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

8:00 AM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	2	22	0	0	0	0	24	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	1	0	0	0	1	29
8:15 AM	4	15	0	0	0	0	19	0	0	0	0	0	0	0	1	3	0	0	0	0	4	0	0	1	0	0	0	1	24
8:30 AM	3	18	0	0	0	1	22	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	24
8:45 AM	5	15	0	0	0	0	20	0	0	0	0	0	0	0	4	3	1	0	0	0	8	1	0	1	0	0	0	2	30
Total Volume	14	70	0	0	0	1	85	0	0	0	0	0	0	0	8	9	1	0	0	0	18	1	0	3	0	0	0	4	107
% Approach Total	16.5	82.4	0.0	0.0	0.0	1.2		0.0	0.0	0.0	0.0	0.0	0.0		44.4	50.0	5.6	0.0	0.0	0.0		25.0	0.0	75.0	0.0	0.0	0.0		
PHF	0.700	0.795	0.000	0.000	0.000	0.250	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.250	0.000	0.000	0.000	0.563	0.250	0.000	0.750	0.000	0.000	0.000	0.500	0.892
Entering Leg	14	70	0	0	0	1	85	0	0	0	0	0	0	0	8	9	1	0	0	0	18	1	0	3	0	0	0	4	107
Exiting Leg	13							8							71							15							107
Total	98							8							89							19							214

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	1	1	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	5	2	7	11
7:15 AM	0	0	0	0	2	4	6	0	0	0	0	3	7	10	0	0	0	0	2	1	3	0	0	0	0	0	8	8	27
7:30 AM	0	0	0	0	0	3	3	0	0	0	0	8	2	10	0	0	0	0	7	0	7	0	0	0	0	2	9	11	31
7:45 AM	0	0	0	0	0	2	2	0	0	0	0	16	1	17	0	0	0	0	7	1	8	0	0	0	0	2	3	5	32
Total	0	0	0	0	3	10	13	0	0	0	0	27	12	39	0	0	0	0	16	2	18	0	0	0	0	9	22	31	101
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	11	2	13	0	0	0	0	13	2	15	0	0	0	0	1	7	8	38
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	3	2	5	0	0	0	0	9	2	11	0	0	0	0	6	11	17	34
8:30 AM	0	0	0	0	2	3	5	0	0	0	0	3	3	6	0	0	0	0	8	1	9	0	0	0	0	5	5	10	30
8:45 AM	0	0	0	0	1	2	3	0	0	0	0	5	1	6	0	0	0	0	6	0	6	0	0	0	0	2	9	11	26
Total	0	0	0	0	5	6	11	0	0	0	0	22	8	30	0	0	0	0	36	5	41	0	0	0	0	14	32	46	128
Grand Total	0	0	0	0	8	16	24	0	0	0	0	49	20	69	0	0	0	0	52	7	59	0	0	0	0	23	54	77	229
Approach %	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	71.0	29.0		0.0	0.0	0.0	0.0	88.1	11.9		0.0	0.0	0.0	0.0	29.9	70.1		
Total %	0.0	0.0	0.0	0.0	3.5	7.0	10.5	0.0	0.0	0.0	0.0	21.4	8.7	30.1	0.0	0.0	0.0	0.0	22.7	3.1	25.8	0.0	0.0	0.0	0.0	10.0	23.6	33.6	
Exiting Leg Total	24							69							59							77							229

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

7:30 AM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	0	3	3	0	0	0	0	8	2	10	0	0	0	0	7	0	7	0	0	0	0	2	9	11	31
7:45 AM	0	0	0	0	0	2	2	0	0	0	0	16	1	17	0	0	0	0	7	1	8	0	0	0	0	2	3	5	32
8:00 AM	0	0	0	0	1	1	2	0	0	0	0	11	2	13	0	0	0	0	13	2	15	0	0	0	0	1	7	8	38
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	3	2	5	0	0	0	0	9	2	11	0	0	0	0	6	11	17	34
Total Volume	0	0	0	0	2	6	8	0	0	0	0	38	7	45	0	0	0	0	36	5	41	0	0	0	0	11	30	41	135
% Approach Total	0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	84.4	15.6		0.0	0.0	0.0	0.0	87.8	12.2		0.0	0.0	0.0	0.0	26.8	73.2		
PHF	0.000	0.000	0.000	0.000	0.500	0.500	0.667	0.000	0.000	0.000	0.000	0.594	0.875	0.662	0.000	0.000	0.000	0.000	0.692	0.625	0.683	0.000	0.000	0.000	0.000	0.458	0.682	0.603	0.888
Entering Leg	0	0	0	0	2	6	8	0	0	0	0	38	7	45	0	0	0	0	36	5	41	0	0	0	0	11	30	41	135
Exiting Leg	8							45							41							41							135
Total	16							90							82							82							270

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	16	61	2	0	79	0	0	0	0	0	63	60	34	0	157	15	33	23	1	72	308
4:15 PM	24	55	3	0	82	0	0	0	0	0	47	73	26	0	146	10	30	31	0	71	299
4:30 PM	25	73	6	0	104	0	0	0	0	0	59	53	24	0	136	10	28	24	2	64	304
4:45 PM	20	56	8	0	84	0	0	0	0	0	57	61	33	0	151	14	38	21	0	73	308
Total	85	245	19	0	349	0	0	0	0	0	226	247	117	0	590	49	129	99	3	280	1219
5:00 PM	23	54	1	0	78	0	0	0	0	0	48	80	32	0	160	17	31	21	0	69	307
5:15 PM	28	66	5	0	99	0	0	0	0	0	64	68	38	0	170	20	18	21	0	59	328
5:30 PM	30	39	9	0	78	0	0	0	0	0	48	71	34	0	153	21	40	29	1	91	322
5:45 PM	15	55	7	0	77	0	0	0	0	0	56	49	41	0	146	13	42	22	1	78	301
Total	96	214	22	0	332	0	0	0	0	0	216	268	145	0	629	71	131	93	2	297	1258
Grand Total	181	459	41	0	681	0	0	0	0	0	442	515	262	0	1219	120	260	192	5	577	2477
Approach %	26.6	67.4	6.0	0.0		0.0	0.0	0.0	0.0		36.3	42.2	21.5	0.0		20.8	45.1	33.3	0.9		
Total %	7.3	18.5	1.7	0.0	27.5	0.0	0.0	0.0	0.0	0.0	17.8	20.8	10.6	0.0	49.2	4.8	10.5	7.8	0.2	23.3	
Exiting Leg Total	707					743					579					448					2477
Cars	173	449	41	0	663	0	0	0	0	0	439	503	257	0	1199	118	258	185	5	566	2428
% Cars	95.6	97.8	100.0	0.0	97.4	0.0	0.0	0.0	0.0	0.0	99.3	97.7	98.1	0.0	98.4	98.3	99.2	96.4	100.0	98.1	98.0
Exiting Leg Total	688					738					567					435					2428
Heavy Vehicles	8	10	0	0	18	0	0	0	0	0	3	12	5	0	20	2	2	7	0	11	49
% Heavy Vehicles	4.4	2.2	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.7	2.3	1.9	0.0	1.6	1.7	0.8	3.6	0.0	1.9	2.0
Exiting Leg Total	19					5					12					13					49

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

4:45 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	20	56	8	0	84	0	0	0	0	0	57	61	33	0	151	14	38	21	0	73	308
5:00 PM	23	54	1	0	78	0	0	0	0	0	48	80	32	0	160	17	31	21	0	69	307
5:15 PM	28	66	5	0	99	0	0	0	0	0	64	68	38	0	170	20	18	21	0	59	328
5:30 PM	30	39	9	0	78	0	0	0	0	0	48	71	34	0	153	21	40	29	1	91	322
Total Volume	101	215	23	0	339	0	0	0	0	0	217	280	137	0	634	72	127	92	1	292	1265
% Approach Total	29.8	63.4	6.8	0.0		0.0	0.0	0.0	0.0		34.2	44.2	21.6	0.0		24.7	43.5	31.5	0.3		
PHF	0.842	0.814	0.639	0.000	0.856	0.000	0.000	0.000	0.000	0.000	0.848	0.875	0.901	0.000	0.932	0.857	0.794	0.793	0.250	0.802	0.964
Cars	97	212	23	0	332	0	0	0	0	0	216	273	136	0	625	71	125	89	1	286	1243
Cars %	96.0	98.6	100.0	0.0	97.9	0.0	0.0	0.0	0.0	0.0	99.5	97.5	99.3	0.0	98.6	98.6	98.4	96.7	100.0	97.9	98.3
Heavy Vehicles	4	3	0	0	7	0	0	0	0	0	1	7	1	0	9	1	2	3	0	6	22
Heavy Vehicles %	4.0	1.4	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.5	2.5	0.7	0.0	1.4	1.4	1.6	3.3	0.0	2.1	1.7
Cars Enter Leg	97	212	23	0	332	0	0	0	0	0	216	273	136	0	625	71	125	89	1	286	1243
Heavy Enter Leg	4	3	0	0	7	0	0	0	0	0	1	7	1	0	9	1	2	3	0	6	22
Total Entering Leg	101	215	23	0	339	0	0	0	0	0	217	280	137	0	634	72	127	92	1	292	1265
Cars Exiting Leg	362					364					283					234					1243
Heavy Exiting Leg	10					3					4					5					22
Total Exiting Leg	372					367					287					239					1265

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	59	2	0	76	0	0	0	0	0	63	58	33	0	154	15	33	23	1	72	302
4:15 PM	22	53	3	0	78	0	0	0	0	0	47	72	25	0	144	10	30	29	0	69	291
4:30 PM	24	70	6	0	100	0	0	0	0	0	57	51	22	0	130	10	28	23	2	63	293
4:45 PM	20	55	8	0	83	0	0	0	0	0	56	61	33	0	150	14	38	19	0	71	304
Total	81	237	19	0	337	0	0	0	0	0	223	242	113	0	578	49	129	94	3	275	1190
5:00 PM	22	54	1	0	77	0	0	0	0	0	48	78	32	0	158	17	30	21	0	68	303
5:15 PM	26	65	5	0	96	0	0	0	0	0	64	66	38	0	168	19	18	20	0	57	321
5:30 PM	29	38	9	0	76	0	0	0	0	0	48	68	33	0	149	21	39	29	1	90	315
5:45 PM	15	55	7	0	77	0	0	0	0	0	56	49	41	0	146	12	42	21	1	76	299
Total	92	212	22	0	326	0	0	0	0	0	216	261	144	0	621	69	129	91	2	291	1238
Grand Total	173	449	41	0	663	0	0	0	0	0	439	503	257	0	1199	118	258	185	5	566	2428
Approach %	26.1	67.7	6.2	0.0		0.0	0.0	0.0	0.0		36.6	42.0	21.4	0.0		20.8	45.6	32.7	0.9		
Total %	7.1	18.5	1.7	0.0	27.3	0.0	0.0	0.0	0.0	0.0	18.1	20.7	10.6	0.0	49.4	4.9	10.6	7.6	0.2	23.3	
Exiting Leg Total	688					738					567					435					2428

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

4:00 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	15	59	2	0	76	0	0	0	0	0	63	58	33	0	154	15	33	23	1	72	302
4:15 PM	22	53	3	0	78	0	0	0	0	0	47	72	25	0	144	10	30	29	0	69	291
4:30 PM	24	70	6	0	100	0	0	0	0	0	57	51	22	0	130	10	28	23	2	63	293
4:45 PM	20	55	8	0	83	0	0	0	0	0	56	61	33	0	150	14	38	19	0	71	304
Total Volume	81	237	19	0	337	0	0	0	0	0	223	242	113	0	578	49	129	94	3	275	1190
% Approach Total	24.0	70.3	5.6	0.0		0.0	0.0	0.0	0.0		38.6	41.9	19.6	0.0		17.8	46.9	34.2	1.1		
PHF	0.844	0.846	0.594	0.000	0.843	0.000	0.000	0.000	0.000	0.000	0.885	0.840	0.856	0.000	0.938	0.817	0.849	0.810	0.375	0.955	0.979
Entering Leg	81	237	19	0	337	0	0	0	0	0	223	242	113	0	578	49	129	94	3	275	1190
Exiting Leg	336					371					286					197					1190
Total	673					371					864					472					2380

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	2	0	0	3	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	6
4:15 PM	2	2	0	0	4	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	8
4:30 PM	1	3	0	0	4	0	0	0	0	0	2	2	2	0	6	0	0	1	0	1	11
4:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	4
Total	4	8	0	0	12	0	0	0	0	0	3	5	4	0	12	0	0	5	0	5	29
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	4
5:15 PM	2	1	0	0	3	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	7
5:30 PM	1	1	0	0	2	0	0	0	0	0	0	3	1	0	4	0	1	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2
Total	4	2	0	0	6	0	0	0	0	0	0	7	1	0	8	2	2	2	0	6	20
Grand Total	8	10	0	0	18	0	0	0	0	0	3	12	5	0	20	2	2	7	0	11	49
Approach %	44.4	55.6	0.0	0.0		0.0	0.0	0.0	0.0		15.0	60.0	25.0	0.0		18.2	18.2	63.6	0.0		
Total %	16.3	20.4	0.0	0.0	36.7	0.0	0.0	0.0	0.0	0.0	6.1	24.5	10.2	0.0	40.8	4.1	4.1	14.3	0.0	22.4	
Exiting Leg Total	19					5					12					13					49
Large Trucks	1	3	0	0	4	0	0	0	0	0	3	4	4	0	11	1	2	2	0	5	20
% Large Trucks	12.5	30.0	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	100.0	33.3	80.0	0.0	55.0	50.0	100.0	28.6	0.0	45.5	40.8
Exiting Leg Total	6					5					4					5					20
Buses	7	7	0	0	14	0	0	0	0	0	0	8	1	0	9	1	0	5	0	6	29
% Buses	87.5	70.0	0.0	0.0	77.8	0.0	0.0	0.0	0.0	0.0	0.0	66.7	20.0	0.0	45.0	50.0	0.0	71.4	0.0	54.5	59.2
Exiting Leg Total	13					0					8					8					29

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

4:00 PM	Elm Street					Willow Avenue					Elm Street					Beech Street									
	from North					from East					from South					from West									
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total					
4:00 PM	1	2	0	0	3	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	6				
4:15 PM	2	2	0	0	4	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	8				
4:30 PM	1	3	0	0	4	0	0	0	0	0	2	2	2	0	6	0	0	1	0	1	11				
4:45 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	4				
Total Volume	4	8	0	0	12	0	0	0	0	0	3	5	4	0	12	0	0	5	0	5	29				
% Approach Total	33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		25.0	41.7	33.3	0.0		0.0	0.0	100.0	0.0						
PHF	0.500	0.667	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.375	0.625	0.500	0.000	0.500	0.000	0.000	0.625	0.000	0.625	0.659				
Large Trucks	1	2	0	0	3	0	0	0	0	0	3	2	3	0	8	0	0	2	0	2	13				
Large Trucks %	25.0	25.0	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	100.0	40.0	75.0	0.0	66.7	0.0	0.0	40.0	0.0	40.0	44.8				
Buses	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	0	0	3	0	3	16				
Buses %	75.0	75.0	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	25.0	0.0	33.3	0.0	0.0	60.0	0.0	60.0	55.2				
Trucks Enter Leg	1	2	0	0	3	0	0	0	0	0	3	2	3	0	8	0	0	2	0	2	13				
Bus Enter Leg	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	0	0	3	0	3	16				
Total Entering Leg	4	8	0	0	12	0	0	0	0	0	3	5	4	0	12	0	0	5	0	5	29				
Trucks Exiting Leg																									
	4					3					2					4					13				
Buses Exiting Leg	6					0					6					4					16				
Total Exiting Leg	10					3					8					8					29				

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3
4:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	2	0	5	0	0	0	0	0	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2
Total	1	2	0	0	3	0	0	0	0	0	3	2	3	0	8	0	0	2	0	2	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	1	2	0	0	3	7
Grand Total	1	3	0	0	4	0	0	0	0	0	3	4	4	0	11	1	2	2	0	5	20
Approach %	25.0	75.0	0.0	0.0		0.0	0.0	0.0	0.0		27.3	36.4	36.4	0.0		20.0	40.0	40.0	0.0		
Total %	5.0	15.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	15.0	20.0	20.0	0.0	55.0	5.0	10.0	10.0	0.0	25.0	
Exiting Leg Total	6					5					4					5					20

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

4:00 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3
4:15 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	2	0	5	0	0	0	0	0	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	2
Total Volume	1	2	0	0	3	0	0	0	0	0	3	2	3	0	8	0	0	2	0	2	13
% Approach Total	33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		37.5	25.0	37.5	0.0		0.0	0.0	100.0	0.0		
PHF	0.250	0.500	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.375	0.500	0.375	0.000	0.400	0.000	0.000	0.500	0.000	0.500	0.650
Entering Leg	1	2	0	0	3	0	0	0	0	0	3	2	3	0	8	0	0	2	0	2	13
Exiting Leg	4					3					2					4					13
Total	7					3					10					6					26

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
4:15 PM	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	5
4:30 PM	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	6
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	3	6	0	0	9	0	0	0	0	0	0	3	1	0	4	0	0	3	0	3	16
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:15 PM	2	1	0	0	3	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	7
5:30 PM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	4	1	0	0	5	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	13
Grand Total	7	7	0	0	14	0	0	0	0	0	0	8	1	0	9	1	0	5	0	6	29
Approach %	50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	88.9	11.1	0.0		16.7	0.0	83.3	0.0		
Total %	24.1	24.1	0.0	0.0	48.3	0.0	0.0	0.0	0.0	0.0	0.0	27.6	3.4	0.0	31.0	3.4	0.0	17.2	0.0	20.7	
Exiting Leg Total	13					0					8					8					29

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

4:30 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	6
4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:15 PM	2	1	0	0	3	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	7
Total Volume	4	5	0	0	9	0	0	0	0	0	0	4	0	0	4	1	0	3	0	4	17
% Approach Total	44.4	55.6	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		25.0	0.0	75.0	0.0		
PHF	0.500	0.417	0.000	0.000	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.250	0.000	0.750	0.000	0.500	0.607
Entering Leg	4	5	0	0	9	0	0	0	0	0	0	4	0	0	4	1	0	3	0	4	17
Exiting Leg	7					0					6					4					17
Total	16					0					10					8					34

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	1	0	0	0	0	1	7
4:15 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	4	2	0	0	0	0	6	0	1	0	0	0	1	2	12
4:30 PM	2	4	0	0	0	0	6	0	0	0	0	0	0	0	2	1	0	0	1	0	4	0	0	0	0	0	0	0	10
4:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	5	2	1	0	0	0	8	0	2	0	0	0	0	2	14
Total	2	13	0	0	0	0	15	0	0	0	0	0	0	0	13	8	1	0	1	0	23	0	4	0	0	0	1	5	43
5:00 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	8	1	0	0	0	9	1	1	0	0	0	0	2	13
5:15 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	4	7	2	0	0	0	13	0	2	0	0	0	0	2	21
5:30 PM	2	4	0	0	0	0	6	1	0	0	0	0	0	1	5	5	0	0	0	0	10	0	2	0	0	0	0	2	19
5:45 PM	1	5	0	0	0	0	6	1	0	0	0	0	0	1	6	11	0	0	0	0	17	0	1	0	0	0	0	1	25
Total	4	16	0	0	0	0	20	2	0	0	0	0	0	2	15	31	3	0	0	0	49	1	6	0	0	0	0	7	78
Grand Total	6	29	0	0	0	0	35	2	0	0	0	0	0	2	28	39	4	0	1	0	72	1	10	0	0	0	1	12	121
Approach %	17.1	82.9	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		38.9	54.2	5.6	0.0	1.4	0.0		8.3	83.3	0.0	0.0	0.0	8.3		
Total %	5.0	24.0	0.0	0.0	0.0	0.0	28.9	1.7	0.0	0.0	0.0	0.0	0.0	1.7	23.1	32.2	3.3	0.0	0.8	0.0	59.5	0.8	8.3	0.0	0.0	0.0	0.8	9.9	
Exiting Leg Total	41							38							31							11							121

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

4:00 PM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	3	0	0	0	0	5	0	1	0	0	0	0	1	7
4:15 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	4	2	0	0	0	0	6	0	1	0	0	0	1	2	12
4:30 PM	2	4	0	0	0	0	6	0	0	0	0	0	0	0	2	1	0	0	1	0	4	0	0	0	0	0	0	0	10
4:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	5	2	1	0	0	0	8	0	2	0	0	0	0	2	14
Total Volume	2	13	0	0	0	0	15	0	0	0	0	0	0	0	13	8	1	0	1	0	23	0	4	0	0	0	1	5	43
% Approach Total	13.3	86.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		56.5	34.8	4.3	0.0	4.3	0.0		0.0	80.0	0.0	0.0	0.0	20.0		
PHF	0.250	0.813	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.667	0.250	0.000	0.250	0.000	0.719	0.000	0.500	0.000	0.000	0.000	0.250	0.625	0.768
Entering Leg	2	13	0	0	0	0	15	0	0	0	0	0	0	0	13	8	1	0	1	0	23	0	4	0	0	0	1	5	43
Exiting Leg	8							17							14							4							43
Total	23							17							37							9							86

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	4	8	0	0	0	0	0	1	1	0	0	0	0	1	9	10	19
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	11	5	16	0	0	0	0	4	0	4	0	0	0	0	4	4	8	28
4:30 PM	0	0	0	0	3	0	3	0	0	0	0	5	5	10	0	0	0	0	5	4	9	0	0	0	0	6	3	9	31
4:45 PM	0	0	0	0	7	0	7	0	0	0	0	8	5	13	0	0	0	0	2	0	2	0	0	0	0	7	5	12	34
Total	0	0	0	0	10	0	10	0	0	0	0	28	19	47	0	0	0	0	11	5	16	0	0	0	0	18	21	39	112
5:00 PM	0	0	0	0	2	0	2	0	0	0	0	3	10	13	0	0	0	0	0	3	3	0	0	0	0	5	10	15	33
5:15 PM	0	0	0	0	3	3	6	0	0	0	0	4	13	17	0	0	0	0	1	4	5	0	0	0	0	5	10	15	43
5:30 PM	0	0	0	0	3	3	6	0	0	0	0	7	8	15	0	0	0	0	1	6	7	0	0	0	0	6	7	13	41
5:45 PM	0	0	0	0	5	0	5	0	0	0	0	6	13	19	0	0	0	0	3	7	10	0	0	0	0	9	11	20	54
Total	0	0	0	0	13	6	19	0	0	0	0	20	44	64	0	0	0	0	5	20	25	0	0	0	0	25	38	63	171
Grand Total	0	0	0	0	23	6	29	0	0	0	0	48	63	111	0	0	0	0	16	25	41	0	0	0	0	43	59	102	283
Approach %	0.0	0.0	0.0	0.0	79.3	20.7		0.0	0.0	0.0	0.0	43.2	56.8		0.0	0.0	0.0	0.0	39.0	61.0		0.0	0.0	0.0	0.0	42.2	57.8		
Total %	0.0	0.0	0.0	0.0	8.1	2.1	10.2	0.0	0.0	0.0	0.0	17.0	22.3	39.2	0.0	0.0	0.0	0.0	5.7	8.8	14.5	0.0	0.0	0.0	0.0	15.2	20.8	36.0	
Exiting Leg Total	29							111							41							102							283

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

5:00 PM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	2	0	2	0	0	0	0	3	10	13	0	0	0	0	0	3	3	0	0	0	0	5	10	15	33
5:15 PM	0	0	0	0	3	3	6	0	0	0	0	4	13	17	0	0	0	0	1	4	5	0	0	0	0	5	10	15	43
5:30 PM	0	0	0	0	3	3	6	0	0	0	0	7	8	15	0	0	0	0	1	6	7	0	0	0	0	6	7	13	41
5:45 PM	0	0	0	0	5	0	5	0	0	0	0	6	13	19	0	0	0	0	3	7	10	0	0	0	0	9	11	20	54
Total Volume	0	0	0	0	13	6	19	0	0	0	0	20	44	64	0	0	0	0	5	20	25	0	0	0	0	25	38	63	171
% Approach Total	0.0	0.0	0.0	0.0	68.4	31.6		0.0	0.0	0.0	0.0	31.3	68.8		0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	39.7	60.3		
PHF	0.000	0.000	0.000	0.000	0.650	0.500	0.792	0.000	0.000	0.000	0.000	0.714	0.846	0.842	0.000	0.000	0.000	0.000	0.417	0.714	0.625	0.000	0.000	0.000	0.000	0.694	0.864	0.788	0.792
Entering Leg	0	0	0	0	13	6	19	0	0	0	0	20	44	64	0	0	0	0	5	20	25	0	0	0	0	25	38	63	171
Exiting Leg	19							64							25							63							171
Total	38							128							50							126							342

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	26	73	7	0	106	0	0	0	0	0	36	61	30	0	127	16	21	16	1	54	287
11:15 AM	28	84	2	0	114	0	0	0	0	0	47	52	27	0	126	20	19	23	1	63	303
11:30 AM	27	76	9	0	112	0	0	0	0	0	48	61	30	0	139	17	20	16	0	53	304
11:45 AM	19	82	7	0	108	0	0	0	0	0	51	48	38	0	137	28	25	8	0	61	306
Total	100	315	25	0	440	0	0	0	0	0	182	222	125	0	529	81	85	63	2	231	1200
12:00 PM	25	80	8	0	113	0	0	0	0	0	38	37	44	0	119	17	22	11	0	50	282
12:15 PM	32	77	8	0	117	0	0	0	0	0	48	58	32	0	138	22	23	6	1	52	307
12:30 PM	22	79	6	0	107	0	0	0	0	0	48	50	28	0	126	14	25	12	0	51	284
12:45 PM	27	54	11	0	92	0	0	0	0	0	60	61	37	0	158	24	22	24	1	71	321
Total	106	290	33	0	429	0	0	0	0	0	194	206	141	0	541	77	92	53	2	224	1194
1:00 PM	25	63	5	0	93	0	0	0	0	0	41	70	32	0	143	15	27	15	0	57	293
1:15 PM	33	83	5	0	121	0	0	0	0	0	34	45	31	0	110	21	26	16	0	63	294
1:30 PM	19	66	7	0	92	0	0	0	0	0	50	53	30	0	133	23	22	13	0	58	283
1:45 PM	17	73	4	0	94	0	0	0	0	0	51	48	37	1	137	17	30	22	0	69	300
Total	94	285	21	0	400	0	0	0	0	0	176	216	130	1	523	76	105	66	0	247	1170
Grand Total	300	890	79	0	1269	0	0	0	0	0	552	644	396	1	1593	234	282	182	4	702	3564
Approach %	23.6	70.1	6.2	0.0		0.0	0.0	0.0	0.0		34.7	40.4	24.9	0.1		33.3	40.2	25.9	0.6		
Total %	8.4	25.0	2.2	0.0	35.6	0.0	0.0	0.0	0.0	0.0	15.5	18.1	11.1	0.0	44.7	6.6	7.9	5.1	0.1	19.7	
Exiting Leg Total	826					913					1125					700					3564
Cars	292	873	78	0	1243	0	0	0	0	0	545	629	389	1	1564	233	276	175	3	687	3494
% Cars	97.3	98.1	98.7	0.0	98.0	0.0	0.0	0.0	0.0	0.0	98.7	97.7	98.2	100.0	98.2	99.6	97.9	96.2	75.0	97.9	98.0
Exiting Leg Total	804					899					1107					684					3494
Heavy Vehicles	8	17	1	0	26	0	0	0	0	0	7	15	7	0	29	1	6	7	1	15	70
% Heavy Vehicles	2.7	1.9	1.3	0.0	2.0	0.0	0.0	0.0	0.0	0.0	1.3	2.3	1.8	0.0	1.8	0.4	2.1	3.8	25.0	2.1	2.0
Exiting Leg Total	22					14					18					16					70

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	32	77	8	0	117	0	0	0	0	0	48	58	32	0	138	22	23	6	1	52	307
12:30 PM	22	79	6	0	107	0	0	0	0	0	48	50	28	0	126	14	25	12	0	51	284
12:45 PM	27	54	11	0	92	0	0	0	0	0	60	61	37	0	158	24	22	24	1	71	321
1:00 PM	25	63	5	0	93	0	0	0	0	0	41	70	32	0	143	15	27	15	0	57	293
Total Volume	106	273	30	0	409	0	0	0	0	0	197	239	129	0	565	75	97	57	2	231	1205
% Approach Total	25.9	66.7	7.3	0.0		0.0	0.0	0.0	0.0		34.9	42.3	22.8	0.0		32.5	42.0	24.7	0.9		
PHF	0.828	0.864	0.682	0.000	0.874	0.000	0.000	0.000	0.000	0.000	0.821	0.854	0.872	0.000	0.894	0.781	0.898	0.594	0.500	0.813	0.938
Cars	103	267	30	0	400	0	0	0	0	0	195	234	126	0	555	74	95	55	1	225	1180
Cars %	97.2	97.8	100.0	0.0	97.8	0.0	0.0	0.0	0.0	0.0	99.0	97.9	97.7	0.0	98.2	98.7	97.9	96.5	50.0	97.4	97.9
Heavy Vehicles	3	6	0	0	9	0	0	0	0	0	2	5	3	0	10	1	2	2	1	6	25
Heavy Vehicles %	2.8	2.2	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	1.0	2.1	2.3	0.0	1.8	1.3	2.1	3.5	50.0	2.6	2.1
Cars Enter Leg	103	267	30	0	400	0	0	0	0	0	195	234	126	0	555	74	95	55	1	225	1180
Heavy Enter Leg	3	6	0	0	9	0	0	0	0	0	2	5	3	0	10	1	2	2	1	6	25
Total Entering Leg	106	273	30	0	409	0	0	0	0	0	197	239	129	0	565	75	97	57	2	231	1205
Cars Exiting Leg	289					320					341					230					1180
Heavy Exiting Leg	7					4					7					7					25
Total Exiting Leg	296					324					348					237					1205

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	26	72	7	0	105	0	0	0	0	0	36	59	30	0	125	16	19	16	1	52	282
11:15 AM	28	81	2	0	111	0	0	0	0	0	44	50	26	0	120	20	19	22	1	62	293
11:30 AM	25	76	9	0	110	0	0	0	0	0	47	61	30	0	138	17	20	16	0	53	301
11:45 AM	19	80	7	0	106	0	0	0	0	0	51	46	37	0	134	28	25	8	0	61	301
Total	98	309	25	0	432	0	0	0	0	0	178	216	123	0	517	81	83	62	2	228	1177
12:00 PM	25	79	7	0	111	0	0	0	0	0	37	35	44	0	116	17	22	10	0	49	276
12:15 PM	32	73	8	0	113	0	0	0	0	0	48	56	32	0	136	21	23	6	0	50	299
12:30 PM	21	78	6	0	105	0	0	0	0	0	47	50	28	0	125	14	25	11	0	50	280
12:45 PM	27	53	11	0	91	0	0	0	0	0	59	58	35	0	152	24	22	24	1	71	314
Total	105	283	32	0	420	0	0	0	0	0	191	199	139	0	529	76	92	51	1	220	1169
1:00 PM	23	63	5	0	91	0	0	0	0	0	41	70	31	0	142	15	25	14	0	54	287
1:15 PM	30	81	5	0	116	0	0	0	0	0	34	44	30	0	108	21	26	14	0	61	285
1:30 PM	19	66	7	0	92	0	0	0	0	0	50	52	30	0	132	23	20	13	0	56	280
1:45 PM	17	71	4	0	92	0	0	0	0	0	51	48	36	1	136	17	30	21	0	68	296
Total	89	281	21	0	391	0	0	0	0	0	176	214	127	1	518	76	101	62	0	239	1148
Grand Total	292	873	78	0	1243	0	0	0	0	0	545	629	389	1	1564	233	276	175	3	687	3494
Approach %	23.5	70.2	6.3	0.0		0.0	0.0	0.0	0.0		34.8	40.2	24.9	0.1		33.9	40.2	25.5	0.4		
Total %	8.4	25.0	2.2	0.0	35.6	0.0	0.0	0.0	0.0	0.0	15.6	18.0	11.1	0.0	44.8	6.7	7.9	5.0	0.1	19.7	
Exiting Leg Total	804					899					1107					684					3494

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	32	73	8	0	113	0	0	0	0	0	48	56	32	0	136	21	23	6	0	50	299
12:30 PM	21	78	6	0	105	0	0	0	0	0	47	50	28	0	125	14	25	11	0	50	280
12:45 PM	27	53	11	0	91	0	0	0	0	0	59	58	35	0	152	24	22	24	1	71	314
1:00 PM	23	63	5	0	91	0	0	0	0	0	41	70	31	0	142	15	25	14	0	54	287
Total Volume	103	267	30	0	400	0	0	0	0	0	195	234	126	0	555	74	95	55	1	225	1180
% Approach Total	25.8	66.8	7.5	0.0		0.0	0.0	0.0	0.0		35.1	42.2	22.7	0.0		32.9	42.2	24.4	0.4		
PHF	0.805	0.856	0.682	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.826	0.836	0.900	0.000	0.913	0.771	0.950	0.573	0.250	0.792	0.939
Entering Leg	103	267	30	0	400	0	0	0	0	0	195	234	126	0	555	74	95	55	1	225	1180
Exiting Leg	289					320					341					230					1180
Total	689					320					896					455					2360

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	5
11:15 AM	0	3	0	0	3	0	0	0	0	0	3	2	1	0	6	0	0	1	0	1	10
11:30 AM	2	0	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
11:45 AM	0	2	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	5
Total	2	6	0	0	8	0	0	0	0	0	4	6	2	0	12	0	2	1	0	3	23
12:00 PM	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	6
12:15 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	1	0	0	1	2	8
12:30 PM	1	1	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	4
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	3	2	0	6	0	0	0	0	0	7
Total	1	7	1	0	9	0	0	0	0	0	3	7	2	0	12	1	0	2	1	4	25
1:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	1	0	3	6
1:15 PM	3	2	0	0	5	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	9
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
1:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	4
Total	5	4	0	0	9	0	0	0	0	0	0	2	3	0	5	0	4	4	0	8	22
Grand Total	8	17	1	0	26	0	0	0	0	0	7	15	7	0	29	1	6	7	1	15	70
Approach %	30.8	65.4	3.8	0.0		0.0	0.0	0.0	0.0		24.1	51.7	24.1	0.0		6.7	40.0	46.7	6.7		
Total %	11.4	24.3	1.4	0.0	37.1	0.0	0.0	0.0	0.0	0.0	10.0	21.4	10.0	0.0	41.4	1.4	8.6	10.0	1.4	21.4	
Exiting Leg Total	22					14					18					16					70
Large Trucks	5	12	1	0	18	0	0	0	0	0	6	8	6	0	20	1	6	4	0	11	49
% Large Trucks	62.5	70.6	100.0	0.0	69.2	0.0	0.0	0.0	0.0	0.0	85.7	53.3	85.7	0.0	69.0	100.0	100.0	57.1	0.0	73.3	70.0
Exiting Leg Total	12					13					13					11					49
Buses	3	5	0	0	8	0	0	0	0	0	1	7	1	0	9	0	0	3	1	4	21
% Buses	37.5	29.4	0.0	0.0	30.8	0.0	0.0	0.0	0.0	0.0	14.3	46.7	14.3	0.0	31.0	0.0	0.0	42.9	100.0	26.7	30.0
Exiting Leg Total	10					1					5					5					21

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
12:30 PM	1	1	0	0	2	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	4	
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	3	2	0	6	0	0	0	0	0	7	
1:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	1	0	3	6	
1:15 PM	3	2	0	0	5	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	9	
Total Volume	6	4	0	0	10	0	0	0	0	0	2	4	4	0	10	0	2	4	0	6	26	
% Approach Total	60.0	40.0	0.0	0.0		0.0	0.0	0.0	0.0		20.0	40.0	40.0	0.0		0.0	33.3	66.7	0.0			
PHF	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.333	0.500	0.000	0.417	0.000	0.250	0.500	0.000	0.500	0.722	
Large Trucks	4	2	0	0	6	0	0	0	0	0	2	2	3	0	7	0	2	3	0	5	18	
Large Trucks %	66.7	50.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	100.0	50.0	75.0	0.0	70.0	0.0	100.0	75.0	0.0	83.3	69.2	
Buses	2	2	0	0	4	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	8	
Buses %	33.3	50.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	25.0	0.0	30.0	0.0	0.0	25.0	0.0	16.7	30.8	
Trucks Enter Leg	4	2	0	0	6	0	0	0	0	0	2	2	3	0	7	0	2	3	0	5	18	
Bus Enter Leg	2	2	0	0	4	0	0	0	0	0	0	2	1	0	3	0	0	1	0	1	8	
Total Entering Leg	6	4	0	0	10	0	0	0	0	0	2	4	4	0	10	0	2	4	0	6	26	
Trucks Exiting Leg																						
Buses Exiting Leg	5					4					2					7					18	
Total Exiting Leg	3					0					2					3					8	
	8					4					4					10					26	

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
11:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3
11:15 AM	0	2	0	0	2	0	0	0	0	0	2	1	1	0	4	0	0	0	0	0	0	6
11:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	3
Total	1	4	0	0	5	0	0	0	0	0	3	2	2	0	7	0	2	0	0	2	14	
12:00 PM	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	6	
12:15 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5	
12:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	3	
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	0	0	0	0	0	4	
Total	0	5	1	0	6	0	0	0	0	0	3	5	1	0	9	1	0	2	0	3	18	
1:00 PM	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	5	
1:15 PM	2	1	0	0	3	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	6	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3	
1:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	
Total	4	3	0	0	7	0	0	0	0	0	0	1	3	0	4	0	4	2	0	6	17	
Grand Total	5	12	1	0	18	0	0	0	0	0	6	8	6	0	20	1	6	4	0	11	49	
Approach %	27.8	66.7	5.6	0.0		0.0	0.0	0.0	0.0		30.0	40.0	30.0	0.0		9.1	54.5	36.4	0.0			
Total %	10.2	24.5	2.0	0.0	36.7	0.0	0.0	0.0	0.0	0.0	12.2	16.3	12.2	0.0	40.8	2.0	12.2	8.2	0.0	22.4		
Exiting Leg Total	12					13					13					11					49	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:00 PM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:00 PM	0	1	1	0	2	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	6
12:15 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5
12:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	0	0	0	0	0	4
Total Volume	0	5	1	0	6	0	0	0	0	0	3	5	1	0	9	1	0	2	0	3	18
% Approach Total	0.0	83.3	16.7	0.0		0.0	0.0	0.0	0.0		33.3	55.6	11.1	0.0		33.3	0.0	66.7	0.0		
PHF	0.000	0.417	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750	0.625	0.250	0.000	0.563	0.250	0.000	0.500	0.000	0.750	0.750
Entering Leg	0	5	1	0	6	0	0	0	0	0	3	5	1	0	9	1	0	2	0	3	18
Exiting Leg	7					4					6					1					18
Total	13					4					15					4					36

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	4
11:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	1	2	0	0	3	0	0	0	0	0	1	4	0	0	5	0	0	1	0	1	9
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	3
12:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3
Total	1	2	0	0	3	0	0	0	0	0	0	2	1	0	3	0	0	0	1	1	7
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1:15 PM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
1:30 PM	0	0	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	1	0	1	1
Total	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	5
Grand Total	3	5	0	0	8	0	0	0	0	0	1	7	1	0	9	0	0	3	1	4	21
Approach %	37.5	62.5	0.0	0.0		0.0	0.0	0.0	0.0		11.1	77.8	11.1	0.0		0.0	0.0	75.0	25.0		
Total %	14.3	23.8	0.0	0.0	38.1	0.0	0.0	0.0	0.0	0.0	4.8	33.3	4.8	0.0	42.9	0.0	0.0	14.3	4.8	19.0	
Exiting Leg Total	10					1					5					5					21

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Elm Street					Willow Avenue					Elm Street					Beech Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:15 AM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	4
11:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total Volume	1	2	0	0	3	0	0	0	0	0	1	4	0	0	5	0	0	1	0	1	9
% Approach Total	33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		20.0	80.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.250	0.500	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.625	0.000	0.000	0.250	0.000	0.250	0.563
Entering Leg	1	2	0	0	3	0	0	0	0	0	1	4	0	0	5	0	0	1	0	1	9
Exiting Leg	5					1					2					1					9
Total	8					1					7					2					18

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	0	0	0	0	1	1	13
11:15 AM	0	2	1	0	0	0	3	0	0	0	0	0	2	2	4	3	1	0	0	0	8	0	0	0	0	0	0	0	13
11:30 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	2	2	0	0	0	0	4	0	0	0	0	0	3	3	14
11:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	1	1	4	4	0	0	0	0	8	1	2	0	0	0	1	4	14
Total	0	16	1	0	0	0	17	0	0	0	0	0	3	3	11	14	1	0	0	0	26	1	2	0	0	0	5	8	54
12:00 PM	1	13	0	0	1	0	15	0	0	0	0	1	0	1	1	1	2	0	0	0	4	2	0	0	0	0	0	2	22
12:15 PM	3	10	0	0	0	0	13	0	0	0	0	0	0	0	0	3	1	0	0	0	4	1	0	0	0	0	0	1	18
12:30 PM	4	13	0	0	0	0	17	0	0	0	0	0	0	0	2	2	0	0	1	0	5	0	0	1	0	0	1	2	24
12:45 PM	4	5	0	0	0	0	9	0	0	0	0	0	1	1	4	3	0	0	0	0	7	0	0	0	0	0	0	0	17
Total	12	41	0	0	1	0	54	0	0	0	0	1	1	2	7	9	3	0	1	0	20	3	0	1	0	0	1	5	81
1:00 PM	2	6	0	0	0	0	8	0	0	1	0	1	0	2	1	3	0	0	0	0	4	0	0	0	0	0	0	0	14
1:15 PM	0	6	0	0	0	0	6	0	0	1	0	0	1	2	3	6	0	0	0	1	10	0	1	2	0	0	0	3	21
1:30 PM	1	6	0	0	0	0	7	0	0	0	0	0	0	0	3	2	1	0	0	0	6	0	0	0	0	0	0	0	13
1:45 PM	5	10	0	0	0	0	15	0	0	1	0	0	0	1	3	7	0	0	0	0	10	0	1	0	0	0	0	1	27
Total	8	28	0	0	0	0	36	0	0	3	0	1	1	5	10	18	1	0	0	1	30	0	2	2	0	0	0	4	75
Grand Total	20	85	1	0	1	0	107	0	0	3	0	2	5	10	28	41	5	0	1	1	76	4	4	3	0	0	6	17	210
Approach %	18.7	79.4	0.9	0.0	0.9	0.0		0.0	0.0	30.0	0.0	20.0	50.0		36.8	53.9	6.6	0.0	1.3	1.3		23.5	23.5	17.6	0.0	0.0	35.3		
Total %	9.5	40.5	0.5	0.0	0.5	0.0	51.0	0.0	0.0	1.4	0.0	1.0	2.4	4.8	13.3	19.5	2.4	0.0	0.5	0.5	36.2	1.9	1.9	1.4	0.0	0.0	2.9	8.1	
Exiting Leg Total	45							40							94							31							210

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:00 PM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:00 PM	1	13	0	0	1	0	15	0	0	0	0	1	0	1	1	1	2	0	0	0	4	2	0	0	0	0	0	2	22
12:15 PM	3	10	0	0	0	0	13	0	0	0	0	0	0	0	0	3	1	0	0	0	4	1	0	0	0	0	0	1	18
12:30 PM	4	13	0	0	0	0	17	0	0	0	0	0	0	0	2	2	0	0	1	0	5	0	0	1	0	0	1	2	24
12:45 PM	4	5	0	0	0	0	9	0	0	0	0	0	1	1	4	3	0	0	0	0	7	0	0	0	0	0	0	0	17
Total Volume	12	41	0	0	1	0	54	0	0	0	0	1	1	2	7	9	3	0	1	0	20	3	0	1	0	0	1	5	81
% Approach Total	22.2	75.9	0.0	0.0	1.9	0.0		0.0	0.0	0.0	0.0	50.0	50.0		35.0	45.0	15.0	0.0	5.0	0.0		60.0	0.0	20.0	0.0	0.0	20.0		
PHF	0.750	0.788	0.000	0.000	0.250	0.000	0.794	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.438	0.750	0.375	0.000	0.250	0.000	0.714	0.375	0.000	0.250	0.000	0.250	0.625		0.844
Entering Leg	12	41	0	0	1	0	54	0	0	0	0	1	1	2	7	9	3	0	1	0	20	3	0	1	0	0	1	5	81
Exiting Leg	11							9							45							16							81
Total	65							11							65							21							162

PDI File #: **175971 D**
 Location: **N: Elm Street S: Elm Street**
 Location: **E: Willow Avenue W: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	5	0	5	0	0	0	0	11	14	25	0	0	0	0	6	6	12	0	0	0	0	11	14	25	67
11:15 AM	0	0	0	0	6	1	7	0	0	0	0	11	16	27	0	0	0	0	11	5	16	0	0	0	0	13	14	27	77
11:30 AM	0	0	0	0	1	0	1	0	0	0	0	14	7	21	0	0	0	0	8	4	12	0	0	0	0	7	22	29	63
11:45 AM	0	0	0	0	3	3	6	0	0	0	0	14	17	31	0	0	0	0	11	13	24	0	0	0	0	4	20	24	85
Total	0	0	0	0	15	4	19	0	0	0	0	50	54	104	0	0	0	0	36	28	64	0	0	0	0	35	70	105	292
12:00 PM	0	0	0	0	4	0	4	0	0	0	0	9	14	23	0	0	0	0	8	8	16	0	0	0	0	21	16	37	80
12:15 PM	0	0	0	0	2	0	2	0	0	0	0	5	17	22	0	0	0	0	9	8	17	0	0	0	0	20	18	38	79
12:30 PM	0	0	0	0	3	1	4	0	0	0	0	13	17	30	0	0	0	0	10	7	17	0	0	0	0	15	31	46	97
12:45 PM	0	0	0	0	2	3	5	0	0	0	0	9	11	20	0	0	0	0	9	4	13	0	0	0	0	24	17	41	79
Total	0	0	0	0	11	4	15	0	0	0	0	36	59	95	0	0	0	0	36	27	63	0	0	0	0	80	82	162	335
1:00 PM	0	0	0	0	4	0	4	0	0	0	0	13	11	24	0	0	0	0	11	4	15	0	0	0	0	8	15	23	66
1:15 PM	0	0	0	0	4	5	9	0	0	0	0	18	14	32	0	0	0	0	9	7	16	0	0	0	0	18	13	31	88
1:30 PM	0	0	0	0	7	7	14	0	0	0	0	15	16	31	0	0	0	0	8	7	15	0	0	0	0	14	20	34	94
1:45 PM	0	0	0	0	1	4	5	0	0	0	0	7	15	22	0	0	0	0	4	16	20	0	0	0	0	14	16	30	77
Total	0	0	0	0	16	16	32	0	0	0	0	53	56	109	0	0	0	0	32	34	66	0	0	0	0	54	64	118	325
Grand Total	0	0	0	0	42	24	66	0	0	0	0	139	169	308	0	0	0	0	104	89	193	0	0	0	0	169	216	385	952
Approach %	0.0	0.0	0.0	0.0	63.6	36.4		0.0	0.0	0.0	0.0	45.1	54.9		0.0	0.0	0.0	0.0	53.9	46.1		0.0	0.0	0.0	0.0	43.9	56.1		
Total %	0.0	0.0	0.0	0.0	4.4	2.5	6.9	0.0	0.0	0.0	0.0	14.6	17.8	32.4	0.0	0.0	0.0	0.0	10.9	9.3	20.3	0.0	0.0	0.0	0.0	17.8	22.7	40.4	
Exiting Leg Total	66							308							193							385							952

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Elm Street							Willow Avenue							Elm Street							Beech Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:45 AM	0	0	0	0	3	3	6	0	0	0	0	14	17	31	0	0	0	0	11	13	24	0	0	0	0	4	20	24	85
12:00 PM	0	0	0	0	4	0	4	0	0	0	0	9	14	23	0	0	0	0	8	8	16	0	0	0	0	21	16	37	80
12:15 PM	0	0	0	0	2	0	2	0	0	0	0	5	17	22	0	0	0	0	9	8	17	0	0	0	0	20	18	38	79
12:30 PM	0	0	0	0	2	0	2	0	0	0	0	5	17	22	0	0	0	0	9	8	17	0	0	0	0	20	18	38	79
Total Volume	0	0	0	0	11	3	14	0	0	0	0	33	65	98	0	0	0	0	37	37	74	0	0	0	0	65	72	137	323
% Approach Total	0.0	0.0	0.0	0.0	78.6	21.4		0.0	0.0	0.0	0.0	33.7	66.3		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	47.4	52.6		
PHF	0.000	0.000	0.000	0.000	0.688	0.250	0.583	0.000	0.000	0.000	0.000	0.589	0.956	0.790	0.000	0.000	0.000	0.000	0.841	0.712	0.771	0.000	0.000	0.000	0.000	0.774	0.900	0.901	0.950
Entering Leg	0	0	0	0	11	3	14	0	0	0	0	33	65	98	0	0	0	0	37	37	74	0	0	0	0	65	72	137	323
Exiting Leg	14							98							74							137							323
Total	28							196							148							274							646

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	285	0	0	285	9	0	0	0	9	3	82	0	0	85	0	0	0	0	0	379
7:15 AM	0	266	0	0	266	10	0	0	0	10	3	103	0	0	106	0	0	0	0	0	382
7:30 AM	0	245	0	0	245	16	0	0	0	16	8	113	0	0	121	2	0	0	0	2	384
7:45 AM	0	231	0	0	231	12	0	0	0	12	5	117	0	0	122	0	0	0	0	0	365
Total	0	1027	0	0	1027	47	0	0	0	47	19	415	0	0	434	2	0	0	0	2	1510
8:00 AM	0	255	0	0	255	12	0	0	0	12	8	119	0	0	127	0	0	0	0	0	394
8:15 AM	0	217	0	0	217	18	0	0	0	18	11	96	0	0	107	0	0	0	0	0	342
8:30 AM	1	230	0	0	231	6	0	0	0	6	2	107	0	0	109	0	0	0	0	0	346
8:45 AM	0	225	0	0	225	16	0	0	0	16	7	133	0	0	140	2	0	0	0	2	383
Total	1	927	0	0	928	52	0	0	0	52	28	455	0	0	483	2	0	0	0	2	1465
Grand Total	1	1954	0	0	1955	99	0	0	0	99	47	870	0	0	917	4	0	0	0	4	2975
Approach %	0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		5.1	94.9	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	65.7	0.0	0.0	65.7	3.3	0.0	0.0	0.0	3.3	1.6	29.2	0.0	0.0	30.8	0.1	0.0	0.0	0.0	0.1	
Exiting Leg Total	969					47					1958					1					2975
Cars	1	1862	0	0	1863	97	0	0	0	97	43	774	0	0	817	4	0	0	0	4	2781
% Cars	100.0	95.3	0.0	0.0	95.3	98.0	0.0	0.0	0.0	98.0	91.5	89.0	0.0	0.0	89.1	100.0	0.0	0.0	0.0	100.0	93.5
Exiting Leg Total	871					43					1866					1					2781
Heavy Vehicles	0	92	0	0	92	2	0	0	0	2	4	96	0	0	100	0	0	0	0	0	194
% Heavy Vehicles	0.0	4.7	0.0	0.0	4.7	2.0	0.0	0.0	0.0	2.0	8.5	11.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0	6.5
Exiting Leg Total	98					4					92					0					194

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

7:15 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:15 AM	0	266	0	0	266	10	0	0	0	10	3	103	0	0	106	0	0	0	0	0	382	
7:30 AM	0	245	0	0	245	16	0	0	0	16	8	113	0	0	121	2	0	0	0	2	384	
7:45 AM	0	231	0	0	231	12	0	0	0	12	5	117	0	0	122	0	0	0	0	0	365	
8:00 AM	0	255	0	0	255	12	0	0	0	12	8	119	0	0	127	0	0	0	0	0	394	
Total Volume	0	997	0	0	997	50	0	0	0	50	24	452	0	0	476	2	0	0	0	2	1525	
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		5.0	95.0	0.0	0.0		100.0	0.0	0.0	0.0			
PHF	0.000	0.937	0.000	0.000	0.937	0.781	0.000	0.000	0.000	0.781	0.750	0.950	0.000	0.000	0.937	0.250	0.000	0.000	0.000	0.250	0.968	
Cars	0	951	0	0	951	49	0	0	0	49	22	400	0	0	422	2	0	0	0	2	1424	
Cars %	0.0	95.4	0.0	0.0	95.4	98.0	0.0	0.0	0.0	98.0	91.7	88.5	0.0	0.0	88.7	100.0	0.0	0.0	0.0	100.0	93.4	
Heavy Vehicles	0	46	0	0	46	1	0	0	0	1	2	52	0	0	54	0	0	0	0	0	101	
Heavy Vehicles %	0.0	4.6	0.0	0.0	4.6	2.0	0.0	0.0	0.0	2.0	8.3	11.5	0.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0	6.6	
Cars Enter Leg	0	951	0	0	951	49	0	0	0	49	22	400	0	0	422	2	0	0	0	2	1424	
Heavy Enter Leg	0	46	0	0	46	1	0	0	0	1	2	52	0	0	54	0	0	0	0	0	101	
Total Entering Leg	0	997	0	0	997	50	0	0	0	50	24	452	0	0	476	2	0	0	0	2	1525	
Cars Exiting Leg																					0	1424
Heavy Exiting Leg																					0	101
Total Exiting Leg	502					24					999					0					1525	

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	275	0	0	275	9	0	0	0	9	3	70	0	0	73	0	0	0	0	0	357
7:15 AM	0	251	0	0	251	10	0	0	0	10	3	90	0	0	93	0	0	0	0	0	354
7:30 AM	0	238	0	0	238	16	0	0	0	16	8	102	0	0	110	2	0	0	0	2	366
7:45 AM	0	218	0	0	218	12	0	0	0	12	4	102	0	0	106	0	0	0	0	0	336
Total	0	982	0	0	982	47	0	0	0	47	18	364	0	0	382	2	0	0	0	2	1413
8:00 AM	0	244	0	0	244	11	0	0	0	11	7	106	0	0	113	0	0	0	0	0	368
8:15 AM	0	206	0	0	206	17	0	0	0	17	9	85	0	0	94	0	0	0	0	0	317
8:30 AM	1	216	0	0	217	6	0	0	0	6	2	95	0	0	97	0	0	0	0	0	320
8:45 AM	0	214	0	0	214	16	0	0	0	16	7	124	0	0	131	2	0	0	0	2	363
Total	1	880	0	0	881	50	0	0	0	50	25	410	0	0	435	2	0	0	0	2	1368
Grand Total	1	1862	0	0	1863	97	0	0	0	97	43	774	0	0	817	4	0	0	0	4	2781
Approach %	0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		5.3	94.7	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	67.0	0.0	0.0	67.0	3.5	0.0	0.0	0.0	3.5	1.5	27.8	0.0	0.0	29.4	0.1	0.0	0.0	0.0	0.1	
Exiting Leg Total	871					43					1866					1					2781

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

7:15 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	251	0	0	251	10	0	0	0	10	3	90	0	0	93	0	0	0	0	0	354
7:30 AM	0	238	0	0	238	16	0	0	0	16	8	102	0	0	110	2	0	0	0	2	366
7:45 AM	0	218	0	0	218	12	0	0	0	12	4	102	0	0	106	0	0	0	0	0	336
8:00 AM	0	244	0	0	244	11	0	0	0	11	7	106	0	0	113	0	0	0	0	0	368
Total Volume	0	951	0	0	951	49	0	0	0	49	22	400	0	0	422	2	0	0	0	2	1424
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		5.2	94.8	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.947	0.000	0.000	0.947	0.766	0.000	0.000	0.000	0.766	0.688	0.943	0.000	0.000	0.934	0.250	0.000	0.000	0.000	0.250	0.967
Entering Leg	0	951	0	0	951	49	0	0	0	49	22	400	0	0	422	2	0	0	0	2	1424
Exiting Leg	449					22					953					0					1424
Total	1400					71					1375					2					2848

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	10	0	0	10	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	22
7:15 AM	0	15	0	0	15	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	28
7:30 AM	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
7:45 AM	0	13	0	0	13	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	29
Total	0	45	0	0	45	0	0	0	0	0	1	51	0	0	52	0	0	0	0	0	97
8:00 AM	0	11	0	0	11	1	0	0	0	1	1	13	0	0	14	0	0	0	0	0	26
8:15 AM	0	11	0	0	11	1	0	0	0	1	2	11	0	0	13	0	0	0	0	0	25
8:30 AM	0	14	0	0	14	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	26
8:45 AM	0	11	0	0	11	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	20
Total	0	47	0	0	47	2	0	0	0	2	3	45	0	0	48	0	0	0	0	0	97
Grand Total	0	92	0	0	92	2	0	0	0	2	4	96	0	0	100	0	0	0	0	0	194
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		4.0	96.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	47.4	0.0	0.0	47.4	1.0	0.0	0.0	0.0	1.0	2.1	49.5	0.0	0.0	51.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	98					4					92					0					194
Large Trucks	0	68	0	0	68	2	0	0	0	2	4	60	0	0	64	0	0	0	0	0	134
% Large Trucks	0.0	73.9	0.0	0.0	73.9	100.0	0.0	0.0	0.0	100.0	100.0	62.5	0.0	0.0	64.0	0.0	0.0	0.0	0.0	0.0	69.1
Exiting Leg Total	62					4					68					0					134
Buses	0	24	0	0	24	0	0	0	0	0	0	36	0	0	36	0	0	0	0	0	60
% Buses	0.0	26.1	0.0	0.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	30.9
Exiting Leg Total	36					0					24					0					60

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

7:45 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	13	0	0	13	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	29
8:00 AM	0	11	0	0	11	1	0	0	0	1	1	13	0	0	14	0	0	0	0	0	26
8:15 AM	0	11	0	0	11	1	0	0	0	1	2	11	0	0	13	0	0	0	0	0	25
8:30 AM	0	14	0	0	14	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	26
Total Volume	0	49	0	0	49	2	0	0	0	2	4	51	0	0	55	0	0	0	0	0	106
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		7.3	92.7	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.875	0.000	0.000	0.875	0.500	0.000	0.000	0.000	0.500	0.500	0.850	0.000	0.000	0.859	0.000	0.000	0.000	0.000	0.000	0.914
Large Trucks	0	38	0	0	38	2	0	0	0	2	4	34	0	0	38	0	0	0	0	0	78
Large Trucks %	0.0	77.6	0.0	0.0	77.6	100.0	0.0	0.0	0.0	100.0	100.0	66.7	0.0	0.0	69.1	0.0	0.0	0.0	0.0	0.0	73.6
Buses	0	11	0	0	11	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	28
Buses %	0.0	22.4	0.0	0.0	22.4	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	30.9	0.0	0.0	0.0	0.0	0.0	26.4
Trucks Enter Leg	0	38	0	0	38	2	0	0	0	2	4	34	0	0	38	0	0	0	0	0	78
Bus Enter Leg	0	11	0	0	11	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	28
Total Entering Leg	0	49	0	0	49	2	0	0	0	2	4	51	0	0	55	0	0	0	0	0	106
Trucks Exiting Leg	36					4					38					0					78
Buses Exiting Leg	17					0					11					0					28
Total Exiting Leg	53					4					49					0					106

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	13
7:15 AM	0	11	0	0	11	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	19
7:30 AM	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	12
7:45 AM	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	18
Total	0	30	0	0	30	0	0	0	0	0	1	31	0	0	32	0	0	0	0	0	62
8:00 AM	0	9	0	0	9	1	0	0	0	1	1	9	0	0	10	0	0	0	0	0	20
8:15 AM	0	9	0	0	9	1	0	0	0	1	2	8	0	0	10	0	0	0	0	0	20
8:30 AM	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	20
8:45 AM	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	12
Total	0	38	0	0	38	2	0	0	0	2	3	29	0	0	32	0	0	0	0	0	72
Grand Total	0	68	0	0	68	2	0	0	0	2	4	60	0	0	64	0	0	0	0	0	134
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		6.3	93.8	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	50.7	0.0	0.0	50.7	1.5	0.0	0.0	0.0	1.5	3.0	44.8	0.0	0.0	47.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	62					4					68					0					134

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

7:45 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	18
8:00 AM	0	9	0	0	9	1	0	0	0	1	1	9	0	0	10	0	0	0	0	0	20
8:15 AM	0	9	0	0	9	1	0	0	0	1	2	8	0	0	10	0	0	0	0	0	20
8:30 AM	0	12	0	0	12	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	20
Total Volume	0	38	0	0	38	2	0	0	0	2	4	34	0	0	38	0	0	0	0	0	78
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		10.5	89.5	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.792	0.000	0.000	0.792	0.500	0.000	0.000	0.000	0.500	0.500	0.944	0.000	0.000	0.950	0.000	0.000	0.000	0.000	0.000	0.975
Entering Leg	0	38	0	0	38	2	0	0	0	2	4	34	0	0	38	0	0	0	0	0	78
Exiting Leg	36					4					38					0					78
Total	74					6					76					0					156

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
7:15 AM	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
7:45 AM	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
Total	0	15	0	0	15	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	35
8:00 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
8:15 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
8:45 AM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Total	0	9	0	0	9	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	25
Grand Total	0	24	0	0	24	0	0	0	0	0	0	36	0	0	36	0	0	0	0	0	60
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	36					0					24					0					60

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

7:00 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
7:15 AM	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
7:30 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
7:45 AM	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
Total Volume	0	15	0	0	15	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	35
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.795
Entering Leg	0	15	0	0	15	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	35
Exiting Leg	20					0					15					0					35
Total	35					0					35					0					70

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	4
7:15 AM	0	2	0	0	0	0	2	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	0	0	0	0	0	5
7:30 AM	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	14
7:45 AM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	8
Total	0	21	0	0	0	0	21	0	0	0	0	0	1	1	0	9	0	0	0	0	0	9	0	0	0	0	0	0	31
8:00 AM	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
8:15 AM	0	20	0	0	0	0	20	1	0	0	0	0	0	1	0	6	0	0	0	0	0	6	0	0	0	0	0	0	27
8:30 AM	0	21	0	0	0	0	21	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	24
8:45 AM	0	11	0	0	0	0	11	1	0	0	0	0	0	1	1	3	0	0	0	0	0	4	0	0	0	0	0	0	16
Total	0	65	0	0	0	0	65	2	0	0	0	0	0	2	1	12	0	0	0	0	0	13	0	0	0	0	0	0	80
Grand Total	0	86	0	0	0	0	86	2	0	0	0	0	1	3	1	21	0	0	0	0	0	22	0	0	0	0	0	0	111
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		66.7	0.0	0.0	0.0	0.0	33.3		4.5	95.5	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	77.5	0.0	0.0	0.0	0.0	77.5	1.8	0.0	0.0	0.0	0.0	0.9	2.7	0.9	18.9	0.0	0.0	0.0	0.0	19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	23							2							86							0							111

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

8:00 AM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	13	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
8:15 AM	0	20	0	0	0	0	20	1	0	0	0	0	0	0	1	0	6	0	0	0	0	6	0	0	0	0	0	0	27
8:30 AM	0	21	0	0	0	0	21	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	24
8:45 AM	0	11	0	0	0	0	11	1	0	0	0	0	0	0	1	1	3	0	0	0	0	4	0	0	0	0	0	0	16
Total Volume	0	65	0	0	0	0	65	2	0	0	0	0	0	2	1	12	0	0	0	0	0	13	0	0	0	0	0	0	80
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		7.7	92.3	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.774	0.000	0.000	0.000	0.000	0.774	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.500	0.000	0.000	0.000	0.000	0.542	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.741
Entering Leg	0	65	0	0	0	0	65	2	0	0	0	0	0	2	1	12	0	0	0	0	13	0	0	0	0	0	0	0	80
Exiting Leg	14							1							65							0							80
Total	79							3							78							0							160

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	1	1	2	6	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	1	4	5	12	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	3	7	10	17	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	4	10	0	0	0	0	0	0	0	0	0	0	0	4	4	8	18	
Total	0	0	0	0	0	0	0	0	0	0	0	15	13	28	0	0	0	0	0	0	0	0	0	0	0	9	16	25	53	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	9	14	0	0	0	0	0	0	0	0	0	0	0	3	4	7	21	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	0	1	1	0	0	0	0	8	6	14	25
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	0	0	2	6	8	24	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	4	2	6	14	
Total	0	0	0	0	0	0	0	0	0	0	0	22	26	48	0	0	0	0	0	0	1	1	0	0	0	0	17	18	35	84
Grand Total	0	0	0	0	0	0	0	0	0	0	0	37	39	76	0	0	0	0	0	0	1	1	0	0	0	0	26	34	60	137
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	48.7	51.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	43.3	56.7			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	28.5	55.5	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	19.0	24.8	43.8		
Exiting Leg Total	0							76							1							60							137	

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

7:45 AM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	4	10	0	0	0	0	0	0	0	0	0	0	0	4	4	8	18	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	9	14	0	0	0	0	0	0	0	0	0	0	0	3	4	7	21	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	0	1	1	0	0	0	0	8	6	14	25
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	9	7	16	0	0	0	0	0	0	0	0	0	0	0	2	6	8	24	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	24	26	50	0	0	0	0	0	0	1	1	0	0	0	0	17	20	37	88
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	48.0	52.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	45.9	54.1			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.722	0.781	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.531	0.833	0.661	0.880	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	24	26	50	0	0	0	0	0	0	1	1	0	0	0	0	17	20	37	88
Exiting Leg	0							50							1							37							88	
Total	0							100							2							74							176	

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	156	0	0	156	8	0	0	0	8	2	220	0	0	222	0	0	0	0	0	386
4:15 PM	1	151	0	0	152	6	0	0	0	6	3	234	0	0	237	0	0	0	0	0	395
4:30 PM	0	173	0	0	173	19	0	0	0	19	4	216	0	0	220	0	0	0	0	0	412
4:45 PM	2	169	0	0	171	15	0	0	0	15	5	220	0	0	225	0	0	0	0	0	411
Total	3	649	0	0	652	48	0	0	0	48	14	890	0	0	904	0	0	0	0	0	1604
5:00 PM	0	169	0	0	169	23	0	0	0	23	4	258	0	0	262	0	0	0	0	0	454
5:15 PM	0	181	0	0	181	19	0	0	0	19	4	212	0	0	216	0	0	0	0	0	416
5:30 PM	0	194	0	0	194	18	0	0	0	18	4	213	0	0	217	0	0	0	0	0	429
5:45 PM	0	206	0	0	206	14	0	0	0	14	3	198	0	0	201	1	0	0	0	1	422
Total	0	750	0	0	750	74	0	0	0	74	15	881	0	0	896	1	0	0	0	1	1721
Grand Total	3	1399	0	0	1402	122	0	0	0	122	29	1771	0	0	1800	1	0	0	0	1	3325
Approach %	0.2	99.8	0.0	0.0		100.0	0.0	0.0	0.0		1.6	98.4	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.1	42.1	0.0	0.0	42.2	3.7	0.0	0.0	0.0	3.7	0.9	53.3	0.0	0.0	54.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1893					29					1400					3					3325
Cars	3	1359	0	0	1362	122	0	0	0	122	29	1733	0	0	1762	1	0	0	0	1	3247
% Cars	100.0	97.1	0.0	0.0	97.1	100.0	0.0	0.0	0.0	100.0	100.0	97.9	0.0	0.0	97.9	100.0	0.0	0.0	0.0	100.0	97.7
Exiting Leg Total	1855					29					1360					3					3247
Heavy Vehicles	0	40	0	0	40	0	0	0	0	0	0	38	0	0	38	0	0	0	0	0	78
% Heavy Vehicles	0.0	2.9	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.3
Exiting Leg Total	38					0					40					0					78

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

5:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
5:00 PM	0	169	0	0	169	23	0	0	0	23	4	258	0	0	262	0	0	0	0	0	454	
5:15 PM	0	181	0	0	181	19	0	0	0	19	4	212	0	0	216	0	0	0	0	0	416	
5:30 PM	0	194	0	0	194	18	0	0	0	18	4	213	0	0	217	0	0	0	0	0	429	
5:45 PM	0	206	0	0	206	14	0	0	0	14	3	198	0	0	201	1	0	0	0	1	422	
Total Volume	0	750	0	0	750	74	0	0	0	74	15	881	0	0	896	1	0	0	0	1	1721	
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		1.7	98.3	0.0	0.0		100.0	0.0	0.0	0.0			
PHF	0.000	0.910	0.000	0.000	0.910	0.804	0.000	0.000	0.000	0.804	0.938	0.854	0.000	0.000	0.855	0.250	0.000	0.000	0.000	0.250	0.948	
Cars	0	736	0	0	736	74	0	0	0	74	15	863	0	0	878	1	0	0	0	1	1689	
Cars %	0.0	98.1	0.0	0.0	98.1	100.0	0.0	0.0	0.0	100.0	100.0	98.0	0.0	0.0	98.0	100.0	0.0	0.0	0.0	100.0	98.1	
Heavy Vehicles	0	14	0	0	14	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	32	
Heavy Vehicles %	0.0	1.9	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	1.9	
Cars Enter Leg	0	736	0	0	736	74	0	0	0	74	15	863	0	0	878	1	0	0	0	1	1689	
Heavy Enter Leg	0	14	0	0	14	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	32	
Total Entering Leg	0	750	0	0	750	74	0	0	0	74	15	881	0	0	896	1	0	0	0	1	1721	
Cars Exiting Leg																					0	1689
Heavy Exiting Leg																					0	32
Total Exiting Leg																					0	1721

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	150	0	0	150	8	0	0	0	8	2	212	0	0	214	0	0	0	0	0	372
4:15 PM	1	143	0	0	144	6	0	0	0	6	3	229	0	0	232	0	0	0	0	0	382
4:30 PM	0	165	0	0	165	19	0	0	0	19	4	211	0	0	215	0	0	0	0	0	399
4:45 PM	2	165	0	0	167	15	0	0	0	15	5	218	0	0	223	0	0	0	0	0	405
Total	3	623	0	0	626	48	0	0	0	48	14	870	0	0	884	0	0	0	0	0	1558
5:00 PM	0	166	0	0	166	23	0	0	0	23	4	253	0	0	257	0	0	0	0	0	446
5:15 PM	0	178	0	0	178	19	0	0	0	19	4	206	0	0	210	0	0	0	0	0	407
5:30 PM	0	190	0	0	190	18	0	0	0	18	4	210	0	0	214	0	0	0	0	0	422
5:45 PM	0	202	0	0	202	14	0	0	0	14	3	194	0	0	197	1	0	0	0	1	414
Total	0	736	0	0	736	74	0	0	0	74	15	863	0	0	878	1	0	0	0	1	1689
Grand Total	3	1359	0	0	1362	122	0	0	0	122	29	1733	0	0	1762	1	0	0	0	1	3247
Approach %	0.2	99.8	0.0	0.0		100.0	0.0	0.0	0.0		1.6	98.4	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.1	41.9	0.0	0.0	41.9	3.8	0.0	0.0	0.0	3.8	0.9	53.4	0.0	0.0	54.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1855					29					1360					3					3247

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

5:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	166	0	0	166	23	0	0	0	23	4	253	0	0	257	0	0	0	0	0	446
5:15 PM	0	178	0	0	178	19	0	0	0	19	4	206	0	0	210	0	0	0	0	0	407
5:30 PM	0	190	0	0	190	18	0	0	0	18	4	210	0	0	214	0	0	0	0	0	422
5:45 PM	0	202	0	0	202	14	0	0	0	14	3	194	0	0	197	1	0	0	0	1	414
Total Volume	0	736	0	0	736	74	0	0	0	74	15	863	0	0	878	1	0	0	0	1	1689
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		1.7	98.3	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.911	0.000	0.000	0.911	0.804	0.000	0.000	0.000	0.804	0.938	0.853	0.000	0.000	0.854	0.250	0.000	0.000	0.000	0.250	0.947
Entering Leg	0	736	0	0	736	74	0	0	0	74	15	863	0	0	878	1	0	0	0	1	1689
Exiting Leg					937					15				737						0	1689
Total					1673					89				1615						1	3378

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	6	0	0	6	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	14
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13
4:30 PM	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13
4:45 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
Total	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	46
5:00 PM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
5:30 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
5:45 PM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
Total	0	14	0	0	14	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	32
Grand Total	0	40	0	0	40	0	0	0	0	0	0	38	0	0	38	0	0	0	0	0	78
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	51.3	0.0	0.0	51.3	0.0	0.0	0.0	0.0	0.0	0.0	48.7	0.0	0.0	48.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	38					0					40					0					78
Large Trucks	0	19	0	0	19	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	39
% Large Trucks	0.0	47.5	0.0	0.0	47.5	0.0	0.0	0.0	0.0	0.0	0.0	52.6	0.0	0.0	52.6	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total	20					0					19					0					39
Buses	0	21	0	0	21	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	39
% Buses	0.0	52.5	0.0	0.0	52.5	0.0	0.0	0.0	0.0	0.0	0.0	47.4	0.0	0.0	47.4	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total	18					0					21					0					39

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

4:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	6	0	0	6	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	14	
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13	
4:30 PM	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13	
4:45 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6	
Total Volume	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	46	
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.000	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.821	
Large Trucks	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	23	
Large Trucks %	0.0	46.2	0.0	0.0	46.2	0.0	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0	55.0	0.0	0.0	0.0	0.0	0.0	50.0	
Buses	0	14	0	0	14	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	23	
Buses %	0.0	53.8	0.0	0.0	53.8	0.0	0.0	0.0	0.0	0.0	0.0	45.0	0.0	0.0	45.0	0.0	0.0	0.0	0.0	0.0	50.0	
Trucks Enter Leg	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	23	
Bus Enter Leg	0	14	0	0	14	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	23	
Total Entering Leg	0	26	0	0	26	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	46	
Trucks Exiting Leg																					0	23
Buses Exiting Leg																					0	23
Total Exiting Leg	20					0					26					0					46	

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	7
4:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
4:30 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	23
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:30 PM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
Total	0	7	0	0	7	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	16
Grand Total	0	19	0	0	19	0	0	0	0	0	0	20	0	0	20	0	0	0	0	0	39
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	48.7	0.0	0.0	48.7	0.0	0.0	0.0	0.0	0.0	0.0	51.3	0.0	0.0	51.3	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	20					0					19					0					39

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

4:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	7
4:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
4:30 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	23
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.429	0.000	0.000	0.429	0.000	0.000	0.000	0.000	0.000	0.000	0.458	0.000	0.000	0.458	0.000	0.000	0.000	0.000	0.000	0.575
Entering Leg	0	12	0	0	12	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	23
Exiting Leg	11					0					12					0					23
Total	23					0					23					0					46

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
4:15 PM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Total	0	14	0	0	14	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	23
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:45 PM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
Total	0	7	0	0	7	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	16
Grand Total	0	21	0	0	21	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	39
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	53.8	0.0	0.0	53.8	0.0	0.0	0.0	0.0	0.0	0.0	46.2	0.0	0.0	46.2	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	18					0					21					0					39

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

4:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
4:15 PM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Total Volume	0	14	0	0	14	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	23
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.583	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.639
Entering Leg	0	14	0	0	14	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	23
Exiting Leg	9					0					14					0					23
Total	23					0					23					0					46

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	4	0	0	0	0	5	0	0	0	0	0	0	0	6
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	12	0	0	0	0	12	0	0	0	0	0	0	0	13
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	0	0	8
4:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	12	0	0	0	0	13	0	0	0	0	0	0	0	15
Total	0	5	0	0	0	0	5	0	0	0	0	0	0	0	2	35	0	0	0	0	37	0	0	0	0	0	0	0	42
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	10
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	11	0	0	0	0	12	1	0	0	0	0	1	2	15
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	0	0	0	0	0	0	18
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	0	0	0	0	0	0	0	14
Total	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	52	0	0	0	0	53	1	0	0	0	0	1	2	57
Grand Total	0	7	0	0	0	0	7	0	0	0	0	0	0	0	3	87	0	0	0	0	90	1	0	0	0	0	1	2	99
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		3.3	96.7	0.0	0.0	0.0	0.0		50.0	0.0	0.0	0.0	0.0	50.0		
Total %	0.0	7.1	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	87.9	0.0	0.0	0.0	0.0	90.9	1.0	0.0	0.0	0.0	0.0	1.0	2.0	
Exiting Leg Total	87							3							8							1							99

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

4:45 PM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	12	0	0	0	0	13	0	0	0	0	0	0	0	15
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	0	0	0	0	0	10
5:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	11	0	0	0	0	12	1	0	0	0	0	1	2	15
5:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	17	0	0	0	0	17	0	0	0	0	0	0	0	18
Total Volume	0	4	0	0	0	0	4	0	0	0	0	0	0	0	2	50	0	0	0	0	52	1	0	0	0	0	1	2	58
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0	0.0	0.0		50.0	0.0	0.0	0.0	0.0	50.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.735	0.000	0.000	0.000	0.000	0.765	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.806
Entering Leg	0	4	0	0	0	0	4	0	0	0	0	0	0	0	2	50	0	0	0	0	52	1	0	0	0	0	1	2	58
Exiting Leg	50							2							5							1							58
Total	54							2							57							3							116

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	10	12	0	0	0	0	0	0	0	0	0	0	0	2	6	8	20	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	5	4	9	18	
4:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0	5	5	10	23	
4:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	3	16	19	0	0	0	0	0	0	0	0	0	0	3	3	6	26	
Total	0	0	0	0	1	2	3		0	0	0	0	15	36	51	0	0	0	0	0	0	0	0	0	0	15	18	33	87	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	5	10	15	0	0	0	0	0	0	0	0	0	0	0	4	6	10	25	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	11	17	0	0	0	0	0	0	1	1	0	0	0	6	2	8	26	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	6	12	0	0	0	0	0	0	0	0	0	0	0	2	1	3	15	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	7	10	0	0	0	0	0	0	1	1	0	0	0	6	6	12	23	
Total	0	0	0	0	0	0	0	0	0	0	0	20	34	54	0	0	0	0	0	0	2	2	0	0	0	0	18	15	33	89
Grand Total	0	0	0	0	1	2	3		0	0	0	0	35	70	105	0	0	0	0	0	2	2	0	0	0	0	33	33	66	176
Approach %	0.0	0.0	0.0	0.0	33.3	66.7			0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	50.0	50.0		
Total %	0.0	0.0	0.0	0.0	0.6	1.1	1.7		0.0	0.0	0.0	0.0	19.9	39.8	59.7	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0	0.0	0.0	18.8	18.8	37.5	
Exiting Leg Total	3							105							2							66							176	

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

4:30 PM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	5	6	11	0	0	0	0	0	0	0	0	0	0	0	5	5	10	23
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	3	16	19	0	0	0	0	0	0	0	0	0	0	0	3	3	6	26
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	5	10	15	0	0	0	0	0	0	0	0	0	0	0	4	6	10	25
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	6	11	17	0	0	0	0	0	1	1	0	0	0	0	6	2	8	26
Total Volume	0	0	0	0	1	2	3	0	0	0	0	19	43	62	0	0	0	0	0	1	1	0	0	0	0	18	16	34	100
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	30.6	69.4		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	52.9	47.1		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.375	0.000	0.000	0.000	0.000	0.792	0.672	0.816	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.750	0.667	0.850	0.962
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	19	43	62	0	0	0	0	0	1	1	0	0	0	0	18	16	34	100
Exiting Leg	3							62							1							34							100
Total	6							124							2							68							200

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	182	0	0	182	11	0	0	0	11	8	154	0	0	162	1	0	0	0	1	356
11:15 AM	0	152	0	0	152	16	0	0	0	16	7	155	0	0	162	0	0	0	0	0	330
11:30 AM	0	178	0	0	178	14	0	0	0	14	3	153	0	0	156	0	0	0	0	0	348
11:45 AM	0	173	0	0	173	21	0	0	0	21	4	166	0	0	170	0	0	0	0	0	364
Total	0	685	0	0	685	62	0	0	0	62	22	628	0	0	650	1	0	0	0	1	1398
12:00 PM	0	156	0	0	156	17	0	0	0	17	8	158	0	0	166	0	0	0	0	0	339
12:15 PM	0	163	0	0	163	26	0	0	0	26	7	182	0	0	189	0	0	0	0	0	378
12:30 PM	0	185	0	0	185	12	0	0	0	12	5	144	0	0	149	1	0	0	0	1	347
12:45 PM	0	173	0	0	173	27	0	0	0	27	7	168	0	0	175	0	0	0	0	0	375
Total	0	677	0	0	677	82	0	0	0	82	27	652	0	0	679	1	0	0	0	1	1439
1:00 PM	1	166	0	0	167	19	0	0	0	19	10	145	0	0	155	0	0	0	0	0	341
1:15 PM	0	166	0	0	166	26	0	0	0	26	5	173	0	0	178	0	0	0	0	0	370
1:30 PM	0	178	0	0	178	18	0	0	0	18	4	180	0	0	184	0	0	0	0	0	380
1:45 PM	0	184	0	0	184	20	0	0	0	20	8	177	0	0	185	0	0	0	0	0	389
Total	1	694	0	0	695	83	0	0	0	83	27	675	0	0	702	0	0	0	0	0	1480
Grand Total	1	2056	0	0	2057	227	0	0	0	227	76	1955	0	0	2031	2	0	0	0	2	4317
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		3.7	96.3	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	47.6	0.0	0.0	47.6	5.3	0.0	0.0	0.0	5.3	1.8	45.3	0.0	0.0	47.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	2182					76					2058					1					4317
Cars	1	2008	0	0	2009	220	0	0	0	220	72	1897	0	0	1969	2	0	0	0	2	4200
% Cars	100.0	97.7	0.0	0.0	97.7	96.9	0.0	0.0	0.0	96.9	94.7	97.0	0.0	0.0	96.9	100.0	0.0	0.0	0.0	100.0	97.3
Exiting Leg Total	2117					72					2010					1					4200
Heavy Vehicles	0	48	0	0	48	7	0	0	0	7	4	58	0	0	62	0	0	0	0	0	117
% Heavy Vehicles	0.0	2.3	0.0	0.0	2.3	3.1	0.0	0.0	0.0	3.1	5.3	3.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	2.7
Exiting Leg Total	65					4					48					0					117

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
1:00 PM	1	166	0	0	167	19	0	0	0	19	10	145	0	0	155	0	0	0	0	0	341	
1:15 PM	0	166	0	0	166	26	0	0	0	26	5	173	0	0	178	0	0	0	0	0	370	
1:30 PM	0	178	0	0	178	18	0	0	0	18	4	180	0	0	184	0	0	0	0	0	380	
1:45 PM	0	184	0	0	184	20	0	0	0	20	8	177	0	0	185	0	0	0	0	0	389	
Total Volume	1	694	0	0	695	83	0	0	0	83	27	675	0	0	702	0	0	0	0	0	1480	
% Approach Total	0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.250	0.943	0.000	0.000	0.944	0.798	0.000	0.000	0.000	0.798	0.675	0.938	0.000	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.951	
Cars	1	678	0	0	679	79	0	0	0	79	26	655	0	0	681	0	0	0	0	0	1439	
Cars %	100.0	97.7	0.0	0.0	97.7	95.2	0.0	0.0	0.0	95.2	96.3	97.0	0.0	0.0	97.0	0.0	0.0	0.0	0.0	0.0	97.2	
Heavy Vehicles	0	16	0	0	16	4	0	0	0	4	1	20	0	0	21	0	0	0	0	0	41	
Heavy Vehicles %	0.0	2.3	0.0	0.0	2.3	4.8	0.0	0.0	0.0	4.8	3.7	3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	2.8	
Cars Enter Leg	1	678	0	0	679	79	0	0	0	79	26	655	0	0	681	0	0	0	0	0	1439	
Heavy Enter Leg	0	16	0	0	16	4	0	0	0	4	1	20	0	0	21	0	0	0	0	0	41	
Total Entering Leg	1	694	0	0	695	83	0	0	0	83	27	675	0	0	702	0	0	0	0	0	1480	
Cars Exiting Leg																					1	1439
Heavy Exiting Leg																					0	41
Total Exiting Leg																					1	1480

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	177	0	0	177	10	0	0	0	10	8	150	0	0	158	1	0	0	0	1	346
11:15 AM	0	150	0	0	150	16	0	0	0	16	7	153	0	0	160	0	0	0	0	0	326
11:30 AM	0	174	0	0	174	13	0	0	0	13	3	145	0	0	148	0	0	0	0	0	335
11:45 AM	0	168	0	0	168	21	0	0	0	21	4	160	0	0	164	0	0	0	0	0	353
Total	0	669	0	0	669	60	0	0	0	60	22	608	0	0	630	1	0	0	0	1	1360
12:00 PM	0	148	0	0	148	17	0	0	0	17	8	155	0	0	163	0	0	0	0	0	328
12:15 PM	0	159	0	0	159	26	0	0	0	26	7	179	0	0	186	0	0	0	0	0	371
12:30 PM	0	182	0	0	182	11	0	0	0	11	3	141	0	0	144	1	0	0	0	1	338
12:45 PM	0	172	0	0	172	27	0	0	0	27	6	159	0	0	165	0	0	0	0	0	364
Total	0	661	0	0	661	81	0	0	0	81	24	634	0	0	658	1	0	0	0	1	1401
1:00 PM	1	164	0	0	165	17	0	0	0	17	9	138	0	0	147	0	0	0	0	0	329
1:15 PM	0	160	0	0	160	26	0	0	0	26	5	168	0	0	173	0	0	0	0	0	359
1:30 PM	0	174	0	0	174	17	0	0	0	17	4	177	0	0	181	0	0	0	0	0	372
1:45 PM	0	180	0	0	180	19	0	0	0	19	8	172	0	0	180	0	0	0	0	0	379
Total	1	678	0	0	679	79	0	0	0	79	26	655	0	0	681	0	0	0	0	0	1439
Grand Total	1	2008	0	0	2009	220	0	0	0	220	72	1897	0	0	1969	2	0	0	0	2	4200
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		3.7	96.3	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	47.8	0.0	0.0	47.8	5.2	0.0	0.0	0.0	5.2	1.7	45.2	0.0	0.0	46.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	2117					72					2010					1					4200

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	1	164	0	0	165	17	0	0	0	17	9	138	0	0	147	0	0	0	0	0	329
1:15 PM	0	160	0	0	160	26	0	0	0	26	5	168	0	0	173	0	0	0	0	0	359
1:30 PM	0	174	0	0	174	17	0	0	0	17	4	177	0	0	181	0	0	0	0	0	372
1:45 PM	0	180	0	0	180	19	0	0	0	19	8	172	0	0	180	0	0	0	0	0	379
Total Volume	1	678	0	0	679	79	0	0	0	79	26	655	0	0	681	0	0	0	0	0	1439
% Approach Total	0.1	99.9	0.0	0.0		100.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.942	0.000	0.000	0.943	0.760	0.000	0.000	0.000	0.760	0.722	0.925	0.000	0.000	0.941	0.000	0.000	0.000	0.000	0.000	0.949
Entering Leg	1	678	0	0	679	79	0	0	0	79	26	655	0	0	681	0	0	0	0	0	1439
Exiting Leg					734					26					678					1	1439
Total					1413					105					1359					1	2878

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	5	0	0	5	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	10
11:15 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
11:30 AM	0	4	0	0	4	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	13
11:45 AM	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
Total	0	16	0	0	16	2	0	0	0	2	0	20	0	0	20	0	0	0	0	0	38
12:00 PM	0	8	0	0	8	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	11
12:15 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
12:30 PM	0	3	0	0	3	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	9
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	11
Total	0	16	0	0	16	1	0	0	0	1	3	18	0	0	21	0	0	0	0	0	38
1:00 PM	0	2	0	0	2	2	0	0	0	2	1	7	0	0	8	0	0	0	0	0	12
1:15 PM	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	11
1:30 PM	0	4	0	0	4	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	8
1:45 PM	0	4	0	0	4	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	10
Total	0	16	0	0	16	4	0	0	0	4	1	20	0	0	21	0	0	0	0	0	41
Grand Total	0	48	0	0	48	7	0	0	0	7	4	58	0	0	62	0	0	0	0	0	117
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		6.5	93.5	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	41.0	0.0	0.0	41.0	6.0	0.0	0.0	0.0	6.0	3.4	49.6	0.0	0.0	53.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	65					4					48					0					117
Large Trucks	0	30	0	0	30	6	0	0	0	6	4	42	0	0	46	0	0	0	0	0	82
% Large Trucks	0.0	62.5	0.0	0.0	62.5	85.7	0.0	0.0	0.0	85.7	100.0	72.4	0.0	0.0	74.2	0.0	0.0	0.0	0.0	0.0	70.1
Exiting Leg Total	48					4					30					0					82
Buses	0	18	0	0	18	1	0	0	0	1	0	16	0	0	16	0	0	0	0	0	35
% Buses	0.0	37.5	0.0	0.0	37.5	14.3	0.0	0.0	0.0	14.3	0.0	27.6	0.0	0.0	25.8	0.0	0.0	0.0	0.0	0.0	29.9
Exiting Leg Total	17					0					18					0					35

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	3	0	0	3	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	9
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	11
1:00 PM	0	2	0	0	2	2	0	0	0	2	1	7	0	0	8	0	0	0	0	0	12
1:15 PM	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	11
Total Volume	0	12	0	0	12	3	0	0	0	3	4	24	0	0	28	0	0	0	0	0	43
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.375	0.000	0.000	0.000	0.375	0.500	0.667	0.000	0.000	0.700	0.000	0.000	0.000	0.000	0.000	0.896
Large Trucks	0	7	0	0	7	3	0	0	0	3	4	20	0	0	24	0	0	0	0	0	34
Large Trucks %	0.0	58.3	0.0	0.0	58.3	100.0	0.0	0.0	0.0	100.0	100.0	83.3	0.0	0.0	85.7	0.0	0.0	0.0	0.0	0.0	79.1
Buses	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
Buses %	0.0	41.7	0.0	0.0	41.7	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	20.9
Trucks Enter Leg	0	7	0	0	7	3	0	0	0	3	4	20	0	0	24	0	0	0	0	0	34
Bus Enter Leg	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
Total Entering Leg	0	12	0	0	12	3	0	0	0	3	4	24	0	0	28	0	0	0	0	0	43
Trucks Exiting Leg	23					4					7					0					34
Buses Exiting Leg	4					0					5					0					9
Total Exiting Leg	27					4					12					0					43

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	0	0	3	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	5
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
11:30 AM	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	8
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Total	0	9	0	0	9	1	0	0	0	1	0	14	0	0	14	0	0	0	0	0	24
12:00 PM	0	7	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	10
12:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	1	0	0	1	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	7
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	9
Total	0	11	0	0	11	1	0	0	0	1	3	13	0	0	16	0	0	0	0	0	28
1:00 PM	0	2	0	0	2	2	0	0	0	2	1	6	0	0	7	0	0	0	0	0	11
1:15 PM	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
1:30 PM	0	3	0	0	3	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	6
1:45 PM	0	2	0	0	2	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	6
Total	0	10	0	0	10	4	0	0	0	4	1	15	0	0	16	0	0	0	0	0	30
Grand Total	0	30	0	0	30	6	0	0	0	6	4	42	0	0	46	0	0	0	0	0	82
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		8.7	91.3	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	36.6	0.0	0.0	36.6	7.3	0.0	0.0	0.0	7.3	4.9	51.2	0.0	0.0	56.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	48					4					30					0					82

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	1	0	0	1	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	7
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	9
1:00 PM	0	2	0	0	2	2	0	0	0	2	1	6	0	0	7	0	0	0	0	0	11
1:15 PM	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
Total Volume	0	7	0	0	7	3	0	0	0	3	4	20	0	0	24	0	0	0	0	0	34
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.583	0.000	0.000	0.583	0.375	0.000	0.000	0.000	0.375	0.500	0.714	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.773
Entering Leg	0	7	0	0	7	3	0	0	0	3	4	20	0	0	24	0	0	0	0	0	34
Exiting Leg					23					4					7					0	34
Total					30					7					31					0	68

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	5
11:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total	0	7	0	0	7	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	14
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	10
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:15 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
1:45 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Total	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	11
Grand Total	0	18	0	0	18	1	0	0	0	1	0	16	0	0	16	0	0	0	0	0	35
Approach %	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	51.4	0.0	0.0	51.4	2.9	0.0	0.0	0.0	2.9	0.0	45.7	0.0	0.0	45.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	17					0					18					0					35

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Massachusetts Ave (Rt 2A)					Chester Street					Massachusetts Ave (Rt 2A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	2	0	0	2	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	5
11:45 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total Volume	0	7	0	0	7	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	14
% Approach Total	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.875	0.000	0.000	0.875	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.700
Entering Leg	0	7	0	0	7	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	14
Exiting Leg	7					0					7					0					14
Total	14					1					13					0					28

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	0	0	0	14	
11:15 AM	0	5	0	0	0	0	5	2	0	0	0	0	0	2	0	9	0	0	0	0	0	9	0	0	0	0	0	0	16	
11:30 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	0	0	0	0	0	0	17	
11:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	0	0	0	0	0	0	13	
Total	0	17	0	0	0	0	17	2	0	0	0	0	0	2	0	41	0	0	0	0	0	41	0	0	0	0	0	0	60	
12:00 PM	0	4	0	0	0	0	4	2	0	0	0	0	0	2	0	9	0	0	0	0	0	9	0	0	0	0	0	0	15	
12:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	0	0	0	0	0	2	13	
12:30 PM	0	7	0	0	0	0	7	1	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	0	0	0	0	0	10	
12:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	2	0	8	
Total	0	17	0	0	0	0	17	3	0	0	0	0	0	3	0	22	0	0	0	0	0	22	0	0	0	0	2	2	4	46
1:00 PM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5	0	0	0	0	0	0	12	
1:15 PM	0	3	0	0	0	0	3	1	0	0	0	1	1	3	1	0	0	0	0	0	0	1	0	0	0	0	2	0	9	
1:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	3	0	0	0	0	0	3	0	0	0	0	0	1	6	
1:45 PM	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	16	
Total	0	25	0	0	0	0	25	1	0	0	0	1	2	4	2	9	0	0	0	0	0	11	0	0	0	0	2	1	3	43
Grand Total	0	59	0	0	0	0	59	6	0	0	0	1	2	9	2	72	0	0	0	0	0	74	0	0	0	0	4	3	7	149
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		66.7	0.0	0.0	0.0	11.1	22.2		2.7	97.3	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	57.1	42.9			
Total %	0.0	39.6	0.0	0.0	0.0	0.0	39.6	4.0	0.0	0.0	0.0	0.7	1.3	6.0	1.3	48.3	0.0	0.0	0.0	0.0	49.7	0.0	0.0	0.0	0.0	2.7	2.0	4.7		
Exiting Leg Total	78							5							59							7							149	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:15 AM	0	5	0	0	0	0	5	2	0	0	0	0	0	2	0	9	0	0	0	0	0	9	0	0	0	0	0	0	16
11:30 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15	0	0	0	0	0	0	17
11:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	0	0	0	0	0	0	13
12:00 PM	0	4	0	0	0	0	4	2	0	0	0	0	0	2	0	9	0	0	0	0	0	9	0	0	0	0	0	0	15
Total Volume	0	15	0	0	0	0	15	4	0	0	0	0	0	4	0	42	0	0	0	0	0	42	0	0	0	0	0	0	61
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.000	0.000	0.750	0.500	0.000	0.000	0.000	0.000	0.500		0.000	0.700	0.000	0.000	0.000	0.000	0.700	0.000	0.000	0.000	0.000	0.000	0.000		0.897
Entering Leg	0	15	0	0	0	0	15	4	0	0	0	0	0	4	0	42	0	0	0	0	0	42	0	0	0	0	0	0	61
Exiting Leg	46							0							15							0							61
Total	61							4							57							0							122

PDI File #: **175971 E**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Chester Street W: Driveway**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	12	11	23	0	0	0	0	0	0	0	0	0	0	0	7	9	16	39
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	7	10	17	0	0	0	0	0	0	0	0	0	0	0	5	6	11	28
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	20	8	28	0	0	0	0	0	0	0	0	0	0	0	8	7	15	43
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	9	18	27	0	0	0	0	0	0	0	0	0	0	0	4	9	13	40
Total	0	0	0	0	0	0	0	0	0	0	0	48	47	95	0	0	0	0	0	0	0	0	0	0	0	24	31	55	150
12:00 PM	0	0	0	0	1	1	2	0	0	0	0	12	12	24	0	0	0	0	1	0	1	0	0	0	0	10	11	21	48
12:15 PM	0	0	0	0	1	1	2	0	0	0	0	9	9	18	0	0	0	0	0	0	0	0	0	0	0	8	8	16	36
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	9	11	20	0	0	0	0	0	0	0	0	0	0	0	3	7	10	30
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	14	18	0	0	0	0	0	0	0	0	0	0	0	4	7	11	29
Total	0	0	0	0	2	2	4	0	0	0	0	34	46	80	0	0	0	0	1	0	1	0	0	0	0	25	33	58	143
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	14	13	27	0	0	0	0	1	0	1	0	0	0	0	3	3	6	34
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	12	14	26	0	0	0	0	0	0	0	0	0	0	0	9	10	19	45
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	7	15	22	0	0	0	0	0	0	0	0	0	0	0	6	3	9	31
1:45 PM	0	0	0	0	0	2	2	0	0	0	0	13	10	23	0	0	0	0	0	1	1	0	0	0	0	4	7	11	37
Total	0	0	0	0	0	2	2	0	0	0	0	46	52	98	0	0	0	0	1	1	2	0	0	0	0	22	23	45	147
Grand Total	0	0	0	0	2	4	6	0	0	0	0	128	145	273	0	0	0	0	2	1	3	0	0	0	0	71	87	158	440
Approach %	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	46.9	53.1		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	44.9	55.1		
Total %	0.0	0.0	0.0	0.0	0.5	0.9	1.4	0.0	0.0	0.0	0.0	29.1	33.0	62.0	0.0	0.0	0.0	0.0	0.5	0.2	0.7	0.0	0.0	0.0	0.0	16.1	19.8	35.9	
Exiting Leg Total	6							273							3							158							440

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:30 AM	Massachusetts Ave (Rt 2A)							Chester Street							Massachusetts Ave (Rt 2A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	20	8	28	0	0	0	0	0	0	0	0	0	0	0	8	7	15	43
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	9	18	27	0	0	0	0	0	0	0	0	0	0	0	4	9	13	40
12:00 PM	0	0	0	0	1	1	2	0	0	0	0	12	12	24	0	0	0	0	1	0	1	0	0	0	0	10	11	21	48
12:15 PM	0	0	0	0	1	1	2	0	0	0	0	9	9	18	0	0	0	0	0	0	0	0	0	0	0	8	8	16	36
Total Volume	0	0	0	0	2	2	4	0	0	0	0	50	47	97	0	0	0	0	1	0	1	0	0	0	0	30	35	65	167
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	51.5	48.5		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	46.2	53.8		
PHF	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.625	0.653	0.866	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.750	0.795	0.774	0.870
Entering Leg	0	0	0	0	2	2	4	0	0	0	0	50	47	97	0	0	0	0	1	0	1	0	0	0	0	30	35	65	167
Exiting Leg	4							97							1							65							167
Total	8							194							2							130							334

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	2	271	33	0	306	0	0	0	0	0	11	101	0	0	112	2	0	5	0	7	425
7:15 AM	0	284	32	0	316	0	0	0	0	0	23	172	0	0	195	2	1	4	0	7	518
7:30 AM	1	262	24	0	287	0	0	0	0	0	26	178	0	0	204	3	1	0	0	4	495
7:45 AM	4	256	33	1	294	0	0	0	0	0	38	185	0	0	223	0	1	0	0	1	518
Total	7	1073	122	1	1203	0	0	0	0	0	98	636	0	0	734	7	3	9	0	19	1956
8:00 AM	3	268	35	0	306	0	0	0	0	0	42	180	0	0	222	0	3	0	0	3	531
8:15 AM	3	228	45	0	276	0	0	0	0	0	31	170	1	1	203	2	2	2	1	7	486
8:30 AM	0	229	41	0	270	0	0	0	0	0	28	157	0	0	185	1	4	2	0	7	462
8:45 AM	0	244	45	0	289	0	0	0	0	0	31	183	0	0	214	4	1	1	0	6	509
Total	6	969	166	0	1141	0	0	0	0	0	132	690	1	1	824	7	10	5	1	23	1988
Grand Total	13	2042	288	1	2344	0	0	0	0	0	230	1326	1	1	1558	14	13	14	1	42	3944
Approach %	0.6	87.1	12.3	0.0		0.0	0.0	0.0	0.0		14.8	85.1	0.1	0.1		33.3	31.0	33.3	2.4		
Total %	0.3	51.8	7.3	0.0	59.4	0.0	0.0	0.0	0.0	0.0	5.8	33.6	0.0	0.0	39.5	0.4	0.3	0.4	0.0	1.1	
Exiting Leg Total	1341					531					2057					15					3944
Cars	12	1935	278	1	2226	0	0	0	0	0	226	1213	1	1	1441	14	13	13	0	40	3707
% Cars	92.3	94.8	96.5	100.0	95.0	0.0	0.0	0.0	0.0	0.0	98.3	91.5	100.0	100.0	92.5	100.0	100.0	92.9	0.0	95.2	94.0
Exiting Leg Total	1227					517					1950					13					3707
Heavy Vehicles	1	107	10	0	118	0	0	0	0	0	4	113	0	0	117	0	0	1	1	2	237
% Heavy Vehicles	7.7	5.2	3.5	0.0	5.0	0.0	0.0	0.0	0.0	0.0	1.7	8.5	0.0	0.0	7.5	0.0	0.0	7.1	100.0	4.8	6.0
Exiting Leg Total	114					14					107					2					237

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

7:15 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	284	32	0	316	0	0	0	0	0	23	172	0	0	195	2	1	4	0	7	518
7:30 AM	1	262	24	0	287	0	0	0	0	0	26	178	0	0	204	3	1	0	0	4	495
7:45 AM	4	256	33	1	294	0	0	0	0	0	38	185	0	0	223	0	1	0	0	1	518
8:00 AM	3	268	35	0	306	0	0	0	0	0	42	180	0	0	222	0	3	0	0	3	531
Total Volume	8	1070	124	1	1203	0	0	0	0	0	129	715	0	0	844	5	6	4	0	15	2062
% Approach Total	0.7	88.9	10.3	0.1		0.0	0.0	0.0	0.0		15.3	84.7	0.0	0.0		33.3	40.0	26.7	0.0		
PHF	0.500	0.942	0.886	0.250	0.952	0.000	0.000	0.000	0.000	0.000	0.768	0.966	0.000	0.000	0.946	0.417	0.500	0.250	0.000	0.536	0.971
Cars	7	1016	121	1	1145	0	0	0	0	0	127	655	0	0	782	5	6	4	0	15	1942
Cars %	87.5	95.0	97.6	100.0	95.2	0.0	0.0	0.0	0.0	0.0	98.4	91.6	0.0	0.0	92.7	100.0	100.0	100.0	0.0	100.0	94.2
Heavy Vehicles	1	54	3	0	58	0	0	0	0	0	2	60	0	0	62	0	0	0	0	0	120
Heavy Vehicles %	12.5	5.0	2.4	0.0	4.8	0.0	0.0	0.0	0.0	0.0	1.6	8.4	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	5.8
Cars Enter Leg	7	1016	121	1	1145	0	0	0	0	0	127	655	0	0	782	5	6	4	0	15	1942
Heavy Enter Leg	1	54	3	0	58	0	0	0	0	0	2	60	0	0	62	0	0	0	0	0	120
Total Entering Leg	8	1070	124	1	1203	0	0	0	0	0	129	715	0	0	844	5	6	4	0	15	2062
Cars Exiting Leg	660					254					1021					7					1942
Heavy Exiting Leg	60					5					54					1					120
Total Exiting Leg	720					259					1075					8					2062

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	2	260	32	0	294	0	0	0	0	0	10	84	0	0	94	2	0	5	0	7	395
7:15 AM	0	268	31	0	299	0	0	0	0	0	22	157	0	0	179	2	1	4	0	7	485
7:30 AM	1	250	23	0	274	0	0	0	0	0	26	164	0	0	190	3	1	0	0	4	468
7:45 AM	3	242	32	1	278	0	0	0	0	0	37	171	0	0	208	0	1	0	0	1	487
Total	6	1020	118	1	1145	0	0	0	0	0	95	576	0	0	671	7	3	9	0	19	1835
8:00 AM	3	256	35	0	294	0	0	0	0	0	42	163	0	0	205	0	3	0	0	3	502
8:15 AM	3	215	43	0	261	0	0	0	0	0	31	155	1	1	188	2	2	1	0	5	454
8:30 AM	0	215	38	0	253	0	0	0	0	0	28	147	0	0	175	1	4	2	0	7	435
8:45 AM	0	229	44	0	273	0	0	0	0	0	30	172	0	0	202	4	1	1	0	6	481
Total	6	915	160	0	1081	0	0	0	0	0	131	637	1	1	770	7	10	4	0	21	1872
Grand Total	12	1935	278	1	2226	0	0	0	0	0	226	1213	1	1	1441	14	13	13	0	40	3707
Approach %	0.5	86.9	12.5	0.0		0.0	0.0	0.0	0.0		15.7	84.2	0.1	0.1		35.0	32.5	32.5	0.0		
Total %	0.3	52.2	7.5	0.0	60.0	0.0	0.0	0.0	0.0	0.0	6.1	32.7	0.0	0.0	38.9	0.4	0.4	0.4	0.0	1.1	
Exiting Leg Total	1227					517					1950					13					3707

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

7:15 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	268	31	0	299	0	0	0	0	0	22	157	0	0	179	2	1	4	0	7	485
7:30 AM	1	250	23	0	274	0	0	0	0	0	26	164	0	0	190	3	1	0	0	4	468
7:45 AM	3	242	32	1	278	0	0	0	0	0	37	171	0	0	208	0	1	0	0	1	487
8:00 AM	3	256	35	0	294	0	0	0	0	0	42	163	0	0	205	0	3	0	0	3	502
Total Volume	7	1016	121	1	1145	0	0	0	0	0	127	655	0	0	782	5	6	4	0	15	1942
% Approach Total	0.6	88.7	10.6	0.1		0.0	0.0	0.0	0.0		16.2	83.8	0.0	0.0		33.3	40.0	26.7	0.0		
PHF	0.583	0.948	0.864	0.250	0.957	0.000	0.000	0.000	0.000	0.000	0.756	0.958	0.000	0.000	0.940	0.417	0.500	0.250	0.000	0.536	0.967
Entering Leg	7	1016	121	1	1145	0	0	0	0	0	127	655	0	0	782	5	6	4	0	15	1942
Exiting Leg	660					254					1021					7					1942
Total	1805					254					1803					22					3884

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	11	1	0	12	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	30
7:15 AM	0	16	1	0	17	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	33
7:30 AM	0	12	1	0	13	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	27
7:45 AM	1	14	1	0	16	0	0	0	0	0	1	14	0	0	15	0	0	0	0	0	31
Total	1	53	4	0	58	0	0	0	0	0	3	60	0	0	63	0	0	0	0	0	121
8:00 AM	0	12	0	0	12	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	29
8:15 AM	0	13	2	0	15	0	0	0	0	0	0	15	0	0	15	0	0	1	1	2	32
8:30 AM	0	14	3	0	17	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	27
8:45 AM	0	15	1	0	16	0	0	0	0	0	1	11	0	0	12	0	0	0	0	0	28
Total	0	54	6	0	60	0	0	0	0	0	1	53	0	0	54	0	0	1	1	2	116
Grand Total	1	107	10	0	118	0	0	0	0	0	4	113	0	0	117	0	0	1	1	2	237
Approach %	0.8	90.7	8.5	0.0		0.0	0.0	0.0	0.0		3.4	96.6	0.0	0.0		0.0	0.0	50.0	50.0		
Total %	0.4	45.1	4.2	0.0	49.8	0.0	0.0	0.0	0.0	0.0	1.7	47.7	0.0	0.0	49.4	0.0	0.0	0.4	0.4	0.8	
Exiting Leg Total	114					14					107					2					237
Large Trucks	1	70	6	0	77	0	0	0	0	0	3	68	0	0	71	0	0	1	1	2	150
% Large Trucks	100.0	65.4	60.0	0.0	65.3	0.0	0.0	0.0	0.0	0.0	75.0	60.2	0.0	0.0	60.7	0.0	0.0	100.0	100.0	100.0	63.3
Exiting Leg Total	69					9					70					2					150
Buses	0	37	4	0	41	0	0	0	0	0	1	45	0	0	46	0	0	0	0	0	87
% Buses	0.0	34.6	40.0	0.0	34.7	0.0	0.0	0.0	0.0	0.0	25.0	39.8	0.0	0.0	39.3	0.0	0.0	0.0	0.0	0.0	36.7
Exiting Leg Total	45					5					37					0					87

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

7:00 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	11	1	0	12	0	0	0	0	0	1	17	0	0	18	0	0	0	0	0	30
7:15 AM	0	16	1	0	17	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	33
7:30 AM	0	12	1	0	13	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	27
7:45 AM	1	14	1	0	16	0	0	0	0	0	1	14	0	0	15	0	0	0	0	0	31
Total Volume	1	53	4	0	58	0	0	0	0	0	3	60	0	0	63	0	0	0	0	0	121
% Approach Total	1.7	91.4	6.9	0.0		0.0	0.0	0.0	0.0		4.8	95.2	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.250	0.828	1.000	0.000	0.853	0.000	0.000	0.000	0.000	0.000	0.750	0.882	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.917
Large Trucks	1	32	3	0	36	0	0	0	0	0	2	36	0	0	38	0	0	0	0	0	74
Large Trucks %	100.0	60.4	75.0	0.0	62.1	0.0	0.0	0.0	0.0	0.0	66.7	60.0	0.0	0.0	60.3	0.0	0.0	0.0	0.0	0.0	61.2
Buses	0	21	1	0	22	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	47
Buses %	0.0	39.6	25.0	0.0	37.9	0.0	0.0	0.0	0.0	0.0	33.3	40.0	0.0	0.0	39.7	0.0	0.0	0.0	0.0	0.0	38.8
Trucks Enter Leg	1	32	3	0	36	0	0	0	0	0	2	36	0	0	38	0	0	0	0	0	74
Bus Enter Leg	0	21	1	0	22	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	47
Total Entering Leg	1	53	4	0	58	0	0	0	0	0	3	60	0	0	63	0	0	0	0	0	121
Trucks Exiting Leg																					
	36					5					32					1					74
Buses Exiting Leg	24					2					21					0					47
Total Exiting Leg	60					7					53					1					121

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	7	1	0	8	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	21
7:15 AM	0	11	0	0	11	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	19
7:30 AM	0	6	1	0	7	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	15
7:45 AM	1	8	1	0	10	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	19
Total	1	32	3	0	36	0	0	0	0	0	2	36	0	0	38	0	0	0	0	0	74
8:00 AM	0	8	0	0	8	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	19
8:15 AM	0	9	2	0	11	0	0	0	0	0	0	8	0	0	8	0	0	1	1	2	21
8:30 AM	0	10	1	0	11	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	19
8:45 AM	0	11	0	0	11	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	17
Total	0	38	3	0	41	0	0	0	0	0	1	32	0	0	33	0	0	1	1	2	76
Grand Total	1	70	6	0	77	0	0	0	0	0	3	68	0	0	71	0	0	1	1	2	150
Approach %	1.3	90.9	7.8	0.0		0.0	0.0	0.0	0.0		4.2	95.8	0.0	0.0		0.0	0.0	50.0	50.0		
Total %	0.7	46.7	4.0	0.0	51.3	0.0	0.0	0.0	0.0	0.0	2.0	45.3	0.0	0.0	47.3	0.0	0.0	0.7	0.7	1.3	
Exiting Leg Total	69					9					70					2					150

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

7:45 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	1	8	1	0	10	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	19
8:00 AM	0	8	0	0	8	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	19
8:15 AM	0	9	2	0	11	0	0	0	0	0	0	8	0	0	8	0	0	1	1	2	21
8:30 AM	0	10	1	0	11	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	19
Total Volume	1	35	4	0	40	0	0	0	0	0	0	36	0	0	36	0	0	1	1	2	78
% Approach Total	2.5	87.5	10.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	50.0	50.0		
PHF	0.250	0.875	0.500	0.000	0.909	0.000	0.000	0.000	0.000	0.000	0.000	0.818	0.000	0.000	0.818	0.000	0.000	0.250	0.250	0.250	0.929
Entering Leg	1	35	4	0	40	0	0	0	0	0	0	36	0	0	36	0	0	1	1	2	78
Exiting Leg	37					4					35					2					78
Total	77					4					71					4					156

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
7:15 AM	0	5	1	0	6	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	14
7:30 AM	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	12
7:45 AM	0	6	0	0	6	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	12
Total	0	21	1	0	22	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	47
8:00 AM	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	10
8:15 AM	0	4	0	0	4	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	11
8:30 AM	0	4	2	0	6	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	8
8:45 AM	0	4	1	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
Total	0	16	3	0	19	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	40
Grand Total	0	37	4	0	41	0	0	0	0	0	1	45	0	0	46	0	0	0	0	0	87
Approach %	0.0	90.2	9.8	0.0		0.0	0.0	0.0	0.0		2.2	97.8	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	42.5	4.6	0.0	47.1	0.0	0.0	0.0	0.0	0.0	1.1	51.7	0.0	0.0	52.9	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	45					5					37					0					87

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

7:15 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	5	1	0	6	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	14
7:30 AM	0	6	0	0	6	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	12
7:45 AM	0	6	0	0	6	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	12
8:00 AM	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	10
Total Volume	0	21	1	0	22	0	0	0	0	0	1	25	0	0	26	0	0	0	0	0	48
% Approach Total	0.0	95.5	4.5	0.0		0.0	0.0	0.0	0.0		3.8	96.2	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.875	0.250	0.000	0.917	0.000	0.000	0.000	0.000	0.000	0.250	0.781	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.857
Entering Leg	0	21	1	0	22	0	0	0	0	0	1	25	0	0	26	0	0	0	0	0	48
Exiting Leg	25					2					21					0					48
Total	47					2					47					0					96

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	6	0	0	0	0	6	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	8
7:15 AM	0	12	0	0	0	0	12	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	0	0	0	0	0	15
7:30 AM	0	16	0	0	0	0	16	0	0	0	0	0	0	0	2	6	0	0	0	0	0	8	1	0	0	0	0	0	25
7:45 AM	0	11	1	0	0	0	12	0	0	0	0	1	0	1	0	5	0	0	0	0	0	5	2	0	0	0	0	2	20
Total	0	45	1	0	0	0	46	0	0	0	0	2	1	3	2	14	0	0	0	0	0	16	3	0	0	0	0	3	68
8:00 AM	0	19	1	0	0	0	20	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	1	22
8:15 AM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	1	9	0	0	0	0	0	10	0	1	0	0	0	0	38
8:30 AM	0	24	0	0	0	0	24	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	1	0	0	0	0	0	27
8:45 AM	1	10	0	0	0	0	11	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	1	0	0	0	0	1	17
Total	1	80	1	0	0	0	82	0	0	0	0	0	0	0	2	16	0	0	0	0	0	18	2	2	0	0	0	4	104
Grand Total	1	125	2	0	0	0	128	0	0	0	0	2	1	3	4	30	0	0	0	0	0	34	5	2	0	0	0	7	172
Approach %	0.8	97.7	1.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	66.7	33.3		11.8	88.2	0.0	0.0	0.0	0.0		71.4	28.6	0.0	0.0	0.0	0.0		
Total %	0.6	72.7	1.2	0.0	0.0	0.0	74.4	0.0	0.0	0.0	0.0	1.2	0.6	1.7	2.3	17.4	0.0	0.0	0.0	0.0	0.0	19.8	2.9	1.2	0.0	0.0	0.0	0.0	4.1
Exiting Leg Total	30							11							130							1							172

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

7:45 AM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:45 AM	0	11	1	0	0	0	12	0	0	0	0	1	0	1	0	5	0	0	0	0	0	5	2	0	0	0	0	0	2	20
8:00 AM	0	19	1	0	0	0	20	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	22	
8:15 AM	0	27	0	0	0	0	27	0	0	0	0	0	0	0	1	9	0	0	0	0	10	0	1	0	0	0	0	1	38	
8:30 AM	0	24	0	0	0	0	24	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	1	0	0	0	0	1	27	
Total Volume	0	81	2	0	0	0	83	0	0	0	0	1	0	1	2	16	0	0	0	0	0	18	3	2	0	0	0	0	5	107
% Approach Total	0.0	97.6	2.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		11.1	88.9	0.0	0.0	0.0	0.0		60.0	40.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.750	0.500	0.000	0.000	0.000	0.769	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.444	0.000	0.000	0.000	0.000	0.450	0.375	0.500	0.000	0.000	0.000	0.000	0.625	0.704	
Entering Leg	0	81	2	0	0	0	83	0	0	0	0	1	0	1	2	16	0	0	0	0	0	18	3	2	0	0	0	0	5	107
Exiting Leg	16							7							84							0							107	
Total	99							8							102							5							214	

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	2	2	4	0	0	0	0	1	0	1	0	0	0	0	5	5	10	16
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	0	0	0	0	0	0	3	6	9	19
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	6	9	0	0	0	0	1	0	1	0	0	0	0	6	11	17	27
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	7	4	11	0	0	0	0	0	0	0	0	0	0	0	5	8	13	24
Total	0	0	0	0	1	0	1	0	0	0	0	16	18	34	0	0	0	0	2	0	2	0	0	0	0	19	30	49	86
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	10	5	15	0	0	0	0	0	0	0	0	0	0	0	3	12	15	30
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	2	10	12	21
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0	0	8	22	30	45
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	7	7	14	0	0	0	0	0	2	2	0	0	0	0	5	13	18	34
Total	0	0	0	0	1	0	1	0	0	0	0	28	24	52	0	0	0	0	0	2	2	0	0	0	0	18	57	75	130
Grand Total	0	0	0	0	2	0	2	0	0	0	0	44	42	86	0	0	0	0	2	2	4	0	0	0	0	37	87	124	216
Approach %	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	51.2	48.8		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	29.8	70.2		
Total %	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	20.4	19.4	39.8	0.0	0.0	0.0	0.0	0.9	0.9	1.9	0.0	0.0	0.0	0.0	17.1	40.3	57.4	
Exiting Leg Total	2							86							4							124							216

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

8:00 AM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	10	5	15	0	0	0	0	0	0	0	0	0	0	0	3	12	15	30
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	0	0	0	0	0	0	0	2	10	12	21
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	6	8	14	0	0	0	0	0	0	0	0	0	0	0	8	22	30	45
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	7	7	14	0	0	0	0	0	2	2	0	0	0	0	5	13	18	34
Total Volume	0	0	0	0	1	0	1	0	0	0	0	28	24	52	0	0	0	0	0	2	2	0	0	0	0	18	57	75	130
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	53.8	46.2		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	24.0	76.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.700	0.750	0.867	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.563	0.648	0.625	0.722
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	28	24	52	0	0	0	0	0	2	2	0	0	0	0	18	57	75	130
Exiting Leg	1							52							2							75							130
Total	2							104							4							150							260

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	134	39	0	174	0	0	0	0	0	32	267	0	0	299	2	9	8	0	19	492
4:15 PM	1	140	38	1	180	0	0	0	0	0	30	297	0	1	328	1	18	14	0	33	541
4:30 PM	0	155	57	0	212	0	0	0	0	0	45	265	0	0	310	8	22	19	0	49	571
4:45 PM	1	185	50	0	236	0	0	0	0	0	42	261	0	0	303	3	10	11	0	24	563
Total	3	614	184	1	802	0	0	0	0	0	149	1090	0	1	1240	14	59	52	0	125	2167
5:00 PM	2	159	58	1	220	0	0	2	0	2	39	301	0	0	340	1	15	10	0	26	588
5:15 PM	0	162	50	0	212	0	0	0	0	0	29	287	0	0	316	4	22	14	0	40	568
5:30 PM	0	192	47	0	239	0	0	0	0	0	42	276	0	0	318	1	15	7	0	23	580
5:45 PM	0	200	55	1	256	0	0	0	0	0	31	257	1	0	289	2	18	13	0	33	578
Total	2	713	210	2	927	0	0	2	0	2	141	1121	1	0	1263	8	70	44	0	122	2314
Grand Total	5	1327	394	3	1729	0	0	2	0	2	290	2211	1	1	2503	22	129	96	0	247	4481
Approach %	0.3	76.7	22.8	0.2		0.0	0.0	100.0	0.0		11.6	88.3	0.0	0.0		8.9	52.2	38.9	0.0		
Total %	0.1	29.6	8.8	0.1	38.6	0.0	0.0	0.0	0.0	0.0	6.5	49.3	0.0	0.0	55.9	0.5	2.9	2.1	0.0	5.5	
Exiting Leg Total	2310					813					1352					6					4481
Cars	4	1282	391	3	1680	0	0	2	0	2	289	2159	1	1	2450	21	127	96	0	244	4376
% Cars	80.0	96.6	99.2	100.0	97.2	0.0	0.0	100.0	0.0	100.0	99.7	97.6	100.0	100.0	97.9	95.5	98.4	100.0	0.0	98.8	97.7
Exiting Leg Total	2258					807					1306					5					4376
Heavy Vehicles	1	45	3	0	49	0	0	0	0	0	1	52	0	0	53	1	2	0	0	3	105
% Heavy Vehicles	20.0	3.4	0.8	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.3	2.4	0.0	0.0	2.1	4.5	1.6	0.0	0.0	1.2	2.3
Exiting Leg Total	52					6					46					1					105

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

5:00 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	2	159	58	1	220	0	0	2	0	2	39	301	0	0	340	1	15	10	0	26	588
5:15 PM	0	162	50	0	212	0	0	0	0	0	29	287	0	0	316	4	22	14	0	40	568
5:30 PM	0	192	47	0	239	0	0	0	0	0	42	276	0	0	318	1	15	7	0	23	580
5:45 PM	0	200	55	1	256	0	0	0	0	0	31	257	1	0	289	2	18	13	0	33	578
Total Volume	2	713	210	2	927	0	0	2	0	2	141	1121	1	0	1263	8	70	44	0	122	2314
% Approach Total	0.2	76.9	22.7	0.2		0.0	0.0	100.0	0.0		11.2	88.8	0.1	0.0		6.6	57.4	36.1	0.0		
PHF	0.250	0.891	0.905	0.500	0.905	0.000	0.000	0.250	0.000	0.250	0.839	0.931	0.250	0.000	0.929	0.500	0.795	0.786	0.000	0.763	0.984
Cars	2	696	208	2	908	0	0	2	0	2	141	1096	1	0	1238	8	68	44	0	120	2268
Cars %	100.0	97.6	99.0	100.0	98.0	0.0	0.0	100.0	0.0	100.0	100.0	97.8	100.0	0.0	98.0	100.0	97.1	100.0	0.0	98.4	98.0
Heavy Vehicles	0	17	2	0	19	0	0	0	0	0	0	25	0	0	25	0	2	0	0	2	46
Heavy Vehicles %	0.0	2.4	1.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.0	0.0	2.9	0.0	0.0	1.6	2.0
Cars Enter Leg	2	696	208	2	908	0	0	2	0	2	141	1096	1	0	1238	8	68	44	0	120	2268
Heavy Enter Leg	0	17	2	0	19	0	0	0	0	0	0	25	0	0	25	0	2	0	0	2	46
Total Entering Leg	2	713	210	2	927	0	0	2	0	2	141	1121	1	0	1263	8	70	44	0	122	2314
Cars Exiting Leg	1142					417					706					3					2268
Heavy Exiting Leg	25					4					17					0					46
Total Exiting Leg	1167					421					723					3					2314

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	127	39	0	167	0	0	0	0	0	31	260	0	0	291	1	9	8	0	18	476
4:15 PM	1	132	38	1	172	0	0	0	0	0	30	290	0	1	321	1	18	14	0	33	526
4:30 PM	0	148	56	0	204	0	0	0	0	0	45	259	0	0	304	8	22	19	0	49	557
4:45 PM	0	179	50	0	229	0	0	0	0	0	42	254	0	0	296	3	10	11	0	24	549
Total	2	586	183	1	772	0	0	0	0	0	148	1063	0	1	1212	13	59	52	0	124	2108
5:00 PM	2	155	57	1	215	0	0	2	0	2	39	295	0	0	334	1	15	10	0	26	577
5:15 PM	0	159	50	0	209	0	0	0	0	0	29	278	0	0	307	4	22	14	0	40	556
5:30 PM	0	186	47	0	233	0	0	0	0	0	42	271	0	0	313	1	14	7	0	22	568
5:45 PM	0	196	54	1	251	0	0	0	0	0	31	252	1	0	284	2	17	13	0	32	567
Total	2	696	208	2	908	0	0	2	0	2	141	1096	1	0	1238	8	68	44	0	120	2268
Grand Total	4	1282	391	3	1680	0	0	2	0	2	289	2159	1	1	2450	21	127	96	0	244	4376
Approach %	0.2	76.3	23.3	0.2		0.0	0.0	100.0	0.0		11.8	88.1	0.0	0.0		8.6	52.0	39.3	0.0		
Total %	0.1	29.3	8.9	0.1	38.4	0.0	0.0	0.0	0.0	0.0	6.6	49.3	0.0	0.0	56.0	0.5	2.9	2.2	0.0	5.6	
Exiting Leg Total	2258					807					1306					5					4376

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

5:00 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	2	155	57	1	215	0	0	2	0	2	39	295	0	0	334	1	15	10	0	26	577
5:15 PM	0	159	50	0	209	0	0	0	0	0	29	278	0	0	307	4	22	14	0	40	556
5:30 PM	0	186	47	0	233	0	0	0	0	0	42	271	0	0	313	1	14	7	0	22	568
5:45 PM	0	196	54	1	251	0	0	0	0	0	31	252	1	0	284	2	17	13	0	32	567
Total Volume	2	696	208	2	908	0	0	2	0	2	141	1096	1	0	1238	8	68	44	0	120	2268
% Approach Total	0.2	76.7	22.9	0.2		0.0	0.0	100.0	0.0		11.4	88.5	0.1	0.0		6.7	56.7	36.7	0.0		
PHF	0.250	0.888	0.912	0.500	0.904	0.000	0.000	0.250	0.000	0.250	0.839	0.929	0.250	0.000	0.927	0.500	0.773	0.786	0.000	0.750	0.983
Entering Leg	2	696	208	2	908	0	0	2	0	2	141	1096	1	0	1238	8	68	44	0	120	2268
Exiting Leg	1142					417					706					3					2268
Total	2050					419					1944					123					4536

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	7	0	0	7	0	0	0	0	0	1	7	0	0	8	1	0	0	0	1	16
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	15
4:30 PM	0	7	1	0	8	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	14
4:45 PM	1	6	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	14
Total	1	28	1	0	30	0	0	0	0	0	1	27	0	0	28	1	0	0	0	1	59
5:00 PM	0	4	1	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
5:15 PM	0	3	0	0	3	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	12
5:30 PM	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	12
5:45 PM	0	4	1	0	5	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	11
Total	0	17	2	0	19	0	0	0	0	0	0	25	0	0	25	0	2	0	0	2	46
Grand Total	1	45	3	0	49	0	0	0	0	0	1	52	0	0	53	1	2	0	0	3	105
Approach %	2.0	91.8	6.1	0.0		0.0	0.0	0.0	0.0		1.9	98.1	0.0	0.0		33.3	66.7	0.0	0.0		
Total %	1.0	42.9	2.9	0.0	46.7	0.0	0.0	0.0	0.0	0.0	1.0	49.5	0.0	0.0	50.5	1.0	1.9	0.0	0.0	2.9	
Exiting Leg Total	52					6					46					1					105
Large Trucks	1	15	1	0	17	0	0	0	0	0	1	19	0	0	20	1	2	0	0	3	40
% Large Trucks	100.0	33.3	33.3	0.0	34.7	0.0	0.0	0.0	0.0	0.0	100.0	36.5	0.0	0.0	37.7	100.0	100.0	0.0	0.0	100.0	38.1
Exiting Leg Total	19					4					16					1					40
Buses	0	30	2	0	32	0	0	0	0	0	0	33	0	0	33	0	0	0	0	0	65
% Buses	0.0	66.7	66.7	0.0	65.3	0.0	0.0	0.0	0.0	0.0	0.0	63.5	0.0	0.0	62.3	0.0	0.0	0.0	0.0	0.0	61.9
Exiting Leg Total	33					2					30					0					65

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

4:00 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	7	0	0	7	0	0	0	0	0	1	7	0	0	8	1	0	0	0	1	16
4:15 PM	0	8	0	0	8	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	15
4:30 PM	0	7	1	0	8	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	14
4:45 PM	1	6	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	14
Total Volume	1	28	1	0	30	0	0	0	0	0	1	27	0	0	28	1	0	0	0	1	59
% Approach Total	3.3	93.3	3.3	0.0		0.0	0.0	0.0	0.0		3.6	96.4	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.250	0.875	0.250	0.000	0.938	0.000	0.000	0.000	0.000	0.000	0.250	0.964	0.000	0.000	0.875	0.250	0.000	0.000	0.000	0.250	0.922
Large Trucks	1	9	0	0	10	0	0	0	0	0	1	9	0	0	10	1	0	0	0	1	21
Large Trucks %	100.0	32.1	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	100.0	33.3	0.0	0.0	35.7	100.0	0.0	0.0	0.0	100.0	35.6
Buses	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	38
Buses %	0.0	67.9	100.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	64.3	0.0	0.0	0.0	0.0	0.0	64.4
Trucks Enter Leg	1	9	0	0	10	0	0	0	0	0	1	9	0	0	10	1	0	0	0	1	21
Bus Enter Leg	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	38
Total Entering Leg	1	28	1	0	30	0	0	0	0	0	1	27	0	0	28	1	0	0	0	1	59
Trucks Exiting Leg	9					1					10					1					21
Buses Exiting Leg	18					1					19					0					38
Total Exiting Leg	27					2					29					1					59

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	1	4	0	0	5	1	0	0	0	1	7
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:45 PM	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
Total	1	9	0	0	10	0	0	0	0	0	1	9	0	0	10	1	0	0	0	1	21
5:00 PM	0	1	1	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
5:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
5:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	5
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	5
Total	0	6	1	0	7	0	0	0	0	0	0	10	0	0	10	0	2	0	0	2	19
Grand Total	1	15	1	0	17	0	0	0	0	0	1	19	0	0	20	1	2	0	0	3	40
Approach %	5.9	88.2	5.9	0.0		0.0	0.0	0.0	0.0		5.0	95.0	0.0	0.0		33.3	66.7	0.0	0.0		
Total %	2.5	37.5	2.5	0.0	42.5	0.0	0.0	0.0	0.0	0.0	2.5	47.5	0.0	0.0	50.0	2.5	5.0	0.0	0.0	7.5	
Exiting Leg Total	19					4					16					1					40

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

4:00 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	0	0	0	0	0	1	4	0	0	5	1	0	0	0	1	7
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:45 PM	1	3	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
Total Volume	1	9	0	0	10	0	0	0	0	0	1	9	0	0	10	1	0	0	0	1	21
% Approach Total	10.0	90.0	0.0	0.0		0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.250	0.563	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.250	0.563	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.250	0.750
Entering Leg	1	9	0	0	10	0	0	0	0	0	1	9	0	0	10	1	0	0	0	1	21
Exiting Leg	9					1					10					1					21
Total	19					1					20					2					42

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	13
4:30 PM	0	3	1	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:45 PM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
Total	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	38
5:00 PM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	8
5:30 PM	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
5:45 PM	0	3	1	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	6
Total	0	11	1	0	12	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	27
Grand Total	0	30	2	0	32	0	0	0	0	0	0	33	0	0	33	0	0	0	0	0	65
Approach %	0.0	93.8	6.3	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	46.2	3.1	0.0	49.2	0.0	0.0	0.0	0.0	0.0	0.0	50.8	0.0	0.0	50.8	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	33					2					30					0					65

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

4:00 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
4:15 PM	0	7	0	0	7	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	13
4:30 PM	0	3	1	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
4:45 PM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
Total Volume	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	38
% Approach Total	0.0	95.0	5.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.679	0.250	0.000	0.714	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.731
Entering Leg	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	38
Exiting Leg	18					1					19					0					38
Total	38					1					37					0					76

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	9
4:15 PM	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	11
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	0	0	0	0	4	0	0	0	0	0	0	5
4:45 PM	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	6
Total	1	4	1	0	0	0	6	1	0	0	0	0	1	2	0	23	0	0	0	0	0	23	0	0	0	0	0	0	31
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	16	0	0	0	0	0	16	0	0	0	0	0	0	17
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	19	0	0	0	0	0	20	0	0	0	0	0	0	21
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	0	0	0	0	0	17	0	0	0	0	0	0	17
Total	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	57	0	0	0	0	0	59	0	0	0	0	0	0	61
Grand Total	1	4	1	0	1	0	7	1	0	0	0	0	2	3	2	80	0	0	0	0	0	82	0	0	0	0	0	0	92
Approach %	14.3	57.1	14.3	0.0	14.3	0.0		33.3	0.0	0.0	0.0	0.0	66.7		2.4	97.6	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
Total %	1.1	4.3	1.1	0.0	1.1	0.0	7.6	1.1	0.0	0.0	0.0	0.0	2.2	3.3	2.2	87.0	0.0	0.0	0.0	0.0	0.0	89.1	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	82							5							4							1							92

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

5:00 PM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	16	0	0	0	0	0	16	0	0	0	0	0	0	17	
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	19	0	0	0	0	0	20	0	0	0	0	0	0	21	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	16	0	0	0	0	0	17	0	0	0	0	0	0	17	
Total Volume	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	57	0	0	0	0	0	59	0	0	0	0	0	0	61	
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		3.4	96.6	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.250		0.500	0.750	0.000	0.000	0.000	0.000	0.738	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.726	
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2	57	0	0	0	0	0	59	0	0	0	0	0	0	61	
Exiting Leg	58							3							0							0							61	
Total	59							4							59							0							122	

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)								Russell Street								Massachusetts Ave (Rt 2A)								Cogswell Avenue								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
4:00 PM	0	0	0	0	0	1	1	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	4	11	15	21				
4:15 PM	0	0	0	0	1	0	1	0	0	0	0	4	10	14	0	0	0	0	1	0	1	0	0	0	0	9	5	14	30				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	9	15	0	0	0	0	0	0	0	0	0	0	0	8	6	14	29				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	10	15	0	0	0	0	0	1	1	0	0	0	0	7	4	11	27				
Total	0	0	0	0	1	1	2	0	0	0	0	18	31	49	0	0	0	0	1	1	2	0	0	0	0	28	26	54	107				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	13	20	0	0	0	0	1	0	1	0	0	0	0	5	5	10	31				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	11	12	23	0	0	0	0	1	0	1	0	0	0	0	12	8	20	44				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	7	13	0	0	0	0	0	0	0	0	0	0	0	12	2	14	27				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	12	17	0	0	0	0	0	0	0	0	0	0	0	15	5	20	37				
Total	0	0	0	0	0	0	0	0	0	0	0	29	44	73	0	0	0	0	2	0	2	0	0	0	0	44	20	64	139				
Grand Total	0	0	0	0	1	1	2	0	0	0	0	47	75	122	0	0	0	0	3	1	4	0	0	0	0	72	46	118	246				
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	38.5	61.5		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	61.0	39.0						
Total %	0.0	0.0	0.0	0.0	0.4	0.4	0.8	0.0	0.0	0.0	0.0	19.1	30.5	49.6	0.0	0.0	0.0	0.0	1.2	0.4	1.6	0.0	0.0	0.0	0.0	29.3	18.7	48.0					
Exiting Leg Total	2							122							4							118							246				

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

5:00 PM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	13	20	0	0	0	0	1	0	1	0	0	0	0	5	5	10	31
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	11	12	23	0	0	0	0	1	0	1	0	0	0	0	12	8	20	44
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	7	13	0	0	0	0	0	0	0	0	0	0	0	12	2	14	27
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	12	17	0	0	0	0	0	0	0	0	0	0	0	15	5	20	37
Total Volume	0	0	0	0	0	0	0	0	0	0	0	29	44	73	0	0	0	0	2	0	2	0	0	0	0	44	20	64	139
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	39.7	60.3		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	68.8	31.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.659	0.846	0.793	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.733	0.625	0.800	0.790
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	29	44	73	0	0	0	0	2	0	2	0	0	0	0	44	20	64	139
Exiting Leg	0							73							2							64							139
Total	0							146							4							128							278

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	6	174	55	1	236	0	0	0	0	0	18	193	0	0	211	5	0	1	0	6	453
11:15 AM	3	134	41	0	178	0	0	0	0	0	20	183	1	0	204	1	1	3	0	5	387
11:30 AM	2	161	47	1	211	0	0	0	1	1	25	195	1	0	221	0	0	5	0	5	438
11:45 AM	6	172	61	0	239	0	0	0	0	0	36	191	0	0	227	3	1	0	0	4	470
Total	17	641	204	2	864	0	0	0	1	1	99	762	2	0	863	9	2	9	0	20	1748
12:00 PM	2	156	43	1	202	0	0	0	0	0	33	205	1	0	239	2	3	2	0	7	448
12:15 PM	0	183	52	0	235	0	0	0	0	0	25	225	0	0	250	3	0	3	0	6	491
12:30 PM	2	170	61	1	234	0	0	0	0	0	41	185	0	1	227	1	0	2	0	3	464
12:45 PM	4	164	52	0	220	0	0	0	0	0	41	199	0	0	240	0	2	3	0	5	465
Total	8	673	208	2	891	0	0	0	0	0	140	814	1	1	956	6	5	10	0	21	1868
1:00 PM	1	166	56	0	223	0	0	0	0	0	30	217	0	0	247	2	2	3	0	7	477
1:15 PM	2	161	54	0	217	0	0	0	0	0	30	209	0	0	239	2	0	1	0	3	459
1:30 PM	2	167	42	1	212	0	0	0	0	0	33	196	0	0	229	5	0	3	0	8	449
1:45 PM	3	183	53	0	239	0	0	0	0	0	24	239	0	0	263	3	1	2	0	6	508
Total	8	677	205	1	891	0	0	0	0	0	117	861	0	0	978	12	3	9	0	24	1893
Grand Total	33	1991	617	5	2646	0	0	0	1	1	356	2437	3	1	2797	27	10	28	0	65	5509
Approach %	1.2	75.2	23.3	0.2		0.0	0.0	0.0	100.0		12.7	87.1	0.1	0.0		41.5	15.4	43.1	0.0		
Total %	0.6	36.1	11.2	0.1	48.0	0.0	0.0	0.0	0.0	0.0	6.5	44.2	0.1	0.0	50.8	0.5	0.2	0.5	0.0	1.2	
Exiting Leg Total	2470					984					2019					36					5509
Cars	33	1936	613	4	2586	0	0	0	1	1	351	2369	3	1	2724	27	10	26	0	63	5374
% Cars	100.0	97.2	99.4	80.0	97.7	0.0	0.0	0.0	100.0	100.0	98.6	97.2	100.0	100.0	97.4	100.0	100.0	92.9	0.0	96.9	97.5
Exiting Leg Total	2399					975					1964					36					5374
Heavy Vehicles	0	55	4	1	60	0	0	0	0	0	5	68	0	0	73	0	0	2	0	2	135
% Heavy Vehicles	0.0	2.8	0.6	20.0	2.3	0.0	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	2.6	0.0	0.0	7.1	0.0	3.1	2.5
Exiting Leg Total	71					9					55					0					135

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	0	183	52	0	235	0	0	0	0	0	25	225	0	0	250	3	0	3	0	6	491
12:30 PM	2	170	61	1	234	0	0	0	0	0	41	185	0	1	227	1	0	2	0	3	464
12:45 PM	4	164	52	0	220	0	0	0	0	0	41	199	0	0	240	0	2	3	0	5	465
1:00 PM	1	166	56	0	223	0	0	0	0	0	30	217	0	0	247	2	2	3	0	7	477
Total Volume	7	683	221	1	912	0	0	0	0	0	137	826	0	1	964	6	4	11	0	21	1897
% Approach Total	0.8	74.9	24.2	0.1		0.0	0.0	0.0	0.0		14.2	85.7	0.0	0.1		28.6	19.0	52.4	0.0		
PHF	0.438	0.933	0.906	0.250	0.970	0.000	0.000	0.000	0.000	0.000	0.835	0.918	0.000	0.250	0.964	0.500	0.500	0.917	0.000	0.750	0.966
Cars	7	665	220	1	893	0	0	0	0	0	134	798	0	1	933	6	4	11	0	21	1847
Cars %	100.0	97.4	99.5	100.0	97.9	0.0	0.0	0.0	0.0	0.0	97.8	96.6	0.0	100.0	96.8	100.0	100.0	100.0	0.0	100.0	97.4
Heavy Vehicles	0	18	1	0	19	0	0	0	0	0	3	28	0	0	31	0	0	0	0	0	50
Heavy Vehicles %	0.0	2.6	0.5	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.2	3.4	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	2.6
Cars Enter Leg	7	665	220	1	893	0	0	0	0	0	134	798	0	1	933	6	4	11	0	21	1847
Heavy Enter Leg	0	18	1	0	19	0	0	0	0	0	3	28	0	0	31	0	0	0	0	0	50
Total Entering Leg	7	683	221	1	912	0	0	0	0	0	137	826	0	1	964	6	4	11	0	21	1897
Cars Exiting Leg	810					358					672					7					1847
Heavy Exiting Leg	28					4					18					0					50
Total Exiting Leg	838					362					690					7					1897

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	6	168	54	1	229	0	0	0	0	0	18	188	0	0	206	5	0	0	0	5	440
11:15 AM	3	131	41	0	175	0	0	0	0	0	20	181	1	0	202	1	1	3	0	5	382
11:30 AM	2	158	47	1	208	0	0	0	1	1	24	186	1	0	211	0	0	5	0	5	425
11:45 AM	6	166	61	0	233	0	0	0	0	0	36	184	0	0	220	3	1	0	0	4	457
Total	17	623	203	2	845	0	0	0	1	1	98	739	2	0	839	9	2	8	0	19	1704
12:00 PM	2	150	43	1	196	0	0	0	0	0	33	202	1	0	236	2	3	2	0	7	439
12:15 PM	0	176	52	0	228	0	0	0	0	0	25	221	0	0	246	3	0	3	0	6	480
12:30 PM	2	166	61	1	230	0	0	0	0	0	40	181	0	1	222	1	0	2	0	3	455
12:45 PM	4	163	52	0	219	0	0	0	0	0	40	187	0	0	227	0	2	3	0	5	451
Total	8	655	208	2	873	0	0	0	0	0	138	791	1	1	931	6	5	10	0	21	1825
1:00 PM	1	160	55	0	216	0	0	0	0	0	29	209	0	0	238	2	2	3	0	7	461
1:15 PM	2	156	54	0	212	0	0	0	0	0	30	205	0	0	235	2	0	1	0	3	450
1:30 PM	2	162	42	0	206	0	0	0	0	0	32	192	0	0	224	5	0	2	0	7	437
1:45 PM	3	180	51	0	234	0	0	0	0	0	24	233	0	0	257	3	1	2	0	6	497
Total	8	658	202	0	868	0	0	0	0	0	115	839	0	0	954	12	3	8	0	23	1845
Grand Total	33	1936	613	4	2586	0	0	0	1	1	351	2369	3	1	2724	27	10	26	0	63	5374
Approach %	1.3	74.9	23.7	0.2		0.0	0.0	0.0	100.0		12.9	87.0	0.1	0.0		42.9	15.9	41.3	0.0		
Total %	0.6	36.0	11.4	0.1	48.1	0.0	0.0	0.0	0.0	0.0	6.5	44.1	0.1	0.0	50.7	0.5	0.2	0.5	0.0	1.2	
Exiting Leg Total	2399					975					1964					36					5374

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:15 PM	0	176	52	0	228	0	0	0	0	0	25	221	0	0	246	3	0	3	0	6	480
12:30 PM	2	166	61	1	230	0	0	0	0	0	40	181	0	1	222	1	0	2	0	3	455
12:45 PM	4	163	52	0	219	0	0	0	0	0	40	187	0	0	227	0	2	3	0	5	451
1:00 PM	1	160	55	0	216	0	0	0	0	0	29	209	0	0	238	2	2	3	0	7	461
Total Volume	7	665	220	1	893	0	0	0	0	0	134	798	0	1	933	6	4	11	0	21	1847
% Approach Total	0.8	74.5	24.6	0.1		0.0	0.0	0.0	0.0		14.4	85.5	0.0	0.1		28.6	19.0	52.4	0.0		
PHF	0.438	0.945	0.902	0.250	0.971	0.000	0.000	0.000	0.000	0.000	0.838	0.903	0.000	0.250	0.948	0.500	0.500	0.917	0.000	0.750	0.962
Entering Leg	7	665	220	1	893	0	0	0	0	0	134	798	0	1	933	6	4	11	0	21	1847
Exiting Leg					810					358				672						7	1847
Total					1703					358				1605						28	3694

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	6	1	0	7	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	13
11:15 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
11:30 AM	0	3	0	0	3	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	13
11:45 AM	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	13
Total	0	18	1	0	19	0	0	0	0	0	1	23	0	0	24	0	0	1	0	1	44
12:00 PM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
12:15 PM	0	7	0	0	7	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	11
12:30 PM	0	4	0	0	4	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	9
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	14
Total	0	18	0	0	18	0	0	0	0	0	2	23	0	0	25	0	0	0	0	0	43
1:00 PM	0	6	1	0	7	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	16
1:15 PM	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
1:30 PM	0	5	0	1	6	0	0	0	0	0	1	4	0	0	5	0	0	1	0	1	12
1:45 PM	0	3	2	0	5	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	11
Total	0	19	3	1	23	0	0	0	0	0	2	22	0	0	24	0	0	1	0	1	48
Grand Total	0	55	4	1	60	0	0	0	0	0	5	68	0	0	73	0	0	2	0	2	135
Approach %	0.0	91.7	6.7	1.7		0.0	0.0	0.0	0.0		6.8	93.2	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	40.7	3.0	0.7	44.4	0.0	0.0	0.0	0.0	0.0	3.7	50.4	0.0	0.0	54.1	0.0	0.0	1.5	0.0	1.5	
Exiting Leg Total	71					9					55					0					135
Large Trucks	0	34	3	1	38	0	0	0	0	0	3	43	0	0	46	0	0	2	0	2	86
% Large Trucks	0.0	61.8	75.0	100.0	63.3	0.0	0.0	0.0	0.0	0.0	60.0	63.2	0.0	0.0	63.0	0.0	0.0	100.0	0.0	100.0	63.7
Exiting Leg Total	46					6					34					0					86
Buses	0	21	1	0	22	0	0	0	0	0	2	25	0	0	27	0	0	0	0	0	49
% Buses	0.0	38.2	25.0	0.0	36.7	0.0	0.0	0.0	0.0	0.0	40.0	36.8	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	36.3
Exiting Leg Total	25					3					21					0					49

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	14
1:00 PM	0	6	1	0	7	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	16
1:15 PM	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
1:30 PM	0	5	0	1	6	0	0	0	0	0	1	4	0	0	5	0	0	1	0	1	12
Total Volume	0	17	1	1	19	0	0	0	0	0	3	28	0	0	31	0	0	1	0	1	51
% Approach Total	0.0	89.5	5.3	5.3		0.0	0.0	0.0	0.0		9.7	90.3	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.708	0.250	0.250	0.679	0.000	0.000	0.000	0.000	0.000	0.750	0.583	0.000	0.000	0.596	0.000	0.000	0.250	0.000	0.250	0.797
Large Trucks	0	12	0	1	13	0	0	0	0	0	3	19	0	0	22	0	0	1	0	1	36
Large Trucks %	0.0	70.6	0.0	100.0	68.4	0.0	0.0	0.0	0.0	0.0	100.0	67.9	0.0	0.0	71.0	0.0	0.0	100.0	0.0	100.0	70.6
Buses	0	5	1	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
Buses %	0.0	29.4	100.0	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0	32.1	0.0	0.0	29.0	0.0	0.0	0.0	0.0	0.0	29.4
Trucks Enter Leg	0	12	0	1	13	0	0	0	0	0	3	19	0	0	22	0	0	1	0	1	36
Bus Enter Leg	0	5	1	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
Total Entering Leg	0	17	1	1	19	0	0	0	0	0	3	28	0	0	31	0	0	1	0	1	51
Trucks Exiting Leg	21					3					12					0					36
Buses Exiting Leg	9					1					5					0					15
Total Exiting Leg	30					4					17					0					51

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	1	0	4	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	7
11:15 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
11:30 AM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	8
Total	0	10	1	0	11	0	0	0	0	0	0	14	0	0	14	0	0	1	0	1	26
12:00 PM	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	8
12:15 PM	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	10
Total	0	12	0	0	12	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	28
1:00 PM	0	5	0	0	5	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	13
1:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
1:30 PM	0	4	0	1	5	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	9
1:45 PM	0	1	2	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
Total	0	12	2	1	15	0	0	0	0	0	2	14	0	0	16	0	0	1	0	1	32
Grand Total	0	34	3	1	38	0	0	0	0	0	3	43	0	0	46	0	0	2	0	2	86
Approach %	0.0	89.5	7.9	2.6		0.0	0.0	0.0	0.0		6.5	93.5	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	39.5	3.5	1.2	44.2	0.0	0.0	0.0	0.0	0.0	3.5	50.0	0.0	0.0	53.5	0.0	0.0	2.3	0.0	2.3	
Exiting Leg Total	46					6					34					0					86

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:45 PM	0	1	0	0	1	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	10
1:00 PM	0	5	0	0	5	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	13
1:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
1:30 PM	0	4	0	1	5	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	9
Total Volume	0	12	0	1	13	0	0	0	0	0	3	19	0	0	22	0	0	1	0	1	36
% Approach Total	0.0	92.3	0.0	7.7		0.0	0.0	0.0	0.0		13.6	86.4	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.600	0.000	0.250	0.650	0.000	0.000	0.000	0.000	0.000	0.750	0.594	0.000	0.000	0.611	0.000	0.000	0.250	0.000	0.250	0.692
Entering Leg	0	12	0	1	13	0	0	0	0	0	3	19	0	0	22	0	0	1	0	1	36
Exiting Leg					21					3					12					0	36
Total					34					3					34					1	72

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	1	0	0	1	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	6
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
Total	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	18
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
12:30 PM	0	3	0	0	3	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total	0	6	0	0	6	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	15
1:00 PM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
1:15 PM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
1:30 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
1:45 PM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
Total	0	7	1	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
Grand Total	0	21	1	0	22	0	0	0	0	0	2	25	0	0	27	0	0	0	0	0	49
Approach %	0.0	95.5	4.5	0.0		0.0	0.0	0.0	0.0		7.4	92.6	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	42.9	2.0	0.0	44.9	0.0	0.0	0.0	0.0	0.0	4.1	51.0	0.0	0.0	55.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	25					3					21					0					49

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Massachusetts Ave (Rt 2A)					Russell Street					Massachusetts Ave (Rt 2A)					Cogswell Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6
11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	1	0	0	1	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	6
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
Total Volume	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	18
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.250	0.563	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	8	0	0	8	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	18
Exiting Leg	9					1					8					0					18
Total	17					1					18					0					36

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	4	0	0	0	0	4	0	0	0	0	1	0	1	0	8	0	0	0	0	8	0	0	0	0	0	0	0	13
11:15 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	1	8	0	0	0	1	10	0	0	0	0	0	0	16	
11:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	1	1	1	15	0	0	0	0	16	0	0	0	0	0	1	21	
11:45 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	10	0	0	0	0	11	0	0	0	0	0	0	17	
Total	0	19	0	0	0	0	19	0	0	0	0	1	1	2	2	41	0	0	0	0	45	0	0	0	0	0	1	67	
12:00 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	17	
12:15 PM	0	3	0	0	0	0	3	0	0	0	0	0	1	1	0	8	0	0	0	0	8	0	0	0	0	0	0	12	
12:30 PM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	1	9	
12:45 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	7	
Total	0	18	0	0	0	0	18	0	0	0	0	0	1	1	0	25	0	0	0	0	25	0	0	0	0	0	1	45	
1:00 PM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	9	
1:15 PM	0	7	0	0	0	1	8	0	0	0	0	1	1	2	0	6	0	0	0	0	6	0	0	0	0	0	0	16	
1:30 PM	0	2	0	0	0	0	2	0	0	0	0	0	1	1	0	4	0	0	0	0	4	0	0	0	0	0	0	7	
1:45 PM	1	9	0	0	0	0	10	0	0	0	0	0	0	0	1	7	0	0	0	0	8	0	0	0	0	0	0	18	
Total	1	22	0	0	0	1	24	0	0	0	0	1	2	3	1	22	0	0	0	0	23	0	0	0	0	0	0	50	
Grand Total	1	59	0	0	0	1	61	0	0	0	0	2	4	6	3	88	0	0	0	0	93	0	0	0	0	0	2	162	
Approach %	1.6	96.7	0.0	0.0	0.0	1.6		0.0	0.0	0.0	0.0	33.3	66.7		3.2	94.6	0.0	0.0	0.0	2.2		0.0	0.0	0.0	0.0	0.0	100.0		
Total %	0.6	36.4	0.0	0.0	0.0	0.6	37.7	0.0	0.0	0.0	0.0	1.2	2.5	3.7	1.9	54.3	0.0	0.0	0.0	1.2	57.4	0.0	0.0	0.0	0.0	0.0	1.2	1.2	
Exiting Leg Total	89							9							61							3							162

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:15 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	1	8	0	0	0	1	10	0	0	0	0	0	0	0	16
11:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	1	1	1	15	0	0	0	0	16	0	0	0	0	0	1	1	21
11:45 AM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	10	0	0	0	1	11	0	0	0	0	0	0	0	17
12:00 PM	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	17
Total Volume	0	21	0	0	0	0	21	0	0	0	0	0	1	1	2	44	0	0	0	0	48	0	0	0	0	0	1	1	71
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		4.2	91.7	0.0	0.0	0.0	4.2		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.875	0.000	0.000	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.733	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.845
Entering Leg	0	21	0	0	0	0	21	0	0	0	0	0	1	1	2	44	0	0	0	0	48	0	0	0	0	0	1	1	71
Exiting Leg	44							3							23							1							71
Total	65							4							71							2							142

PDI File #: **175971 F**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Russell Street W: Cogswell Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	13	7	20	0	0	0	0	0	3	3	0	0	0	0	8	12	20	43
11:15 AM	0	0	0	0	0	2	2	0	0	0	0	10	4	14	0	0	0	0	1	1	2	0	0	0	0	10	12	22	40
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	12	15	27	0	0	0	0	0	0	0	0	0	0	0	14	15	29	56
11:45 AM	0	0	0	0	1	0	1	0	0	0	0	12	10	22	0	0	0	0	1	2	3	0	0	0	0	9	19	28	54
Total	0	0	0	0	1	2	3	0	0	0	0	47	36	83	0	0	0	0	2	6	8	0	0	0	0	41	58	99	193
12:00 PM	0	0	0	0	2	0	2	0	0	0	0	8	9	17	0	0	0	0	0	2	2	0	0	0	0	13	14	27	48
12:15 PM	0	0	0	0	0	1	1	0	0	0	0	9	6	15	0	0	0	0	0	1	1	0	0	0	0	12	14	26	43
12:30 PM	0	0	0	0	1	1	2	0	0	0	0	11	12	23	0	0	0	0	6	0	6	0	0	0	0	8	14	22	53
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	8	14	22	0	0	0	0	2	0	2	0	0	0	0	11	15	26	50
Total	0	0	0	0	3	2	5	0	0	0	0	36	41	77	0	0	0	0	8	3	11	0	0	0	0	44	57	101	194
1:00 PM	0	0	0	0	1	0	1	0	0	0	0	6	9	15	0	0	0	0	1	2	3	0	0	0	0	15	20	35	54
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	13	15	28	0	0	0	0	1	1	2	0	0	0	0	19	18	37	67
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	8	12	0	0	0	0	2	0	2	0	0	0	0	20	12	32	46
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	15	7	22	0	0	0	0	0	0	0	0	0	0	0	9	8	17	39
Total	0	0	0	0	1	0	1	0	0	0	0	38	39	77	0	0	0	0	4	3	7	0	0	0	0	63	58	121	206
Grand Total	0	0	0	0	5	4	9	0	0	0	0	121	116	237	0	0	0	0	14	12	26	0	0	0	0	148	173	321	593
Approach %	0.0	0.0	0.0	0.0	55.6	44.4		0.0	0.0	0.0	0.0	51.1	48.9		0.0	0.0	0.0	0.0	53.8	46.2		0.0	0.0	0.0	0.0	46.1	53.9		
Total %	0.0	0.0	0.0	0.0	0.8	0.7	1.5	0.0	0.0	0.0	0.0	20.4	19.6	40.0	0.0	0.0	0.0	0.0	2.4	2.0	4.4	0.0	0.0	0.0	0.0	25.0	29.2	54.1	
Exiting Leg Total	9							237							26							321							593

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Massachusetts Ave (Rt 2A)							Russell Street							Massachusetts Ave (Rt 2A)							Cogswell Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:30 PM	0	0	0	0	1	1	2	0	0	0	0	11	12	23	0	0	0	0	6	0	6	0	0	0	0	8	14	22	53
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	8	14	22	0	0	0	0	2	0	2	0	0	0	0	11	15	26	50
1:00 PM	0	0	0	0	1	0	1	0	0	0	0	6	9	15	0	0	0	0	1	2	3	0	0	0	0	15	20	35	54
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	13	15	28	0	0	0	0	1	1	2	0	0	0	0	19	18	37	67
Total Volume	0	0	0	0	2	1	3	0	0	0	0	38	50	88	0	0	0	0	10	3	13	0	0	0	0	53	67	120	224
% Approach Total	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	43.2	56.8		0.0	0.0	0.0	0.0	76.9	23.1		0.0	0.0	0.0	0.0	44.2	55.8		
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.731	0.833	0.786	0.000	0.000	0.000	0.000	0.417	0.375	0.542	0.000	0.000	0.000	0.000	0.697	0.838	0.811	0.836
Entering Leg	0	0	0	0	2	1	3	0	0	0	0	38	50	88	0	0	0	0	10	3	13	0	0	0	0	53	67	120	224
Exiting Leg	3							88							13							120							224
Total	6							176							26							240							448

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	225	21	0	246	46	40	0	86	12	130	0	142	474
7:15 AM	234	18	1	253	37	67	0	104	10	137	0	147	504
7:30 AM	247	10	0	257	34	54	0	88	22	163	0	185	530
7:45 AM	206	14	1	221	41	62	0	103	25	145	0	170	494
Total	912	63	2	977	158	223	0	381	69	575	0	644	2002
8:00 AM	241	21	0	262	56	56	0	112	27	170	0	197	571
8:15 AM	178	22	0	200	42	71	0	113	26	141	0	167	480
8:30 AM	197	21	0	218	32	57	0	89	17	148	0	165	472
8:45 AM	222	18	0	240	48	63	0	111	17	140	0	157	508
Total	838	82	0	920	178	247	0	425	87	599	0	686	2031
Grand Total	1750	145	2	1897	336	470	0	806	156	1174	0	1330	4033
Approach %	92.3	7.6	0.1		41.7	58.3	0.0		11.7	88.3	0.0		
Total %	43.4	3.6	0.0	47.0	8.3	11.7	0.0	20.0	3.9	29.1	0.0	33.0	
Exiting Leg Total	1512				301				2220				4033
Cars	1653	139	2	1794	323	455	0	778	147	1065	0	1212	3784
% Cars	94.5	95.9	100.0	94.6	96.1	96.8	0.0	96.5	94.2	90.7	0.0	91.1	93.8
Exiting Leg Total	1390				286				2108				3784
Heavy Vehicles	97	6	0	103	13	15	0	28	9	109	0	118	249
% Heavy Vehicles	5.5	4.1	0.0	5.4	3.9	3.2	0.0	3.5	5.8	9.3	0.0	8.9	6.2
Exiting Leg Total	122				15				112				249

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

7:15 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	234	18	1	253	37	67	0	104	10	137	0	147	504
7:30 AM	247	10	0	257	34	54	0	88	22	163	0	185	530
7:45 AM	206	14	1	221	41	62	0	103	25	145	0	170	494
8:00 AM	241	21	0	262	56	56	0	112	27	170	0	197	571
Total Volume	928	63	2	993	168	239	0	407	84	615	0	699	2099
% Approach Total	93.5	6.3	0.2		41.3	58.7	0.0		12.0	88.0	0.0		
PHF	0.939	0.750	0.500	0.948	0.750	0.892	0.000	0.908	0.778	0.904	0.000	0.887	0.919
Cars	878	61	2	941	162	228	0	390	79	560	0	639	1970
Cars %	94.6	96.8	100.0	94.8	96.4	95.4	0.0	95.8	94.0	91.1	0.0	91.4	93.9
Heavy Vehicles	50	2	0	52	6	11	0	17	5	55	0	60	129
Heavy Vehicles %	5.4	3.2	0.0	5.2	3.6	4.6	0.0	4.2	6.0	8.9	0.0	8.6	6.1
Cars Enter Leg	878	61	2	941	162	228	0	390	79	560	0	639	1970
Heavy Enter Leg	50	2	0	52	6	11	0	17	5	55	0	60	129
Total Entering Leg	928	63	2	993	168	239	0	407	84	615	0	699	2099
Cars Exiting Leg				724				140				1106	1970
Heavy Exiting Leg				61				7				61	129
Total Exiting Leg				785				147				1167	2099

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	214	19	0	233	42	39	0	81	12	108	0	120	434
7:15 AM	226	16	1	243	36	62	0	98	9	127	0	136	477
7:30 AM	231	10	0	241	32	53	0	85	21	147	0	168	494
7:45 AM	190	14	1	205	40	57	0	97	25	133	0	158	460
Total	861	59	2	922	150	211	0	361	67	515	0	582	1865
8:00 AM	231	21	0	252	54	56	0	110	24	153	0	177	539
8:15 AM	168	21	0	189	42	70	0	112	22	127	0	149	450
8:30 AM	186	20	0	206	32	55	0	87	17	140	0	157	450
8:45 AM	207	18	0	225	45	63	0	108	17	130	0	147	480
Total	792	80	0	872	173	244	0	417	80	550	0	630	1919
Grand Total	1653	139	2	1794	323	455	0	778	147	1065	0	1212	3784
Approach %	92.1	7.7	0.1		41.5	58.5	0.0		12.1	87.9	0.0		
Total %	43.7	3.7	0.1	47.4	8.5	12.0	0.0	20.6	3.9	28.1	0.0	32.0	
Exiting Leg Total	1390				286				2108				3784

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

7:15 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	226	16	1	243	36	62	0	98	9	127	0	136	477
7:30 AM	231	10	0	241	32	53	0	85	21	147	0	168	494
7:45 AM	190	14	1	205	40	57	0	97	25	133	0	158	460
8:00 AM	231	21	0	252	54	56	0	110	24	153	0	177	539
Total Volume	878	61	2	941	162	228	0	390	79	560	0	639	1970
% Approach Total	93.3	6.5	0.2		41.5	58.5	0.0		12.4	87.6	0.0		
PHF	0.950	0.726	0.500	0.934	0.750	0.919	0.000	0.886	0.790	0.915	0.000	0.903	0.914
Entering Leg	878	61	2	941	162	228	0	390	79	560	0	639	1970
Exiting Leg				724				140				1106	1970
Total				1665				530				1745	3940

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	11	2	0	13	4	1	0	5	0	22	0	22	40
7:15 AM	8	2	0	10	1	5	0	6	1	10	0	11	27
7:30 AM	16	0	0	16	2	1	0	3	1	16	0	17	36
7:45 AM	16	0	0	16	1	5	0	6	0	12	0	12	34
Total	51	4	0	55	8	12	0	20	2	60	0	62	137
8:00 AM	10	0	0	10	2	0	0	2	3	17	0	20	32
8:15 AM	10	1	0	11	0	1	0	1	4	14	0	18	30
8:30 AM	11	1	0	12	0	2	0	2	0	8	0	8	22
8:45 AM	15	0	0	15	3	0	0	3	0	10	0	10	28
Total	46	2	0	48	5	3	0	8	7	49	0	56	112
Grand Total	97	6	0	103	13	15	0	28	9	109	0	118	249
Approach %	94.2	5.8	0.0		46.4	53.6	0.0		7.6	92.4	0.0		
Total %	39.0	2.4	0.0	41.4	5.2	6.0	0.0	11.2	3.6	43.8	0.0	47.4	
Exiting Leg Total	122				15				112				249
Large Trucks	61	5	0	66	11	8	0	19	6	64	0	70	155
% Large Trucks	62.9	83.3	0.0	64.1	84.6	53.3	0.0	67.9	66.7	58.7	0.0	59.3	62.2
Exiting Leg Total	75				11				69				155
Buses	36	1	0	37	2	7	0	9	3	45	0	48	94
% Buses	37.1	16.7	0.0	35.9	15.4	46.7	0.0	32.1	33.3	41.3	0.0	40.7	37.8
Exiting Leg Total	47				4				43				94

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

7:00 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	11	2	0	13	4	1	0	5	0	22	0	22	40
7:15 AM	8	2	0	10	1	5	0	6	1	10	0	11	27
7:30 AM	16	0	0	16	2	1	0	3	1	16	0	17	36
7:45 AM	16	0	0	16	1	5	0	6	0	12	0	12	34
Total Volume	51	4	0	55	8	12	0	20	2	60	0	62	137
% Approach Total	92.7	7.3	0.0		40.0	60.0	0.0		3.2	96.8	0.0		
PHF	0.797	0.500	0.000	0.859	0.500	0.600	0.000	0.833	0.500	0.682	0.000	0.705	0.856
Large Trucks	31	3	0	34	6	7	0	13	0	35	0	35	82
Large Trucks %	60.8	75.0	0.0	61.8	75.0	58.3	0.0	65.0	0.0	58.3	0.0	56.5	59.9
Buses	20	1	0	21	2	5	0	7	2	25	0	27	55
Buses %	39.2	25.0	0.0	38.2	25.0	41.7	0.0	35.0	100.0	41.7	0.0	43.5	40.1
Trucks Enter Leg	31	3	0	34	6	7	0	13	0	35	0	35	82
Bus Enter Leg	20	1	0	21	2	5	0	7	2	25	0	27	55
Total Entering Leg	51	4	0	55	8	12	0	20	2	60	0	62	137
Trucks Exiting Leg				41				3				38	82
Buses Exiting Leg				27				3				25	55
Total Exiting Leg				68				6				63	137

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	6	1	0	7	2	0	0	2	0	13	0	13	22
7:15 AM	4	2	0	6	1	2	0	3	0	5	0	5	14
7:30 AM	10	0	0	10	2	1	0	3	0	9	0	9	22
7:45 AM	11	0	0	11	1	4	0	5	0	8	0	8	24
Total	31	3	0	34	6	7	0	13	0	35	0	35	82
8:00 AM	6	0	0	6	2	0	0	2	3	11	0	14	22
8:15 AM	6	1	0	7	0	0	0	0	3	8	0	11	18
8:30 AM	7	1	0	8	0	1	0	1	0	7	0	7	16
8:45 AM	11	0	0	11	3	0	0	3	0	3	0	3	17
Total	30	2	0	32	5	1	0	6	6	29	0	35	73
Grand Total	61	5	0	66	11	8	0	19	6	64	0	70	155
Approach %	92.4	7.6	0.0		57.9	42.1	0.0		8.6	91.4	0.0		
Total %	39.4	3.2	0.0	42.6	7.1	5.2	0.0	12.3	3.9	41.3	0.0	45.2	
Exiting Leg Total	75				11				69				155

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

7:30 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	10	0	0	10	2	1	0	3	0	9	0	9	22
7:45 AM	11	0	0	11	1	4	0	5	0	8	0	8	24
8:00 AM	6	0	0	6	2	0	0	2	3	11	0	14	22
8:15 AM	6	1	0	7	0	0	0	0	3	8	0	11	18
Total Volume	33	1	0	34	5	5	0	10	6	36	0	42	86
% Approach Total	97.1	2.9	0.0		50.0	50.0	0.0		14.3	85.7	0.0		
PHF	0.750	0.250	0.000	0.773	0.625	0.313	0.000	0.500	0.500	0.818	0.000	0.750	0.896
Entering Leg	33	1	0	34	5	5	0	10	6	36	0	42	86
Exiting Leg				41				7				38	86
Total				75				17				80	172

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	5	1	0	6	2	1	0	3	0	9	0	9	18
7:15 AM	4	0	0	4	0	3	0	3	1	5	0	6	13
7:30 AM	6	0	0	6	0	0	0	0	1	7	0	8	14
7:45 AM	5	0	0	5	0	1	0	1	0	4	0	4	10
Total	20	1	0	21	2	5	0	7	2	25	0	27	55
8:00 AM	4	0	0	4	0	0	0	0	0	6	0	6	10
8:15 AM	4	0	0	4	0	1	0	1	1	6	0	7	12
8:30 AM	4	0	0	4	0	1	0	1	0	1	0	1	6
8:45 AM	4	0	0	4	0	0	0	0	0	7	0	7	11
Total	16	0	0	16	0	2	0	2	1	20	0	21	39
Grand Total	36	1	0	37	2	7	0	9	3	45	0	48	94
Approach %	97.3	2.7	0.0		22.2	77.8	0.0		6.3	93.8	0.0		
Total %	38.3	1.1	0.0	39.4	2.1	7.4	0.0	9.6	3.2	47.9	0.0	51.1	
Exiting Leg Total	47				4				43				94

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

7:00 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	5	1	0	6	2	1	0	3	0	9	0	9	18
7:15 AM	4	0	0	4	0	3	0	3	1	5	0	6	13
7:30 AM	6	0	0	6	0	0	0	0	1	7	0	8	14
7:45 AM	5	0	0	5	0	1	0	1	0	4	0	4	10
Total Volume	20	1	0	21	2	5	0	7	2	25	0	27	55
% Approach Total	95.2	4.8	0.0		28.6	71.4	0.0		7.4	92.6	0.0		
PHF	0.833	0.250	0.000	0.875	0.250	0.417	0.000	0.583	0.500	0.694	0.000	0.750	0.764
Entering Leg	20	1	0	21	2	5	0	7	2	25	0	27	55
Exiting Leg				27				3				25	55
Total				48				10				52	110

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:00 AM	4	0	0	0	0	4	0	1	0	0	0	1	0	1	0	0	0	1	6
7:15 AM	17	0	0	0	0	17	0	3	0	0	0	3	0	3	0	0	0	3	23
7:30 AM	18	0	0	0	0	18	1	2	0	0	1	4	1	6	0	0	0	7	29
7:45 AM	14	0	0	0	0	14	0	4	0	0	0	4	0	4	0	0	0	4	22
Total	53	0	0	0	0	53	1	10	0	0	1	12	1	14	0	0	0	15	80
8:00 AM	14	0	0	0	0	14	0	2	0	0	0	2	3	1	0	0	0	4	20
8:15 AM	24	0	0	0	0	24	0	3	0	0	0	3	0	7	0	0	0	7	34
8:30 AM	20	0	0	0	0	20	0	5	0	0	0	5	0	4	0	0	0	4	29
8:45 AM	12	0	0	0	0	12	2	5	0	0	0	7	1	4	0	0	0	5	24
Total	70	0	0	0	0	70	2	15	0	0	0	17	4	16	0	0	0	20	107
Grand Total	123	0	0	0	0	123	3	25	0	0	1	29	5	30	0	0	0	35	187
Approach %	100.0	0.0	0.0	0.0	0.0		10.3	86.2	0.0	0.0	3.4		14.3	85.7	0.0	0.0	0.0		
Total %	65.8	0.0	0.0	0.0	0.0	65.8	1.6	13.4	0.0	0.0	0.5	15.5	2.7	16.0	0.0	0.0	0.0	18.7	
Exiting Leg Total	33						6						148						187

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

8:00 AM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
8:00 AM	14	0	0	0	0	14	0	2	0	0	0	2	3	1	0	0	0	4	20
8:15 AM	24	0	0	0	0	24	0	3	0	0	0	3	0	7	0	0	0	7	34
8:30 AM	20	0	0	0	0	20	0	5	0	0	0	5	0	4	0	0	0	4	29
8:45 AM	12	0	0	0	0	12	2	5	0	0	0	7	1	4	0	0	0	5	24
Total Volume	70	0	0	0	0	70	2	15	0	0	0	17	4	16	0	0	0	20	107
% Approach Total	100.0	0.0	0.0	0.0	0.0		11.8	88.2	0.0	0.0	0.0		20.0	80.0	0.0	0.0	0.0		
PHF	0.729	0.000	0.000	0.000	0.000	0.729	0.250	0.750	0.000	0.000	0.000	0.607	0.333	0.571	0.000	0.000	0.000	0.714	0.787
Entering Leg	70	0	0	0	0	70	2	15	0	0	0	17	4	16	0	0	0	20	107
Exiting Leg	18						4						85						107
Total	88						21						105						214

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	6	11	0	0	0	0	0	0	11
7:15 AM	0	0	0	2	2	4	0	0	0	9	8	17	0	0	0	0	1	1	22	
7:30 AM	0	0	0	1	0	1	0	0	0	9	6	15	0	0	0	0	1	1	17	
7:45 AM	0	0	0	3	0	3	0	0	0	23	12	35	0	0	0	1	2	3	41	
Total	0	0	0	6	2	8	0	0	0	46	32	78	0	0	0	1	4	5	91	
8:00 AM	0	0	0	0	2	2	0	0	0	13	10	23	0	0	0	0	0	0	25	
8:15 AM	0	0	0	1	0	1	0	0	0	15	8	23	0	0	0	1	0	1	25	
8:30 AM	0	0	0	0	2	2	0	0	0	5	8	13	0	0	0	3	2	5	20	
8:45 AM	0	0	0	0	2	2	0	0	0	12	12	24	0	0	0	2	0	2	28	
Total	0	0	0	1	6	7	0	0	0	45	38	83	0	0	0	6	2	8	98	
Grand Total	0	0	0	7	8	15	0	0	0	91	70	161	0	0	0	7	6	13	189	
Approach %	0.0	0.0	0.0	46.7	53.3		0.0	0.0	0.0	56.5	43.5		0.0	0.0	0.0	53.8	46.2			
Total %	0.0	0.0	0.0	3.7	4.2	7.9	0.0	0.0	0.0	48.1	37.0	85.2	0.0	0.0	0.0	3.7	3.2	6.9		
Exiting Leg Total	15						161						13						189	

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

7:45 AM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:45 AM	0	0	0	3	0	3	0	0	0	23	12	35	0	0	0	1	2	3	41
8:00 AM	0	0	0	0	2	2	0	0	0	13	10	23	0	0	0	0	0	0	25
8:15 AM	0	0	0	1	0	1	0	0	0	15	8	23	0	0	0	1	0	1	25
8:30 AM	0	0	0	0	2	2	0	0	0	5	8	13	0	0	0	3	2	5	20
Total Volume	0	0	0	4	4	8	0	0	0	56	38	94	0	0	0	5	4	9	111
% Approach Total	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	59.6	40.4		0.0	0.0	0.0	55.6	44.4		
PHF	0.000	0.000	0.000	0.333	0.500	0.667	0.000	0.000	0.000	0.609	0.792	0.671	0.000	0.000	0.000	0.417	0.500	0.450	0.677
Entering Leg	0	0	0	4	4	8	0	0	0	56	38	94	0	0	0	5	4	9	111
Exiting Leg	8						94						9						111
Total	16						188						18						222

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	145	26	0	171	35	14	0	49	39	228	0	267	487
4:15 PM	120	27	0	147	35	24	0	59	37	241	0	278	484
4:30 PM	133	29	1	163	27	25	0	52	35	252	0	287	502
4:45 PM	118	29	0	147	43	21	0	64	36	199	0	235	446
Total	516	111	1	628	140	84	0	224	147	920	0	1067	1919
5:00 PM	147	27	1	175	38	28	0	66	36	258	0	294	535
5:15 PM	119	16	0	135	39	37	0	76	26	216	1	243	454
5:30 PM	147	38	1	186	39	23	0	62	38	225	0	263	511
5:45 PM	152	32	1	185	38	27	0	65	38	193	0	231	481
Total	565	113	3	681	154	115	0	269	138	892	1	1031	1981
Grand Total	1081	224	4	1309	294	199	0	493	285	1812	1	2098	3900
Approach %	82.6	17.1	0.3		59.6	40.4	0.0		13.6	86.4	0.0		
Total %	27.7	5.7	0.1	33.6	7.5	5.1	0.0	12.6	7.3	46.5	0.0	53.8	
Exiting Leg Total	2110				509				1281				3900
Cars	1041	223	4	1268	287	192	0	479	278	1765	1	2044	3791
% Cars	96.3	99.6	100.0	96.9	97.6	96.5	0.0	97.2	97.5	97.4	100.0	97.4	97.2
Exiting Leg Total	2056				501				1234				3791
Heavy Vehicles	40	1	0	41	7	7	0	14	7	47	0	54	109
% Heavy Vehicles	3.7	0.4	0.0	3.1	2.4	3.5	0.0	2.8	2.5	2.6	0.0	2.6	2.8
Exiting Leg Total	54				8				47				109

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

5:00 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
5:00 PM	147	27	1	175	38	28	0	66	36	258	0	294	535
5:15 PM	119	16	0	135	39	37	0	76	26	216	1	243	454
5:30 PM	147	38	1	186	39	23	0	62	38	225	0	263	511
5:45 PM	152	32	1	185	38	27	0	65	38	193	0	231	481
Total Volume	565	113	3	681	154	115	0	269	138	892	1	1031	1981
% Approach Total	83.0	16.6	0.4		57.2	42.8	0.0		13.4	86.5	0.1		
PHF	0.929	0.743	0.750	0.915	0.987	0.777	0.000	0.885	0.908	0.864	0.250	0.877	0.926
Cars	551	112	3	666	152	112	0	264	135	873	1	1009	1939
Cars %	97.5	99.1	100.0	97.8	98.7	97.4	0.0	98.1	97.8	97.9	100.0	97.9	97.9
Heavy Vehicles	14	1	0	15	2	3	0	5	3	19	0	22	42
Heavy Vehicles %	2.5	0.9	0.0	2.2	1.3	2.6	0.0	1.9	2.2	2.1	0.0	2.1	2.1
Cars Enter Leg	551	112	3	666	152	112	0	264	135	873	1	1009	1939
Heavy Enter Leg	14	1	0	15	2	3	0	5	3	19	0	22	42
Total Entering Leg	565	113	3	681	154	115	0	269	138	892	1	1031	1981
Cars Exiting Leg				1028				247				664	1939
Heavy Exiting Leg				21				4				17	42
Total Exiting Leg				1049				251				681	1981

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	139	26	0	165	34	13	0	47	39	219	0	258	470
4:15 PM	111	27	0	138	33	22	0	55	35	235	0	270	463
4:30 PM	126	29	1	156	25	25	0	50	34	247	0	281	487
4:45 PM	114	29	0	143	43	20	0	63	35	191	0	226	432
Total	490	111	1	602	135	80	0	215	143	892	0	1035	1852
5:00 PM	144	26	1	171	37	28	0	65	36	252	0	288	524
5:15 PM	116	16	0	132	39	35	0	74	25	212	1	238	444
5:30 PM	142	38	1	181	38	23	0	61	38	220	0	258	500
5:45 PM	149	32	1	182	38	26	0	64	36	189	0	225	471
Total	551	112	3	666	152	112	0	264	135	873	1	1009	1939
Grand Total	1041	223	4	1268	287	192	0	479	278	1765	1	2044	3791
Approach %	82.1	17.6	0.3		59.9	40.1	0.0		13.6	86.4	0.0		
Total %	27.5	5.9	0.1	33.4	7.6	5.1	0.0	12.6	7.3	46.6	0.0	53.9	
Exiting Leg Total	2056				501				1234				3791

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

5:00 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
5:00 PM	144	26	1	171	37	28	0	65	36	252	0	288	524
5:15 PM	116	16	0	132	39	35	0	74	25	212	1	238	444
5:30 PM	142	38	1	181	38	23	0	61	38	220	0	258	500
5:45 PM	149	32	1	182	38	26	0	64	36	189	0	225	471
Total Volume	551	112	3	666	152	112	0	264	135	873	1	1009	1939
% Approach Total	82.7	16.8	0.5		57.6	42.4	0.0		13.4	86.5	0.1		
PHF	0.924	0.737	0.750	0.915	0.974	0.800	0.000	0.892	0.888	0.866	0.250	0.876	0.925
Entering Leg	551	112	3	666	152	112	0	264	135	873	1	1009	1939
Exiting Leg				1028				247				664	1939
Total				1694				511				1673	3878

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	6	0	0	6	1	1	0	2	0	9	0	9	17
4:15 PM	9	0	0	9	2	2	0	4	2	6	0	8	21
4:30 PM	7	0	0	7	2	0	0	2	1	5	0	6	15
4:45 PM	4	0	0	4	0	1	0	1	1	8	0	9	14
Total	26	0	0	26	5	4	0	9	4	28	0	32	67
5:00 PM	3	1	0	4	1	0	0	1	0	6	0	6	11
5:15 PM	3	0	0	3	0	2	0	2	1	4	0	5	10
5:30 PM	5	0	0	5	1	0	0	1	0	5	0	5	11
5:45 PM	3	0	0	3	0	1	0	1	2	4	0	6	10
Total	14	1	0	15	2	3	0	5	3	19	0	22	42
Grand Total	40	1	0	41	7	7	0	14	7	47	0	54	109
Approach %	97.6	2.4	0.0		50.0	50.0	0.0		13.0	87.0	0.0		
Total %	36.7	0.9	0.0	37.6	6.4	6.4	0.0	12.8	6.4	43.1	0.0	49.5	
Exiting Leg Total	54				8				47				109
Large Trucks	14	1	0	15	4	1	0	5	2	20	0	22	42
% Large Trucks	35.0	100.0	0.0	36.6	57.1	14.3	0.0	35.7	28.6	42.6	0.0	40.7	38.5
Exiting Leg Total	24				3				15				42
Buses	26	0	0	26	3	6	0	9	5	27	0	32	67
% Buses	65.0	0.0	0.0	63.4	42.9	85.7	0.0	64.3	71.4	57.4	0.0	59.3	61.5
Exiting Leg Total	30				5				32				67

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

4:00 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	6	0	0	6	1	1	0	2	0	9	0	9	17
4:15 PM	9	0	0	9	2	2	0	4	2	6	0	8	21
4:30 PM	7	0	0	7	2	0	0	2	1	5	0	6	15
4:45 PM	4	0	0	4	0	1	0	1	1	8	0	9	14
Total Volume	26	0	0	26	5	4	0	9	4	28	0	32	67
% Approach Total	100.0	0.0	0.0		55.6	44.4	0.0		12.5	87.5	0.0		
PHF	0.722	0.000	0.000	0.722	0.625	0.500	0.000	0.563	0.500	0.778	0.000	0.889	0.798
Large Trucks	10	0	0	10	3	1	0	4	1	12	0	13	27
Large Trucks %	38.5	0.0	0.0	38.5	60.0	25.0	0.0	44.4	25.0	42.9	0.0	40.6	40.3
Buses	16	0	0	16	2	3	0	5	3	16	0	19	40
Buses %	61.5	0.0	0.0	61.5	40.0	75.0	0.0	55.6	75.0	57.1	0.0	59.4	59.7
Trucks Enter Leg	10	0	0	10	3	1	0	4	1	12	0	13	27
Bus Enter Leg	16	0	0	16	2	3	0	5	3	16	0	19	40
Total Entering Leg	26	0	0	26	5	4	0	9	4	28	0	32	67
Trucks Exiting Leg				15				1				11	27
Buses Exiting Leg				18				3				19	40
Total Exiting Leg				33				4				30	67

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	1	0	0	1	1	0	0	1	0	7	0	7	9
4:15 PM	3	0	0	3	1	1	0	2	1	1	0	2	7
4:30 PM	4	0	0	4	1	0	0	1	0	2	0	2	7
4:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total	10	0	0	10	3	1	0	4	1	12	0	13	27
5:00 PM	0	1	0	1	0	0	0	0	0	3	0	3	4
5:15 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
5:30 PM	2	0	0	2	1	0	0	1	0	1	0	1	4
5:45 PM	1	0	0	1	0	0	0	0	1	3	0	4	5
Total	4	1	0	5	1	0	0	1	1	8	0	9	15
Grand Total	14	1	0	15	4	1	0	5	2	20	0	22	42
Approach %	93.3	6.7	0.0		80.0	20.0	0.0		9.1	90.9	0.0		
Total %	33.3	2.4	0.0	35.7	9.5	2.4	0.0	11.9	4.8	47.6	0.0	52.4	
Exiting Leg Total	24				3				15				42

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

4:00 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	1	0	0	1	1	0	0	1	0	7	0	7	9
4:15 PM	3	0	0	3	1	1	0	2	1	1	0	2	7
4:30 PM	4	0	0	4	1	0	0	1	0	2	0	2	7
4:45 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total Volume	10	0	0	10	3	1	0	4	1	12	0	13	27
% Approach Total	100.0	0.0	0.0		75.0	25.0	0.0		7.7	92.3	0.0		
PHF	0.625	0.000	0.000	0.625	0.750	0.250	0.000	0.500	0.250	0.429	0.000	0.464	0.750
Entering Leg	10	0	0	10	3	1	0	4	1	12	0	13	27
Exiting Leg				15				1				11	27
Total				25				5				24	54

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	5	0	0	5	0	1	0	1	0	2	0	2	8
4:15 PM	6	0	0	6	1	1	0	2	1	5	0	6	14
4:30 PM	3	0	0	3	1	0	0	1	1	3	0	4	8
4:45 PM	2	0	0	2	0	1	0	1	1	6	0	7	10
Total	16	0	0	16	2	3	0	5	3	16	0	19	40
5:00 PM	3	0	0	3	1	0	0	1	0	3	0	3	7
5:15 PM	2	0	0	2	0	2	0	2	1	3	0	4	8
5:30 PM	3	0	0	3	0	0	0	0	0	4	0	4	7
5:45 PM	2	0	0	2	0	1	0	1	1	1	0	2	5
Total	10	0	0	10	1	3	0	4	2	11	0	13	27
Grand Total	26	0	0	26	3	6	0	9	5	27	0	32	67
Approach %	100.0	0.0	0.0		33.3	66.7	0.0		15.6	84.4	0.0		
Total %	38.8	0.0	0.0	38.8	4.5	9.0	0.0	13.4	7.5	40.3	0.0	47.8	
Exiting Leg Total	30				5				32				67

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

4:00 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	5	0	0	5	0	1	0	1	0	2	0	2	8
4:15 PM	6	0	0	6	1	1	0	2	1	5	0	6	14
4:30 PM	3	0	0	3	1	0	0	1	1	3	0	4	8
4:45 PM	2	0	0	2	0	1	0	1	1	6	0	7	10
Total Volume	16	0	0	16	2	3	0	5	3	16	0	19	40
% Approach Total	100.0	0.0	0.0		40.0	60.0	0.0		15.8	84.2	0.0		
PHF	0.667	0.000	0.000	0.667	0.500	0.750	0.000	0.625	0.750	0.667	0.000	0.679	0.714
Entering Leg	16	0	0	16	2	3	0	5	3	16	0	19	40
Exiting Leg				18				3				19	40
Total				34				8				38	80

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	1	0	0	0	0	1	0	0	0	0	2	2	0	7	0	0	0	7	10
4:15 PM	1	0	0	0	0	1	0	1	0	0	0	1	2	11	0	0	0	13	15
4:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	12	0	0	0	12	13
4:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	1	12	0	0	0	13	15
Total	2	0	0	0	0	2	2	2	0	0	2	6	3	42	0	0	0	45	53
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	2	1	9	0	0	0	10	12
5:15 PM	2	0	0	0	0	2	0	1	0	0	0	1	1	26	0	0	0	27	30
5:30 PM	1	0	0	0	0	1	0	1	0	0	0	1	1	22	0	0	0	23	25
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	17	0	0	0	17	18
Total	3	0	0	0	0	3	0	5	0	0	0	5	3	74	0	0	0	77	85
Grand Total	5	0	0	0	0	5	2	7	0	0	2	11	6	116	0	0	0	122	138
Approach %	100.0	0.0	0.0	0.0	0.0		18.2	63.6	0.0	0.0	18.2		4.9	95.1	0.0	0.0	0.0		
Total %	3.6	0.0	0.0	0.0	0.0	3.6	1.4	5.1	0.0	0.0	1.4	8.0	4.3	84.1	0.0	0.0	0.0	88.4	
Exiting Leg Total	118						8						12						138

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

5:00 PM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	2	1	9	0	0	0	10	12
5:15 PM	2	0	0	0	0	2	0	1	0	0	0	1	1	26	0	0	0	27	30
5:30 PM	1	0	0	0	0	1	0	1	0	0	0	1	1	22	0	0	0	23	25
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	17	0	0	0	17	18
Total Volume	3	0	0	0	0	3	0	5	0	0	0	5	3	74	0	0	0	77	85
% Approach Total	100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		3.9	96.1	0.0	0.0	0.0		
PHF	0.375	0.000	0.000	0.000	0.000	0.375	0.000	0.625	0.000	0.000	0.000	0.625	0.750	0.712	0.000	0.000	0.000	0.713	0.708
Entering Leg	3	0	0	0	0	3	0	5	0	0	0	5	3	74	0	0	0	77	85
Exiting Leg	74						3						8						85
Total	77						8						85						170

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	1	4	5	0	0	0	5	9	14	0	0	0	5	2	7	26
4:15 PM	0	0	0	1	0	1	0	0	0	9	8	17	0	0	0	2	1	3	21
4:30 PM	0	0	0	0	2	2	0	0	0	10	7	17	0	0	0	2	1	3	22
4:45 PM	0	0	0	2	0	2	0	0	0	6	14	20	0	0	0	2	1	3	25
Total	0	0	0	4	6	10	0	0	0	30	38	68	0	0	0	11	5	16	94
5:00 PM	0	0	0	2	0	2	0	0	0	23	16	39	0	0	0	2	0	2	43
5:15 PM	0	0	0	1	1	2	0	0	0	22	22	44	0	0	0	4	0	4	50
5:30 PM	0	0	0	5	1	6	0	0	0	7	16	23	0	0	0	4	1	5	34
5:45 PM	0	0	0	1	4	5	0	0	0	16	15	31	0	0	0	5	1	6	42
Total	0	0	0	9	6	15	0	0	0	68	69	137	0	0	0	15	2	17	169
Grand Total	0	0	0	13	12	25	0	0	0	98	107	205	0	0	0	26	7	33	263
Approach %	0.0	0.0	0.0	52.0	48.0		0.0	0.0	0.0	47.8	52.2		0.0	0.0	0.0	78.8	21.2		
Total %	0.0	0.0	0.0	4.9	4.6	9.5	0.0	0.0	0.0	37.3	40.7	77.9	0.0	0.0	0.0	9.9	2.7	12.5	
Exiting Leg Total	25						205						33						263

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

5:00 PM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
5:00 PM	0	0	0	2	0	2	0	0	0	23	16	39	0	0	0	2	0	2	43
5:15 PM	0	0	0	1	1	2	0	0	0	22	22	44	0	0	0	4	0	4	50
5:30 PM	0	0	0	5	1	6	0	0	0	7	16	23	0	0	0	4	1	5	34
5:45 PM	0	0	0	1	4	5	0	0	0	16	15	31	0	0	0	5	1	6	42
Total Volume	0	0	0	9	6	15	0	0	0	68	69	137	0	0	0	15	2	17	169
% Approach Total	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	49.6	50.4		0.0	0.0	0.0	88.2	11.8		
PHF	0.000	0.000	0.000	0.450	0.375	0.625	0.000	0.000	0.000	0.739	0.784	0.778	0.000	0.000	0.000	0.750	0.500	0.708	0.845
Entering Leg	0	0	0	9	6	15	0	0	0	68	69	137	0	0	0	15	2	17	169
Exiting Leg	15						137						17						169
Total	30						274						34						338

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	165	31	1	197	41	19	0	60	32	192	0	224	481
11:15 AM	134	29	1	164	43	25	0	68	22	168	0	190	422
11:30 AM	143	23	0	166	32	18	0	50	27	182	0	209	425
11:45 AM	147	30	1	178	53	17	0	70	20	167	0	187	435
Total	589	113	3	705	169	79	0	248	101	709	0	810	1763
12:00 PM	166	33	1	200	45	24	0	69	26	204	0	230	499
12:15 PM	168	27	0	195	49	22	0	71	19	170	0	189	455
12:30 PM	158	26	1	185	28	21	0	49	29	188	0	217	451
12:45 PM	132	31	2	165	44	29	0	73	34	163	0	197	435
Total	624	117	4	745	166	96	0	262	108	725	0	833	1840
1:00 PM	148	32	0	180	40	23	0	63	25	184	0	209	452
1:15 PM	139	29	0	168	37	28	0	65	24	187	0	211	444
1:30 PM	160	26	2	188	28	18	0	46	24	199	0	223	457
1:45 PM	159	34	0	193	42	20	0	62	29	187	0	216	471
Total	606	121	2	729	147	89	0	236	102	757	0	859	1824
Grand Total	1819	351	9	2179	482	264	0	746	311	2191	0	2502	5427
Approach %	83.5	16.1	0.4		64.6	35.4	0.0		12.4	87.6	0.0		
Total %	33.5	6.5	0.2	40.2	8.9	4.9	0.0	13.7	5.7	40.4	0.0	46.1	
Exiting Leg Total	2682				662				2083				5427
Cars	1779	344	9	2132	471	260	0	731	302	2129	0	2431	5294
% Cars	97.8	98.0	100.0	97.8	97.7	98.5	0.0	98.0	97.1	97.2	0.0	97.2	97.5
Exiting Leg Total	2609				646				2039				5294
Heavy Vehicles	40	7	0	47	11	4	0	15	9	62	0	71	133
% Heavy Vehicles	2.2	2.0	0.0	2.2	2.3	1.5	0.0	2.0	2.9	2.8	0.0	2.8	2.5
Exiting Leg Total	73				16				44				133

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:45 AM	147	30	1	178	53	17	0	70	20	167	0	187	435
12:00 PM	166	33	1	200	45	24	0	69	26	204	0	230	499
12:15 PM	168	27	0	195	49	22	0	71	19	170	0	189	455
12:30 PM	158	26	1	185	28	21	0	49	29	188	0	217	451
Total Volume	639	116	3	758	175	84	0	259	94	729	0	823	1840
% Approach Total	84.3	15.3	0.4		67.6	32.4	0.0		11.4	88.6	0.0		
PHF	0.951	0.879	0.750	0.948	0.825	0.875	0.000	0.912	0.810	0.893	0.000	0.895	0.922
Cars	622	113	3	738	173	83	0	256	91	714	0	805	1799
Cars %	97.3	97.4	100.0	97.4	98.9	98.8	0.0	98.8	96.8	97.9	0.0	97.8	97.8
Heavy Vehicles	17	3	0	20	2	1	0	3	3	15	0	18	41
Heavy Vehicles %	2.7	2.6	0.0	2.6	1.1	1.2	0.0	1.2	3.2	2.1	0.0	2.2	2.2
Cars Enter Leg	622	113	3	738	173	83	0	256	91	714	0	805	1799
Heavy Enter Leg	17	3	0	20	2	1	0	3	3	15	0	18	41
Total Entering Leg	639	116	3	758	175	84	0	259	94	729	0	823	1840
Cars Exiting Leg				890				204				705	1799
Heavy Exiting Leg				17				6				18	41
Total Exiting Leg				907				210				723	1840

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	161	30	1	192	41	19	0	60	32	184	0	216	468
11:15 AM	131	29	1	161	42	25	0	67	21	165	0	186	414
11:30 AM	141	23	0	164	31	17	0	48	27	174	0	201	413
11:45 AM	143	30	1	174	51	17	0	68	20	162	0	182	424
Total	576	112	3	691	165	78	0	243	100	685	0	785	1719
12:00 PM	164	33	1	198	45	24	0	69	24	202	0	226	493
12:15 PM	160	24	0	184	49	22	0	71	19	167	0	186	441
12:30 PM	155	26	1	182	28	20	0	48	28	183	0	211	441
12:45 PM	131	31	2	164	42	29	0	71	34	154	0	188	423
Total	610	114	4	728	164	95	0	259	105	706	0	811	1798
1:00 PM	144	31	0	175	39	23	0	62	23	177	0	200	437
1:15 PM	135	29	0	164	35	26	0	61	22	183	0	205	430
1:30 PM	158	24	2	184	28	18	0	46	24	195	0	219	449
1:45 PM	156	34	0	190	40	20	0	60	28	183	0	211	461
Total	593	118	2	713	142	87	0	229	97	738	0	835	1777
Grand Total	1779	344	9	2132	471	260	0	731	302	2129	0	2431	5294
Approach %	83.4	16.1	0.4		64.4	35.6	0.0		12.4	87.6	0.0		
Total %	33.6	6.5	0.2	40.3	8.9	4.9	0.0	13.8	5.7	40.2	0.0	45.9	
Exiting Leg Total	2609				646				2039				5294

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:45 AM	143	30	1	174	51	17	0	68	20	162	0	182	424
12:00 PM	164	33	1	198	45	24	0	69	24	202	0	226	493
12:15 PM	160	24	0	184	49	22	0	71	19	167	0	186	441
12:30 PM	155	26	1	182	28	20	0	48	28	183	0	211	441
Total Volume	622	113	3	738	173	83	0	256	91	714	0	805	1799
% Approach Total	84.3	15.3	0.4		67.6	32.4	0.0		11.3	88.7	0.0		
PHF	0.948	0.856	0.750	0.932	0.848	0.865	0.000	0.901	0.813	0.884	0.000	0.890	0.912
Entering Leg	622	113	3	738	173	83	0	256	91	714	0	805	1799
Exiting Leg				890				204				705	1799
Total				1628				460				1510	3598

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	4	1	0	5	0	0	0	0	0	8	0	8	13
11:15 AM	3	0	0	3	1	0	0	1	1	3	0	4	8
11:30 AM	2	0	0	2	1	1	0	2	0	8	0	8	12
11:45 AM	4	0	0	4	2	0	0	2	0	5	0	5	11
Total	13	1	0	14	4	1	0	5	1	24	0	25	44
12:00 PM	2	0	0	2	0	0	0	0	2	2	0	4	6
12:15 PM	8	3	0	11	0	0	0	0	0	3	0	3	14
12:30 PM	3	0	0	3	0	1	0	1	1	5	0	6	10
12:45 PM	1	0	0	1	2	0	0	2	0	9	0	9	12
Total	14	3	0	17	2	1	0	3	3	19	0	22	42
1:00 PM	4	1	0	5	1	0	0	1	2	7	0	9	15
1:15 PM	4	0	0	4	2	2	0	4	2	4	0	6	14
1:30 PM	2	2	0	4	0	0	0	0	0	4	0	4	8
1:45 PM	3	0	0	3	2	0	0	2	1	4	0	5	10
Total	13	3	0	16	5	2	0	7	5	19	0	24	47
Grand Total	40	7	0	47	11	4	0	15	9	62	0	71	133
Approach %	85.1	14.9	0.0		73.3	26.7	0.0		12.7	87.3	0.0		
Total %	30.1	5.3	0.0	35.3	8.3	3.0	0.0	11.3	6.8	46.6	0.0	53.4	
Exiting Leg Total	73				16				44				133
Large Trucks	19	6	0	25	10	1	0	11	5	38	0	43	79
% Large Trucks	47.5	85.7	0.0	53.2	90.9	25.0	0.0	73.3	55.6	61.3	0.0	60.6	59.4
Exiting Leg Total	48				11				20				79
Buses	21	1	0	22	1	3	0	4	4	24	0	28	54
% Buses	52.5	14.3	0.0	46.8	9.1	75.0	0.0	26.7	44.4	38.7	0.0	39.4	40.6
Exiting Leg Total	25				5				24				54

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
12:15 PM	8	3	0	11	0	0	0	0	0	3	0	3	14
12:30 PM	3	0	0	3	0	1	0	1	1	5	0	6	10
12:45 PM	1	0	0	1	2	0	0	2	0	9	0	9	12
1:00 PM	4	1	0	5	1	0	0	1	2	7	0	9	15
Total Volume	16	4	0	20	3	1	0	4	3	24	0	27	51
% Approach Total	80.0	20.0	0.0		75.0	25.0	0.0		11.1	88.9	0.0		
PHF	0.500	0.333	0.000	0.455	0.375	0.250	0.000	0.500	0.375	0.667	0.000	0.750	0.850
Large Trucks	10	3	0	13	2	0	0	2	2	16	0	18	33
Large Trucks %	62.5	75.0	0.0	65.0	66.7	0.0	0.0	50.0	66.7	66.7	0.0	66.7	64.7
Buses	6	1	0	7	1	1	0	2	1	8	0	9	18
Buses %	37.5	25.0	0.0	35.0	33.3	100.0	0.0	50.0	33.3	33.3	0.0	33.3	35.3
Trucks Enter Leg	10	3	0	13	2	0	0	2	2	16	0	18	33
Bus Enter Leg	6	1	0	7	1	1	0	2	1	8	0	9	18
Total Entering Leg	16	4	0	20	3	1	0	4	3	24	0	27	51
Trucks Exiting Leg				18				5				10	33
Buses Exiting Leg				9				2				7	18
Total Exiting Leg				27				7				17	51

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	2	1	0	3	0	0	0	0	0	5	0	5	8
11:15 AM	1	0	0	1	1	0	0	1	0	3	0	3	5
11:30 AM	1	0	0	1	1	0	0	1	0	4	0	4	6
11:45 AM	1	0	0	1	2	0	0	2	0	3	0	3	6
Total	5	1	0	6	4	0	0	4	0	15	0	15	25
12:00 PM	1	0	0	1	0	0	0	0	1	2	0	3	4
12:15 PM	6	2	0	8	0	0	0	0	0	0	0	0	8
12:30 PM	0	0	0	0	0	0	0	0	1	4	0	5	5
12:45 PM	1	0	0	1	1	0	0	1	0	6	0	6	8
Total	8	2	0	10	1	0	0	1	2	12	0	14	25
1:00 PM	3	1	0	4	1	0	0	1	1	6	0	7	12
1:15 PM	1	0	0	1	2	1	0	3	2	2	0	4	8
1:30 PM	1	2	0	3	0	0	0	0	0	2	0	2	5
1:45 PM	1	0	0	1	2	0	0	2	0	1	0	1	4
Total	6	3	0	9	5	1	0	6	3	11	0	14	29
Grand Total	19	6	0	25	10	1	0	11	5	38	0	43	79
Approach %	76.0	24.0	0.0		90.9	9.1	0.0		11.6	88.4	0.0		
Total %	24.1	7.6	0.0	31.6	12.7	1.3	0.0	13.9	6.3	48.1	0.0	54.4	
Exiting Leg Total	48				11				20				79

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
12:15 PM	6	2	0	8	0	0	0	0	0	0	0	0	8
12:30 PM	0	0	0	0	0	0	0	0	1	4	0	5	5
12:45 PM	1	0	0	1	1	0	0	1	0	6	0	6	8
1:00 PM	3	1	0	4	1	0	0	1	1	6	0	7	12
Total Volume	10	3	0	13	2	0	0	2	2	16	0	18	33
% Approach Total	76.9	23.1	0.0		100.0	0.0	0.0		11.1	88.9	0.0		
PHF	0.417	0.375	0.000	0.406	0.500	0.000	0.000	0.500	0.500	0.667	0.000	0.643	0.688
Entering Leg	10	3	0	13	2	0	0	2	2	16	0	18	33
Exiting Leg				18				5				10	33
Total				31				7				28	66

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
11:15 AM	2	0	0	2	0	0	0	0	1	0	0	1	3
11:30 AM	1	0	0	1	0	1	0	1	0	4	0	4	6
11:45 AM	3	0	0	3	0	0	0	0	0	2	0	2	5
Total	8	0	0	8	0	1	0	1	1	9	0	10	19
12:00 PM	1	0	0	1	0	0	0	0	1	0	0	1	2
12:15 PM	2	1	0	3	0	0	0	0	0	3	0	3	6
12:30 PM	3	0	0	3	0	1	0	1	0	1	0	1	5
12:45 PM	0	0	0	0	1	0	0	1	0	3	0	3	4
Total	6	1	0	7	1	1	0	2	1	7	0	8	17
1:00 PM	1	0	0	1	0	0	0	0	1	1	0	2	3
1:15 PM	3	0	0	3	0	1	0	1	0	2	0	2	6
1:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
1:45 PM	2	0	0	2	0	0	0	0	1	3	0	4	6
Total	7	0	0	7	0	1	0	1	2	8	0	10	18
Grand Total	21	1	0	22	1	3	0	4	4	24	0	28	54
Approach %	95.5	4.5	0.0		25.0	75.0	0.0		14.3	85.7	0.0		
Total %	38.9	1.9	0.0	40.7	1.9	5.6	0.0	7.4	7.4	44.4	0.0	51.9	
Exiting Leg Total	25				5				24				54

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Massachusetts Ave (Rt 2A)				Beech Street				Massachusetts Ave (Rt 2A)				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
11:15 AM	2	0	0	2	0	0	0	0	1	0	0	1	3
11:30 AM	1	0	0	1	0	1	0	1	0	4	0	4	6
11:45 AM	3	0	0	3	0	0	0	0	0	2	0	2	5
Total Volume	8	0	0	8	0	1	0	1	1	9	0	10	19
% Approach Total	100.0	0.0	0.0		0.0	100.0	0.0		10.0	90.0	0.0		
PHF	0.667	0.000	0.000	0.667	0.000	0.250	0.000	0.250	0.250	0.563	0.000	0.625	0.792
Entering Leg	8	0	0	8	0	1	0	1	1	9	0	10	19
Exiting Leg				9				1				9	19
Total				17				2				19	38

PDI File #: **175971 G**
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 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:00 AM	5	0	0	0	0	5	0	0	0	1	0	1	0	8	0	0	0	8	14
11:15 AM	7	0	0	0	0	7	2	1	0	0	0	3	1	7	0	0	0	8	18
11:30 AM	4	0	0	0	0	4	0	1	0	0	0	1	1	16	0	0	0	17	22
11:45 AM	3	0	0	0	0	3	0	4	0	0	0	4	1	9	1	1	0	12	19
Total	19	0	0	0	0	19	2	6	0	1	0	9	3	40	1	1	0	45	73
12:00 PM	5	0	0	0	0	5	0	2	0	0	0	2	2	9	0	0	0	11	18
12:15 PM	8	0	0	0	0	8	3	2	0	1	0	6	1	9	0	0	0	10	24
12:30 PM	9	0	0	0	0	9	1	3	0	0	1	5	2	6	0	0	0	8	22
12:45 PM	7	0	0	0	0	7	0	5	0	0	0	5	0	1	0	0	0	1	13
Total	29	0	0	0	0	29	4	12	0	1	1	18	5	25	0	0	0	30	77
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	8
1:15 PM	6	1	0	0	0	7	1	2	0	1	0	4	3	4	0	0	0	7	18
1:30 PM	1	0	0	0	0	1	1	2	0	0	0	3	1	5	0	0	1	7	11
1:45 PM	7	0	0	0	0	7	0	5	0	0	0	5	1	6	0	0	0	7	19
Total	14	1	0	0	0	15	2	9	0	1	0	12	6	22	0	0	1	29	56
Grand Total	62	1	0	0	0	63	8	27	0	3	1	39	14	87	1	1	1	104	206
Approach %	98.4	1.6	0.0	0.0	0.0		20.5	69.2	0.0	7.7	2.6		13.5	83.7	1.0	1.0	1.0		
Total %	30.1	0.5	0.0	0.0	0.0	30.6	3.9	13.1	0.0	1.5	0.5	18.9	6.8	42.2	0.5	0.5	0.5	50.5	
Exiting Leg Total	95						19						92						206

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:30 AM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:30 AM	4	0	0	0	0	4	0	1	0	0	0	1	1	16	0	0	0	17	22
11:45 AM	3	0	0	0	0	3	0	4	0	0	0	4	1	9	1	1	0	12	19
12:00 PM	5	0	0	0	0	5	0	2	0	0	0	2	2	9	0	0	0	11	18
12:15 PM	8	0	0	0	0	8	3	2	0	1	0	6	1	9	0	0	0	10	24
Total Volume	20	0	0	0	0	20	3	9	0	1	0	13	5	43	1	1	0	50	83
% Approach Total	100.0	0.0	0.0	0.0	0.0		23.1	69.2	0.0	7.7	0.0		10.0	86.0	2.0	2.0	0.0		
PHF	0.625	0.000	0.000	0.000	0.000	0.625	0.250	0.563	0.000	0.250	0.000	0.542	0.625	0.672	0.250	0.250	0.000	0.735	0.865
Entering Leg	20	0	0	0	0	20	3	9	0	1	0	13	5	43	1	1	0	50	83
Exiting Leg	46						6						31						83
Total	66						19						81						166

PDI File #: **175971 G**
 Location: **N: Massachusetts Ave (Rt 2A) S: Massachusetts Ave (Rt 2A)**
 Location: **E: Beech Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:00 AM	0	0	0	6	1	7	0	0	0	14	11	25	0	0	0	3	5	8	40
11:15 AM	0	0	0	0	4	4	0	0	0	13	7	20	0	0	0	6	0	6	30
11:30 AM	0	0	0	1	4	5	0	0	0	16	27	43	0	0	0	3	5	8	56
11:45 AM	0	0	0	2	6	8	0	0	0	15	15	30	0	0	0	6	1	7	45
Total	0	0	0	9	15	24	0	0	0	58	60	118	0	0	0	18	11	29	171
12:00 PM	0	0	0	5	2	7	0	0	0	13	19	32	0	0	0	2	14	16	55
12:15 PM	0	0	0	0	3	3	0	0	0	16	7	23	0	0	0	1	1	2	28
12:30 PM	0	0	0	3	7	10	0	0	0	18	11	29	0	0	0	1	1	2	41
12:45 PM	0	0	0	5	4	9	0	0	0	13	13	26	0	0	0	1	1	2	37
Total	0	0	0	13	16	29	0	0	0	60	50	110	0	0	0	5	17	22	161
1:00 PM	0	0	0	1	0	1	0	0	0	6	15	21	0	0	0	3	3	6	28
1:15 PM	0	0	0	1	0	1	0	0	0	18	20	38	0	0	0	8	4	12	51
1:30 PM	0	0	0	4	1	5	0	0	0	14	12	26	0	0	0	1	3	4	35
1:45 PM	0	0	0	0	1	1	0	0	0	28	7	35	0	0	0	4	2	6	42
Total	0	0	0	6	2	8	0	0	0	66	54	120	0	0	0	16	12	28	156
Grand Total	0	0	0	28	33	61	0	0	0	184	164	348	0	0	0	39	40	79	488
Approach %	0.0	0.0	0.0	45.9	54.1		0.0	0.0	0.0	52.9	47.1		0.0	0.0	0.0	49.4	50.6		
Total %	0.0	0.0	0.0	5.7	6.8	12.5	0.0	0.0	0.0	37.7	33.6	71.3	0.0	0.0	0.0	8.0	8.2	16.2	
Exiting Leg Total	61						348						79						488

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Massachusetts Ave (Rt 2A)						Beech Street						Massachusetts Ave (Rt 2A)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:15 AM	0	0	0	0	4	4	0	0	0	13	7	20	0	0	0	6	0	6	30
11:30 AM	0	0	0	1	4	5	0	0	0	16	27	43	0	0	0	3	5	8	56
11:45 AM	0	0	0	2	6	8	0	0	0	15	15	30	0	0	0	6	1	7	45
12:00 PM	0	0	0	5	2	7	0	0	0	13	19	32	0	0	0	2	14	16	55
Total Volume	0	0	0	8	16	24	0	0	0	57	68	125	0	0	0	17	20	37	186
% Approach Total	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	45.6	54.4		0.0	0.0	0.0	45.9	54.1		
PHF	0.000	0.000	0.000	0.400	0.667	0.750	0.000	0.000	0.000	0.891	0.630	0.727	0.000	0.000	0.000	0.708	0.357	0.578	0.830
Entering Leg	0	0	0	8	16	24	0	0	0	57	68	125	0	0	0	17	20	37	186
Exiting Leg						24						125						37	186
Total						48						250						74	372

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	20	34	0	54	0	0	0	0	0	0	0	0	0	0	5	68	0	0	73	127
7:15 AM	0	26	37	0	63	0	0	0	0	0	0	0	0	0	0	14	92	0	0	106	169
7:30 AM	0	31	18	0	49	0	0	0	0	0	0	0	0	0	0	14	82	0	0	96	145
7:45 AM	0	33	32	0	65	0	0	0	0	0	0	0	0	0	0	21	116	0	0	137	202
Total	0	110	121	0	231	0	0	0	0	0	0	0	0	0	0	54	358	0	0	412	643
8:00 AM	0	44	32	0	76	0	0	0	0	0	0	0	0	0	0	11	115	0	0	126	202
8:15 AM	0	34	26	0	60	0	0	0	0	0	0	0	0	0	0	27	114	0	0	141	201
8:30 AM	0	33	33	0	66	0	0	0	0	0	0	0	0	0	0	19	88	0	0	107	173
8:45 AM	0	26	32	0	58	0	0	0	0	0	0	0	0	0	0	19	115	0	0	134	192
Total	0	137	123	0	260	0	0	0	0	0	0	0	0	0	0	76	432	0	0	508	768
Grand Total	0	247	244	0	491	0	0	0	0	0	0	0	0	0	0	130	790	0	0	920	1411
Approach %	0.0	50.3	49.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.1	85.9	0.0	0.0		
Total %	0.0	17.5	17.3	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	56.0	0.0	0.0	65.2	
Exiting Leg Total	0					1034					377					0					1411
Cars	0	241	223	0	464	0	0	0	0	0	0	0	0	0	0	126	754	0	0	880	1344
% Cars	0.0	97.6	91.4	0.0	94.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.9	95.4	0.0	0.0	95.7	95.3
Exiting Leg Total	0					977					367					0					1344
Heavy Vehicles	0	6	21	0	27	0	0	0	0	0	0	0	0	0	0	4	36	0	0	40	67
% Heavy Vehicles	0.0	2.4	8.6	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	4.6	0.0	0.0	4.3	4.7
Exiting Leg Total	0					57					10					0					67

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

7:45 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	33	32	0	65	0	0	0	0	0	0	0	0	0	0	21	116	0	0	137	202
8:00 AM	0	44	32	0	76	0	0	0	0	0	0	0	0	0	0	11	115	0	0	126	202
8:15 AM	0	34	26	0	60	0	0	0	0	0	0	0	0	0	0	27	114	0	0	141	201
8:30 AM	0	33	33	0	66	0	0	0	0	0	0	0	0	0	0	19	88	0	0	107	173
Total Volume	0	144	123	0	267	0	0	0	0	0	0	0	0	0	0	78	433	0	0	511	778
% Approach Total	0.0	53.9	46.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		15.3	84.7	0.0	0.0		
PHF	0.000	0.818	0.932	0.000	0.878	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.722	0.933	0.000	0.000	0.906	0.963
Cars	0	142	112	0	254	0	0	0	0	0	0	0	0	0	0	76	414	0	0	490	744
Cars %	0.0	98.6	91.1	0.0	95.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.4	95.6	0.0	0.0	95.9	95.6
Heavy Vehicles	0	2	11	0	13	0	0	0	0	0	0	0	0	0	0	2	19	0	0	21	34
Heavy Vehicles %	0.0	1.4	8.9	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	4.4	0.0	0.0	4.1	4.4
Cars Enter Leg	0	142	112	0	254	0	0	0	0	0	0	0	0	0	0	76	414	0	0	490	744
Heavy Enter Leg	0	2	11	0	13	0	0	0	0	0	0	0	0	0	0	2	19	0	0	21	34
Total Entering Leg	0	144	123	0	267	0	0	0	0	0	0	0	0	0	0	78	433	0	0	511	778
Cars Exiting Leg	0					526					218					0					744
Heavy Exiting Leg	0					30					4					0					34
Total Exiting Leg	0					556					222					0					778

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	19	31	0	50	0	0	0	0	0	0	0	0	0	0	5	65	0	0	70	120
7:15 AM	0	23	34	0	57	0	0	0	0	0	0	0	0	0	0	14	87	0	0	101	158
7:30 AM	0	31	17	0	48	0	0	0	0	0	0	0	0	0	0	13	77	0	0	90	138
7:45 AM	0	33	28	0	61	0	0	0	0	0	0	0	0	0	0	20	109	0	0	129	190
Total	0	106	110	0	216	0	0	0	0	0	0	0	0	0	0	52	338	0	0	390	606
8:00 AM	0	43	29	0	72	0	0	0	0	0	0	0	0	0	0	11	112	0	0	123	195
8:15 AM	0	33	25	0	58	0	0	0	0	0	0	0	0	0	0	27	110	0	0	137	195
8:30 AM	0	33	30	0	63	0	0	0	0	0	0	0	0	0	0	18	83	0	0	101	164
8:45 AM	0	26	29	0	55	0	0	0	0	0	0	0	0	0	0	18	111	0	0	129	184
Total	0	135	113	0	248	0	0	0	0	0	0	0	0	0	0	74	416	0	0	490	738
Grand Total	0	241	223	0	464	0	0	0	0	0	0	0	0	0	0	126	754	0	0	880	1344
Approach %	0.0	51.9	48.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0		
Total %	0.0	17.9	16.6	0.0	34.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		9.4	56.1	0.0	0.0	65.5	
Exiting Leg Total	0					977					367					0					1344

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

7:45 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	33	28	0	61	0	0	0	0	0	0	0	0	0	0	20	109	0	0	129	190
8:00 AM	0	43	29	0	72	0	0	0	0	0	0	0	0	0	0	11	112	0	0	123	195
8:15 AM	0	33	25	0	58	0	0	0	0	0	0	0	0	0	0	27	110	0	0	137	195
8:30 AM	0	33	30	0	63	0	0	0	0	0	0	0	0	0	0	18	83	0	0	101	164
Total Volume	0	142	112	0	254	0	0	0	0	0	0	0	0	0	0	76	414	0	0	490	744
% Approach Total	0.0	55.9	44.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		15.5	84.5	0.0	0.0		
PHF	0.000	0.826	0.933	0.000	0.882	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.704	0.924	0.000	0.000	0.894	0.954
Entering Leg	0	142	112	0	254	0	0	0	0	0	0	0	0	0	0	76	414	0	0	490	744
Exiting Leg	0					526					218					0					744
Total	254					526					218					490					1488

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	7
7:15 AM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	11
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	7
7:45 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	12
Total	0	4	11	0	15	0	0	0	0	0	0	0	0	0	0	2	20	0	0	0	22	37
8:00 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	7
8:15 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	6
8:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	9
8:45 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	5	8
Total	0	2	10	0	12	0	0	0	0	0	0	0	0	0	0	2	16	0	0	0	18	30
Grand Total	0	6	21	0	27	0	0	0	0	0	0	0	0	0	0	4	36	0	0	0	40	67
Approach %	0.0	22.2	77.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0			
Total %	0.0	9.0	31.3	0.0	40.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	53.7	0.0	0.0	59.7		
Exiting Leg Total	0					57					10					0					67	
Large Trucks	0	5	5	0	10	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	25	35
% Large Trucks	0.0	83.3	23.8	0.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.4	0.0	0.0	62.5	52.2	
Exiting Leg Total	0					30					5					0					35	
Buses	0	1	16	0	17	0	0	0	0	0	0	0	0	0	0	4	11	0	0	15	32	
% Buses	0.0	16.7	76.2	0.0	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	30.6	0.0	0.0	37.5	47.8	
Exiting Leg Total	0					27					5					0					32	

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

7:00 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	7
7:15 AM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	11
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	7
7:45 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	12
Total Volume	0	4	11	0	15	0	0	0	0	0	0	0	0	0	0	2	20	0	0	0	22	37
% Approach Total	0.0	26.7	73.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0			
PHF	0.000	0.333	0.688	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.714	0.000	0.000	0.688	0.771	
Large Trucks	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	18
Large Trucks %	0.0	100.0	9.1	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.0	0.0	59.1	48.6
Buses	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	9	19
Buses %	0.0	0.0	90.9	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	35.0	0.0	0.0	0.0	40.9	51.4
Trucks Enter Leg	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13	18
Bus Enter Leg	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	9	19
Total Entering Leg	0	4	11	0	15	0	0	0	0	0	0	0	0	0	0	2	20	0	0	0	22	37
Trucks Exiting Leg	0					14					4					0					18	
Buses Exiting Leg	0					17					2					0					19	
Total Exiting Leg	0					31					6					0					37	

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
7:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	6
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5
Total	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	18
8:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
8:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4
Total	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	17
Grand Total	0	5	5	0	10	0	0	0	0	0	0	0	0	0	0	0	25	0	0	25	35
Approach %	0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	14.3	14.3	0.0	28.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.4	0.0	0.0	71.4	
Exiting Leg Total	0					30					5					0					35

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

7:15 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue						
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	6
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5
8:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5
Total Volume	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	20
% Approach Total	0.0	50.0	50.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0			
PHF	0.000	0.250	0.375	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.875	0.000	0.000	0.875	0.833	
Entering Leg	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	20	
Exiting Leg	0					17					3					0					20	
Total	6					17					3					14					40	

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4
7:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
7:45 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	7
Total	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	19
8:00 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
8:30 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
8:45 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
Total	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	13
Grand Total	0	1	16	0	17	0	0	0	0	0	0	0	0	0	0	0	4	11	0	0	15	32
Approach %	0.0	5.9	94.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		26.7	73.3	0.0	0.0			
Total %	0.0	3.1	50.0	0.0	53.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	34.4	0.0	0.0	46.9		
Exiting Leg Total	0					27					5					0					32	

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

7:00 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total		
	from North					from East					from South					from West							
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total			
7:00 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4	
7:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5	
7:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3	
7:45 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	7	
Total Volume	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	19	
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	22.2	77.8	0.0	0.0			
PHF	0.000	0.000	0.833	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.583	0.000	0.000	0.563	0.679		
Entering Leg	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	19		
Exiting Leg	0					17					2					0					19		
Total	10					17					2					9					38		

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	0	7	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
8:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	10
Grand Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0	16	17
Approach %	0.0	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		6.3	93.8	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	5.9	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	88.2	0.0	0.0	0.0	0.0	94.1	
Exiting Leg Total	0							16							1							0							17

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

7:30 AM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.000	0.000	0.000	0.650	0.650
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
Exiting Leg	0							13							0							0							13
Total	0							13							0							13							26

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Pedestrians

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	2	0	2	8	
7:30 AM	0	0	0	0	3	1	4	0	0	0	0	1	6	7	0	0	0	0	1	0	1	0	0	0	2	0	2	14	
7:45 AM	0	0	0	0	6	0	6	0	0	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0	5	1	6	21	
Total	0	0	0	0	13	1	14	0	0	0	0	9	12	21	0	0	0	0	2	0	2	0	0	0	9	1	10	47	
8:00 AM	0	0	0	0	2	0	2	0	0	0	0	1	12	13	0	0	0	0	0	2	2	0	0	0	0	1	2	3	20
8:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	7	8	0	0	0	0	2	0	2	0	0	0	0	6	2	8	20
8:30 AM	0	0	0	0	2	0	2	0	0	0	0	7	8	15	0	0	0	0	1	1	2	0	0	0	0	1	0	1	20
8:45 AM	0	0	0	0	1	2	3	0	0	0	0	3	3	6	0	0	0	0	1	1	2	0	0	0	0	3	0	3	14
Total	0	0	0	0	6	3	9	0	0	0	0	12	30	42	0	0	0	0	4	4	8	0	0	0	0	11	4	15	74
Grand Total	0	0	0	0	19	4	23	0	0	0	0	21	42	63	0	0	0	0	6	4	10	0	0	0	0	20	5	25	121
Approach %	0.0	0.0	0.0	0.0	82.6	17.4		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	80.0	20.0		
Total %	0.0	0.0	0.0	0.0	15.7	3.3	19.0	0.0	0.0	0.0	0.0	17.4	34.7	52.1	0.0	0.0	0.0	0.0	5.0	3.3	8.3	0.0	0.0	0.0	0.0	16.5	4.1	20.7	
Exiting Leg Total	23							63							10							25							121

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

7:45 AM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	0	0	0	6	0	6	0	0	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0	0	5	1	6	21
8:00 AM	0	0	0	0	2	0	2	0	0	0	0	1	12	13	0	0	0	0	0	2	2	0	0	0	0	1	2	3	20
8:15 AM	0	0	0	0	1	1	2	0	0	0	0	1	7	8	0	0	0	0	2	0	2	0	0	0	0	6	2	8	20
8:30 AM	0	0	0	0	2	0	2	0	0	0	0	7	8	15	0	0	0	0	1	1	2	0	0	0	0	1	0	1	20
Total Volume	0	0	0	0	11	1	12	0	0	0	0	12	33	45	0	0	0	0	3	3	6	0	0	0	0	13	5	18	81
% Approach Total	0.0	0.0	0.0	0.0	91.7	8.3		0.0	0.0	0.0	0.0	26.7	73.3		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	72.2	27.8		
PHF	0.000	0.000	0.000	0.000	0.458	0.250	0.500	0.000	0.000	0.000	0.000	0.429	0.688	0.750	0.000	0.000	0.000	0.000	0.375	0.375	0.750	0.000	0.000	0.000	0.000	0.542	0.625	0.563	0.964
Entering Leg	0	0	0	0	11	1	12	0	0	0	0	12	33	45	0	0	0	0	3	3	6	0	0	0	0	13	5	18	81
Exiting Leg	12							45							6							18							81
Total	24							90							12							36							162

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Cars and Heavy Vehicles (Combined)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	29	34	0	63	0	0	0	0	0	0	0	0	0	0	18	136	0	0	154	217
4:15 PM	0	23	30	0	53	0	0	0	0	0	0	0	0	0	0	14	161	0	0	175	228
4:30 PM	0	30	28	0	58	0	0	0	0	0	0	0	0	0	0	19	165	0	0	184	242
4:45 PM	0	26	33	0	59	0	0	0	0	0	1	0	0	0	1	29	142	0	0	171	231
Total	0	108	125	0	233	0	0	0	0	0	1	0	0	0	1	80	604	0	0	684	918
5:00 PM	0	26	43	0	69	0	0	0	0	0	0	0	0	0	0	26	162	0	0	188	257
5:15 PM	0	23	28	0	51	0	0	0	0	0	0	0	0	0	0	19	164	0	0	183	234
5:30 PM	0	41	43	0	84	0	0	1	0	1	0	0	0	0	0	21	173	0	0	194	279
5:45 PM	0	24	42	0	66	0	0	0	0	0	0	0	0	0	0	22	148	0	0	170	236
Total	0	114	156	0	270	0	0	1	0	1	0	0	0	0	0	88	647	0	0	735	1006
Grand Total	0	222	281	0	503	0	0	1	0	1	1	0	0	0	1	168	1251	0	0	1419	1924
Approach %	0.0	44.1	55.9	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		11.8	88.2	0.0	0.0		
Total %	0.0	11.5	14.6	0.0	26.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	8.7	65.0	0.0	0.0	73.8	
Exiting Leg Total	0					1533					391					0					1924
Cars	0	219	266	0	485	0	0	1	0	1	1	0	0	0	1	165	1225	0	0	1390	1877
% Cars	0.0	98.6	94.7	0.0	96.4	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	98.2	97.9	0.0	0.0	98.0	97.6
Exiting Leg Total	0					1492					385					0					1877
Heavy Vehicles	0	3	15	0	18	0	0	0	0	0	0	0	0	0	0	3	26	0	0	29	47
% Heavy Vehicles	0.0	1.4	5.3	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.1	0.0	0.0	2.0	2.4
Exiting Leg Total	0					41					6					0					47

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

5:00 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	26	43	0	69	0	0	0	0	0	0	0	0	0	0	26	162	0	0	188	257
5:15 PM	0	23	28	0	51	0	0	0	0	0	0	0	0	0	0	19	164	0	0	183	234
5:30 PM	0	41	43	0	84	0	0	1	0	1	0	0	0	0	0	21	173	0	0	194	279
5:45 PM	0	24	42	0	66	0	0	0	0	0	0	0	0	0	0	22	148	0	0	170	236
Total Volume	0	114	156	0	270	0	0	1	0	1	0	0	0	0	0	88	647	0	0	735	1006
% Approach Total	0.0	42.2	57.8	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		12.0	88.0	0.0	0.0		
PHF	0.000	0.695	0.907	0.000	0.804	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.846	0.935	0.000	0.000	0.947	0.901
Cars	0	112	148	0	260	0	0	1	0	1	0	0	0	0	0	87	633	0	0	720	981
Cars %	0.0	98.2	94.9	0.0	96.3	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	98.9	97.8	0.0	0.0	98.0	97.5
Heavy Vehicles	0	2	8	0	10	0	0	0	0	0	0	0	0	0	0	1	14	0	0	15	25
Heavy Vehicles %	0.0	1.8	5.1	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.2	0.0	0.0	2.0	2.5
Cars Enter Leg	0	112	148	0	260	0	0	1	0	1	0	0	0	0	0	87	633	0	0	720	981
Heavy Enter Leg	0	2	8	0	10	0	0	0	0	0	0	0	0	0	0	1	14	0	0	15	25
Total Entering Leg	0	114	156	0	270	0	0	1	0	1	0	0	0	0	0	88	647	0	0	735	1006
Cars Exiting Leg	0					781					200					0					981
Heavy Exiting Leg	0					22					3					0					25
Total Exiting Leg	0					803					203					0					1006

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	29	32	0	61	0	0	0	0	0	0	0	0	0	0	18	132	0	0	150	211
4:15 PM	0	23	28	0	51	0	0	0	0	0	0	0	0	0	0	14	158	0	0	172	223
4:30 PM	0	29	25	0	54	0	0	0	0	0	0	0	0	0	0	17	162	0	0	179	233
4:45 PM	0	26	33	0	59	0	0	0	0	0	1	0	0	0	1	29	140	0	0	169	229
Total	0	107	118	0	225	0	0	0	0	0	1	0	0	0	1	78	592	0	0	670	896
5:00 PM	0	26	42	0	68	0	0	0	0	0	0	0	0	0	0	26	157	0	0	183	251
5:15 PM	0	23	26	0	49	0	0	0	0	0	0	0	0	0	0	19	161	0	0	180	229
5:30 PM	0	39	38	0	77	0	0	1	0	1	0	0	0	0	0	21	171	0	0	192	270
5:45 PM	0	24	42	0	66	0	0	0	0	0	0	0	0	0	0	21	144	0	0	165	231
Total	0	112	148	0	260	0	0	1	0	1	0	0	0	0	0	87	633	0	0	720	981
Grand Total	0	219	266	0	485	0	0	1	0	1	1	0	0	0	1	165	1225	0	0	1390	1877
Approach %	0.0	45.2	54.8	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		11.9	88.1	0.0	0.0		
Total %	0.0	11.7	14.2	0.0	25.8	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1		8.8	65.3	0.0	0.0	74.1	
Exiting Leg Total	0					1492					385					0					1877

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

5:00 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	26	42	0	68	0	0	0	0	0	0	0	0	0	0	26	157	0	0	183	251
5:15 PM	0	23	26	0	49	0	0	0	0	0	0	0	0	0	0	19	161	0	0	180	229
5:30 PM	0	39	38	0	77	0	0	1	0	1	0	0	0	0	0	21	171	0	0	192	270
5:45 PM	0	24	42	0	66	0	0	0	0	0	0	0	0	0	0	21	144	0	0	165	231
Total Volume	0	112	148	0	260	0	0	1	0	1	0	0	0	0	0	87	633	0	0	720	981
% Approach Total	0.0	43.1	56.9	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		12.1	87.9	0.0	0.0		
PHF	0.000	0.718	0.881	0.000	0.844	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.837	0.925	0.000	0.000	0.938	0.908
Entering Leg	0	112	148	0	260	0	0	1	0	1	0	0	0	0	0	87	633	0	0	720	981
Exiting Leg	0					781					200					0					981
Total	260					782					200					720					1962

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	6
4:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	5
4:30 PM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	1	7	0	8	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	14	22
5:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	6
5:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	5
5:30 PM	0	2	5	0	7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	9
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	5	5
Total	0	2	8	0	10	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	15	25
Grand Total	0	3	15	0	18	0	0	0	0	0	0	0	0	0	0	3	26	0	0	0	29	47
Approach %	0.0	16.7	83.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		10.3	89.7	0.0	0.0			
Total %	0.0	6.4	31.9	0.0	38.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	55.3	0.0	0.0		61.7	
Exiting Leg Total	0					41					6					0					47	
Large Trucks	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	11	15
% Large Trucks	0.0	33.3	20.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	38.5	0.0	0.0		37.9	31.9
Exiting Leg Total	0					13					2					0					15	
Buses	0	2	12	0	14	0	0	0	0	0	0	0	0	0	0	2	16	0	0	0	18	32
% Buses	0.0	66.7	80.0	0.0	77.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	61.5	0.0	0.0		62.1	68.1
Exiting Leg Total	0					28					4					0					32	

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

4:00 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	6
4:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	5
4:30 PM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	5	9
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total Volume	0	1	7	0	8	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	14	22
% Approach Total	0.0	12.5	87.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0			
PHF	0.000	0.250	0.583	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.700	0.611	
Large Trucks	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	9
Large Trucks %	0.0	100.0	28.6	0.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	41.7	0.0	0.0	0.0	42.9	40.9
Buses	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	13
Buses %	0.0	0.0	71.4	0.0	62.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	58.3	0.0	0.0	0.0	57.1	59.1
Trucks Enter Leg	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	9
Bus Enter Leg	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	13
Total Entering Leg	0	1	7	0	8	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	14	22
Trucks Exiting Leg	0					7					2					0					9	
Buses Exiting Leg	0					12					1					0					13	
Total Exiting Leg	0					19					3					0					22	

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	
Grand Total	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	
Approach %	0.0	25.0	75.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		9.1	90.9	0.0	0.0		
Total %	0.0	6.7	20.0	0.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	66.7	0.0	0.0	73.3	
Exiting Leg Total	0					13					2					0					

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

4:00 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
4:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	9
% Approach Total	0.0	33.3	66.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	16.7	83.3	0.0	0.0		
PHF	0.000	0.250	0.500	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.500	0.563	
Entering Leg	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	9	
Exiting Leg	0					7					2					0					9	
Total	3					7					2					6					18	

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
4:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	13
5:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
5:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5
5:30 PM	0	2	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	4
Total	0	2	7	0	9	0	0	0	0	0	0	0	0	0	0	0	1	9	0	0	10	19
Grand Total	0	2	12	0	14	0	0	0	0	0	0	0	0	0	0	0	2	16	0	0	18	32
Approach %	0.0	14.3	85.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		11.1	88.9	0.0	0.0			
Total %	0.0	6.3	37.5	0.0	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	50.0	0.0	0.0	56.3		
Exiting Leg Total	0					28					4					0					32	

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

4:00 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
4:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3
4:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total Volume	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	13
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0			
PHF	0.000	0.000	0.625	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.875	0.000	0.000	0.667	0.650	
Entering Leg	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	13	
Exiting Leg	0					12					1					0					13	
Total	5					12					1					8					26	

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	7
4:15 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4
4:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4
Total	0	1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	9	0	0	0	0	9	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
5:15 PM	0	1	0	0	1	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	10	0	0	0	0	10	13
5:30 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	10
5:45 PM	0	2	2	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	11	0	0	0	0	12	19
Total	0	6	2	0	2	0	10	0	0	0	0	0	1	1	0	0	0	0	0	2	2	1	38	0	0	0	0	39	52
Grand Total	0	7	8	0	2	0	17	0	0	0	0	0	1	1	0	0	0	0	0	3	3	1	47	0	0	0	0	48	69
Approach %	0.0	41.2	47.1	0.0	11.8	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		2.1	97.9	0.0	0.0	0.0	0.0		
Total %	0.0	10.1	11.6	0.0	2.9	0.0	24.6	0.0	0.0	0.0	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	0.0	4.3	4.3	1.4	68.1	0.0	0.0	0.0	0.0	69.6	
Exiting Leg Total	2							56							11							0							69

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

5:00 PM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
5:15 PM	0	1	0	0	1	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
5:30 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
5:45 PM	0	2	2	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	11	0	0	0	0	0	12
Total Volume	0	6	2	0	2	0	10	0	0	0	0	0	1	1	0	0	0	0	0	2	2	1	38	0	0	0	0	0	39
% Approach Total	0.0	60.0	20.0	0.0	20.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		2.6	97.4	0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.250	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.864	0.000	0.000	0.000	0.000	0.813	0.684	
Entering Leg	0	6	2	0	2	0	10	0	0	0	0	0	1	1	0	0	0	0	0	2	2	1	38	0	0	0	0	39	
Exiting Leg	2							41							9							0							
Total	12							42							11							39							

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	4	1	5	0	0	0	0	4	1	5	0	0	0	0	4	0	4	0	0	0	0	0	1	1	15
4:15 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	5
4:30 PM	0	0	0	0	0	1	1	0	0	0	0	9	9	18	0	0	0	0	1	3	4	0	0	0	0	0	3	3	26
4:45 PM	0	0	0	0	4	3	7	0	0	0	0	7	8	15	0	0	0	0	1	4	5	0	0	0	0	0	2	2	29
Total	0	0	0	0	8	7	15	0	0	0	0	20	18	38	0	0	0	0	7	8	15	0	0	0	0	0	7	7	75
5:00 PM	0	0	0	0	5	5	10	0	0	0	0	6	12	18	0	0	0	0	4	8	12	0	0	0	0	5	2	7	47
5:15 PM	0	0	0	0	4	0	4	0	0	0	0	4	10	14	0	0	0	0	3	6	9	0	0	0	0	4	2	6	33
5:30 PM	0	0	0	0	9	2	11	0	0	0	0	8	9	17	0	0	0	0	1	1	2	0	0	0	0	3	1	4	34
5:45 PM	0	0	0	0	4	0	4	0	0	0	0	8	16	24	0	0	0	0	2	10	12	0	0	0	0	4	0	4	44
Total	0	0	0	0	22	7	29	0	0	0	0	26	47	73	0	0	0	0	10	25	35	0	0	0	0	16	5	21	158
Grand Total	0	0	0	0	30	14	44	0	0	0	0	46	65	111	0	0	0	0	17	33	50	0	0	0	0	16	12	28	233
Approach %	0.0	0.0	0.0	0.0	68.2	31.8		0.0	0.0	0.0	0.0	41.4	58.6		0.0	0.0	0.0	0.0	34.0	66.0		0.0	0.0	0.0	0.0	57.1	42.9		
Total %	0.0	0.0	0.0	0.0	12.9	6.0	18.9	0.0	0.0	0.0	0.0	19.7	27.9	47.6	0.0	0.0	0.0	0.0	7.3	14.2	21.5	0.0	0.0	0.0	0.0	6.9	5.2	12.0	
Exiting Leg Total	44							111							50							28							233

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

5:00 PM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	5	5	10	0	0	0	0	6	12	18	0	0	0	0	4	8	12	0	0	0	0	5	2	7	47
5:15 PM	0	0	0	0	4	0	4	0	0	0	0	4	10	14	0	0	0	0	3	6	9	0	0	0	0	4	2	6	33
5:30 PM	0	0	0	0	9	2	11	0	0	0	0	8	9	17	0	0	0	0	1	1	2	0	0	0	0	3	1	4	34
5:45 PM	0	0	0	0	4	0	4	0	0	0	0	8	16	24	0	0	0	0	2	10	12	0	0	0	0	4	0	4	44
Total Volume	0	0	0	0	22	7	29	0	0	0	0	26	47	73	0	0	0	0	10	25	35	0	0	0	0	16	5	21	158
% Approach Total	0.0	0.0	0.0	0.0	75.9	24.1		0.0	0.0	0.0	0.0	35.6	64.4		0.0	0.0	0.0	0.0	28.6	71.4		0.0	0.0	0.0	0.0	76.2	23.8		
PHF	0.000	0.000	0.000	0.000	0.611	0.350	0.659	0.000	0.000	0.000	0.000	0.813	0.734	0.760	0.000	0.000	0.000	0.000	0.625	0.625	0.729	0.000	0.000	0.000	0.000	0.800	0.625	0.750	0.840
Entering Leg	0	0	0	0	22	7	29	0	0	0	0	26	47	73	0	0	0	0	10	25	35	0	0	0	0	16	5	21	158
Exiting Leg	29							73							35							21							158
Total	58							146							70							42							316

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	29	27	0	56	0	0	0	0	0	0	0	0	0	0	20	108	2	0	130	186
11:15 AM	0	31	46	0	77	0	0	0	0	0	0	0	0	0	0	15	120	0	0	135	212
11:30 AM	1	28	51	0	80	0	0	0	0	0	0	0	0	0	0	27	109	0	0	136	216
11:45 AM	0	27	45	0	72	0	0	0	0	0	0	0	0	0	0	28	113	0	0	141	213
Total	1	115	169	0	285	0	0	0	0	0	0	0	0	0	0	90	450	2	0	542	827
12:00 PM	0	27	65	0	92	0	0	0	0	0	0	0	0	0	0	22	114	0	0	136	228
12:15 PM	0	23	40	0	63	0	0	0	0	0	0	0	0	0	0	9	122	0	0	131	194
12:30 PM	0	33	45	0	78	0	0	0	0	0	0	0	0	0	0	16	138	0	0	154	232
12:45 PM	0	34	36	0	70	0	0	0	0	0	1	0	0	0	1	34	141	0	0	175	246
Total	0	117	186	0	303	0	0	0	0	0	1	0	0	0	1	81	515	0	0	596	900
1:00 PM	0	22	41	0	63	0	0	0	0	0	0	0	0	0	0	17	124	0	0	141	204
1:15 PM	0	28	48	0	76	0	0	0	0	0	0	0	0	0	0	21	128	0	0	149	225
1:30 PM	0	24	46	0	70	0	0	0	0	0	0	0	0	0	0	23	101	0	0	124	194
1:45 PM	0	23	34	0	57	0	0	0	0	0	0	0	0	0	0	19	134	0	0	153	210
Total	0	97	169	0	266	0	0	0	0	0	0	0	0	0	0	80	487	0	0	567	833
Grand Total	1	329	524	0	854	0	0	0	0	0	1	0	0	0	1	251	1452	2	0	1705	2560
Approach %	0.1	38.5	61.4	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		14.7	85.2	0.1	0.0		
Total %	0.0	12.9	20.5	0.0	33.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	56.7	0.1	0.0	66.6	
Exiting Leg Total	2					1977					580					1					2560
Cars	1	328	507	0	836	0	0	0	0	0	1	0	0	0	1	248	1423	1	0	1672	2509
% Cars	100.0	99.7	96.8	0.0	97.9	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	98.8	98.0	50.0	0.0	98.1	98.0
Exiting Leg Total	1					1931					576					1					2509
Heavy Vehicles	0	1	17	0	18	0	0	0	0	0	0	0	0	0	0	3	29	1	0	33	51
% Heavy Vehicles	0.0	0.3	3.2	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.0	50.0	0.0	1.9	2.0
Exiting Leg Total	1					46					4					0					51

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	33	45	0	78	0	0	0	0	0	0	0	0	0	0	16	138	0	0	154	232
12:45 PM	0	34	36	0	70	0	0	0	0	0	1	0	0	0	1	34	141	0	0	175	246
1:00 PM	0	22	41	0	63	0	0	0	0	0	0	0	0	0	0	17	124	0	0	141	204
1:15 PM	0	28	48	0	76	0	0	0	0	0	0	0	0	0	0	21	128	0	0	149	225
Total Volume	0	117	170	0	287	0	0	0	0	0	1	0	0	0	1	88	531	0	0	619	907
% Approach Total	0.0	40.8	59.2	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		14.2	85.8	0.0	0.0		
PHF	0.000	0.860	0.885	0.000	0.920	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.647	0.941	0.000	0.000	0.884	0.922
Cars	0	117	164	0	281	0	0	0	0	0	1	0	0	0	1	87	521	0	0	608	890
Cars %	0.0	100.0	96.5	0.0	97.9	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	98.9	98.1	0.0	0.0	98.2	98.1
Heavy Vehicles	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	17
Heavy Vehicles %	0.0	0.0	3.5	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.9	0.0	0.0	1.8	1.9
Cars Enter Leg	0	117	164	0	281	0	0	0	0	0	1	0	0	0	1	87	521	0	0	608	890
Heavy Enter Leg	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	17
Total Entering Leg	0	117	170	0	287	0	0	0	0	0	1	0	0	0	1	88	531	0	0	619	907
Cars Exiting Leg	0					686					204					0					890
Heavy Exiting Leg	0					16					1					0					17
Total Exiting Leg	0					702					205					0					907

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	29	25	0	54	0	0	0	0	0	0	0	0	0	0	19	106	1	0	126	180
11:15 AM	0	31	42	0	73	0	0	0	0	0	0	0	0	0	0	15	116	0	0	131	204
11:30 AM	1	28	51	0	80	0	0	0	0	0	0	0	0	0	0	27	107	0	0	134	214
11:45 AM	0	27	45	0	72	0	0	0	0	0	0	0	0	0	0	28	112	0	0	140	212
Total	1	115	163	0	279	0	0	0	0	0	0	0	0	0	0	89	441	1	0	531	810
12:00 PM	0	27	61	0	88	0	0	0	0	0	0	0	0	0	0	21	110	0	0	131	219
12:15 PM	0	23	39	0	62	0	0	0	0	0	0	0	0	0	0	9	120	0	0	129	191
12:30 PM	0	33	45	0	78	0	0	0	0	0	0	0	0	0	0	16	137	0	0	153	231
12:45 PM	0	34	36	0	70	0	0	0	0	0	1	0	0	0	1	33	138	0	0	171	242
Total	0	117	181	0	298	0	0	0	0	0	1	0	0	0	1	79	505	0	0	584	883
1:00 PM	0	22	39	0	61	0	0	0	0	0	0	0	0	0	0	17	121	0	0	138	199
1:15 PM	0	28	44	0	72	0	0	0	0	0	0	0	0	0	0	21	125	0	0	146	218
1:30 PM	0	24	46	0	70	0	0	0	0	0	0	0	0	0	0	23	101	0	0	124	194
1:45 PM	0	22	34	0	56	0	0	0	0	0	0	0	0	0	0	19	130	0	0	149	205
Total	0	96	163	0	259	0	0	0	0	0	0	0	0	0	0	80	477	0	0	557	816
Grand Total	1	328	507	0	836	0	0	0	0	0	1	0	0	0	1	248	1423	1	0	1672	2509
Approach %	0.1	39.2	60.6	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		14.8	85.1	0.1	0.0		
Total %	0.0	13.1	20.2	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9	56.7	0.0	0.0	66.6	
Exiting Leg Total	1					1931					576					1					2509

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	33	45	0	78	0	0	0	0	0	0	0	0	0	0	16	137	0	0	153	231
12:45 PM	0	34	36	0	70	0	0	0	0	0	1	0	0	0	1	33	138	0	0	171	242
1:00 PM	0	22	39	0	61	0	0	0	0	0	0	0	0	0	0	17	121	0	0	138	199
1:15 PM	0	28	44	0	72	0	0	0	0	0	0	0	0	0	0	21	125	0	0	146	218
Total Volume	0	117	164	0	281	0	0	0	0	0	1	0	0	0	1	87	521	0	0	608	890
% Approach Total	0.0	41.6	58.4	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0		
PHF	0.000	0.860	0.911	0.000	0.901	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.659	0.944	0.000	0.000	0.889	0.919
Entering Leg	0	117	164	0	281	0	0	0	0	0	1	0	0	0	1	87	521	0	0	608	890
Exiting Leg					0					686					204					0	890
Total					281					686					205					608	1780

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	6
11:15 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	8
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	1	9	1	0	11	17
12:00 PM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	9
12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	4
Total	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	2	10	0	0	12	17
1:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5
1:15 PM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	7
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	5
Total	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	17
Grand Total	0	1	17	0	18	0	0	0	0	0	0	0	0	0	0	3	29	1	0	33	51
Approach %	0.0	5.6	94.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		9.1	87.9	3.0	0.0		
Total %	0.0	2.0	33.3	0.0	35.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	56.9	2.0	0.0	64.7	
Exiting Leg Total	1					46					4					0					51
Large Trucks	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	3	15	0	0	18	25
% Large Trucks	0.0	100.0	35.3	0.0	38.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	51.7	0.0	0.0	54.5	49.0
Exiting Leg Total	0					21					4					0					25
Buses	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	14	1	0	15	26
% Buses	0.0	0.0	64.7	0.0	61.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.3	100.0	0.0	45.5	51.0
Exiting Leg Total	1					25					0					0					26

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	8
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:00 PM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	9
Total Volume	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	1	11	0	0	12	20
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		8.3	91.7	0.0	0.0		
PHF	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.688	0.000	0.000	0.600	0.556
Large Trucks	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	10
Large Trucks %	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	45.5	0.0	0.0	50.0	50.0
Buses	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	10
Buses %	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.5	0.0	0.0	50.0	50.0
Trucks Enter Leg	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	10
Bus Enter Leg	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	10
Total Entering Leg	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	1	11	0	0	12	20
Trucks Exiting Leg	0					9					1					0					10
Buses Exiting Leg	0					10					0					0					10
Total Exiting Leg	0					19					1					0					20

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
11:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	8
12:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	3
Total	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	10
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3
Total	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	7
Grand Total	0	1	6	0	7	0	0	0	0	0	0	0	0	0	0	3	15	0	0	18	25
Approach %	0.0	14.3	85.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0		
Total %	0.0	4.0	24.0	0.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	60.0	0.0	0.0	72.0	
Exiting Leg Total	0					21					4					0					25

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	5
Total Volume	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	10
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0		
PHF	0.000	0.000	0.333	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.375	0.500
Entering Leg	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	10
Exiting Leg	0					9					1					0					10
Total	4					9					1					6					20

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
11:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
11:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	7	9
12:00 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
12:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	7
1:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
1:15 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
1:30 PM	0	0	0	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	2	0	0	2	2
Total	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	10
Grand Total	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	15	26
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	93.3	6.7	0.0			
Total %	0.0	0.0	42.3	0.0	42.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.8	3.8	0.0	57.7		
Exiting Leg Total	1					25					0					0					26	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Summer Street					Cutter Avenue					Summer Street					Cutter Avenue									
	from North					from East					from South					from West									
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total					
11:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	4		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1		
12:00 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	4		
Total Volume	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	10		
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0						
PHF	0.000	0.000	0.333	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.625			
Entering Leg	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	10		
Exiting Leg	0					10					0					0					10				
Total	4					10					0					6					20				

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	6	0	0	2	0	8	10
11:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4	
11:45 AM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4	
Total	0	2	2	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	14	0	0	2	0	16	22
12:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	1	3
12:15 PM	0	0	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	5
12:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	4	
12:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	6	
Total	0	0	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	9	2	0	0	0	11	18
1:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	1	5
1:15 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	8	10
1:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	0	0	3	6
1:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	5	
Total	0	3	3	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	14	1	0	0	0	15	26
Grand Total	0	5	9	0	4	0	18	0	0	0	0	0	0	0	0	2	0	0	0	1	3	6	0	37	3	0	2	0	42	66
Approach %	0.0	27.8	50.0	0.0	22.2	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	0.0	16.7	50.0		0.0	88.1	7.1	0.0	4.8	0.0			
Total %	0.0	7.6	13.6	0.0	6.1	0.0	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	1.5	4.5	9.1	0.0	56.1	4.5	0.0	3.0	0.0	63.6		
Exiting Leg Total	9							46							9							2							66	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	6
1:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	1	5
1:15 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	10
1:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	0	0	3	6
Total Volume	0	1	4	0	2	0	7	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	16	1	0	0	0	17	27
% Approach Total	0.0	14.3	57.1	0.0	28.6	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	33.3	66.7		0.0	94.1	5.9	0.0	0.0	0.0		
PHF	0.000	0.250	0.500	0.000	0.250	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.571	0.250	0.000	0.000	0.531		0.675
Entering Leg	0	1	4	0	2	0	7	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	16	1	0	0	0	17	27
Exiting Leg	3							20							4							0							27
Total	10							20							7							17							54

PDI File #: **175971 H**
 Location: **N: Summer Street S: Summer Street**
 Location: **E: Cutter Avenue W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	14	9	23	0	0	0	0	18	31	49	0	0	0	0	4	8	12	0	0	0	0	2	1	3	87
11:15 AM	0	0	0	0	9	11	20	0	0	0	0	20	24	44	0	0	0	0	4	12	16	0	0	0	0	0	1	1	81
11:30 AM	0	0	0	0	6	14	20	0	0	0	0	28	26	54	0	0	0	0	7	10	17	0	0	0	0	6	2	8	99
11:45 AM	0	0	0	0	13	8	21	0	0	0	0	34	23	57	0	0	0	0	11	9	20	0	0	0	0	4	3	7	105
Total	0	0	0	0	42	42	84	0	0	0	0	100	104	204	0	0	0	0	26	39	65	0	0	0	0	12	7	19	372
12:00 PM	0	0	0	0	6	8	14	0	0	0	0	24	22	46	0	0	0	0	9	7	16	0	0	0	0	4	3	7	83
12:15 PM	0	0	0	0	13	11	24	0	0	0	0	27	25	52	0	0	0	0	11	17	28	0	0	0	0	2	2	4	108
12:30 PM	0	0	0	0	9	9	18	0	0	0	0	24	31	55	0	0	0	0	8	18	26	0	0	0	0	3	0	3	102
12:45 PM	0	0	0	0	17	17	34	0	0	0	0	15	14	29	0	0	0	0	5	3	8	0	0	0	0	7	1	8	79
Total	0	0	0	0	45	45	90	0	0	0	0	90	92	182	0	0	0	0	33	45	78	0	0	0	0	16	6	22	372
1:00 PM	0	0	0	0	3	11	14	0	0	0	0	24	7	31	0	0	0	0	10	4	14	0	0	0	0	4	1	5	64
1:15 PM	0	0	0	0	16	8	24	0	0	0	0	18	19	37	0	0	0	0	7	10	17	0	0	0	0	2	2	4	82
1:30 PM	0	0	0	0	17	8	25	0	0	0	0	26	28	54	0	0	0	0	8	13	21	0	0	0	0	3	6	9	109
1:45 PM	0	0	0	0	9	18	27	0	0	0	0	19	24	43	0	0	0	0	9	13	22	0	0	0	0	9	5	14	106
Total	0	0	0	0	45	45	90	0	0	0	0	87	78	165	0	0	0	0	34	40	74	0	0	0	0	18	14	32	361
Grand Total	0	0	0	0	132	132	264	0	0	0	0	277	274	551	0	0	0	0	93	124	217	0	0	0	0	46	27	73	1105
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.3	49.7		0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	63.0	37.0		
Total %	0.0	0.0	0.0	0.0	11.9	11.9	23.9	0.0	0.0	0.0	0.0	25.1	24.8	49.9	0.0	0.0	0.0	0.0	8.4	11.2	19.6	0.0	0.0	0.0	0.0	4.2	2.4	6.6	
Exiting Leg Total	264							551							217							73							1105

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Summer Street							Cutter Avenue							Summer Street							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:45 AM	0	0	0	0	13	8	21	0	0	0	0	34	23	57	0	0	0	0	11	9	20	0	0	0	0	4	3	7	105
12:00 PM	0	0	0	0	6	8	14	0	0	0	0	24	22	46	0	0	0	0	9	7	16	0	0	0	0	4	3	7	83
12:15 PM	0	0	0	0	13	11	24	0	0	0	0	27	25	52	0	0	0	0	11	17	28	0	0	0	0	2	2	4	108
12:30 PM	0	0	0	0	13	11	24	0	0	0	0	27	25	52	0	0	0	0	11	17	28	0	0	0	0	2	2	4	108
Total Volume	0	0	0	0	45	38	83	0	0	0	0	112	95	207	0	0	0	0	42	50	92	0	0	0	0	12	10	22	404
% Approach Total	0.0	0.0	0.0	0.0	54.2	45.8		0.0	0.0	0.0	0.0	54.1	45.9		0.0	0.0	0.0	0.0	45.7	54.3		0.0	0.0	0.0	0.0	54.5	45.5		
PHF	0.000	0.000	0.000	0.000	0.865	0.864	0.865	0.000	0.000	0.000	0.000	0.824	0.950	0.908	0.000	0.000	0.000	0.000	0.955	0.735	0.821	0.000	0.000	0.000	0.000	0.750	0.833	0.786	0.935
Entering Leg	0	0	0	0	45	38	83	0	0	0	0	112	95	207	0	0	0	0	42	50	92	0	0	0	0	12	10	22	404
Exiting Leg	83							207							92							22							404
Total	166							414							184							44							808

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	2	0	0	0	2	0	108	0	0	108	50	0	50	0	100	210
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	138	0	0	138	53	0	79	0	132	271
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	148	0	0	148	28	0	63	0	91	239
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	150	0	0	150	50	0	96	0	146	297
Total	0	0	0	0	0	4	0	0	0	4	0	544	0	0	544	181	0	288	0	469	1017
8:00 AM	0	0	0	0	0	2	0	0	0	2	0	169	0	0	169	57	0	89	0	146	317
8:15 AM	0	0	0	0	0	2	0	0	0	2	0	146	0	0	146	47	0	90	0	137	285
8:30 AM	0	0	1	0	1	1	0	0	0	1	2	134	0	0	136	54	0	66	0	120	258
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	146	0	0	146	54	0	91	0	145	291
Total	0	0	1	0	1	5	0	0	0	5	2	595	0	0	597	212	0	336	0	548	1151
Grand Total	0	0	1	0	1	9	0	0	0	9	2	1139	0	0	1141	393	0	624	0	1017	2168
Approach %	0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		0.2	99.8	0.0	0.0		38.6	0.0	61.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.1	52.5	0.0	0.0	52.6	18.1	0.0	28.8	0.0	46.9	
Exiting Leg Total	1772					3					393					0					2168
Cars	0	0	1	0	1	9	0	0	0	9	2	1103	0	0	1105	369	0	589	0	958	2073
% Cars	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	100.0	96.8	0.0	0.0	96.8	93.9	0.0	94.4	0.0	94.2	95.6
Exiting Leg Total	1701					3					369					0					2073
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	36	0	0	36	24	0	35	0	59	95
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.2	6.1	0.0	5.6	0.0	5.8	4.4
Exiting Leg Total	71					0					24					0					95

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

7:45 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	150	0	0	150	50	0	96	0	146	297
8:00 AM	0	0	0	0	0	2	0	0	0	2	0	169	0	0	169	57	0	89	0	146	317
8:15 AM	0	0	0	0	0	2	0	0	0	2	0	146	0	0	146	47	0	90	0	137	285
8:30 AM	0	0	1	0	1	1	0	0	0	1	2	134	0	0	136	54	0	66	0	120	258
Total Volume	0	0	1	0	1	6	0	0	0	6	2	599	0	0	601	208	0	341	0	549	1157
% Approach Total	0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		0.3	99.7	0.0	0.0		37.9	0.0	62.1	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.750	0.000	0.000	0.000	0.750	0.250	0.886	0.000	0.000	0.889	0.912	0.000	0.888	0.000	0.940	0.912
Cars	0	0	1	0	1	6	0	0	0	6	2	582	0	0	584	194	0	324	0	518	1109
Cars %	0.0	0.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	100.0	97.2	0.0	0.0	97.2	93.3	0.0	95.0	0.0	94.4	95.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17	14	0	17	0	31	48
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.8	6.7	0.0	5.0	0.0	5.6	4.1
Cars Enter Leg	0	0	1	0	1	6	0	0	0	6	2	582	0	0	584	194	0	324	0	518	1109
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17	14	0	17	0	31	48
Total Entering Leg	0	0	1	0	1	6	0	0	0	6	2	599	0	0	601	208	0	341	0	549	1157
Cars Exiting Leg	912					3					194					0					1109
Heavy Exiting Leg	34					0					14					0					48
Total Exiting Leg	946					3					208					0					1157

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	2	0	0	0	2	0	105	0	0	105	47	0	48	0	95	202
7:15 AM	0	0	0	0	0	1	0	0	0	1	0	131	0	0	131	51	0	72	0	123	255
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	142	0	0	142	27	0	58	0	85	227
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	145	0	0	145	46	0	88	0	134	280
Total	0	0	0	0	0	4	0	0	0	4	0	523	0	0	523	171	0	266	0	437	964
8:00 AM	0	0	0	0	0	2	0	0	0	2	0	165	0	0	165	55	0	87	0	142	309
8:15 AM	0	0	0	0	0	2	0	0	0	2	0	143	0	0	143	45	0	86	0	131	276
8:30 AM	0	0	1	0	1	1	0	0	0	1	2	129	0	0	131	48	0	63	0	111	244
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	143	0	0	143	50	0	87	0	137	280
Total	0	0	1	0	1	5	0	0	0	5	2	580	0	0	582	198	0	323	0	521	1109
Grand Total	0	0	1	0	1	9	0	0	0	9	2	1103	0	0	1105	369	0	589	0	958	2073
Approach %	0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		0.2	99.8	0.0	0.0		38.5	0.0	61.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.1	53.2	0.0	0.0	53.3	17.8	0.0	28.4	0.0	46.2	
Exiting Leg Total	1701					3					369					0					2073

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

7:45 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:45 AM	0	0	0	0	0	1	0	0	0	1	0	145	0	0	145	46	0	88	0	134	280
8:00 AM	0	0	0	0	0	2	0	0	0	2	0	165	0	0	165	55	0	87	0	142	309
8:15 AM	0	0	0	0	0	2	0	0	0	2	0	143	0	0	143	45	0	86	0	131	276
8:30 AM	0	0	1	0	1	1	0	0	0	1	2	129	0	0	131	48	0	63	0	111	244
Total Volume	0	0	1	0	1	6	0	0	0	6	2	582	0	0	584	194	0	324	0	518	1109
% Approach Total	0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		0.3	99.7	0.0	0.0		37.5	0.0	62.5	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.750	0.000	0.000	0.000	0.750	0.250	0.882	0.000	0.000	0.885	0.882	0.000	0.920	0.000	0.912	0.897
Entering Leg	0	0	1	0	1	6	0	0	0	6	2	582	0	0	584	194	0	324	0	518	1109
Exiting Leg	912					3					194					0					1109
Total	913					9					778					518					2218

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3	0	2	0	5	8
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	2	0	7	0	9	16
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	0	5	0	6	12
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	4	0	8	0	12	17
Total	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	10	0	22	0	32	53
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	2	0	2	0	4	8
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	2	0	4	0	6	9
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	6	0	3	0	9	14
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4	0	4	0	8	11
Total	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	14	0	13	0	27	42
Grand Total	0	0	0	0	0	0	0	0	0	0	0	36	0	0	36	24	0	35	0	59	95
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		40.7	0.0	59.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.9	0.0	0.0	37.9	25.3	0.0	36.8	0.0	62.1	
Exiting Leg Total	71					0					24					0					95
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24	14	0	19	0	33	57
% Large Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	66.7	58.3	0.0	54.3	0.0	55.9	60.0
Exiting Leg Total	43					0					14					0					57
Buses	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	10	0	16	0	26	38
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	41.7	0.0	45.7	0.0	44.1	40.0
Exiting Leg Total	28					0					10					0					38

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

7:00 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue						
	from North					from East					from South					from West						Total
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3	0	2	0	5	8	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	2	0	7	0	9	16	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	0	5	0	6	12	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	4	0	8	0	12	17	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	10	0	22	0	32	53	
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		31.3	0.0	68.8	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.750	0.625	0.000	0.688	0.000	0.667	0.779	
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	6	0	10	0	16	29	
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.9	0.0	0.0	61.9	60.0	0.0	45.5	0.0	50.0	54.7	
Buses	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	4	0	12	0	16	24	
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	0.0	38.1	40.0	0.0	54.5	0.0	50.0	45.3	
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	6	0	10	0	16	29	
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	4	0	12	0	16	24	
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	10	0	22	0	32	53	
Trucks Exiting Leg	23					0					6					0					29	
Buses Exiting Leg	20					0					4					0					24	
Total Exiting Leg	43					0					10					0					53	

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	0	0	3	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	5	0	5	9
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	2	0	3	0	5	8
Total	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	6	0	10	0	16	29
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	1	0	2	0	3	7
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	2	0	3	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	3	0	7	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	6
Total	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	8	0	9	0	17	28
Grand Total	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24	14	0	19	0	33	57
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		42.4	0.0	57.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.1	0.0	0.0	42.1	24.6	0.0	33.3	0.0	57.9	
Exiting Leg Total	43					0					14					0					57

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

7:15 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	5	0	5	9
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	2	0	3	0	5	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	1	0	2	0	3	7
Total Volume	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	4	0	12	0	16	32
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		25.0	0.0	75.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.800	0.000	0.000	0.800	0.500	0.000	0.600	0.000	0.800	0.889
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	4	0	12	0	16	32
Exiting Leg	28					0					4					0					32
Total	28					0					20					16					64

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	5	0	6	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	5	0	7	9
Total	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	4	0	12	0	16	24
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	2	0	0	0	2	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	5
Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	6	0	4	0	10	14
Grand Total	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	10	0	16	0	26	38
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		38.5	0.0	61.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.6	0.0	0.0	31.6	26.3	0.0	42.1	0.0	68.4	
Exiting Leg Total	28					0					10					0					38

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

7:00 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	5	0	6	8
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	5	0	7	9
Total Volume	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	4	0	12	0	16	24
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		25.0	0.0	75.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	1.000	0.500	0.000	0.600	0.000	0.571	0.667
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	4	0	12	0	16	24
Exiting Leg	20					0					4					0					24
Total	20					0					12					16					48

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2	0	0	0	2	3
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2	0	0	0	2	4
Total	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	5	0	0	0	0	5	0	0	5	0	0	0	5	12
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	2	0	0	0	2	5
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	4	0	0	6	0	0	0	6	11
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	2
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	1	4
Total	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	10	0	0	0	0	10	1	0	9	0	0	0	10	22
Grand Total	0	0	0	0	1	0	1	2	0	1	0	0	0	3	0	15	0	0	0	0	15	1	0	14	0	0	0	15	34
Approach %	0.0	0.0	0.0	0.0	100.0	0.0		66.7	0.0	33.3	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		6.7	0.0	93.3	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	2.9	0.0	2.9	5.9	0.0	2.9	0.0	0.0	0.0	8.8	0.0	44.1	0.0	0.0	0.0	0.0	44.1	2.9	0.0	41.2	0.0	0.0	0.0	44.1	
Exiting Leg Total	32							0							2							0							34

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

7:30 AM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	2	0	0	0	2	4
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	2	0	0	0	2	5
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	4	0	0	0	0	0	4	0	0	6	0	0	0	6	11
Total Volume	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	9	0	0	0	0	0	9	0	0	11	0	0	0	11	22
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		50.0	0.0	50.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.500	0.000	0.563	0.000	0.000	0.000	0.000	0.563	0.000	0.000	0.458	0.000	0.000	0.000	0.458	0.500	
Entering Leg	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	9	0	0	0	0	9	0	0	11	0	0	0	11	22	
Exiting Leg	21							0							1							0							22	
Total	21							2							10							11							44	

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	11	14	0	0	0	0	1	2	3	0	0	0	0	3	4	7	24
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	1	8	9	0	0	0	0	0	3	3	0	0	0	0	2	6	8	22
7:30 AM	0	0	0	0	2	0	2	0	0	0	0	1	12	13	0	0	0	0	3	2	5	0	0	0	0	3	0	3	23
7:45 AM	0	0	0	0	2	1	3	0	0	0	0	1	9	10	0	0	0	0	1	1	2	0	0	0	0	5	1	6	21
Total	0	0	0	0	6	1	7	0	0	0	0	6	40	46	0	0	0	0	5	8	13	0	0	0	0	13	11	24	90
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	18	20	0	0	0	0	1	2	3	0	0	0	0	7	4	11	34
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	1	8	9	0	0	0	0	3	0	3	0	0	0	0	6	2	8	21
8:30 AM	0	0	0	0	2	1	3	0	0	0	0	0	24	24	0	0	0	0	0	8	8	0	0	0	0	5	1	6	41
8:45 AM	0	0	0	0	0	1	1	0	0	0	0	5	17	22	0	0	0	0	2	2	4	0	0	0	0	3	2	5	32
Total	0	0	0	0	3	2	5	0	0	0	0	8	67	75	0	0	0	0	6	12	18	0	0	0	0	21	9	30	128
Grand Total	0	0	0	0	9	3	12	0	0	0	0	14	107	121	0	0	0	0	11	20	31	0	0	0	0	34	20	54	218
Approach %	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	11.6	88.4		0.0	0.0	0.0	0.0	35.5	64.5		0.0	0.0	0.0	0.0	63.0	37.0		
Total %	0.0	0.0	0.0	0.0	4.1	1.4	5.5	0.0	0.0	0.0	0.0	6.4	49.1	55.5	0.0	0.0	0.0	0.0	5.0	9.2	14.2	0.0	0.0	0.0	0.0	15.6	9.2	24.8	
Exiting Leg Total	12							121							31							54							218

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

8:00 AM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	18	20	0	0	0	0	1	2	3	0	0	0	0	7	4	11	34
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	1	8	9	0	0	0	0	3	0	3	0	0	0	0	6	2	8	21
8:30 AM	0	0	0	0	2	1	3	0	0	0	0	0	24	24	0	0	0	0	0	8	8	0	0	0	0	5	1	6	41
8:45 AM	0	0	0	0	0	1	1	0	0	0	0	5	17	22	0	0	0	0	2	2	4	0	0	0	0	3	2	5	32
Total Volume	0	0	0	0	3	2	5	0	0	0	0	8	67	75	0	0	0	0	6	12	18	0	0	0	0	21	9	30	128
% Approach Total	0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	10.7	89.3		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	70.0	30.0		
PHF	0.000	0.000	0.000	0.000	0.375	0.500	0.417	0.000	0.000	0.000	0.000	0.400	0.698	0.781	0.000	0.000	0.000	0.000	0.500	0.375	0.563	0.000	0.000	0.000	0.000	0.750	0.563	0.682	0.780
Entering Leg	0	0	0	0	3	2	5	0	0	0	0	8	67	75	0	0	0	0	6	12	18	0	0	0	0	21	9	30	128
Exiting Leg	5							75							18							30							128
Total	10							150							36							60							256

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	114	0	0	114	55	0	107	0	162	276
4:15 PM	0	0	0	0	0	2	0	0	0	2	0	118	0	0	118	62	0	122	0	184	304
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	103	0	0	103	68	0	132	0	200	303
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	114	0	0	114	58	0	115	0	173	287
Total	0	0	0	0	0	2	0	0	0	2	0	449	0	0	449	243	0	476	0	719	1170
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	106	0	0	107	62	1	134	0	197	304
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	111	0	0	112	67	0	115	0	182	294
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	109	0	0	109	80	0	129	0	209	318
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	140	0	0	140	80	1	102	0	183	324
Total	0	0	0	0	0	1	0	0	0	1	2	466	0	0	468	289	2	480	0	771	1240
Grand Total	0	0	0	0	0	3	0	0	0	3	2	915	0	0	917	532	2	956	0	1490	2410
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.2	99.8	0.0	0.0		35.7	0.1	64.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	38.0	0.0	0.0	38.0	22.1	0.1	39.7	0.0	61.8	
Exiting Leg Total	1874					4					532					0					2410
Cars	0	0	0	0	0	3	0	0	0	3	2	893	0	0	895	520	2	932	0	1454	2352
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0	97.6	0.0	0.0	97.6	97.7	100.0	97.5	0.0	97.6	97.6
Exiting Leg Total	1828					4					520					0					2352
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22	12	0	24	0	36	58
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.4	2.3	0.0	2.5	0.0	2.4	2.4
Exiting Leg Total	46					0					12					0					58

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

5:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	106	0	0	107	62	1	134	0	197	304
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	111	0	0	112	67	0	115	0	182	294
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	109	0	0	109	80	0	129	0	209	318
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	140	0	0	140	80	1	102	0	183	324
Total Volume	0	0	0	0	0	1	0	0	0	1	2	466	0	0	468	289	2	480	0	771	1240
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		37.5	0.3	62.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.500	0.832	0.000	0.000	0.836	0.903	0.500	0.896	0.000	0.922	0.957
Cars	0	0	0	0	0	1	0	0	0	1	2	453	0	0	455	284	2	467	0	753	1209
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0	97.2	0.0	0.0	97.2	98.3	100.0	97.3	0.0	97.7	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	5	0	13	0	18	31
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.8	1.7	0.0	2.7	0.0	2.3	2.5
Cars Enter Leg	0	0	0	0	0	1	0	0	0	1	2	453	0	0	455	284	2	467	0	753	1209
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	5	0	13	0	18	31
Total Entering Leg	0	0	0	0	0	1	0	0	0	1	2	466	0	0	468	289	2	480	0	771	1240
Cars Exiting Leg	921					4					284					0					1209
Heavy Exiting Leg	26					0					5					0					31
Total Exiting Leg	947					4					289					0					1240

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	113	0	0	113	54	0	102	0	156	269
4:15 PM	0	0	0	0	0	2	0	0	0	2	0	115	0	0	115	60	0	119	0	179	296
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	102	0	0	102	65	0	129	0	194	296
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	110	0	0	110	57	0	115	0	172	282
Total	0	0	0	0	0	2	0	0	0	2	0	440	0	0	440	236	0	465	0	701	1143
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	103	0	0	104	61	1	131	0	193	297
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	106	0	0	107	66	0	111	0	177	284
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	108	0	0	108	77	0	127	0	204	312
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	136	0	0	136	80	1	98	0	179	316
Total	0	0	0	0	0	1	0	0	0	1	2	453	0	0	455	284	2	467	0	753	1209
Grand Total	0	0	0	0	0	3	0	0	0	3	2	893	0	0	895	520	2	932	0	1454	2352
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.2	99.8	0.0	0.0		35.8	0.1	64.1	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	38.0	0.0	0.0	38.1	22.1	0.1	39.6	0.0	61.8	
Exiting Leg Total	1828					4					520					0					2352

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

5:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	103	0	0	104	61	1	131	0	193	297
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	106	0	0	107	66	0	111	0	177	284
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	108	0	0	108	77	0	127	0	204	312
5:45 PM	0	0	0	0	0	1	0	0	0	1	0	136	0	0	136	80	1	98	0	179	316
Total Volume	0	0	0	0	0	1	0	0	0	1	2	453	0	0	455	284	2	467	0	753	1209
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		37.7	0.3	62.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.500	0.833	0.000	0.000	0.836	0.888	0.500	0.891	0.000	0.923	0.956
Entering Leg	0	0	0	0	0	1	0	0	0	1	2	453	0	0	455	284	2	467	0	753	1209
Exiting Leg	921					4					284					0					1209
Total	921					5					739					753					2418

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	5	0	6	7
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	2	0	3	0	5	8
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	3	0	6	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	5
Total	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	7	0	11	0	18	27
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	3	0	4	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	1	0	4	0	5	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	2	0	5	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	4	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	5	0	13	0	18	31
Grand Total	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22	12	0	24	0	36	58
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		33.3	0.0	66.7	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.9	0.0	0.0	37.9	20.7	0.0	41.4	0.0	62.1	
Exiting Leg Total	46					0					12					0					58
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	2	0	8	0	10	16
% Large Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	0.0	0.0	27.3	16.7	0.0	33.3	0.0	27.8	27.6
Exiting Leg Total	14					0					2					0					16
Buses	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	10	0	16	0	26	42
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.7	0.0	0.0	72.7	83.3	0.0	66.7	0.0	72.2	72.4
Exiting Leg Total	32					0					10					0					42

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

5:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	3	0	4	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	1	0	4	0	5	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	2	0	5	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	4	0	4	8
Total Volume	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	5	0	13	0	18	31
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		27.8	0.0	72.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.000	0.000	0.650	0.417	0.000	0.813	0.000	0.900	0.775
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	7
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.8	0.0	0.0	30.8	0.0	0.0	23.1	0.0	16.7	22.6
Buses	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	5	0	10	0	15	24
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.2	0.0	0.0	69.2	100.0	0.0	76.9	0.0	83.3	77.4
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	7
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	5	0	10	0	15	24
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	5	0	13	0	18	31
Trucks Exiting Leg	7					0					0					0					7
Buses Exiting Leg	19					0					5					0					24
Total Exiting Leg	26					0					5					0					31

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	5	0	7	9
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	7
Grand Total	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	2	0	8	0	10	16
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		20.0	0.0	80.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5	0.0	0.0	37.5	12.5	0.0	50.0	0.0	62.5	
Exiting Leg Total	14					0					2					0					16

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

4:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	3	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	5	0	7	9	
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		28.6	0.0	71.4	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.500	0.000	0.417	0.000	0.583	0.750	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	5	0	7	9	
Exiting Leg	7					0					2					0					9	
Total	7					0					4					7					18	

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



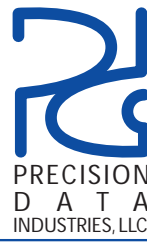
Buses

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	2	0	3	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	5	0	6	0	11	18
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	2	0	3	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	4	0	5	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	6
Total	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	5	0	10	0	15	24
Grand Total	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	10	0	16	0	26	42
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		38.5	0.0	61.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1	0.0	0.0	38.1	23.8	0.0	38.1	0.0	61.9	
Exiting Leg Total	32					0					10					0					42

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

4:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	2	0	3	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	2	0	3	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	5	0	6	0	11	18
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		45.5	0.0	54.5	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.583	0.625	0.000	0.750	0.000	0.688	0.900
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	5	0	6	0	11	18
Exiting Leg	13					0					5					0					18
Total	13					0					12					11					36

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	5	5	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	3	3	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	1	0	2	0	0	0	3	3	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	8	0	0	1	12	12	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	0	0	0	0	1	1	0	8	0	0	0	9	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	9	0	0	0	9	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	5	0	0	0	5	7
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	11	12	
Total	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	4	0	0	0	0	0	4	2	0	32	0	0	0	34	41
Grand Total	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	4	0	0	0	0	0	4	5	0	40	0	0	1	46	53
Approach %	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	100.0	0.0	0.0	0.0	0.0		10.9	0.0	87.0	0.0	0.0	2.2			
Total %	0.0	0.0	0.0	0.0	1.9	0.0	1.9	0.0	0.0	0.0	0.0	1.9	1.9	3.8	0.0	7.5	0.0	0.0	0.0	0.0	7.5	9.4	0.0	75.5	0.0	0.0	1.9	86.8		
Exiting Leg Total	45							2							5							1							53	

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

5:00 PM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	0	0	0	1	1	0	8	0	0	0	9	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	9	0	0	0	9	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	5	0	0	0	5	7
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	11	12
Total Volume	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	4	0	0	0	0	4	2	0	32	0	0	0	34	41
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	100.0	0.0	0.0	0.0	0.0		5.9	0.0	94.1	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.800	0.000	0.000	0.000	0.773	0.854
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	4	0	0	0	0	4	2	0	32	0	0	0	34	41
Exiting Leg	37							2							2							0							41
Total	38							4							6							34							82

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	2	1	3	0	0	0	0	4	4	8	16
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	3	1	4	0	0	0	0	2	4	6	13
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	4	2	6	0	0	0	0	1	0	1	11
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	4	3	7	0	0	0	0	5	4	9	22
Total	0	0	0	0	0	1	1	0	0	0	0	9	8	17	0	0	0	0	13	7	20	0	0	0	0	12	12	24	62
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	10	6	16	0	0	0	0	2	6	8	0	0	0	0	2	9	11	35
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	8	12	20	0	0	0	0	5	5	10	0	0	0	0	8	8	16	47
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	8	10	18	0	0	0	0	4	4	8	0	0	0	0	11	10	21	48
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	8	29	0	0	0	0	13	9	22	0	0	0	0	5	9	14	65
Total	0	0	0	0	1	1	2	0	0	0	0	47	36	83	0	0	0	0	24	24	48	0	0	0	0	26	36	62	195
Grand Total	0	0	0	0	1	2	3	0	0	0	0	56	44	100	0	0	0	0	37	31	68	0	0	0	0	38	48	86	257
Approach %	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	56.0	44.0		0.0	0.0	0.0	0.0	54.4	45.6		0.0	0.0	0.0	0.0	44.2	55.8		
Total %	0.0	0.0	0.0	0.0	0.4	0.8	1.2	0.0	0.0	0.0	0.0	21.8	17.1	38.9	0.0	0.0	0.0	0.0	14.4	12.1	26.5	0.0	0.0	0.0	0.0	14.8	18.7	33.5	
Exiting Leg Total	3							100							68							86							257

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

5:00 PM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	10	6	16	0	0	0	0	2	6	8	0	0	0	0	2	9	11	35
5:15 PM	0	0	0	0	0	1	1	0	0	0	0	8	12	20	0	0	0	0	5	5	10	0	0	0	0	8	8	16	47
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	8	10	18	0	0	0	0	4	4	8	0	0	0	0	11	10	21	48
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	8	29	0	0	0	0	13	9	22	0	0	0	0	5	9	14	65
Total Volume	0	0	0	0	1	1	2	0	0	0	0	47	36	83	0	0	0	0	24	24	48	0	0	0	0	26	36	62	195
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	56.6	43.4		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	41.9	58.1		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.560	0.750	0.716	0.000	0.000	0.000	0.000	0.462	0.667	0.545	0.000	0.000	0.000	0.000	0.591	0.900	0.738	0.750
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	47	36	83	0	0	0	0	24	24	48	0	0	0	0	26	36	62	195
Exiting Leg	2							83							48							62							195
Total	4							166							96							124							390

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	1	0	0	0	1	1	122	0	0	123	50	0	79	0	129	253
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	123	0	0	123	51	0	113	0	164	288
11:30 AM	0	0	0	0	0	1	0	0	0	1	0	111	0	0	111	44	0	110	0	154	266
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	121	0	0	121	60	0	97	0	157	278
Total	0	0	0	0	0	3	0	0	0	3	1	477	0	0	478	205	0	399	0	604	1085
12:00 PM	0	0	0	0	0	1	0	0	0	1	0	132	0	0	132	65	0	108	0	173	306
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	101	0	0	102	63	0	99	0	162	264
12:30 PM	0	0	0	0	0	1	0	0	0	1	1	111	0	0	112	79	0	103	0	182	295
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	118	0	0	119	62	0	114	0	176	295
Total	0	0	0	0	0	2	0	0	0	2	3	462	0	0	465	269	0	424	0	693	1160
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	103	0	0	103	69	0	99	0	168	271
1:15 PM	0	0	0	0	0	1	0	0	0	1	1	128	0	0	129	73	0	102	0	175	305
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	89	0	0	90	52	0	96	0	148	238
1:45 PM	0	0	0	0	0	1	0	0	0	1	0	98	0	0	98	54	0	107	0	161	260
Total	0	0	0	0	0	2	0	0	0	2	2	418	0	0	420	248	0	404	0	652	1074
Grand Total	0	0	0	0	0	7	0	0	0	7	6	1357	0	0	1363	722	0	1227	0	1949	3319
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		37.0	0.0	63.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	40.9	0.0	0.0	41.1	21.8	0.0	37.0	0.0	58.7	
Exiting Leg Total	2591					6					722					0					3319
Cars	0	0	0	0	0	5	0	0	0	5	4	1332	0	0	1336	704	0	1198	0	1902	3243
% Cars	0.0	0.0	0.0	0.0	0.0	71.4	0.0	0.0	0.0	71.4	66.7	98.2	0.0	0.0	98.0	97.5	0.0	97.6	0.0	97.6	97.7
Exiting Leg Total	2535					4					704					0					3243
Heavy Vehicles	0	0	0	0	0	2	0	0	0	2	2	25	0	0	27	18	0	29	0	47	76
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	28.6	0.0	0.0	0.0	28.6	33.3	1.8	0.0	0.0	2.0	2.5	0.0	2.4	0.0	2.4	2.3
Exiting Leg Total	56					2					18					0					76

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM		Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
		from North					from East					from South					from West					
		Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM		0	0	0	0	0	1	0	0	0	1	1	111	0	0	112	79	0	103	0	182	295
12:45 PM		0	0	0	0	0	0	0	0	0	0	1	118	0	0	119	62	0	114	0	176	295
1:00 PM		0	0	0	0	0	0	0	0	0	0	0	103	0	0	103	69	0	99	0	168	271
1:15 PM		0	0	0	0	0	1	0	0	0	1	1	128	0	0	129	73	0	102	0	175	305
Total Volume		0	0	0	0	0	2	0	0	0	2	3	460	0	0	463	283	0	418	0	701	1166
% Approach Total		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.6	99.4	0.0	0.0		40.4	0.0	59.6	0.0		
PHF		0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.750	0.898	0.000	0.000	0.897	0.896	0.000	0.917	0.000	0.963	0.956
Cars		0	0	0	0	0	1	0	0	0	1	2	451	0	0	453	276	0	407	0	683	1137
Cars %		0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	66.7	98.0	0.0	0.0	97.8	97.5	0.0	97.4	0.0	97.4	97.5
Heavy Vehicles		0	0	0	0	0	1	0	0	0	1	1	9	0	0	10	7	0	11	0	18	29
Heavy Vehicles %		0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	33.3	2.0	0.0	0.0	2.2	2.5	0.0	2.6	0.0	2.6	2.5
Cars Enter Leg		0	0	0	0	0	1	0	0	0	1	2	451	0	0	453	276	0	407	0	683	1137
Heavy Enter Leg		0	0	0	0	0	1	0	0	0	1	1	9	0	0	10	7	0	11	0	18	29
Total Entering Leg		0	0	0	0	0	2	0	0	0	2	3	460	0	0	463	283	0	418	0	701	1166
Cars Exiting Leg		859					2					276					0					1137
Heavy Exiting Leg		21					1					7					0					29
Total Exiting Leg		880					3					283					0					1166

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	1	0	0	0	1	1	121	0	0	122	49	0	75	0	124	247
11:15 AM	0	0	0	0	0	1	0	0	0	1	0	121	0	0	121	46	0	110	0	156	278
11:30 AM	0	0	0	0	0	1	0	0	0	1	0	107	0	0	107	44	0	109	0	153	261
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	118	0	0	118	60	0	96	0	156	274
Total	0	0	0	0	0	3	0	0	0	3	1	467	0	0	468	199	0	390	0	589	1060
12:00 PM	0	0	0	0	0	1	0	0	0	1	0	130	0	0	130	61	0	104	0	165	296
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	101	0	0	102	62	0	97	0	159	261
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	109	0	0	109	79	0	102	0	181	290
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	116	0	0	117	62	0	111	0	173	290
Total	0	0	0	0	0	1	0	0	0	1	2	456	0	0	458	264	0	414	0	678	1137
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	101	0	0	101	67	0	96	0	163	264
1:15 PM	0	0	0	0	0	1	0	0	0	1	1	125	0	0	126	68	0	98	0	166	293
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	89	0	0	89	52	0	96	0	148	237
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	94	0	0	94	54	0	104	0	158	252
Total	0	0	0	0	0	1	0	0	0	1	1	409	0	0	410	241	0	394	0	635	1046
Grand Total	0	0	0	0	0	5	0	0	0	5	4	1332	0	0	1336	704	0	1198	0	1902	3243
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.3	99.7	0.0	0.0		37.0	0.0	63.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.1	41.1	0.0	0.0	41.2	21.7	0.0	36.9	0.0	58.6	
Exiting Leg Total	2535					4					704					0					3243

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:00 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:00 PM	0	0	0	0	0	1	0	0	0	1	0	130	0	0	130	61	0	104	0	165	296
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	101	0	0	102	62	0	97	0	159	261
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	109	0	0	109	79	0	102	0	181	290
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	116	0	0	117	62	0	111	0	173	290
Total Volume	0	0	0	0	0	1	0	0	0	1	2	456	0	0	458	264	0	414	0	678	1137
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.4	99.6	0.0	0.0		38.9	0.0	61.1	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.500	0.877	0.000	0.000	0.881	0.835	0.000	0.932	0.000	0.936	0.960
Entering Leg	0	0	0	0	0	1	0	0	0	1	2	456	0	0	458	264	0	414	0	678	1137
Exiting Leg	871					2					264					0					1137
Total	871					3					722					678					2274

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	4	0	5	6
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5	0	3	0	8	10
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	6	0	9	0	15	25
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	3
12:30 PM	0	0	0	0	0	1	0	0	0	1	1	2	0	0	3	0	0	1	0	1	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	3	0	3	5
Total	0	0	0	0	0	1	0	0	0	1	1	6	0	0	7	5	0	10	0	15	23
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	3	0	5	7
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	5	0	4	0	9	12
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	1	0	0	0	1	0	4	0	0	4	0	0	3	0	3	8
Total	0	0	0	0	0	1	0	0	0	1	1	9	0	0	10	7	0	10	0	17	28
Grand Total	0	0	0	0	0	2	0	0	0	2	2	25	0	0	27	18	0	29	0	47	76
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		7.4	92.6	0.0	0.0		38.3	0.0	61.7	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	2.6	32.9	0.0	0.0	35.5	23.7	0.0	38.2	0.0	61.8	
Exiting Leg Total	56					2					18					0					76
Large Trucks	0	0	0	0	0	2	0	0	0	2	2	13	0	0	15	6	0	16	0	22	39
% Large Trucks	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0	52.0	0.0	0.0	55.6	33.3	0.0	55.2	0.0	46.8	51.3
Exiting Leg Total	31					2					6					0					39
Buses	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	12	0	13	0	25	37
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0	0.0	44.4	66.7	0.0	44.8	0.0	53.2	48.7
Exiting Leg Total	25					0					12					0					37

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5	0	3	0	8	10	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	5	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	4	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	4	0	8	10	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	9	0	9	0	18	29	
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.000	0.688	0.450	0.000	0.563	0.000	0.563	0.725	
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	4	0	4	0	8	14	
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.5	0.0	0.0	54.5	44.4	0.0	44.4	0.0	44.4	48.3	
Buses	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5	0	5	0	10	15	
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	45.5	55.6	0.0	55.6	0.0	55.6	51.7	
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	4	0	4	0	8	14	
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5	0	5	0	10	15	
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	9	0	9	0	18	29	
Trucks Exiting Leg																					0	14
Buses Exiting Leg																					0	15
Total Exiting Leg																					0	29

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total	
	from North					from East					from South					from West						
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	3	0	4	0	7	12
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	0	4	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
12:30 PM	0	0	0	0	0	1	0	0	0	1	1	2	0	0	3	0	0	1	0	0	1	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	3
Total	0	0	0	0	0	1	0	0	0	1	1	4	0	0	5	1	0	7	0	8	14	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	2	0	0	4	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	1	0	0	1	4
Total	0	0	0	0	0	1	0	0	0	1	1	4	0	0	5	2	0	5	0	7	13	
Grand Total	0	0	0	0	0	2	0	0	0	2	2	13	0	0	15	6	0	16	0	22	39	
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		13.3	86.7	0.0	0.0		27.3	0.0	72.7	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	5.1	5.1	33.3	0.0	0.0	38.5	15.4	0.0	41.0	0.0	56.4		
Exiting Leg Total	31					2					6					0					39	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	0	0	0	0	1	0	0	0	1	1	2	0	0	3	0	0	1	0	1	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	2	0	4	6
Total Volume	0	0	0	0	0	1	0	0	0	1	1	5	0	0	6	2	0	7	0	9	16
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		16.7	83.3	0.0	0.0		22.2	0.0	77.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.625	0.000	0.000	0.500	0.250	0.000	0.875	0.000	0.563	0.667
Entering Leg	0	0	0	0	0	1	0	0	0	1	1	5	0	0	6	2	0	7	0	9	16
Exiting Leg	13					1					2					0					16
Total	13					2					8					9					32

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
Total	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	3	0	5	0	8	13
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	5
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	3	0	7	9
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	1	0	3	5
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	2	0	5	6
1:30 PM	0	0	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	2	0	0	2	0	0	2	0	2	4
Total	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5	0	5	0	10	15
Grand Total	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	12	0	13	0	25	37
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		48.0	0.0	52.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.4	0.0	0.0	32.4	32.4	0.0	35.1	0.0	67.6	
Exiting Leg Total	25					0					12					0					37

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Highland Avenue					Ellington Road					Highland Avenue					Cutter Avenue					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	2	0	4	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	5
Total Volume	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5	0	5	0	10	15
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		50.0	0.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.625	0.417	0.000	0.625	0.000	0.625	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5	0	5	0	10	15
Exiting Leg	10					0					5					0					15
Total	10					0					10					10					30

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	4	4	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	5	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	2	0	0	0	3	4	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	12	0	0	1	15	16	
12:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	1	0	2	0	0	0	3	9
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	4	0	0	0	0	0	4	0	0	1	0	0	0	1	7
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	4	0	0	0	4	5	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	3	0	0	0	0	3	1	0	6	0	0	0	7	12	
Total	0	1	0	0	0	0	1	0	0	0	0	2	2	4	0	13	0	0	0	0	13	2	0	13	0	0	0	15	33	
1:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3	0	0	1	5	7	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	9	0	0	0	9	13	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	2	0	0	1	4	6	
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	3	0	0	0	4	7	
Total	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	10	0	0	0	0	10	2	1	17	0	0	2	22	33	
Grand Total	0	2	0	0	0	0	2	0	0	0	0	2	2	4	0	23	0	0	1	0	24	6	1	42	0	0	3	52	82	
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	95.8	0.0	0.0	4.2	0.0		11.5	1.9	80.8	0.0	0.0	5.8			
Total %	0.0	2.4	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	2.4	2.4	4.9	0.0	28.0	0.0	0.0	1.2	0.0	29.3	7.3	1.2	51.2	0.0	0.0	3.7	63.4		
Exiting Leg Total	65							5							9							3							82	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	3	0	0	0	0	3	1	0	6	0	0	0	7	12
1:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	3	0	0	1	5	7
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	9	0	0	0	9	13
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	2	0	0	1	4	6
Total Volume	0	1	0	0	0	0	1	0	0	0	0	1	1	2	0	10	0	0	0	0	10	2	1	20	0	0	2	25	38
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	100.0	0.0	0.0	0.0	0.0		8.0	4.0	80.0	0.0	0.0	8.0		
PHF	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.625	0.000	0.000	0.000	0.000	0.625	0.500	0.250	0.556	0.000	0.000	0.500	0.694	0.731
Entering Leg	0	1	0	0	0	0	1	0	0	0	0	1	1	2	0	10	0	0	0	0	10	2	1	20	0	0	2	25	38
Exiting Leg	30							3							3							2							38
Total	31							5							13							27							76

PDI File #: **175971 I**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Ellington Road W: Cutter Avenue**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	1	0	1	0	0	0	0	11	11	22	0	0	0	0	5	0	5	0	0	0	0	8	7	15	43
11:15 AM	0	0	0	0	3	0	3	0	0	0	0	11	9	20	0	0	0	0	6	2	8	0	0	0	0	14	11	25	56
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	14	20	0	0	0	0	8	1	9	0	0	0	0	16	10	26	55
11:45 AM	0	0	0	0	1	2	3	0	0	0	0	13	16	29	0	0	0	0	8	7	15	0	0	0	0	15	22	37	84
Total	0	0	0	0	5	2	7	0	0	0	0	41	50	91	0	0	0	0	27	10	37	0	0	0	0	53	50	103	238
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	7	8	15	0	0	0	0	8	3	11	0	0	0	0	14	15	29	56
12:15 PM	0	0	0	0	1	0	1	0	0	0	0	17	9	26	0	0	0	0	16	8	24	0	0	0	0	11	9	20	71
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	9	15	24	0	0	0	0	7	11	18	0	0	0	0	10	11	21	63
12:45 PM	0	0	0	0	1	2	3	0	0	0	0	14	10	24	0	0	0	0	12	8	20	0	0	0	0	12	19	31	78
Total	0	0	0	0	2	3	5	0	0	0	0	47	42	89	0	0	0	0	43	30	73	0	0	0	0	47	54	101	268
1:00 PM	0	0	0	0	1	0	1	0	0	0	0	10	17	27	0	0	0	0	4	4	8	0	0	0	0	5	18	23	59
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	8	8	16	0	0	0	0	10	6	16	0	0	0	0	10	25	35	67
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	9	18	27	0	0	0	0	6	13	19	0	0	0	0	21	13	34	80
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	11	32	0	0	0	0	3	3	6	0	0	0	0	23	18	41	79
Total	0	0	0	0	1	0	1	0	0	0	0	48	54	102	0	0	0	0	23	26	49	0	0	0	0	59	74	133	285
Grand Total	0	0	0	0	8	5	13	0	0	0	0	136	146	282	0	0	0	0	93	66	159	0	0	0	0	159	178	337	791
Approach %	0.0	0.0	0.0	0.0	61.5	38.5		0.0	0.0	0.0	0.0	48.2	51.8		0.0	0.0	0.0	0.0	58.5	41.5		0.0	0.0	0.0	0.0	47.2	52.8		
Total %	0.0	0.0	0.0	0.0	1.0	0.6	1.6	0.0	0.0	0.0	0.0	17.2	18.5	35.7	0.0	0.0	0.0	0.0	11.8	8.3	20.1	0.0	0.0	0.0	0.0	20.1	22.5	42.6	
Exiting Leg Total	13							282							159							337							791

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Highland Avenue							Ellington Road							Highland Avenue							Cutter Avenue							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
1:00 PM	0	0	0	0	1	0	1	0	0	0	0	10	17	27	0	0	0	0	4	4	8	0	0	0	0	5	18	23	59
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	8	8	16	0	0	0	0	10	6	16	0	0	0	0	10	25	35	67
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	9	18	27	0	0	0	0	6	13	19	0	0	0	0	21	13	34	80
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	21	11	32	0	0	0	0	3	3	6	0	0	0	0	23	18	41	79
Total Volume	0	0	0	0	1	0	1	0	0	0	0	48	54	102	0	0	0	0	23	26	49	0	0	0	0	59	74	133	285
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	47.1	52.9		0.0	0.0	0.0	0.0	46.9	53.1		0.0	0.0	0.0	0.0	44.4	55.6		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.571	0.750	0.797	0.000	0.000	0.000	0.000	0.575	0.500	0.645	0.000	0.000	0.000	0.000	0.641	0.740	0.811	0.891
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	48	54	102	0	0	0	0	23	26	49	0	0	0	0	59	74	133	285
Exiting Leg	1							102							49							133							285
Total	2							204							98							266							570

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	142	12	0	159	0	0	8	0	8	167
7:15 AM	0	0	0	0	0	0	0	0	0	0	6	179	22	0	207	0	0	10	0	10	217
7:30 AM	0	0	0	0	0	0	0	0	0	0	8	194	18	0	220	0	1	14	0	15	235
7:45 AM	0	0	0	0	0	2	0	0	0	2	11	202	31	0	244	0	2	17	0	19	265
Total	0	0	0	0	0	2	0	0	0	2	30	717	83	0	830	0	3	49	0	52	884
8:00 AM	0	0	0	0	0	0	0	0	0	0	6	209	45	0	260	0	3	15	0	18	278
8:15 AM	0	0	0	0	0	0	0	0	0	0	9	202	34	0	245	0	4	27	0	31	276
8:30 AM	0	0	0	0	0	1	0	0	0	1	8	160	31	0	199	0	0	20	0	20	220
8:45 AM	0	0	0	0	0	0	0	0	0	0	7	186	45	0	238	0	3	24	0	27	265
Total	0	0	0	0	0	1	0	0	0	1	30	757	155	0	942	0	10	86	0	96	1039
Grand Total	0	0	0	0	0	3	0	0	0	3	60	1474	238	0	1772	0	13	135	0	148	1923
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		3.4	83.2	13.4	0.0		0.0	8.8	91.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	3.1	76.7	12.4	0.0	92.1	0.0	0.7	7.0	0.0	7.7	
Exiting Leg Total	1612					73					0					238					1923
Cars	0	0	0	0	0	3	0	0	0	3	40	1433	233	0	1706	0	6	120	0	126	1835
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	66.7	97.2	97.9	0.0	96.3	0.0	46.2	88.9	0.0	85.1	95.4
Exiting Leg Total	1556					46					0					233					1835
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	20	41	5	0	66	0	7	15	0	22	88
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	2.8	2.1	0.0	3.7	0.0	53.8	11.1	0.0	14.9	4.6
Exiting Leg Total	56					27					0					5					88

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

7:30 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	0	8	194	18	0	220	0	1	14	0	15	235
7:45 AM	0	0	0	0	0	2	0	0	0	2	11	202	31	0	244	0	2	17	0	19	265
8:00 AM	0	0	0	0	0	0	0	0	0	0	6	209	45	0	260	0	3	15	0	18	278
8:15 AM	0	0	0	0	0	0	0	0	0	0	9	202	34	0	245	0	4	27	0	31	276
Total Volume	0	0	0	0	0	2	0	0	0	2	34	807	128	0	969	0	10	73	0	83	1054
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		3.5	83.3	13.2	0.0		0.0	12.0	88.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.773	0.965	0.711	0.000	0.932	0.000	0.625	0.676	0.000	0.669	0.948
Cars	0	0	0	0	0	2	0	0	0	2	26	782	125	0	933	0	5	63	0	68	1003
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	76.5	96.9	97.7	0.0	96.3	0.0	50.0	86.3	0.0	81.9	95.2
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	8	25	3	0	36	0	5	10	0	15	51
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	3.1	2.3	0.0	3.7	0.0	50.0	13.7	0.0	18.1	4.8
Cars Enter Leg	0	0	0	0	0	2	0	0	0	2	26	782	125	0	933	0	5	63	0	68	1003
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	8	25	3	0	36	0	5	10	0	15	51
Total Entering Leg	0	0	0	0	0	2	0	0	0	2	34	807	128	0	969	0	10	73	0	83	1054
Cars Exiting Leg	847					31					0					125					1003
Heavy Exiting Leg	35					13					0					3					51
Total Exiting Leg	882					44					0					128					1054

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	139	12	0	153	0	0	8	0	8	161
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	173	22	0	196	0	0	9	0	9	205
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	185	17	0	209	0	0	14	0	14	223
7:45 AM	0	0	0	0	0	2	0	0	0	2	6	197	30	0	233	0	1	14	0	15	250
Total	0	0	0	0	0	2	0	0	0	2	16	694	81	0	791	0	1	45	0	46	839
8:00 AM	0	0	0	0	0	0	0	0	0	0	6	202	44	0	252	0	3	13	0	16	268
8:15 AM	0	0	0	0	0	0	0	0	0	0	7	198	34	0	239	0	1	22	0	23	262
8:30 AM	0	0	0	0	0	1	0	0	0	1	6	155	30	0	191	0	0	18	0	18	210
8:45 AM	0	0	0	0	0	0	0	0	0	0	5	184	44	0	233	0	1	22	0	23	256
Total	0	0	0	0	0	1	0	0	0	1	24	739	152	0	915	0	5	75	0	80	996
Grand Total	0	0	0	0	0	3	0	0	0	3	40	1433	233	0	1706	0	6	120	0	126	1835
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		2.3	84.0	13.7	0.0		0.0	4.8	95.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	2.2	78.1	12.7	0.0	93.0	0.0	0.3	6.5	0.0	6.9	
Exiting Leg Total	1556					46					0					233					1835

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

7:30 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	185	17	0	209	0	0	14	0	14	223
7:45 AM	0	0	0	0	0	2	0	0	0	2	6	197	30	0	233	0	1	14	0	15	250
8:00 AM	0	0	0	0	0	0	0	0	0	0	6	202	44	0	252	0	3	13	0	16	268
8:15 AM	0	0	0	0	0	0	0	0	0	0	7	198	34	0	239	0	1	22	0	23	262
Total Volume	0	0	0	0	0	2	0	0	0	2	26	782	125	0	933	0	5	63	0	68	1003
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		2.8	83.8	13.4	0.0		0.0	7.4	92.6	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.929	0.968	0.710	0.000	0.926	0.000	0.417	0.716	0.000	0.739	0.936
Entering Leg	0	0	0	0	0	2	0	0	0	2	26	782	125	0	933	0	5	63	0	68	1003
Exiting Leg	847					31					0					125					1003
Total	847					33					933					193					2006

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	6	0	0	11	0	0	1	0	1	12
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	9	1	0	11	0	1	0	0	1	12
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	1	0	11	0	1	3	0	4	15
Total	0	0	0	0	0	0	0	0	0	0	14	23	2	0	39	0	2	4	0	6	45
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	2	0	2	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	3	5	0	8	14
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	5	1	0	8	0	0	2	0	2	10
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	2	1	0	5	0	2	2	0	4	9
Total	0	0	0	0	0	0	0	0	0	0	6	18	3	0	27	0	5	11	0	16	43
Grand Total	0	0	0	0	0	0	0	0	0	0	20	41	5	0	66	0	7	15	0	22	88
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		30.3	62.1	7.6	0.0		0.0	31.8	68.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.7	46.6	5.7	0.0	75.0	0.0	8.0	17.0	0.0	25.0	
Exiting Leg Total	56					27					0					5					88
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	34	5	0	39	0	0	12	0	12	51
% Large Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.9	100.0	0.0	59.1	0.0	0.0	80.0	0.0	54.5	58.0
Exiting Leg Total	46					0					0					5					51
Buses	0	0	0	0	0	0	0	0	0	0	20	7	0	0	27	0	7	3	0	10	37
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	17.1	0.0	0.0	40.9	0.0	100.0	20.0	0.0	45.5	42.0
Exiting Leg Total	10					27					0					0					37

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

7:30 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	9	1	0	11	0	1	0	0	1	12
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	1	0	11	0	1	3	0	4	15
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	2	0	2	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	3	5	0	8	14
Total Volume	0	0	0	0	0	0	0	0	0	0	8	25	3	0	36	0	5	10	0	15	51
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		22.2	69.4	8.3	0.0		0.0	33.3	66.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.694	0.750	0.000	0.818	0.000	0.417	0.500	0.000	0.469	0.850
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	22	3	0	25	0	0	7	0	7	32
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.0	100.0	0.0	69.4	0.0	0.0	70.0	0.0	46.7	62.7
Buses	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	5	3	0	8	19
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	12.0	0.0	0.0	30.6	0.0	100.0	30.0	0.0	53.3	37.3
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	0	22	3	0	25	0	0	7	0	7	32
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	5	3	0	8	19
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	8	25	3	0	36	0	5	10	0	15	51
Trucks Exiting Leg	29					0					0					3					32
Buses Exiting Leg	6					13					0					0					19
Total Exiting Leg	35					13					0					3					51

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	1	0	1	7
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	8
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	0	0	2	0	2	7
Total	0	0	0	0	0	0	0	0	0	0	0	18	2	0	20	0	0	3	0	3	23
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	4	0	4	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	0	0	2	0	2	7
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	4
Total	0	0	0	0	0	0	0	0	0	0	0	16	3	0	19	0	0	9	0	9	28
Grand Total	0	0	0	0	0	0	0	0	0	0	0	34	5	0	39	0	0	12	0	12	51
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	87.2	12.8	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	9.8	0.0	76.5	0.0	0.0	23.5	0.0	23.5	
Exiting Leg Total	46					0					0					5					51

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

7:30 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total		Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	8
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	0	0	2	0	2	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	9
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	4	0	4	8
Total Volume	0	0	0	0	0	0	0	0	0	0	0	22	3	0	25	0	0	7	0	7	32
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	88.0	12.0	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	0.000	0.000	0.786	0.750	0.000	0.781	0.000	0.000	0.438	0.000	0.438	0.889
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	22	3	0	25	0	0	7	0	7	32
Exiting Leg	29					0					0					3					32
Total	29					0					25					10					64

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



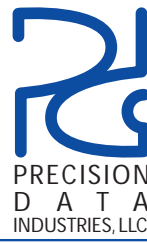
Buses

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	0	0	1	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	1	1	0	2	8
Total	0	0	0	0	0	0	0	0	0	0	14	5	0	0	19	0	2	1	0	3	22
8:00 AM	0	0	0	0	0	0	0	0	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	2	0	0	0	2	0	3	1	0	4	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	2	0	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	5	2	0	7	15
Grand Total	0	0	0	0	0	0	0	0	0	0	20	7	0	0	27	0	7	3	0	10	37
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		74.1	25.9	0.0	0.0		0.0	70.0	30.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.1	18.9	0.0	0.0	73.0	0.0	18.9	8.1	0.0	27.0	
Exiting Leg Total	10					27					0					0					37

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

7:00 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	5
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	0	0	1	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	1	1	0	2	8
Total Volume	0	0	0	0	0	0	0	0	0	0	14	5	0	0	19	0	2	1	0	3	22
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		73.7	26.3	0.0	0.0		0.0	66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.625	0.000	0.000	0.792	0.000	0.500	0.250	0.000	0.375	0.688
Entering Leg	0	0	0	0	0	0	0	0	0	0	14	5	0	0	19	0	2	1	0	3	22
Exiting Leg	6					16					0					0					22
Total	6					16					19					3					44

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



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

Bicycles (on Roadway and Crosswalks)

	Highland Avenue								Grove Street								Highland Avenue								Grove Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	0	0	0	0	3			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	0	0	0	0	0	0	0	3			
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	3			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	9	0	0	0	0	0	0	0	9			
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	11	5	0	0	0	0	17	0	0	0	0	0	0	0	18			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5	0	0	0	0	0	5	0	0	0	0	0	0	0	6			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	8	0	0	0	0	0	0	0	8			
8:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	1	1	0	0	0	2	0	0	1	0	0	0	1	6			
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	3	1	0	0	0	4	0	1	1	0	0	0	2	7			
Total	0	0	0	0	0	0	0	0	0	3	0	0	0	2	5	0	16	3	0	0	0	19	0	1	2	0	0	0	3	27			
Grand Total	0	0	0	0	0	0	0	0	0	4	0	0	0	2	6	1	27	8	0	0	0	36	0	1	2	0	0	0	3	45			
Approach %	0.0	0.0	0.0	0.0	0.0	0.0			0.0	66.7	0.0	0.0	0.0	33.3		2.8	75.0	22.2	0.0	0.0	0.0		0.0	33.3	66.7	0.0	0.0	0.0					
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	8.9	0.0	0.0	0.0	4.4	13.3	2.2	60.0	17.8	0.0	0.0	0.0	80.0	0.0	2.2	4.4	0.0	0.0	0.0	6.7				
Exiting Leg Total	29								4								0								12								45

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

7:45 AM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	9	0	0	0	0	0	0	0	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	5	0	0	0	0	5	0	0	0	0	0	0	0	6	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	0	0	0	0	0	0	0	8	
8:30 AM	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	1	1	0	0	0	2	0	0	1	0	0	0	1	6	
Total Volume	0	0	0	0	0	0	0	0	2	0	0	0	2	4	0	19	5	0	0	0	24	0	0	1	0	0	0	1	29	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	50.0	0.0	0.0	0.0	50.0		0.0	79.2	20.8	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.333	0.000	0.679	0.417	0.000	0.000	0.000	0.667	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.806	
Entering Leg	0	0	0	0	0	0	0	0	2	0	0	0	2	4	0	19	5	0	0	0	24	0	0	1	0	0	0	1	29	
Exiting Leg	20							2							0							7							29	
Total	20							6							24							8							58	

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	7	4	11	0	0	0	0	2	8	10	0	0	0	0	0	1	1	0	0	0	0	2	3	5	27
7:15 AM	0	0	0	0	9	3	12	0	0	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0	0	7	2	9	29
7:30 AM	0	0	0	0	6	8	14	0	0	0	0	2	14	16	0	0	0	0	0	0	0	0	0	0	0	5	0	5	35
7:45 AM	0	0	0	0	9	10	19	0	0	0	0	1	8	9	0	0	0	0	3	0	3	0	0	0	0	8	0	8	39
Total	0	0	0	0	31	25	56	0	0	0	0	8	35	43	0	0	0	0	3	1	4	0	0	0	0	22	5	27	130
8:00 AM	0	0	0	0	15	9	24	0	0	0	0	3	7	10	0	0	0	0	1	1	2	0	0	0	0	14	6	20	56
8:15 AM	0	0	0	0	12	13	25	0	0	0	0	2	10	12	0	0	0	0	0	0	0	0	0	0	0	10	4	14	51
8:30 AM	0	0	0	0	10	14	24	0	0	0	0	2	16	18	0	0	0	0	2	0	2	0	0	0	0	9	4	13	57
8:45 AM	0	0	0	0	8	15	23	0	0	0	0	8	14	22	0	0	0	0	0	0	0	0	0	0	0	2	1	3	48
Total	0	0	0	0	45	51	96	0	0	0	0	15	47	62	0	0	0	0	3	1	4	0	0	0	0	35	15	50	212
Grand Total	0	0	0	0	76	76	152	0	0	0	0	23	82	105	0	0	0	0	6	2	8	0	0	0	0	57	20	77	342
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	21.9	78.1		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	74.0	26.0		
Total %	0.0	0.0	0.0	0.0	22.2	22.2	44.4	0.0	0.0	0.0	0.0	6.7	24.0	30.7	0.0	0.0	0.0	0.0	1.8	0.6	2.3	0.0	0.0	0.0	0.0	16.7	5.8	22.5	
Exiting Leg Total	152							105							8							77							342

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

8:00 AM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	15	9	24	0	0	0	0	3	7	10	0	0	0	0	1	1	2	0	0	0	0	14	6	20	56
8:15 AM	0	0	0	0	12	13	25	0	0	0	0	2	10	12	0	0	0	0	0	0	0	0	0	0	10	4	14	51	
8:30 AM	0	0	0	0	10	14	24	0	0	0	0	2	16	18	0	0	0	0	2	0	2	0	0	0	0	9	4	13	57
8:45 AM	0	0	0	0	8	15	23	0	0	0	0	8	14	22	0	0	0	0	0	0	0	0	0	0	0	2	1	3	48
Total Volume	0	0	0	0	45	51	96	0	0	0	0	15	47	62	0	0	0	0	3	1	4	0	0	0	0	35	15	50	212
% Approach Total	0.0	0.0	0.0	0.0	46.9	53.1		0.0	0.0	0.0	0.0	24.2	75.8		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	70.0	30.0		
PHF	0.000	0.000	0.000	0.000	0.750	0.850	0.960	0.000	0.000	0.000	0.000	0.469	0.734	0.705	0.000	0.000	0.000	0.000	0.375	0.250	0.500	0.000	0.000	0.000	0.000	0.625	0.625	0.625	0.930
Entering Leg	0	0	0	0	45	51	96	0	0	0	0	15	47	62	0	0	0	0	3	1	4	0	0	0	0	35	15	50	212
Exiting Leg	96							62							4							50							212
Total	192							124							8							100							424

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	6	216	19	0	241	0	1	44	0	45	286
4:15 PM	0	0	0	0	0	1	0	0	0	1	9	202	15	0	226	0	3	30	0	33	260
4:30 PM	0	0	0	0	0	0	0	0	0	0	5	217	19	0	241	0	3	47	0	50	291
4:45 PM	0	0	0	0	0	2	0	0	0	2	14	194	18	0	226	0	5	37	0	42	270
Total	0	0	0	0	0	3	0	0	0	3	34	829	71	0	934	0	12	158	0	170	1107
5:00 PM	0	0	0	0	0	1	0	0	0	1	14	205	18	0	237	0	0	41	0	41	279
5:15 PM	0	0	0	0	0	1	0	0	0	1	19	230	18	0	267	0	1	44	0	45	313
5:30 PM	0	0	0	0	0	1	0	0	0	1	8	215	16	0	239	0	2	48	0	50	290
5:45 PM	0	0	0	0	0	1	0	0	0	1	16	216	31	0	263	0	7	29	0	36	300
Total	0	0	0	0	0	4	0	0	0	4	57	866	83	0	1006	0	10	162	0	172	1182
Grand Total	0	0	0	0	0	7	0	0	0	7	91	1695	154	0	1940	0	22	320	0	342	2289
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		4.7	87.4	7.9	0.0		0.0	6.4	93.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	4.0	74.0	6.7	0.0	84.8	0.0	1.0	14.0	0.0	14.9	
Exiting Leg Total	2022					113					0					154					2289
Cars	0	0	0	0	0	7	0	0	0	7	66	1675	152	0	1893	0	18	315	0	333	2233
% Cars	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	72.5	98.8	98.7	0.0	97.6	0.0	81.8	98.4	0.0	97.4	97.6
Exiting Leg Total	1997					84					0					152					2233
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	25	20	2	0	47	0	4	5	0	9	56
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	1.2	1.3	0.0	2.4	0.0	18.2	1.6	0.0	2.6	2.4
Exiting Leg Total	25					29					0					2					56

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

5:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	1	0	0	0	1	14	205	18	0	237	0	0	41	0	41	279
5:15 PM	0	0	0	0	0	1	0	0	0	1	19	230	18	0	267	0	1	44	0	45	313
5:30 PM	0	0	0	0	0	1	0	0	0	1	8	215	16	0	239	0	2	48	0	50	290
5:45 PM	0	0	0	0	0	1	0	0	0	1	16	216	31	0	263	0	7	29	0	36	300
Total Volume	0	0	0	0	0	4	0	0	0	4	57	866	83	0	1006	0	10	162	0	172	1182
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		5.7	86.1	8.3	0.0		0.0	5.8	94.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.750	0.941	0.669	0.000	0.942	0.000	0.357	0.844	0.000	0.860	0.944
Cars	0	0	0	0	0	4	0	0	0	4	44	853	82	0	979	0	9	160	0	169	1152
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	77.2	98.5	98.8	0.0	97.3	0.0	90.0	98.8	0.0	98.3	97.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	13	13	1	0	27	0	1	2	0	3	30
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8	1.5	1.2	0.0	2.7	0.0	10.0	1.2	0.0	1.7	2.5
Cars Enter Leg	0	0	0	0	0	4	0	0	0	4	44	853	82	0	979	0	9	160	0	169	1152
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	13	13	1	0	27	0	1	2	0	3	30
Total Entering Leg	0	0	0	0	0	4	0	0	0	4	57	866	83	0	1006	0	10	162	0	172	1182
Cars Exiting Leg	1017					53					0					82					1152
Heavy Exiting Leg	15					14					0					1					30
Total Exiting Leg	1032					67					0					83					1182

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	213	18	0	234	0	0	42	0	42	276
4:15 PM	0	0	0	0	0	1	0	0	0	1	5	201	15	0	221	0	2	30	0	32	254
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	215	19	0	237	0	3	46	0	49	286
4:45 PM	0	0	0	0	0	2	0	0	0	2	11	193	18	0	222	0	4	37	0	41	265
Total	0	0	0	0	0	3	0	0	0	3	22	822	70	0	914	0	9	155	0	164	1081
5:00 PM	0	0	0	0	0	1	0	0	0	1	12	202	18	0	232	0	0	40	0	40	273
5:15 PM	0	0	0	0	0	1	0	0	0	1	12	227	18	0	257	0	1	44	0	45	303
5:30 PM	0	0	0	0	0	1	0	0	0	1	7	213	15	0	235	0	2	47	0	49	285
5:45 PM	0	0	0	0	0	1	0	0	0	1	13	211	31	0	255	0	6	29	0	35	291
Total	0	0	0	0	0	4	0	0	0	4	44	853	82	0	979	0	9	160	0	169	1152
Grand Total	0	0	0	0	0	7	0	0	0	7	66	1675	152	0	1893	0	18	315	0	333	2233
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		3.5	88.5	8.0	0.0		0.0	5.4	94.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	3.0	75.0	6.8	0.0	84.8	0.0	0.8	14.1	0.0	14.9	
Exiting Leg Total	1997					84					0					152					2233

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

5:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	1	0	0	0	1	12	202	18	0	232	0	0	40	0	40	273
5:15 PM	0	0	0	0	0	1	0	0	0	1	12	227	18	0	257	0	1	44	0	45	303
5:30 PM	0	0	0	0	0	1	0	0	0	1	7	213	15	0	235	0	2	47	0	49	285
5:45 PM	0	0	0	0	0	1	0	0	0	1	13	211	31	0	255	0	6	29	0	35	291
Total Volume	0	0	0	0	0	4	0	0	0	4	44	853	82	0	979	0	9	160	0	169	1152
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		4.5	87.1	8.4	0.0		0.0	5.3	94.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	1.000	0.846	0.939	0.661	0.000	0.952	0.000	0.375	0.851	0.000	0.862	0.950
Entering Leg	0	0	0	0	0	4	0	0	0	4	44	853	82	0	979	0	9	160	0	169	1152
Exiting Leg	1017					53					0					82					1152
Total	1017					57					979					251					2304

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



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

Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	3	1	0	7	0	1	2	0	3	10
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	1	0	0	1	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	1	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	5
Total	0	0	0	0	0	0	0	0	0	0	12	7	1	0	20	0	3	3	0	6	26
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	1	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	0	0	0	0	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	0	0	1	0	1	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	1	0	0	1	9
Total	0	0	0	0	0	0	0	0	0	0	13	13	1	0	27	0	1	2	0	3	30
Grand Total	0	0	0	0	0	0	0	0	0	0	25	20	2	0	47	0	4	5	0	9	56
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		53.2	42.6	4.3	0.0		0.0	44.4	55.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.6	35.7	3.6	0.0	83.9	0.0	7.1	8.9	0.0	16.1	
Exiting Leg Total	25					29					0					2					56
Large Trucks	0	0	0	0	0	0	0	0	0	0	2	12	2	0	16	0	0	4	0	4	20
% Large Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	60.0	100.0	0.0	34.0	0.0	0.0	80.0	0.0	44.4	35.7
Exiting Leg Total	16					2					0					2					20
Buses	0	0	0	0	0	0	0	0	0	0	23	8	0	0	31	0	4	1	0	5	36
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.0	40.0	0.0	0.0	66.0	0.0	100.0	20.0	0.0	55.6	64.3
Exiting Leg Total	9					27					0					0					36

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

4:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	3	1	0	7	0	1	2	0	3	10
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	1	0	0	1	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	1	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	5
Total Volume	0	0	0	0	0	0	0	0	0	0	12	7	1	0	20	0	3	3	0	6	26
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		60.0	35.0	5.0	0.0		0.0	50.0	50.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.583	0.250	0.000	0.714	0.000	0.750	0.375	0.000	0.500	0.650
Large Trucks	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	85.7	100.0	0.0	40.0	0.0	0.0	66.7	0.0	33.3	38.5
Buses	0	0	0	0	0	0	0	0	0	0	11	1	0	0	12	0	3	1	0	4	16
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.7	14.3	0.0	0.0	60.0	0.0	100.0	33.3	0.0	66.7	61.5
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	11	1	0	0	12	0	3	1	0	4	16
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	12	7	1	0	20	0	3	3	0	6	26
Trucks Exiting Leg	8					1					0					1					10
Buses Exiting Leg	2					14					0					0					16
Total Exiting Leg	10					15					0					1					26

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
Grand Total	0	0	0	0	0	0	0	0	0	0	2	12	2	0	16	0	0	4	0	4	20
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	75.0	12.5	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	60.0	10.0	0.0	80.0	0.0	0.0	20.0	0.0	20.0	
Exiting Leg Total	16					2					0					2					20

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

4:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	75.0	12.5	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	0.000	0.250	0.500	0.250	0.000	0.500	0.000	0.000	0.500	0.000	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	6	1	0	8	0	0	2	0	2	10
Exiting Leg	8					1					0					1					10
Total	8					1					8					3					20

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	1	0	2	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	11	1	0	0	12	0	3	1	0	4	16
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	0	0	0	0	0	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	1	0	0	1	7
Total	0	0	0	0	0	0	0	0	0	0	12	7	0	0	19	0	1	0	0	1	20
Grand Total	0	0	0	0	0	0	0	0	0	0	23	8	0	0	31	0	4	1	0	5	36
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		74.2	25.8	0.0	0.0		0.0	80.0	20.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.9	22.2	0.0	0.0	86.1	0.0	11.1	2.8	0.0	13.9	
Exiting Leg Total	9					27					0					0					36

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

5:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	0	0	0	0	0	7
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	1	0	0	1	7
Total Volume	0	0	0	0	0	0	0	0	0	0	12	7	0	0	19	0	1	0	0	1	20
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		63.2	36.8	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.583	0.000	0.000	0.679	0.000	0.250	0.000	0.000	0.250	0.714
Entering Leg	0	0	0	0	0	0	0	0	0	0	12	7	0	0	19	0	1	0	0	1	20
Exiting Leg	7					13					0					0					20
Total	7					13					19					1					40

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Highland Avenue								Grove Street								Highland Avenue								Grove Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	2			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	1	0	0	0	1	3				
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	2				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	3				
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	6	0	0	0	0	8	0	0	1	0	0	0	1	10			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	5	0	0	0	0	0	6	0	1	1	0	1	0	3	10			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	1	9	0	0	1	0	0	0	1	10			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	6	0	1	1	0	0	0	2	8			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	12	0	0	0	0	0	13	0	0	0	0	0	0	0	14			
Total	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	30	0	0	0	0	1	34	0	2	3	0	1	0	6	42			
Grand Total	0	0	0	0	0	0	0	0	1	0	0	1	1	3	5	36	0	0	0	0	1	42	0	2	4	0	1	0	7	52			
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	0.0	33.3	33.3		11.9	85.7	0.0	0.0	0.0	2.4		0.0	28.6	57.1	0.0	14.3	0.0						
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.9	1.9	5.8	9.6	69.2	0.0	0.0	0.0	1.9	80.8	0.0	3.8	7.7	0.0	1.9	0.0	13.5					
Exiting Leg Total	40								9								1								2								52

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

5:00 PM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	5	0	0	0	0	0	6	0	1	1	0	1	0	3	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	1	9	0	0	1	0	0	0	1	10
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6	0	1	1	0	0	0	2	8
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	12	0	0	0	0	0	13	0	0	0	0	0	0	0	14
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	30	0	0	0	0	1	34	0	2	3	0	1	0	6	42
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		8.8	88.2	0.0	0.0	0.0	2.9		0.0	33.3	50.0	0.0	16.7	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.750	0.625	0.000	0.000	0.000	0.250	0.654	0.000	0.500	0.750	0.000	0.250	0.000	0.500		0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	30	0	0	0	1	34	0	2	3	0	1	0	6	42	
Exiting Leg	33							7							1							1							42	
Total	33							9							35							7							84	

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	12	16	28	0	0	0	0	10	14	24	0	0	0	0	0	1	1	0	0	0	0	10	5	15	68
4:15 PM	0	0	0	0	8	11	19	0	0	0	0	12	10	22	0	0	0	0	0	0	0	0	0	0	0	12	8	20	61
4:30 PM	0	0	0	0	14	10	24	0	0	0	0	13	8	21	0	0	0	0	0	0	0	0	0	0	0	5	8	13	58
4:45 PM	0	0	0	0	13	20	33	0	0	0	0	11	14	25	0	0	0	0	0	2	2	0	0	0	0	2	4	6	66
Total	0	0	0	0	47	57	104	0	0	0	0	46	46	92	0	0	0	0	0	3	3	0	0	0	0	29	25	54	253
5:00 PM	0	0	0	0	14	20	34	0	0	0	0	19	22	41	0	0	0	0	0	0	0	0	0	0	0	3	13	16	91
5:15 PM	0	0	0	0	24	20	44	0	0	0	0	15	18	33	0	0	0	0	0	2	2	0	0	0	0	8	15	23	102
5:30 PM	0	0	0	0	18	23	41	0	0	0	0	23	17	40	0	0	0	0	0	1	1	0	0	0	0	12	5	17	99
5:45 PM	0	0	0	0	24	34	58	0	0	0	0	21	21	42	0	0	0	0	0	2	2	0	0	0	0	5	14	19	121
Total	0	0	0	0	80	97	177	0	0	0	0	78	78	156	0	0	0	0	0	5	5	0	0	0	0	28	47	75	413
Grand Total	0	0	0	0	127	154	281	0	0	0	0	124	124	248	0	0	0	0	0	8	8	0	0	0	0	57	72	129	666
Approach %	0.0	0.0	0.0	0.0	45.2	54.8		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	44.2	55.8		
Total %	0.0	0.0	0.0	0.0	19.1	23.1	42.2	0.0	0.0	0.0	0.0	18.6	18.6	37.2	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	8.6	10.8	19.4	
Exiting Leg Total	281							248							8							129							666

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

5:00 PM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	14	20	34	0	0	0	0	19	22	41	0	0	0	0	0	0	0	0	0	0	0	3	13	16	91
5:15 PM	0	0	0	0	24	20	44	0	0	0	0	15	18	33	0	0	0	0	0	2	2	0	0	0	0	8	15	23	102
5:30 PM	0	0	0	0	18	23	41	0	0	0	0	23	17	40	0	0	0	0	0	1	1	0	0	0	0	12	5	17	99
5:45 PM	0	0	0	0	24	34	58	0	0	0	0	21	21	42	0	0	0	0	0	2	2	0	0	0	0	5	14	19	121
Total Volume	0	0	0	0	80	97	177	0	0	0	0	78	78	156	0	0	0	0	0	5	5	0	0	0	0	28	47	75	413
% Approach Total	0.0	0.0	0.0	0.0	45.2	54.8		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	37.3	62.7		
PHF	0.000	0.000	0.000	0.000	0.833	0.713	0.763	0.000	0.000	0.000	0.000	0.848	0.886	0.929	0.000	0.000	0.000	0.000	0.000	0.625	0.625	0.000	0.000	0.000	0.000	0.583	0.783	0.815	0.853
Entering Leg	0	0	0	0	80	97	177	0	0	0	0	78	78	156	0	0	0	0	0	5	5	0	0	0	0	28	47	75	413
Exiting Leg	177							156							5							75							413
Total	354							312							10							150							826

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	1	0	0	0	1	16	170	33	0	219	0	1	21	0	22	242
11:15 AM	0	0	0	0	0	1	0	0	0	1	22	192	45	0	259	0	4	22	0	26	286
11:30 AM	0	0	0	0	0	0	1	0	0	1	20	193	39	0	252	0	5	38	0	43	296
11:45 AM	0	0	0	0	0	1	0	0	0	1	14	190	33	0	237	0	4	33	2	39	277
Total	0	0	0	0	0	3	1	0	0	4	72	745	150	0	967	0	14	114	2	130	1101
12:00 PM	0	0	0	0	0	1	0	0	0	1	13	207	35	0	255	0	3	26	0	29	285
12:15 PM	0	0	0	0	0	1	0	0	0	1	11	171	30	0	212	0	4	33	0	37	250
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	193	31	0	231	0	3	19	0	22	253
12:45 PM	0	0	0	0	0	0	0	0	0	0	14	180	35	0	229	0	1	35	0	36	265
Total	0	0	0	0	0	2	0	0	0	2	45	751	131	0	927	0	11	113	0	124	1053
1:00 PM	0	0	1	0	1	1	0	0	0	1	9	168	21	0	198	0	4	31	0	35	235
1:15 PM	0	0	0	0	0	2	0	0	0	2	14	190	47	0	251	0	4	43	0	47	300
1:30 PM	0	0	0	0	0	1	1	0	0	2	9	168	31	0	208	0	6	36	0	42	252
1:45 PM	0	0	0	0	0	1	1	0	0	2	10	172	30	0	212	0	6	29	0	35	249
Total	0	0	1	0	1	5	2	0	0	7	42	698	129	0	869	0	20	139	0	159	1036
Grand Total	0	0	1	0	1	10	3	0	0	13	159	2194	410	0	2763	0	45	366	2	413	3190
Approach %	0.0	0.0	100.0	0.0		76.9	23.1	0.0	0.0		5.8	79.4	14.8	0.0		0.0	10.9	88.6	0.5		
Total %	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	5.0	68.8	12.9	0.0	86.6	0.0	1.4	11.5	0.1	12.9	
Exiting Leg Total	2570					205					0					415					3190
Cars	0	0	1	0	1	8	3	0	0	11	137	2165	407	0	2709	0	40	357	2	399	3120
% Cars	0.0	0.0	100.0	0.0	100.0	80.0	100.0	0.0	0.0	84.6	86.2	98.7	99.3	0.0	98.0	0.0	88.9	97.5	100.0	96.6	97.8
Exiting Leg Total	2530					178					0					412					3120
Heavy Vehicles	0	0	0	0	0	2	0	0	0	2	22	29	3	0	54	0	5	9	0	14	70
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	15.4	13.8	1.3	0.7	0.0	2.0	0.0	11.1	2.5	0.0	3.4	2.2
Exiting Leg Total	40					27					0					3					70

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	1	0	0	0	1	22	192	45	0	259	0	4	22	0	26	286
11:30 AM	0	0	0	0	0	0	1	0	0	1	20	193	39	0	252	0	5	38	0	43	296
11:45 AM	0	0	0	0	0	1	0	0	0	1	14	190	33	0	237	0	4	33	2	39	277
12:00 PM	0	0	0	0	0	1	0	0	0	1	13	207	35	0	255	0	3	26	0	29	285
Total Volume	0	0	0	0	0	3	1	0	0	4	69	782	152	0	1003	0	16	119	2	137	1144
% Approach Total	0.0	0.0	0.0	0.0		75.0	25.0	0.0	0.0		6.9	78.0	15.2	0.0		0.0	11.7	86.9	1.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.000	0.000	1.000	0.784	0.944	0.844	0.000	0.968	0.000	0.800	0.783	0.250	0.797	0.966
Cars	0	0	0	0	0	3	1	0	0	4	61	772	151	0	984	0	14	118	2	134	1122
Cars %	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	88.4	98.7	99.3	0.0	98.1	0.0	87.5	99.2	100.0	97.8	98.1
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	8	10	1	0	19	0	2	1	0	3	22
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	1.3	0.7	0.0	1.9	0.0	12.5	0.8	0.0	2.2	1.9
Cars Enter Leg	0	0	0	0	0	3	1	0	0	4	61	772	151	0	984	0	14	118	2	134	1122
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	8	10	1	0	19	0	2	1	0	3	22
Total Entering Leg	0	0	0	0	0	3	1	0	0	4	69	782	152	0	1003	0	16	119	2	137	1144
Cars Exiting Leg	893					75					0					154					1122
Heavy Exiting Leg	11					10					0					1					22
Total Exiting Leg	904					85					0					155					1144

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	15	167	33	0	215	0	1	20	0	21	236
11:15 AM	0	0	0	0	0	1	0	0	0	1	19	190	45	0	254	0	3	22	0	25	280
11:30 AM	0	0	0	0	0	0	1	0	0	1	20	190	38	0	248	0	5	38	0	43	292
11:45 AM	0	0	0	0	0	1	0	0	0	1	11	190	33	0	234	0	3	33	2	38	273
Total	0	0	0	0	0	2	1	0	0	3	65	737	149	0	951	0	12	113	2	127	1081
12:00 PM	0	0	0	0	0	1	0	0	0	1	11	202	35	0	248	0	3	25	0	28	277
12:15 PM	0	0	0	0	0	0	0	0	0	0	10	170	30	0	210	0	3	33	0	36	246
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	191	29	0	227	0	3	19	0	22	249
12:45 PM	0	0	0	0	0	0	0	0	0	0	11	178	35	0	224	0	1	34	0	35	259
Total	0	0	0	0	0	1	0	0	0	1	39	741	129	0	909	0	10	111	0	121	1031
1:00 PM	0	0	1	0	1	1	0	0	0	1	6	166	21	0	193	0	4	30	0	34	229
1:15 PM	0	0	0	0	0	2	0	0	0	2	12	186	47	0	245	0	3	40	0	43	290
1:30 PM	0	0	0	0	0	1	1	0	0	2	9	167	31	0	207	0	6	36	0	42	251
1:45 PM	0	0	0	0	0	1	1	0	0	2	6	168	30	0	204	0	5	27	0	32	238
Total	0	0	1	0	1	5	2	0	0	7	33	687	129	0	849	0	18	133	0	151	1008
Grand Total	0	0	1	0	1	8	3	0	0	11	137	2165	407	0	2709	0	40	357	2	399	3120
Approach %	0.0	0.0	100.0	0.0		72.7	27.3	0.0	0.0		5.1	79.9	15.0	0.0		0.0	10.0	89.5	0.5		
Total %	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	4.4	69.4	13.0	0.0	86.8	0.0	1.3	11.4	0.1	12.8	
Exiting Leg Total	2530					178					0					412					3120

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	1	0	0	0	1	19	190	45	0	254	0	3	22	0	25	280
11:30 AM	0	0	0	0	0	0	1	0	0	1	20	190	38	0	248	0	5	38	0	43	292
11:45 AM	0	0	0	0	0	1	0	0	0	1	11	190	33	0	234	0	3	33	2	38	273
12:00 PM	0	0	0	0	0	1	0	0	0	1	11	202	35	0	248	0	3	25	0	28	277
Total Volume	0	0	0	0	0	3	1	0	0	4	61	772	151	0	984	0	14	118	2	134	1122
% Approach Total	0.0	0.0	0.0	0.0		75.0	25.0	0.0	0.0		6.2	78.5	15.3	0.0		0.0	10.4	88.1	1.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.000	0.000	1.000	0.763	0.955	0.839	0.000	0.969	0.000	0.700	0.776	0.250	0.779	0.961
Entering Leg	0	0	0	0	0	3	1	0	0	4	61	772	151	0	984	0	14	118	2	134	1122
Exiting Leg	893					75					0					154					1122
Total	893					79					984					288					2244

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	1	0	0	0	1	1	3	0	0	4	0	0	1	0	1	6
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	1	0	0	1	6
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	4
11:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
Total	0	0	0	0	0	1	0	0	0	1	7	8	1	0	16	0	2	1	0	3	20
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	0	1	0	1	8
12:15 PM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	0	1	0	0	1	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	1	0	1	6
Total	0	0	0	0	0	1	0	0	0	1	6	10	2	0	18	0	1	2	0	3	22
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	1	0	1	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	1	3	0	4	10
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	0	8	0	1	2	0	3	11
Total	0	0	0	0	0	0	0	0	0	0	9	11	0	0	20	0	2	6	0	8	28
Grand Total	0	0	0	0	0	2	0	0	0	2	22	29	3	0	54	0	5	9	0	14	70
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		40.7	53.7	5.6	0.0		0.0	35.7	64.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	2.9	31.4	41.4	4.3	0.0	77.1	0.0	7.1	12.9	0.0	20.0	
Exiting Leg Total	40					27					0					3					70
Large Trucks	0	0	0	0	0	2	0	0	0	2	0	25	3	0	28	0	0	9	0	9	39
% Large Trucks	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	86.2	100.0	0.0	51.9	0.0	0.0	100.0	0.0	64.3	55.7
Exiting Leg Total	36					0					0					3					39
Buses	0	0	0	0	0	0	0	0	0	0	22	4	0	0	26	0	5	0	0	5	31
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	13.8	0.0	0.0	48.1	0.0	100.0	0.0	0.0	35.7	44.3
Exiting Leg Total	4					27					0					0					31

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	1	0	1	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	1	3	0	4	10
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	4	4	0	0	8	0	1	2	0	3	11
Total Volume	0	0	0	0	0	0	0	0	0	0	9	11	0	0	20	0	2	6	0	8	28
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		45.0	55.0	0.0	0.0		0.0	25.0	75.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.688	0.000	0.000	0.625	0.000	0.500	0.500	0.000	0.500	0.636
Large Trucks	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	6	0	6	16
Large Trucks %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.9	0.0	0.0	50.0	0.0	0.0	100.0	0.0	75.0	57.1
Buses	0	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	2	0	0	2	12
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	9.1	0.0	0.0	50.0	0.0	100.0	0.0	0.0	25.0	42.9
Trucks Enter Leg	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	6	0	6	16
Bus Enter Leg	0	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	2	0	0	2	12
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	9	11	0	0	20	0	2	6	0	8	28
Trucks Exiting Leg	16					0					0					0					16
Buses Exiting Leg	1					11					0					0					12
Total Exiting Leg	17					11					0					0					28

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	5	1	0	6	0	0	1	0	1	8
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	6
12:15 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
Total	0	0	0	0	0	1	0	0	0	1	0	10	2	0	12	0	0	2	0	2	15
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	6
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	2	0	2	6
Total	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	0	6	0	6	16
Grand Total	0	0	0	0	0	2	0	0	0	2	0	25	3	0	28	0	0	9	0	9	39
Approach %	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	89.3	10.7	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	5.1	0.0	64.1	7.7	0.0	71.8	0.0	0.0	23.1	0.0	23.1	
Exiting Leg Total	36					0					0					3					39

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	6
Total Volume	0	0	0	0	0	0	0	0	0	0	0	9	2	0	11	0	0	5	0	5	16
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	81.8	18.2	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	0.000	0.000	0.750	0.250	0.000	0.688	0.000	0.000	0.417	0.000	0.417	0.667
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	9	2	0	11	0	0	5	0	5	16
Exiting Leg	14					0					0					2					16
Total	14					0					11					7					32

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	2	0	0	2	12
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	1	0	0	1	7
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	1	0	0	1	4
1:30 PM	0	0	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	4	0	0	0	4	0	1	0	0	1	5
Total	0	0	0	0	0	0	0	0	0	0	9	1	0	0	10	0	2	0	0	2	12
Grand Total	0	0	0	0	0	0	0	0	0	0	22	4	0	0	26	0	5	0	0	5	31
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		84.6	15.4	0.0	0.0		0.0	100.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.0	12.9	0.0	0.0	83.9	0.0	16.1	0.0	0.0	16.1	
Exiting Leg Total	4					27					0					0					31

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	Highland Avenue					Grove Street					Highland Avenue					Grove Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
Total Volume	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	2	0	0	2	12
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		70.0	30.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.375	0.000	0.000	0.833	0.000	0.500	0.000	0.000	0.500	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	2	0	0	2	12
Exiting Leg	3					9					0					0					12
Total	3					9					10					2					24

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	1	9	1	0	0	0	0	0	1	10
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	9	1	0	0	0	0	10	0	0	0	0	0	0	0	12
11:30 AM	0	0	0	0	0	0	0	1	1	0	0	1	1	4	0	4	0	0	0	0	4	0	0	0	0	1	0	1	9	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	4	0	0	0	0	5	0	0	0	0	0	0	0	8	
Total	0	0	0	0	0	0	0	1	2	0	0	2	4	9	1	23	3	0	0	0	1	28	1	0	0	0	1	0	2	39
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	9	0	1	1	0	0	1	3	12
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	5	0	0	0	0	0	0	0	5
12:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	5	0	0	0	0	0	5	0	0	0	0	0	0	0	7
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	7	0	0	0	0	0	0	0	7
Total	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	19	5	0	0	0	0	26	0	1	1	0	0	1	3	31
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	1	1	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	1	0	0	0	0	14	0	0	0	0	0	0	0	14
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	0	0	0	0	4	0	0	0	0	0	0	0	0	5
1:45 PM	0	0	0	0	1	2	3	0	0	0	0	0	1	1	2	3	0	0	0	0	0	5	0	0	0	0	0	0	0	9
Total	0	0	0	0	1	2	3	0	0	0	0	0	2	2	5	22	1	0	0	0	0	28	0	0	0	0	0	1	1	34
Grand Total	0	0	0	0	1	2	3	1	4	0	0	2	6	13	8	64	9	0	0	0	1	82	1	1	1	0	1	2	6	104
Approach %	0.0	0.0	0.0	0.0	33.3	66.7		7.7	30.8	0.0	0.0	15.4	46.2		9.8	78.0	11.0	0.0	0.0	1.2		16.7	16.7	16.7	0.0	16.7	33.3			
Total %	0.0	0.0	0.0	0.0	1.0	1.9	2.9	1.0	3.8	0.0	0.0	1.9	5.8	12.5	7.7	61.5	8.7	0.0	0.0	1.0	78.8	1.0	1.0	1.0	0.0	1.0	1.9	5.8		
Exiting Leg Total	69							17							2							16							104	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	9	1	0	0	0	0	10	0	0	0	0	0	0	0	12
11:30 AM	0	0	0	0	0	0	0	1	1	0	0	1	1	4	0	4	0	0	0	0	4	0	0	0	0	1	0	1	9	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	4	0	0	0	0	5	0	0	0	0	0	0	0	8	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	3	0	0	0	9	0	1	1	0	0	1	3	12	
Total Volume	0	0	0	0	0	0	0	1	2	0	0	2	4	9	2	22	4	0	0	0	28	0	1	1	0	1	1	4	41	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		11.1	22.2	0.0	0.0	22.2	44.4		7.1	78.6	14.3	0.0	0.0	0.0		0.0	25.0	25.0	0.0	25.0	25.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.500	0.500	0.563	0.500	0.611	0.333	0.000	0.000	0.000	0.700	0.000	0.250	0.250	0.000	0.250	0.250	0.333	0.854	
Entering Leg	0	0	0	0	0	0	0	1	2	0	0	2	4	9	2	22	4	0	0	0	28	0	1	1	0	1	1	4	41	
Exiting Leg	24							9							0							8							41	
Total	24							18							28							12							82	

PDI File #: **175971 J**
 Location: **N: Highland Avenue S: Highland Avenue**
 Location: **E: Grove Street W: Grove Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	34	42	76	0	0	0	0	18	33	51	0	0	0	0	0	2	2	0	0	0	0	31	11	42	171
11:15 AM	0	0	0	0	25	37	62	0	0	0	0	19	25	44	0	0	0	0	0	4	4	0	0	0	0	27	10	37	147
11:30 AM	0	0	0	0	29	25	54	0	0	0	0	26	21	47	0	0	0	0	1	0	1	0	0	0	0	19	11	30	132
11:45 AM	0	0	0	0	31	27	58	0	0	0	0	24	28	52	0	0	0	0	0	2	2	0	0	0	0	30	15	45	157
Total	0	0	0	0	119	131	250	0	0	0	0	87	107	194	0	0	0	0	1	8	9	0	0	0	0	107	47	154	607
12:00 PM	0	0	0	0	24	35	59	0	0	0	0	22	38	60	0	0	0	0	4	3	7	0	0	0	0	18	13	31	157
12:15 PM	0	0	0	0	18	22	40	0	0	0	0	26	30	56	0	0	0	0	0	9	9	0	0	0	0	13	14	27	132
12:30 PM	0	0	0	0	31	31	62	0	0	0	0	28	37	65	0	0	0	0	0	3	3	0	0	0	0	15	15	30	160
12:45 PM	0	0	0	0	26	33	59	0	0	0	0	38	31	69	0	0	0	0	0	0	0	0	0	0	0	17	15	32	160
Total	0	0	0	0	99	121	220	0	0	0	0	114	136	250	0	0	0	0	4	15	19	0	0	0	0	63	57	120	609
1:00 PM	0	0	0	0	27	40	67	0	0	0	0	24	27	51	0	0	0	0	1	5	6	0	0	0	0	18	20	38	162
1:15 PM	0	0	0	0	33	31	64	0	0	0	0	24	23	47	0	0	0	0	1	2	3	0	0	0	0	15	27	42	156
1:30 PM	0	0	0	0	41	28	69	0	0	0	0	25	24	49	0	0	0	0	0	3	3	0	0	0	0	22	4	26	147
1:45 PM	0	0	0	0	34	24	58	0	0	0	0	16	28	44	0	0	0	0	2	1	3	0	0	0	0	21	20	41	146
Total	0	0	0	0	135	123	258	0	0	0	0	89	102	191	0	0	0	0	4	11	15	0	0	0	0	76	71	147	611
Grand Total	0	0	0	0	353	375	728	0	0	0	0	290	345	635	0	0	0	0	9	34	43	0	0	0	0	246	175	421	1827
Approach %	0.0	0.0	0.0	0.0	48.5	51.5		0.0	0.0	0.0	0.0	45.7	54.3		0.0	0.0	0.0	0.0	20.9	79.1		0.0	0.0	0.0	0.0	58.4	41.6		
Total %	0.0	0.0	0.0	0.0	19.3	20.5	39.8	0.0	0.0	0.0	0.0	15.9	18.9	34.8	0.0	0.0	0.0	0.0	0.5	1.9	2.4	0.0	0.0	0.0	0.0	13.5	9.6	23.0	
Exiting Leg Total	728							635							43							421							1827

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Highland Avenue							Grove Street							Highland Avenue							Grove Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:30 PM	0	0	0	0	31	31	62	0	0	0	0	28	37	65	0	0	0	0	0	3	3	0	0	0	0	15	15	30	160
12:45 PM	0	0	0	0	26	33	59	0	0	0	0	38	31	69	0	0	0	0	0	0	0	0	0	0	0	17	15	32	160
1:00 PM	0	0	0	0	27	40	67	0	0	0	0	24	27	51	0	0	0	0	1	5	6	0	0	0	0	18	20	38	162
1:15 PM	0	0	0	0	33	31	64	0	0	0	0	24	23	47	0	0	0	0	1	2	3	0	0	0	0	15	27	42	156
Total Volume	0	0	0	0	117	135	252	0	0	0	0	114	118	232	0	0	0	0	2	10	12	0	0	0	0	65	77	142	638
% Approach Total	0.0	0.0	0.0	0.0	46.4	53.6		0.0	0.0	0.0	0.0	49.1	50.9		0.0	0.0	0.0	0.0	16.7	83.3		0.0	0.0	0.0	0.0	45.8	54.2		
PHF	0.000	0.000	0.000	0.000	0.886	0.844	0.940	0.000	0.000	0.000	0.000	0.750	0.797	0.841	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.903	0.713	0.845	0.985
Entering Leg	0	0	0	0	117	135	252	0	0	0	0	114	118	232	0	0	0	0	2	10	12	0	0	0	0	65	77	142	638
Exiting Leg	252							232							12							142							638
Total	504							464							24							284							1276

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	17	100	0	117	40	2	0	42	0	0	0	0	159
7:15 AM	8	135	0	143	44	1	0	45	0	0	0	0	188
7:30 AM	9	119	0	128	57	1	0	58	0	0	0	0	186
7:45 AM	14	113	0	127	66	0	0	66	0	0	0	0	193
Total	48	467	0	515	207	4	0	211	0	0	0	0	726
8:00 AM	15	119	0	134	70	3	0	73	0	0	0	0	207
8:15 AM	19	92	0	111	60	2	0	62	0	0	0	0	173
8:30 AM	18	108	0	126	53	4	0	57	0	0	0	0	183
8:45 AM	10	91	0	101	55	0	0	55	0	0	0	0	156
Total	62	410	0	472	238	9	0	247	0	0	0	0	719
Grand Total	110	877	0	987	445	13	0	458	0	0	0	0	1445
Approach %	11.1	88.9	0.0		97.2	2.8	0.0		0.0	0.0	0.0		
Total %	7.6	60.7	0.0	68.3	30.8	0.9	0.0	31.7	0.0	0.0	0.0	0.0	
Exiting Leg Total				445				877				123	1445
Cars	109	821	0	930	423	11	0	434	0	0	0	0	1364
% Cars	99.1	93.6	0.0	94.2	95.1	84.6	0.0	94.8	0.0	0.0	0.0	0.0	94.4
Exiting Leg Total				423				821				120	1364
Heavy Vehicles	1	56	0	57	22	2	0	24	0	0	0	0	81
% Heavy Vehicles	0.9	6.4	0.0	5.8	4.9	15.4	0.0	5.2	0.0	0.0	0.0	0.0	5.6
Exiting Leg Total				22				56				3	81

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

7:15 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:15 AM	8	135	0	143	44	1	0	45	0	0	0	0	188
7:30 AM	9	119	0	128	57	1	0	58	0	0	0	0	186
7:45 AM	14	113	0	127	66	0	0	66	0	0	0	0	193
8:00 AM	15	119	0	134	70	3	0	73	0	0	0	0	207
Total Volume	46	486	0	532	237	5	0	242	0	0	0	0	774
% Approach Total	8.6	91.4	0.0		97.9	2.1	0.0		0.0	0.0	0.0		
PHF	0.767	0.900	0.000	0.930	0.846	0.417	0.000	0.829	0.000	0.000	0.000	0.000	0.935
Cars	46	452	0	498	227	4	0	231	0	0	0	0	729
Cars %	100.0	93.0	0.0	93.6	95.8	80.0	0.0	95.5	0.0	0.0	0.0	0.0	94.2
Heavy Vehicles	0	34	0	34	10	1	0	11	0	0	0	0	45
Heavy Vehicles %	0.0	7.0	0.0	6.4	4.2	20.0	0.0	4.5	0.0	0.0	0.0	0.0	5.8
Cars Enter Leg	46	452	0	498	227	4	0	231	0	0	0	0	729
Heavy Enter Leg	0	34	0	34	10	1	0	11	0	0	0	0	45
Total Entering Leg	46	486	0	532	237	5	0	242	0	0	0	0	774
Cars Exiting Leg				227				452				50	729
Heavy Exiting Leg				10				34				1	45
Total Exiting Leg				237				486				51	774

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	17	94	0	111	39	2	0	41	0	0	0	0	152
7:15 AM	8	121	0	129	42	1	0	43	0	0	0	0	172
7:30 AM	9	114	0	123	52	0	0	52	0	0	0	0	175
7:45 AM	14	106	0	120	64	0	0	64	0	0	0	0	184
Total	48	435	0	483	197	3	0	200	0	0	0	0	683
8:00 AM	15	111	0	126	69	3	0	72	0	0	0	0	198
8:15 AM	19	88	0	107	56	2	0	58	0	0	0	0	165
8:30 AM	17	102	0	119	49	3	0	52	0	0	0	0	171
8:45 AM	10	85	0	95	52	0	0	52	0	0	0	0	147
Total	61	386	0	447	226	8	0	234	0	0	0	0	681
Grand Total	109	821	0	930	423	11	0	434	0	0	0	0	1364
Approach %	11.7	88.3	0.0		97.5	2.5	0.0		0.0	0.0	0.0		
Total %	8.0	60.2	0.0	68.2	31.0	0.8	0.0	31.8	0.0	0.0	0.0	0.0	
Exiting Leg Total	423				821				120				1364

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

7:15 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:15 AM	8	121	0	129	42	1	0	43	0	0	0	0	172
7:30 AM	9	114	0	123	52	0	0	52	0	0	0	0	175
7:45 AM	14	106	0	120	64	0	0	64	0	0	0	0	184
8:00 AM	15	111	0	126	69	3	0	72	0	0	0	0	198
Total Volume	46	452	0	498	227	4	0	231	0	0	0	0	729
% Approach Total	9.2	90.8	0.0		98.3	1.7	0.0		0.0	0.0	0.0		
PHF	0.767	0.934	0.000	0.965	0.822	0.333	0.000	0.802	0.000	0.000	0.000	0.000	0.920
Entering Leg	46	452	0	498	227	4	0	231	0	0	0	0	729
Exiting Leg				227				452				50	729
Total				725				683				50	1458

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	College Avenue				College Avenue				Winter Street				
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
7:00 AM	0	6	0	6	1	0	0	1	0	0	0	0	7
7:15 AM	0	14	0	14	2	0	0	2	0	0	0	0	16
7:30 AM	0	5	0	5	5	1	0	6	0	0	0	0	11
7:45 AM	0	7	0	7	2	0	0	2	0	0	0	0	9
Total	0	32	0	32	10	1	0	11	0	0	0	0	43
8:00 AM	0	8	0	8	1	0	0	1	0	0	0	0	9
8:15 AM	0	4	0	4	4	0	0	4	0	0	0	0	8
8:30 AM	1	6	0	7	4	1	0	5	0	0	0	0	12
8:45 AM	0	6	0	6	3	0	0	3	0	0	0	0	9
Total	1	24	0	25	12	1	0	13	0	0	0	0	38
Grand Total	1	56	0	57	22	2	0	24	0	0	0	0	81
Approach %	1.8	98.2	0.0		91.7	8.3	0.0		0.0	0.0	0.0		
Total %	1.2	69.1	0.0	70.4	27.2	2.5	0.0	29.6	0.0	0.0	0.0	0.0	
Exiting Leg Total	22				56				3				81
Large Trucks	1	35	0	36	4	2	0	6	0	0	0	0	42
% Large Trucks	100.0	62.5	0.0	63.2	18.2	100.0	0.0	25.0	0.0	0.0	0.0	0.0	51.9
Exiting Leg Total	4				35				3				42
Buses	0	21	0	21	18	0	0	18	0	0	0	0	39
% Buses	0.0	37.5	0.0	36.8	81.8	0.0	0.0	75.0	0.0	0.0	0.0	0.0	48.1
Exiting Leg Total	18				21				0				39

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

7:15 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:15 AM	0	14	0	14	2	0	0	2	0	0	0	0	16
7:30 AM	0	5	0	5	5	1	0	6	0	0	0	0	11
7:45 AM	0	7	0	7	2	0	0	2	0	0	0	0	9
8:00 AM	0	8	0	8	1	0	0	1	0	0	0	0	9
Total Volume	0	34	0	34	10	1	0	11	0	0	0	0	45
% Approach Total	0.0	100.0	0.0		90.9	9.1	0.0		0.0	0.0	0.0		
PHF	0.000	0.607	0.000	0.607	0.500	0.250	0.000	0.458	0.000	0.000	0.000	0.000	0.703
Large Trucks	0	24	0	24	2	1	0	3	0	0	0	0	27
Large Trucks %	0.0	70.6	0.0	70.6	20.0	100.0	0.0	27.3	0.0	0.0	0.0	0.0	60.0
Buses	0	10	0	10	8	0	0	8	0	0	0	0	18
Buses %	0.0	29.4	0.0	29.4	80.0	0.0	0.0	72.7	0.0	0.0	0.0	0.0	40.0
Trucks Enter Leg	0	24	0	24	2	1	0	3	0	0	0	0	27
Bus Enter Leg	0	10	0	10	8	0	0	8	0	0	0	0	18
Total Entering Leg	0	34	0	34	10	1	0	11	0	0	0	0	45
Trucks Exiting Leg				2				24				1	27
Buses Exiting Leg				8				10				0	18
Total Exiting Leg				10				34				1	45

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
7:15 AM	0	9	0	9	0	0	0	0	0	0	0	0	9
7:30 AM	0	4	0	4	2	1	0	3	0	0	0	0	7
7:45 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
Total	0	21	0	21	2	1	0	3	0	0	0	0	24
8:00 AM	0	7	0	7	0	0	0	0	0	0	0	0	7
8:15 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:30 AM	1	3	0	4	1	1	0	2	0	0	0	0	6
8:45 AM	0	3	0	3	0	0	0	0	0	0	0	0	3
Total	1	14	0	15	2	1	0	3	0	0	0	0	18
Grand Total	1	35	0	36	4	2	0	6	0	0	0	0	42
Approach %	2.8	97.2	0.0		66.7	33.3	0.0		0.0	0.0	0.0		
Total %	2.4	83.3	0.0	85.7	9.5	4.8	0.0	14.3	0.0	0.0	0.0	0.0	
Exiting Leg Total	4				35				3				42

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

7:15 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:15 AM	0	9	0	9	0	0	0	0	0	0	0	0	9
7:30 AM	0	4	0	4	2	1	0	3	0	0	0	0	7
7:45 AM	0	4	0	4	0	0	0	0	0	0	0	0	4
8:00 AM	0	7	0	7	0	0	0	0	0	0	0	0	7
Total Volume	0	24	0	24	2	1	0	3	0	0	0	0	27
% Approach Total	0.0	100.0	0.0		66.7	33.3	0.0		0.0	0.0	0.0		
PHF	0.000	0.667	0.000	0.667	0.250	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	24	0	24	2	1	0	3	0	0	0	0	27
Exiting Leg				2				24				1	27
Total				26				27				1	54

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
7:00 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
7:15 AM	0	5	0	5	2	0	0	2	0	0	0	0	7
7:30 AM	0	1	0	1	3	0	0	3	0	0	0	0	4
7:45 AM	0	3	0	3	2	0	0	2	0	0	0	0	5
Total	0	11	0	11	8	0	0	8	0	0	0	0	19
8:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:30 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:45 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
Total	0	10	0	10	10	0	0	10	0	0	0	0	20
Grand Total	0	21	0	21	18	0	0	18	0	0	0	0	39
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	53.8	0.0	53.8	46.2	0.0	0.0	46.2	0.0	0.0	0.0	0.0	
Exiting Leg Total	18				21				0				39

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

8:00 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
8:00 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:30 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
8:45 AM	0	3	0	3	3	0	0	3	0	0	0	0	6
Total Volume	0	10	0	10	10	0	0	10	0	0	0	0	20
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.833	0.000	0.833	0.833	0.000	0.000	0.833	0.000	0.000	0.000	0.000	0.833
Entering Leg	0	10	0	10	10	0	0	10	0	0	0	0	20
Exiting Leg				10				10				0	20
Total				20				20				0	40

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	College Avenue						College Avenue						Winter Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	3	0	0	0	3	1	0	0	0	0	0	1	0	0	0	0	0	0	4
7:30 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	0	7	0	0	0	7	1	0	0	0	0	0	1	0	0	0	0	0	0	8
Total	0	19	0	0	0	19	2	0	0	0	0	0	2	0	0	0	0	0	0	21
8:00 AM	2	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
8:15 AM	0	5	0	0	0	5	1	0	0	1	4	6	0	0	0	0	0	0	0	11
8:30 AM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1	1	9	
8:45 AM	0	5	0	0	0	5	2	0	0	2	1	5	0	0	0	0	1	1	11	
Total	2	25	0	0	0	27	3	0	0	3	5	11	0	0	0	0	2	2	40	
Grand Total	2	44	0	0	0	46	5	0	0	3	5	13	0	0	0	0	2	2	61	
Approach %	4.3	95.7	0.0	0.0	0.0		38.5	0.0	0.0	23.1	38.5		0.0	0.0	0.0	0.0	100.0			
Total %	3.3	72.1	0.0	0.0	0.0	75.4	8.2	0.0	0.0	4.9	8.2	21.3	0.0	0.0	0.0	0.0	3.3	3.3		
Exiting Leg Total	5						52						4						61	

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

8:00 AM	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	2	7	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
8:15 AM	0	5	0	0	0	5	1	0	0	1	4	6	0	0	0	0	0	0	11
8:30 AM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	1	1	9
8:45 AM	0	5	0	0	0	5	2	0	0	2	1	5	0	0	0	0	1	1	11
Total Volume	2	25	0	0	0	27	3	0	0	3	5	11	0	0	0	0	2	2	40
% Approach Total	7.4	92.6	0.0	0.0	0.0		27.3	0.0	0.0	27.3	45.5		0.0	0.0	0.0	0.0	100.0		
PHF	0.250	0.781	0.000	0.000	0.000	0.750	0.375	0.000	0.000	0.375	0.313	0.458	0.000	0.000	0.000	0.000	0.500	0.500	0.909
Entering Leg	2	25	0	0	0	27	3	0	0	3	5	11	0	0	0	0	2	2	40
Exiting Leg	3						33						4						40
Total	30						44						6						80

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	1	1	2	0	0	0	6	48	54	0	0	0	5	11	16	72
7:15 AM	0	0	0	0	0	0	0	0	0	8	74	82	0	0	0	0	25	25	107
7:30 AM	0	0	0	0	0	0	0	0	0	14	35	49	0	0	0	3	28	31	80
7:45 AM	0	0	0	12	0	12	0	0	0	13	77	90	0	0	0	7	22	29	131
Total	0	0	0	13	1	14	0	0	0	41	234	275	0	0	0	15	86	101	390
8:00 AM	0	0	0	2	0	2	0	0	0	15	46	61	0	0	0	8	33	41	104
8:15 AM	0	0	0	49	0	49	0	0	0	25	74	99	0	0	0	8	45	53	201
8:30 AM	0	0	0	0	0	0	0	0	0	28	75	103	0	0	0	3	21	24	127
8:45 AM	0	0	0	0	0	0	0	0	0	15	126	141	0	0	0	10	22	32	173
Total	0	0	0	51	0	51	0	0	0	83	321	404	0	0	0	29	121	150	605
Grand Total	0	0	0	64	1	65	0	0	0	124	555	679	0	0	0	44	207	251	995
Approach %	0.0	0.0	0.0	98.5	1.5		0.0	0.0	0.0	18.3	81.7		0.0	0.0	0.0	17.5	82.5		
Total %	0.0	0.0	0.0	6.4	0.1	6.5	0.0	0.0	0.0	12.5	55.8	68.2	0.0	0.0	0.0	4.4	20.8	25.2	
Exiting Leg Total	65						679						251						995

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

8:00 AM	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	2	0	2	0	0	0	15	46	61	0	0	0	8	33	41	104
8:15 AM	0	0	0	49	0	49	0	0	0	25	74	99	0	0	0	8	45	53	201
8:30 AM	0	0	0	0	0	0	0	0	0	28	75	103	0	0	0	3	21	24	127
8:45 AM	0	0	0	0	0	0	0	0	0	15	126	141	0	0	0	10	22	32	173
Total Volume	0	0	0	51	0	51	0	0	0	83	321	404	0	0	0	29	121	150	605
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	20.5	79.5		0.0	0.0	0.0	19.3	80.7		
PHF	0.000	0.000	0.000	0.260	0.000	0.260	0.000	0.000	0.000	0.741	0.637	0.716	0.000	0.000	0.000	0.725	0.672	0.708	0.752
Entering Leg	0	0	0	51	0	51	0	0	0	83	321	404	0	0	0	29	121	150	605
Exiting Leg	51						404						150						605
Total	102						808						300						1210

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	16	66	0	82	116	7	0	123	0	0	0	0	205
4:15 PM	11	71	0	82	83	9	0	92	0	0	0	0	174
4:30 PM	16	94	0	110	109	5	0	114	0	0	0	0	224
4:45 PM	19	75	0	94	93	5	0	98	0	0	0	0	192
Total	62	306	0	368	401	26	0	427	0	0	0	0	795
5:00 PM	15	71	0	86	99	7	0	106	0	0	0	0	192
5:15 PM	20	82	0	102	126	4	0	130	0	0	0	0	232
5:30 PM	18	53	0	71	115	2	0	117	0	0	0	0	188
5:45 PM	22	51	0	73	76	2	0	78	0	0	0	0	151
Total	75	257	0	332	416	15	0	431	0	0	0	0	763
Grand Total	137	563	0	700	817	41	0	858	0	0	0	0	1558
Approach %	19.6	80.4	0.0		95.2	4.8	0.0		0.0	0.0	0.0		
Total %	8.8	36.1	0.0	44.9	52.4	2.6	0.0	55.1	0.0	0.0	0.0	0.0	
Exiting Leg Total				817				563				178	1558
Cars	136	537	0	673	793	41	0	834	0	0	0	0	1507
% Cars	99.3	95.4	0.0	96.1	97.1	100.0	0.0	97.2	0.0	0.0	0.0	0.0	96.7
Exiting Leg Total				793				537				177	1507
Heavy Vehicles	1	26	0	27	24	0	0	24	0	0	0	0	51
% Heavy Vehicles	0.7	4.6	0.0	3.9	2.9	0.0	0.0	2.8	0.0	0.0	0.0	0.0	3.3
Exiting Leg Total				24				26				1	51

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

4:30 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:30 PM	16	94	0	110	109	5	0	114	0	0	0	0	224
4:45 PM	19	75	0	94	93	5	0	98	0	0	0	0	192
5:00 PM	15	71	0	86	99	7	0	106	0	0	0	0	192
5:15 PM	20	82	0	102	126	4	0	130	0	0	0	0	232
Total Volume	70	322	0	392	427	21	0	448	0	0	0	0	840
% Approach Total	17.9	82.1	0.0		95.3	4.7	0.0		0.0	0.0	0.0		
PHF	0.875	0.856	0.000	0.891	0.847	0.750	0.000	0.862	0.000	0.000	0.000	0.000	0.905
Cars	69	308	0	377	416	21	0	437	0	0	0	0	814
Cars %	98.6	95.7	0.0	96.2	97.4	100.0	0.0	97.5	0.0	0.0	0.0	0.0	96.9
Heavy Vehicles	1	14	0	15	11	0	0	11	0	0	0	0	26
Heavy Vehicles %	1.4	4.3	0.0	3.8	2.6	0.0	0.0	2.5	0.0	0.0	0.0	0.0	3.1
Cars Enter Leg	69	308	0	377	416	21	0	437	0	0	0	0	814
Heavy Enter Leg	1	14	0	15	11	0	0	11	0	0	0	0	26
Total Entering Leg	70	322	0	392	427	21	0	448	0	0	0	0	840
Cars Exiting Leg				416				308				90	814
Heavy Exiting Leg				11				14				1	26
Total Exiting Leg				427				322				91	840

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	16	63	0	79	112	7	0	119	0	0	0	0	198
4:15 PM	11	67	0	78	80	9	0	89	0	0	0	0	167
4:30 PM	16	91	0	107	107	5	0	112	0	0	0	0	219
4:45 PM	19	71	0	90	90	5	0	95	0	0	0	0	185
Total	62	292	0	354	389	26	0	415	0	0	0	0	769
5:00 PM	15	70	0	85	97	7	0	104	0	0	0	0	189
5:15 PM	19	76	0	95	122	4	0	126	0	0	0	0	221
5:30 PM	18	50	0	68	111	2	0	113	0	0	0	0	181
5:45 PM	22	49	0	71	74	2	0	76	0	0	0	0	147
Total	74	245	0	319	404	15	0	419	0	0	0	0	738
Grand Total	136	537	0	673	793	41	0	834	0	0	0	0	1507
Approach %	20.2	79.8	0.0		95.1	4.9	0.0		0.0	0.0	0.0		
Total %	9.0	35.6	0.0	44.7	52.6	2.7	0.0	55.3	0.0	0.0	0.0	0.0	
Exiting Leg Total	793				537				177				1507

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

4:30 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:30 PM	16	91	0	107	107	5	0	112	0	0	0	0	219
4:45 PM	19	71	0	90	90	5	0	95	0	0	0	0	185
5:00 PM	15	70	0	85	97	7	0	104	0	0	0	0	189
5:15 PM	19	76	0	95	122	4	0	126	0	0	0	0	221
Total Volume	69	308	0	377	416	21	0	437	0	0	0	0	814
% Approach Total	18.3	81.7	0.0		95.2	4.8	0.0		0.0	0.0	0.0		
PHF	0.908	0.846	0.000	0.881	0.852	0.750	0.000	0.867	0.000	0.000	0.000	0.000	0.921
Entering Leg	69	308	0	377	416	21	0	437	0	0	0	0	814
Exiting Leg				416				308				90	814
Total				793				745				90	1628

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	College Avenue				College Avenue				Winter Street				
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
4:00 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
4:15 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
4:30 PM	0	3	0	3	2	0	0	2	0	0	0	0	5
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total	0	14	0	14	12	0	0	12	0	0	0	0	26
5:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:15 PM	1	6	0	7	4	0	0	4	0	0	0	0	11
5:30 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
5:45 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
Total	1	12	0	13	12	0	0	12	0	0	0	0	25
Grand Total	1	26	0	27	24	0	0	24	0	0	0	0	51
Approach %	3.7	96.3	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	2.0	51.0	0.0	52.9	47.1	0.0	0.0	47.1	0.0	0.0	0.0	0.0	
Exiting Leg Total	24				26				1				51
Large Trucks	1	6	0	7	8	0	0	8	0	0	0	0	15
% Large Trucks	100.0	23.1	0.0	25.9	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	29.4
Exiting Leg Total	8				6				1				15
Buses	0	20	0	20	16	0	0	16	0	0	0	0	36
% Buses	0.0	76.9	0.0	74.1	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	70.6
Exiting Leg Total	16				20				0				36

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

4:45 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
5:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:15 PM	1	6	0	7	4	0	0	4	0	0	0	0	11
5:30 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
Total Volume	1	14	0	15	13	0	0	13	0	0	0	0	28
% Approach Total	6.7	93.3	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.583	0.000	0.536	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.636
Large Trucks	1	3	0	4	4	0	0	4	0	0	0	0	8
Large Trucks %	100.0	21.4	0.0	26.7	30.8	0.0	0.0	30.8	0.0	0.0	0.0	0.0	28.6
Buses	0	11	0	11	9	0	0	9	0	0	0	0	20
Buses %	0.0	78.6	0.0	73.3	69.2	0.0	0.0	69.2	0.0	0.0	0.0	0.0	71.4
Trucks Enter Leg	1	3	0	4	4	0	0	4	0	0	0	0	8
Bus Enter Leg	0	11	0	11	9	0	0	9	0	0	0	0	20
Total Entering Leg	1	14	0	15	13	0	0	13	0	0	0	0	28
Trucks Exiting Leg				4				3				1	8
Buses Exiting Leg				9				11				0	20
Total Exiting Leg				13				14				1	28

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:45 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	0	5	0	5	5	0	0	5	0	0	0	0	10
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
5:30 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	3	0	0	3	0	0	0	0	5
Grand Total	1	6	0	7	8	0	0	8	0	0	0	0	15
Approach %	14.3	85.7	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	6.7	40.0	0.0	46.7	53.3	0.0	0.0	53.3	0.0	0.0	0.0	0.0	
Exiting Leg Total	8				6				1				15

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

4:00 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
4:15 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:45 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total Volume	0	5	0	5	5	0	0	5	0	0	0	0	10
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.625	0.000	0.625	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.833
Entering Leg	0	5	0	5	5	0	0	5	0	0	0	0	10
Exiting Leg				5				5				0	10
Total				10				10				0	20

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
4:15 PM	0	3	0	3	2	0	0	2	0	0	0	0	5
4:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
Total	0	9	0	9	7	0	0	7	0	0	0	0	16
5:00 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
5:15 PM	0	6	0	6	3	0	0	3	0	0	0	0	9
5:30 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
5:45 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
Total	0	11	0	11	9	0	0	9	0	0	0	0	20
Grand Total	0	20	0	20	16	0	0	16	0	0	0	0	36
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	55.6	0.0	55.6	44.4	0.0	0.0	44.4	0.0	0.0	0.0	0.0	
Exiting Leg Total	16				20				0				36

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

4:00 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
4:15 PM	0	3	0	3	2	0	0	2	0	0	0	0	5
4:30 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
4:45 PM	0	2	0	2	2	0	0	2	0	0	0	0	4
Total Volume	0	9	0	9	7	0	0	7	0	0	0	0	16
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.750	0.875	0.000	0.000	0.875	0.000	0.000	0.000	0.000	0.800
Entering Leg	0	9	0	9	7	0	0	7	0	0	0	0	16
Exiting Leg				7				9				0	16
Total				16				16				0	32

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	College Avenue						College Avenue						Winter Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	3	0	0	0	0	1	4	0	0	0	1	0	1	5
4:15 PM	0	3	0	0	0	3	2	0	0	0	0	0	2	0	0	0	0	0	0	5
4:30 PM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	1	1	7
4:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	9	0	0	0	9	7	0	0	0	0	1	8	0	0	0	1	1	2	19
5:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	2	1	0	0	0	0	3	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	3
5:45 PM	0	2	0	0	0	2	6	0	0	0	0	0	6	1	0	0	0	0	1	9
Total	0	3	0	0	0	3	12	1	0	0	0	0	13	1	0	0	0	0	1	17
Grand Total	0	12	0	0	0	12	19	1	0	0	0	1	21	1	0	0	1	1	3	36
Approach %	0.0	100.0	0.0	0.0	0.0		90.5	4.8	0.0	0.0	4.8		33.3	0.0	0.0	33.3	33.3			
Total %	0.0	33.3	0.0	0.0	0.0	33.3	52.8	2.8	0.0	0.0	2.8	58.3	2.8	0.0	0.0	2.8	2.8	8.3		
Exiting Leg Total	19						14						3						36	

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

4:00 PM	College Avenue						College Avenue						Winter Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	0	3	0	0	0	1	4	0	0	0	1	0	1	5	
4:15 PM	0	3	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	5	
4:30 PM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	1	7	
4:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	2	
Total Volume	0	9	0	0	0	9	7	0	0	0	1	8	0	0	0	1	1	2	19	
% Approach Total	0.0	100.0	0.0	0.0	0.0		87.5	0.0	0.0	0.0	12.5		0.0	0.0	0.0	50.0	50.0			
PHF	0.000	0.375	0.000	0.000	0.000	0.375	0.583	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.250	0.250	0.500	0.679	
Entering Leg	0	9	0	0	0	9	7	0	0	0	1	8	0	0	0	1	1	2	19	
Exiting Leg	7						10						2						2	19
Total	16						18						4						4	38

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	2	0	2	0	0	0	32	56	88	0	0	0	22	27	49	139
4:15 PM	0	0	0	0	0	0	0	0	0	26	24	50	0	0	0	12	12	24	74
4:30 PM	0	0	0	1	0	1	0	0	0	15	21	36	0	0	0	17	16	33	70
4:45 PM	0	0	0	1	0	1	0	0	0	15	31	46	0	0	0	15	18	33	80
Total	0	0	0	4	0	4	0	0	0	88	132	220	0	0	0	66	73	139	363
5:00 PM	0	0	0	0	0	0	0	0	0	30	28	58	0	0	0	38	15	53	111
5:15 PM	0	0	0	1	0	1	0	0	0	34	70	104	0	0	0	36	15	51	156
5:30 PM	0	0	0	0	0	0	0	0	0	17	32	49	0	0	0	59	25	84	133
5:45 PM	0	0	0	0	0	0	0	0	0	9	49	58	0	0	0	33	26	59	117
Total	0	0	0	1	0	1	0	0	0	90	179	269	0	0	0	166	81	247	517
Grand Total	0	0	0	5	0	5	0	0	0	178	311	489	0	0	0	232	154	386	880
Approach %	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	36.4	63.6		0.0	0.0	0.0	60.1	39.9		
Total %	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.0	20.2	35.3	55.6	0.0	0.0	0.0	26.4	17.5	43.9	
Exiting Leg Total	5						489						386						880

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

5:00 PM	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	30	28	58	0	0	0	38	15	53	111
5:15 PM	0	0	0	1	0	1	0	0	0	34	70	104	0	0	0	36	15	51	156
5:30 PM	0	0	0	0	0	0	0	0	0	17	32	49	0	0	0	59	25	84	133
5:45 PM	0	0	0	0	0	0	0	0	0	9	49	58	0	0	0	33	26	59	117
Total Volume	0	0	0	1	0	1	0	0	0	90	179	269	0	0	0	166	81	247	517
% Approach Total	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	33.5	66.5		0.0	0.0	0.0	67.2	32.8		
PHF	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.662	0.639	0.647	0.000	0.000	0.000	0.703	0.779	0.735	0.829
Entering Leg	0	0	0	1	0	1	0	0	0	90	179	269	0	0	0	166	81	247	517
Exiting Leg	1						269						247						517
Total	2						538						494						1034

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	College Avenue				College Avenue				Winter Street				
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
11:00 AM	11	60	0	71	61	3	0	64	0	0	0	0	135
11:15 AM	13	92	0	105	56	1	0	57	0	0	0	0	162
11:30 AM	8	80	0	88	76	2	0	78	0	0	0	0	166
11:45 AM	13	86	0	99	73	7	0	80	0	0	0	0	179
Total	45	318	0	363	266	13	0	279	0	0	0	0	642
12:00 PM	13	78	0	91	68	1	0	69	0	0	0	0	160
12:15 PM	11	81	0	92	63	4	0	67	0	0	0	0	159
12:30 PM	13	73	0	86	70	0	0	70	0	0	0	0	156
12:45 PM	10	78	0	88	68	4	0	72	0	0	0	0	160
Total	47	310	0	357	269	9	0	278	0	0	0	0	635
1:00 PM	12	81	0	93	77	2	0	79	1	0	0	1	173
1:15 PM	15	88	0	103	78	2	0	80	0	0	0	0	183
1:30 PM	15	88	0	103	79	2	0	81	0	0	0	0	184
1:45 PM	8	84	0	92	63	2	0	65	0	0	0	0	157
Total	50	341	0	391	297	8	0	305	1	0	0	1	697
Grand Total	142	969	0	1111	832	30	0	862	1	0	0	1	1974
Approach %	12.8	87.2	0.0		96.5	3.5	0.0		100.0	0.0	0.0		
Total %	7.2	49.1	0.0	56.3	42.1	1.5	0.0	43.7	0.1	0.0	0.0	0.1	
Exiting Leg Total	832				970				172				1974
Cars	139	943	0	1082	810	29	0	839	1	0	0	1	1922
% Cars	97.9	97.3	0.0	97.4	97.4	96.7	0.0	97.3	100.0	0.0	0.0	100.0	97.4
Exiting Leg Total	810				944				168				1922
Heavy Vehicles	3	26	0	29	22	1	0	23	0	0	0	0	52
% Heavy Vehicles	2.1	2.7	0.0	2.6	2.6	3.3	0.0	2.7	0.0	0.0	0.0	0.0	2.6
Exiting Leg Total	22				26				4				52

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
12:45 PM	10	78	0	88	68	4	0	72	0	0	0	0	160
1:00 PM	12	81	0	93	77	2	0	79	1	0	0	1	173
1:15 PM	15	88	0	103	78	2	0	80	0	0	0	0	183
1:30 PM	15	88	0	103	79	2	0	81	0	0	0	0	184
Total Volume	52	335	0	387	302	10	0	312	1	0	0	1	700
% Approach Total	13.4	86.6	0.0		96.8	3.2	0.0		100.0	0.0	0.0		
PHF	0.867	0.952	0.000	0.939	0.956	0.625	0.000	0.963	0.250	0.000	0.000	0.250	0.951
Cars	51	327	0	378	296	9	0	305	1	0	0	1	684
Cars %	98.1	97.6	0.0	97.7	98.0	90.0	0.0	97.8	100.0	0.0	0.0	100.0	97.7
Heavy Vehicles	1	8	0	9	6	1	0	7	0	0	0	0	16
Heavy Vehicles %	1.9	2.4	0.0	2.3	2.0	10.0	0.0	2.2	0.0	0.0	0.0	0.0	2.3
Cars Enter Leg	51	327	0	378	296	9	0	305	1	0	0	1	684
Heavy Enter Leg	1	8	0	9	6	1	0	7	0	0	0	0	16
Total Entering Leg	52	335	0	387	302	10	0	312	1	0	0	1	700
Cars Exiting Leg				296				328				60	684
Heavy Exiting Leg				6				8				2	16
Total Exiting Leg				302				336				62	700

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	11	58	0	69	60	3	0	63	0	0	0	0	132
11:15 AM	13	88	0	101	51	1	0	52	0	0	0	0	153
11:30 AM	8	77	0	85	74	2	0	76	0	0	0	0	161
11:45 AM	13	84	0	97	72	7	0	79	0	0	0	0	176
Total	45	307	0	352	257	13	0	270	0	0	0	0	622
12:00 PM	12	78	0	90	65	1	0	66	0	0	0	0	156
12:15 PM	11	77	0	88	62	4	0	66	0	0	0	0	154
12:30 PM	13	72	0	85	70	0	0	70	0	0	0	0	155
12:45 PM	10	76	0	86	68	4	0	72	0	0	0	0	158
Total	46	303	0	349	265	9	0	274	0	0	0	0	623
1:00 PM	12	80	0	92	76	2	0	78	1	0	0	1	171
1:15 PM	15	83	0	98	75	2	0	77	0	0	0	0	175
1:30 PM	14	88	0	102	77	1	0	78	0	0	0	0	180
1:45 PM	7	82	0	89	60	2	0	62	0	0	0	0	151
Total	48	333	0	381	288	7	0	295	1	0	0	1	677
Grand Total	139	943	0	1082	810	29	0	839	1	0	0	1	1922
Approach %	12.8	87.2	0.0		96.5	3.5	0.0		100.0	0.0	0.0		
Total %	7.2	49.1	0.0	56.3	42.1	1.5	0.0	43.7	0.1	0.0	0.0	0.1	
Exiting Leg Total	810				944				168				1922

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:45 PM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
12:45 PM	10	76	0	86	68	4	0	72	0	0	0	0	158
1:00 PM	12	80	0	92	76	2	0	78	1	0	0	1	171
1:15 PM	15	83	0	98	75	2	0	77	0	0	0	0	175
1:30 PM	14	88	0	102	77	1	0	78	0	0	0	0	180
Total Volume	51	327	0	378	296	9	0	305	1	0	0	1	684
% Approach Total	13.5	86.5	0.0		97.0	3.0	0.0		100.0	0.0	0.0		
PHF	0.850	0.929	0.000	0.926	0.961	0.563	0.000	0.978	0.250	0.000	0.000	0.250	0.950
Entering Leg	51	327	0	378	296	9	0	305	1	0	0	1	684
Exiting Leg				296				328				60	684
Total				674				633				61	1368

PDI File #: **175971 K**
Location: **N: College Avenue S: College Avenue**
Location: **W: Winter Street**
City, State: **Somerville, MA**
Client: **Toole/ H. Georgallas**
Site Code: **TBA**
Count Date: **Saturday, November 18, 2017**
Start Time: **11:00 AM**
End Time: **2:00 PM**
Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	College Avenue				College Avenue				Winter Street				
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
11:00 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
11:15 AM	0	4	0	4	5	0	0	5	0	0	0	0	9
11:30 AM	0	3	0	3	2	0	0	2	0	0	0	0	5
11:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	0	11	0	11	9	0	0	9	0	0	0	0	20
12:00 PM	1	0	0	1	3	0	0	3	0	0	0	0	4
12:15 PM	0	4	0	4	1	0	0	1	0	0	0	0	5
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	1	7	0	8	4	0	0	4	0	0	0	0	12
1:00 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
1:15 PM	0	5	0	5	3	0	0	3	0	0	0	0	8
1:30 PM	1	0	0	1	2	1	0	3	0	0	0	0	4
1:45 PM	1	2	0	3	3	0	0	3	0	0	0	0	6
Total	2	8	0	10	9	1	0	10	0	0	0	0	20
Grand Total	3	26	0	29	22	1	0	23	0	0	0	0	52
Approach %	10.3	89.7	0.0		95.7	4.3	0.0		0.0	0.0	0.0		
Total %	5.8	50.0	0.0	55.8	42.3	1.9	0.0	44.2	0.0	0.0	0.0	0.0	
Exiting Leg Total	22				26				4				52
Large Trucks	3	12	0	15	11	1	0	12	0	0	0	0	27
% Large Trucks	100.0	46.2	0.0	51.7	50.0	100.0	0.0	52.2	0.0	0.0	0.0	0.0	51.9
Exiting Leg Total	11				12				4				27
Buses	0	14	0	14	11	0	0	11	0	0	0	0	25
% Buses	0.0	53.8	0.0	48.3	50.0	0.0	0.0	47.8	0.0	0.0	0.0	0.0	48.1
Exiting Leg Total	11				14				0				25

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:15 AM	0	4	0	4	5	0	0	5	0	0	0	0	9
11:30 AM	0	3	0	3	2	0	0	2	0	0	0	0	5
11:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
12:00 PM	1	0	0	1	3	0	0	3	0	0	0	0	4
Total Volume	1	9	0	10	11	0	0	11	0	0	0	0	21
% Approach Total	10.0	90.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.250	0.563	0.000	0.625	0.550	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.583
Large Trucks	1	4	0	5	5	0	0	5	0	0	0	0	10
Large Trucks %	100.0	44.4	0.0	50.0	45.5	0.0	0.0	45.5	0.0	0.0	0.0	0.0	47.6
Buses	0	5	0	5	6	0	0	6	0	0	0	0	11
Buses %	0.0	55.6	0.0	50.0	54.5	0.0	0.0	54.5	0.0	0.0	0.0	0.0	52.4
Trucks Enter Leg	1	4	0	5	5	0	0	5	0	0	0	0	10
Bus Enter Leg	0	5	0	5	6	0	0	6	0	0	0	0	11
Total Entering Leg	1	9	0	10	11	0	0	11	0	0	0	0	21
Trucks Exiting Leg				5				4					1
Buses Exiting Leg				6				5					0
Total Exiting Leg				11				9					1
													21

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	College Avenue				College Avenue				Winter Street				
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Total
11:00 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
11:15 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	6	0	6	5	0	0	5	0	0	0	0	11
12:00 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
12:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	1	3	0	4	1	0	0	1	0	0	0	0	5
1:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
1:15 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
1:30 PM	1	0	0	1	1	1	0	2	0	0	0	0	3
1:45 PM	1	1	0	2	2	0	0	2	0	0	0	0	4
Total	2	3	0	5	5	1	0	6	0	0	0	0	11
Grand Total	3	12	0	15	11	1	0	12	0	0	0	0	27
Approach %	20.0	80.0	0.0		91.7	8.3	0.0		0.0	0.0	0.0		
Total %	11.1	44.4	0.0	55.6	40.7	3.7	0.0	44.4	0.0	0.0	0.0	0.0	
Exiting Leg Total	11				12				4				27

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:00 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
11:15 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
11:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	6	0	6	5	0	0	5	0	0	0	0	11
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.313	0.000	0.000	0.313	0.000	0.000	0.000	0.000	0.393
Entering Leg	0	6	0	6	5	0	0	5	0	0	0	0	11
Exiting Leg				5				6				0	11
Total				11				11				0	22

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
11:30 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
11:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total	0	5	0	5	4	0	0	4	0	0	0	0	9
12:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
12:15 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	4	0	4	3	0	0	3	0	0	0	0	7
1:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
1:15 PM	0	4	0	4	1	0	0	1	0	0	0	0	5
1:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
1:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	5	0	5	4	0	0	4	0	0	0	0	9
Grand Total	0	14	0	14	11	0	0	11	0	0	0	0	25
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	56.0	0.0	56.0	44.0	0.0	0.0	44.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	11				14				0				25

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:30 AM	College Avenue				College Avenue				Winter Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:30 AM	0	2	0	2	2	0	0	2	0	0	0	0	4
11:45 AM	0	2	0	2	1	0	0	1	0	0	0	0	3
12:00 PM	0	0	0	0	2	0	0	2	0	0	0	0	2
12:15 PM	0	2	0	2	1	0	0	1	0	0	0	0	3
Total Volume	0	6	0	6	6	0	0	6	0	0	0	0	12
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.750	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	6	0	6	6	0	0	6	0	0	0	0	12
Exiting Leg				6				6				0	12
Total				12				12				0	24

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	3
11:15 AM	0	1	0	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	3
11:30 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	3	0	0	0	5	4	1	0	0	0	5	0	0	0	0	0	0	10
12:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	1	4	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	0	6
12:30 PM	0	7	0	0	0	7	3	0	0	0	0	3	0	0	0	0	0	0	10
12:45 PM	0	4	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	5
Total	1	17	0	0	0	18	5	0	0	0	0	5	0	0	0	0	0	0	23
1:00 PM	2	5	0	0	0	7	2	0	0	0	1	3	0	0	0	0	0	0	10
1:15 PM	0	2	0	0	0	2	2	1	0	0	0	3	0	0	0	1	0	1	6
1:30 PM	0	5	0	0	0	5	3	0	0	0	2	5	0	0	0	0	0	0	10
1:45 PM	0	3	0	0	0	3	2	0	0	0	1	3	0	0	0	0	0	0	6
Total	2	15	0	0	0	17	9	1	0	0	4	14	0	0	0	1	0	1	32
Grand Total	5	35	0	0	0	40	18	2	0	0	4	24	0	0	0	1	0	1	65
Approach %	12.5	87.5	0.0	0.0	0.0		75.0	8.3	0.0	0.0	16.7		0.0	0.0	0.0	100.0	0.0		
Total %	7.7	53.8	0.0	0.0	0.0	61.5	27.7	3.1	0.0	0.0	6.2	36.9	0.0	0.0	0.0	1.5	0.0	1.5	
Exiting Leg Total	18						39						8						65

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

1:00 PM	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
1:00 PM	2	5	0	0	0	7	2	0	0	0	1	3	0	0	0	0	0	0	10
1:15 PM	0	2	0	0	0	2	2	1	0	0	0	3	0	0	0	1	0	1	6
1:30 PM	0	5	0	0	0	5	3	0	0	0	2	5	0	0	0	0	0	0	10
1:45 PM	0	3	0	0	0	3	2	0	0	0	1	3	0	0	0	0	0	0	6
Total Volume	2	15	0	0	0	17	9	1	0	0	4	14	0	0	0	1	0	1	32
% Approach Total	11.8	88.2	0.0	0.0	0.0		64.3	7.1	0.0	0.0	28.6		0.0	0.0	0.0	100.0	0.0		
PHF	0.250	0.750	0.000	0.000	0.000	0.607	0.750	0.250	0.000	0.000	0.500	0.700	0.000	0.000	0.000	0.250	0.000	0.250	0.800
Entering Leg	2	15	0	0	0	17	9	1	0	0	4	14	0	0	0	1	0	1	32
Exiting Leg	9						19						4						32
Total	26						33						5						64

PDI File #: **175971 K**
 Location: **N: College Avenue S: College Avenue**
 Location: **W: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Pedestrians

	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	1	1	2	0	0	0	22	21	43	0	0	0	22	49	71	116
11:15 AM	0	0	0	0	0	0	0	0	0	16	25	41	0	0	0	9	28	37	78
11:30 AM	0	0	0	0	2	2	0	0	0	29	27	56	0	0	0	12	35	47	105
11:45 AM	0	0	0	1	3	4	0	0	0	25	52	77	0	0	0	22	43	65	146
Total	0	0	0	2	6	8	0	0	0	92	125	217	0	0	0	65	155	220	445
12:00 PM	0	0	0	3	2	5	0	0	0	21	30	51	0	0	0	13	20	33	89
12:15 PM	0	0	0	1	0	1	0	0	0	16	43	59	0	0	0	29	46	75	135
12:30 PM	0	0	0	1	0	1	0	0	0	15	37	52	0	0	0	19	33	52	105
12:45 PM	0	0	0	1	1	2	0	0	0	28	43	71	0	0	0	32	64	96	169
Total	0	0	0	6	3	9	0	0	0	80	153	233	0	0	0	93	163	256	498
1:00 PM	0	0	0	2	0	2	0	0	0	48	38	86	0	0	0	20	36	56	144
1:15 PM	0	0	0	1	0	1	0	0	0	29	26	55	0	0	0	24	26	50	106
1:30 PM	0	0	0	0	0	0	0	0	0	21	23	44	0	0	0	12	26	38	82
1:45 PM	0	0	0	0	1	1	0	0	0	40	30	70	0	0	0	24	32	56	127
Total	0	0	0	3	1	4	0	0	0	138	117	255	0	0	0	80	120	200	459
Grand Total	0	0	0	11	10	21	0	0	0	310	395	705	0	0	0	238	438	676	1402
Approach %	0.0	0.0	0.0	52.4	47.6		0.0	0.0	0.0	44.0	56.0		0.0	0.0	0.0	35.2	64.8		
Total %	0.0	0.0	0.0	0.8	0.7	1.5	0.0	0.0	0.0	22.1	28.2	50.3	0.0	0.0	0.0	17.0	31.2	48.2	
Exiting Leg Total	21						705						676						1402

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	College Avenue						College Avenue						Winter Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
12:15 PM	0	0	0	1	0	1	0	0	0	16	43	59	0	0	0	29	46	75	135
12:30 PM	0	0	0	1	0	1	0	0	0	15	37	52	0	0	0	19	33	52	105
12:45 PM	0	0	0	1	1	2	0	0	0	28	43	71	0	0	0	32	64	96	169
1:00 PM	0	0	0	2	0	2	0	0	0	48	38	86	0	0	0	20	36	56	144
Total Volume	0	0	0	5	1	6	0	0	0	107	161	268	0	0	0	100	179	279	553
% Approach Total	0.0	0.0	0.0	83.3	16.7		0.0	0.0	0.0	39.9	60.1		0.0	0.0	0.0	35.8	64.2		
PHF	0.000	0.000	0.000	0.625	0.250	0.750	0.000	0.000	0.000	0.557	0.936	0.779	0.000	0.000	0.000	0.781	0.699	0.727	0.818
Entering Leg	0	0	0	5	1	6	0	0	0	107	161	268	0	0	0	100	179	279	553
Exiting Leg	6						268						279						553
Total	12						536						558						1106

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars and Heavy Vehicles (Combined)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	121	0	1	122	14	4	0	18	0	31	1	32	172
7:15 AM	93	0	0	93	6	1	0	7	0	66	0	66	166
7:30 AM	108	0	2	110	9	0	0	9	0	89	1	90	209
7:45 AM	101	0	1	102	12	0	0	12	0	90	0	90	204
Total	423	0	4	427	41	5	0	46	0	276	2	278	751
8:00 AM	102	0	0	102	10	2	0	12	0	78	0	78	192
8:15 AM	85	0	1	86	20	0	0	20	0	82	0	82	188
8:30 AM	101	0	2	103	11	2	0	13	0	62	0	62	178
8:45 AM	85	0	0	85	10	1	0	11	0	78	1	79	175
Total	373	0	3	376	51	5	0	56	0	300	1	301	733
Grand Total	796	0	7	803	92	10	0	102	0	576	3	579	1484
Approach %	99.1	0.0	0.9		90.2	9.8	0.0		0.0	99.5	0.5		
Total %	53.6	0.0	0.5	54.1	6.2	0.7	0.0	6.9	0.0	38.8	0.2	39.0	
Exiting Leg Total	675				0				809				1484
Cars	765	0	7	772	89	10	0	99	0	538	3	541	1412
% Cars	96.1	0.0	100.0	96.1	96.7	100.0	0.0	97.1	0.0	93.4	100.0	93.4	95.1
Exiting Leg Total	634				0				778				1412
Heavy Vehicles	31	0	0	31	3	0	0	3	0	38	0	38	72
% Heavy Vehicles	3.9	0.0	0.0	3.9	3.3	0.0	0.0	2.9	0.0	6.6	0.0	6.6	4.9
Exiting Leg Total	41				0				31				72

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

7:30 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	108	0	2	110	9	0	0	9	0	89	1	90	209
7:45 AM	101	0	1	102	12	0	0	12	0	90	0	90	204
8:00 AM	102	0	0	102	10	2	0	12	0	78	0	78	192
8:15 AM	85	0	1	86	20	0	0	20	0	82	0	82	188
Total Volume	396	0	4	400	51	2	0	53	0	339	1	340	793
% Approach Total	99.0	0.0	1.0		96.2	3.8	0.0		0.0	99.7	0.3		
PHF	0.917	0.000	0.500	0.909	0.638	0.250	0.000	0.663	0.000	0.942	0.250	0.944	0.949
Cars	377	0	4	381	49	2	0	51	0	313	1	314	746
Cars %	95.2	0.0	100.0	95.3	96.1	100.0	0.0	96.2	0.0	92.3	100.0	92.4	94.1
Heavy Vehicles	19	0	0	19	2	0	0	2	0	26	0	26	47
Heavy Vehicles %	4.8	0.0	0.0	4.8	3.9	0.0	0.0	3.8	0.0	7.7	0.0	7.6	5.9
Cars Enter Leg	377	0	4	381	49	2	0	51	0	313	1	314	746
Heavy Enter Leg	19	0	0	19	2	0	0	2	0	26	0	26	47
Total Entering Leg	396	0	4	400	51	2	0	53	0	339	1	340	793
Cars Exiting Leg				366				0				380	746
Heavy Exiting Leg				28				0				19	47
Total Exiting Leg				394				0				399	793

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Cars

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	117	0	1	118	14	4	0	18	0	29	1	30	166
7:15 AM	91	0	0	91	6	1	0	7	0	63	0	63	161
7:30 AM	104	0	2	106	9	0	0	9	0	81	1	82	197
7:45 AM	97	0	1	98	11	0	0	11	0	83	0	83	192
Total	409	0	4	413	40	5	0	45	0	256	2	258	716
8:00 AM	96	0	0	96	10	2	0	12	0	71	0	71	179
8:15 AM	80	0	1	81	19	0	0	19	0	78	0	78	178
8:30 AM	99	0	2	101	11	2	0	13	0	58	0	58	172
8:45 AM	81	0	0	81	9	1	0	10	0	75	1	76	167
Total	356	0	3	359	49	5	0	54	0	282	1	283	696
Grand Total	765	0	7	772	89	10	0	99	0	538	3	541	1412
Approach %	99.1	0.0	0.9		89.9	10.1	0.0		0.0	99.4	0.6		
Total %	54.2	0.0	0.5	54.7	6.3	0.7	0.0	7.0	0.0	38.1	0.2	38.3	
Exiting Leg Total	634				0				778				1412

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

7:30 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	104	0	2	106	9	0	0	9	0	81	1	82	197
7:45 AM	97	0	1	98	11	0	0	11	0	83	0	83	192
8:00 AM	96	0	0	96	10	2	0	12	0	71	0	71	179
8:15 AM	80	0	1	81	19	0	0	19	0	78	0	78	178
Total Volume	377	0	4	381	49	2	0	51	0	313	1	314	746
% Approach Total	99.0	0.0	1.0		96.1	3.9	0.0		0.0	99.7	0.3		
PHF	0.906	0.000	0.500	0.899	0.645	0.250	0.000	0.671	0.000	0.943	0.250	0.946	0.947
Entering Leg	377	0	4	381	49	2	0	51	0	313	1	314	746
Exiting Leg				366				0				380	746
Total				747				51				694	1492

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
7:15 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
7:30 AM	4	0	0	4	0	0	0	0	0	8	0	8	12
7:45 AM	4	0	0	4	1	0	0	1	0	7	0	7	12
Total	14	0	0	14	1	0	0	1	0	20	0	20	35
8:00 AM	6	0	0	6	0	0	0	0	0	7	0	7	13
8:15 AM	5	0	0	5	1	0	0	1	0	4	0	4	10
8:30 AM	2	0	0	2	0	0	0	0	0	4	0	4	6
8:45 AM	4	0	0	4	1	0	0	1	0	3	0	3	8
Total	17	0	0	17	2	0	0	2	0	18	0	18	37
Grand Total	31	0	0	31	3	0	0	3	0	38	0	38	72
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	43.1	0.0	0.0	43.1	4.2	0.0	0.0	4.2	0.0	52.8	0.0	52.8	
Exiting Leg Total	41				0				31				72
Large Trucks	11	0	0	11	3	0	0	3	0	19	0	19	33
% Large Trucks	35.5	0.0	0.0	35.5	100.0	0.0	0.0	100.0	0.0	50.0	0.0	50.0	45.8
Exiting Leg Total	22				0				11				33
Buses	20	0	0	20	0	0	0	0	0	19	0	19	39
% Buses	64.5	0.0	0.0	64.5	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	54.2
Exiting Leg Total	19				0				20				39

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

7:30 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	4	0	0	4	0	0	0	0	0	8	0	8	12
7:45 AM	4	0	0	4	1	0	0	1	0	7	0	7	12
8:00 AM	6	0	0	6	0	0	0	0	0	7	0	7	13
8:15 AM	5	0	0	5	1	0	0	1	0	4	0	4	10
Total Volume	19	0	0	19	2	0	0	2	0	26	0	26	47
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.792	0.000	0.000	0.792	0.500	0.000	0.000	0.500	0.000	0.813	0.000	0.813	0.904
Large Trucks	6	0	0	6	2	0	0	2	0	15	0	15	23
Large Trucks %	31.6	0.0	0.0	31.6	100.0	0.0	0.0	100.0	0.0	57.7	0.0	57.7	48.9
Buses	13	0	0	13	0	0	0	0	0	11	0	11	24
Buses %	68.4	0.0	0.0	68.4	0.0	0.0	0.0	0.0	0.0	42.3	0.0	42.3	51.1
Trucks Enter Leg	6	0	0	6	2	0	0	2	0	15	0	15	23
Bus Enter Leg	13	0	0	13	0	0	0	0	0	11	0	11	24
Total Entering Leg	19	0	0	19	2	0	0	2	0	26	0	26	47
Trucks Exiting Leg				17				0				6	23
Buses Exiting Leg				11				0				13	24
Total Exiting Leg				28				0				19	47

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Large Trucks

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	4	0	4	4
7:45 AM	0	0	0	0	1	0	0	1	0	3	0	3	4
Total	2	0	0	2	1	0	0	1	0	8	0	8	11
8:00 AM	2	0	0	2	0	0	0	0	0	5	0	5	7
8:15 AM	4	0	0	4	1	0	0	1	0	3	0	3	8
8:30 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
8:45 AM	2	0	0	2	1	0	0	1	0	1	0	1	4
Total	9	0	0	9	2	0	0	2	0	11	0	11	22
Grand Total	11	0	0	11	3	0	0	3	0	19	0	19	33
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	33.3	0.0	0.0	33.3	9.1	0.0	0.0	9.1	0.0	57.6	0.0	57.6	
Exiting Leg Total	22				0				11				33

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

7:30 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:30 AM	0	0	0	0	0	0	0	0	0	4	0	4	4
7:45 AM	0	0	0	0	1	0	0	1	0	3	0	3	4
8:00 AM	2	0	0	2	0	0	0	0	0	5	0	5	7
8:15 AM	4	0	0	4	1	0	0	1	0	3	0	3	8
Total Volume	6	0	0	6	2	0	0	2	0	15	0	15	23
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.375	0.000	0.000	0.375	0.500	0.000	0.000	0.500	0.000	0.750	0.000	0.750	0.719
Entering Leg	6	0	0	6	2	0	0	2	0	15	0	15	23
Exiting Leg				17				0				6	23
Total				23				2				21	46

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Buses

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:00 AM	3	0	0	3	0	0	0	0	0	2	0	2	5
7:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
7:30 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
7:45 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
Total	12	0	0	12	0	0	0	0	0	12	0	12	24
8:00 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
8:15 AM	1	0	0	1	0	0	0	0	0	1	0	1	2
8:30 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
8:45 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
Total	8	0	0	8	0	0	0	0	0	7	0	7	15
Grand Total	20	0	0	20	0	0	0	0	0	19	0	19	39
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	51.3	0.0	0.0	51.3	0.0	0.0	0.0	0.0	0.0	48.7	0.0	48.7	
Exiting Leg Total	19				0				20				39

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

7:15 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
7:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
7:30 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
7:45 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
8:00 AM	4	0	0	4	0	0	0	0	0	2	0	2	6
Total Volume	13	0	0	13	0	0	0	0	0	12	0	12	25
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.813	0.000	0.000	0.813	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.781
Entering Leg	13	0	0	13	0	0	0	0	0	12	0	12	25
Exiting Leg				12				0				13	25
Total				25				0				25	50

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Holland Avenue						Winter Street						Holland Avenue						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
7:00 AM	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:15 AM	1	0	0	0	0	1	0	0	0	1	0	1	0	1	0	1	0	0	1	3
7:30 AM	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	14	0	0	0	0	14	0	0	0	1	0	1	0	1	0	1	0	0	1	16
8:00 AM	5	0	0	0	0	5	2	0	0	0	0	0	2	0	3	0	0	0	3	10
8:15 AM	3	0	0	0	0	3	0	0	0	0	0	1	1	0	2	0	0	0	2	6
8:30 AM	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	15	1	0	0	0	16	2	0	0	0	0	1	3	0	5	0	0	0	5	24
Grand Total	29	1	0	0	0	30	2	0	0	1	1	4	0	6	0	0	0	6	40	
Approach %	96.7	3.3	0.0	0.0	0.0		50.0	0.0	0.0	25.0	25.0		0.0	100.0	0.0	0.0	0.0			
Total %	72.5	2.5	0.0	0.0	0.0	75.0	5.0	0.0	0.0	2.5	2.5	10.0	0.0	15.0	0.0	0.0	0.0	15.0		
Exiting Leg Total	8						3						29						40	

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

8:00 AM	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
8:00 AM	5	0	0	0	0	5	2	0	0	0	0	2	0	3	0	0	0	3	10
8:15 AM	3	0	0	0	0	3	0	0	0	0	1	1	0	2	0	0	0	2	6
8:30 AM	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
8:45 AM	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	15	1	0	0	0	16	2	0	0	0	1	3	0	5	0	0	0	5	24
% Approach Total	93.8	6.3	0.0	0.0	0.0		66.7	0.0	0.0	0.0	33.3		0.0	100.0	0.0	0.0	0.0		
PHF	0.750	0.250	0.000	0.000	0.000	0.800	0.250	0.000	0.000	0.000	0.250	0.375	0.000	0.417	0.000	0.000	0.000	0.417	0.600
Entering Leg	15	1	0	0	0	16	2	0	0	0	1	3	0	5	0	0	0	5	24
Exiting Leg	7						2						15						24
Total	23						5						20						48

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:00 AM	0	0	0	7	23	30	0	0	0	4	6	10	0	0	0	1	1	2	42
7:15 AM	0	0	0	4	51	55	0	0	0	6	3	9	0	0	0	0	3	3	67
7:30 AM	0	0	0	8	68	76	0	0	0	7	6	13	0	0	0	1	2	3	92
7:45 AM	0	0	0	9	74	83	0	0	0	10	6	16	0	0	0	2	4	6	105
Total	0	0	0	28	216	244	0	0	0	27	21	48	0	0	0	4	10	14	306
8:00 AM	0	0	0	10	109	119	0	0	0	7	5	12	0	0	0	6	4	10	141
8:15 AM	0	0	0	10	88	98	0	0	0	6	1	7	0	0	0	6	2	8	113
8:30 AM	0	0	0	12	69	81	0	0	0	8	3	11	0	0	0	1	3	4	96
8:45 AM	0	0	0	8	57	65	0	0	0	5	3	8	0	0	0	2	1	3	76
Total	0	0	0	40	323	363	0	0	0	26	12	38	0	0	0	15	10	25	426
Grand Total	0	0	0	68	539	607	0	0	0	53	33	86	0	0	0	19	20	39	732
Approach %	0.0	0.0	0.0	11.2	88.8		0.0	0.0	0.0	61.6	38.4		0.0	0.0	0.0	48.7	51.3		
Total %	0.0	0.0	0.0	9.3	73.6	82.9	0.0	0.0	0.0	7.2	4.5	11.7	0.0	0.0	0.0	2.6	2.7	5.3	
Exiting Leg Total	607						86						39						732

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

7:45 AM	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
7:45 AM	0	0	0	9	74	83	0	0	0	10	6	16	0	0	0	2	4	6	105
8:00 AM	0	0	0	10	109	119	0	0	0	7	5	12	0	0	0	6	4	10	141
8:15 AM	0	0	0	10	88	98	0	0	0	6	1	7	0	0	0	6	2	8	113
8:30 AM	0	0	0	12	69	81	0	0	0	8	3	11	0	0	0	1	3	4	96
Total Volume	0	0	0	41	340	381	0	0	0	31	15	46	0	0	0	15	13	28	455
% Approach Total	0.0	0.0	0.0	10.8	89.2		0.0	0.0	0.0	67.4	32.6		0.0	0.0	0.0	53.6	46.4		
PHF	0.000	0.000	0.000	0.854	0.780	0.800	0.000	0.000	0.000	0.775	0.625	0.719	0.000	0.000	0.000	0.625	0.813	0.700	0.807
Entering Leg	0	0	0	41	340	381	0	0	0	31	15	46	0	0	0	15	13	28	455
Exiting Leg						381						46						28	455
Total						762						92						56	910

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	69	0	1	70	19	2	0	21	0	86	1	87	178
4:15 PM	71	0	0	71	16	1	0	17	0	94	0	94	182
4:30 PM	66	0	1	67	17	1	0	18	0	100	0	100	185
4:45 PM	75	0	0	75	25	2	0	27	0	107	0	107	209
Total	281	0	2	283	77	6	0	83	0	387	1	388	754
5:00 PM	79	0	0	79	20	3	0	23	0	97	0	97	199
5:15 PM	66	0	0	66	26	5	0	31	0	88	0	88	185
5:30 PM	86	0	0	86	14	4	0	18	0	91	0	91	195
5:45 PM	86	0	0	86	29	2	0	31	0	108	0	108	225
Total	317	0	0	317	89	14	0	103	0	384	0	384	804
Grand Total	598	0	2	600	166	20	0	186	0	771	1	772	1558
Approach %	99.7	0.0	0.3		89.2	10.8	0.0		0.0	99.9	0.1		
Total %	38.4	0.0	0.1	38.5	10.7	1.3	0.0	11.9	0.0	49.5	0.1	49.6	
Exiting Leg Total	939				0				619				1558
Cars	582	0	2	584	164	20	0	184	0	742	1	743	1511
% Cars	97.3	0.0	100.0	97.3	98.8	100.0	0.0	98.9	0.0	96.2	100.0	96.2	97.0
Exiting Leg Total	908				0				603				1511
Heavy Vehicles	16	0	0	16	2	0	0	2	0	29	0	29	47
% Heavy Vehicles	2.7	0.0	0.0	2.7	1.2	0.0	0.0	1.1	0.0	3.8	0.0	3.8	3.0
Exiting Leg Total	31				0				16				47

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

5:00 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
5:00 PM	79	0	0	79	20	3	0	23	0	97	0	97	199
5:15 PM	66	0	0	66	26	5	0	31	0	88	0	88	185
5:30 PM	86	0	0	86	14	4	0	18	0	91	0	91	195
5:45 PM	86	0	0	86	29	2	0	31	0	108	0	108	225
Total Volume	317	0	0	317	89	14	0	103	0	384	0	384	804
% Approach Total	100.0	0.0	0.0		86.4	13.6	0.0		0.0	100.0	0.0		
PHF	0.922	0.000	0.000	0.922	0.767	0.700	0.000	0.831	0.000	0.889	0.000	0.889	0.893
Cars	309	0	0	309	88	14	0	102	0	369	0	369	780
Cars %	97.5	0.0	0.0	97.5	98.9	100.0	0.0	99.0	0.0	96.1	0.0	96.1	97.0
Heavy Vehicles	8	0	0	8	1	0	0	1	0	15	0	15	24
Heavy Vehicles %	2.5	0.0	0.0	2.5	1.1	0.0	0.0	1.0	0.0	3.9	0.0	3.9	3.0
Cars Enter Leg	309	0	0	309	88	14	0	102	0	369	0	369	780
Heavy Enter Leg	8	0	0	8	1	0	0	1	0	15	0	15	24
Total Entering Leg	317	0	0	317	89	14	0	103	0	384	0	384	804
Cars Exiting Leg				457				0				323	780
Heavy Exiting Leg				16				0				8	24
Total Exiting Leg				473				0				331	804

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	66	0	1	67	19	2	0	21	0	82	1	83	171
4:15 PM	68	0	0	68	16	1	0	17	0	90	0	90	175
4:30 PM	65	0	1	66	17	1	0	18	0	98	0	98	182
4:45 PM	74	0	0	74	24	2	0	26	0	103	0	103	203
Total	273	0	2	275	76	6	0	82	0	373	1	374	731
5:00 PM	77	0	0	77	20	3	0	23	0	92	0	92	192
5:15 PM	63	0	0	63	25	5	0	30	0	84	0	84	177
5:30 PM	84	0	0	84	14	4	0	18	0	88	0	88	190
5:45 PM	85	0	0	85	29	2	0	31	0	105	0	105	221
Total	309	0	0	309	88	14	0	102	0	369	0	369	780
Grand Total	582	0	2	584	164	20	0	184	0	742	1	743	1511
Approach %	99.7	0.0	0.3		89.1	10.9	0.0		0.0	99.9	0.1		
Total %	38.5	0.0	0.1	38.6	10.9	1.3	0.0	12.2	0.0	49.1	0.1	49.2	
Exiting Leg Total	908				0				603				1511

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

5:00 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
5:00 PM	77	0	0	77	20	3	0	23	0	92	0	92	192
5:15 PM	63	0	0	63	25	5	0	30	0	84	0	84	177
5:30 PM	84	0	0	84	14	4	0	18	0	88	0	88	190
5:45 PM	85	0	0	85	29	2	0	31	0	105	0	105	221
Total Volume	309	0	0	309	88	14	0	102	0	369	0	369	780
% Approach Total	100.0	0.0	0.0		86.3	13.7	0.0		0.0	100.0	0.0		
PHF	0.909	0.000	0.000	0.909	0.759	0.700	0.000	0.823	0.000	0.879	0.000	0.879	0.882
Entering Leg	309	0	0	309	88	14	0	102	0	369	0	369	780
Exiting Leg				457				0				323	780
Total				766				102				692	1560

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	3	0	0	3	0	0	0	0	0	4	0	4	7
4:15 PM	3	0	0	3	0	0	0	0	0	4	0	4	7
4:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	1	0	0	1	1	0	0	1	0	4	0	4	6
Total	8	0	0	8	1	0	0	1	0	14	0	14	23
5:00 PM	2	0	0	2	0	0	0	0	0	5	0	5	7
5:15 PM	3	0	0	3	1	0	0	1	0	4	0	4	8
5:30 PM	2	0	0	2	0	0	0	0	0	3	0	3	5
5:45 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
Total	8	0	0	8	1	0	0	1	0	15	0	15	24
Grand Total	16	0	0	16	2	0	0	2	0	29	0	29	47
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	34.0	0.0	0.0	34.0	4.3	0.0	0.0	4.3	0.0	61.7	0.0	61.7	
Exiting Leg Total	31				0				16				47
Large Trucks	1	0	0	1	2	0	0	2	0	9	0	9	12
% Large Trucks	6.3	0.0	0.0	6.3	100.0	0.0	0.0	100.0	0.0	31.0	0.0	31.0	25.5
Exiting Leg Total	11				0				1				12
Buses	15	0	0	15	0	0	0	0	0	20	0	20	35
% Buses	93.8	0.0	0.0	93.8	0.0	0.0	0.0	0.0	0.0	69.0	0.0	69.0	74.5
Exiting Leg Total	20				0				15				35

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

4:45 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:45 PM	1	0	0	1	1	0	0	1	0	4	0	4	6
5:00 PM	2	0	0	2	0	0	0	0	0	5	0	5	7
5:15 PM	3	0	0	3	1	0	0	1	0	4	0	4	8
5:30 PM	2	0	0	2	0	0	0	0	0	3	0	3	5
Total Volume	8	0	0	8	2	0	0	2	0	16	0	16	26
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.667	0.000	0.000	0.667	0.500	0.000	0.000	0.500	0.000	0.800	0.000	0.800	0.813
Large Trucks	1	0	0	1	2	0	0	2	0	5	0	5	8
Large Trucks %	12.5	0.0	0.0	12.5	100.0	0.0	0.0	100.0	0.0	31.3	0.0	31.3	30.8
Buses	7	0	0	7	0	0	0	0	0	11	0	11	18
Buses %	87.5	0.0	0.0	87.5	0.0	0.0	0.0	0.0	0.0	68.8	0.0	68.8	69.2
Trucks Enter Leg	1	0	0	1	2	0	0	2	0	5	0	5	8
Bus Enter Leg	7	0	0	7	0	0	0	0	0	11	0	11	18
Total Entering Leg	8	0	0	8	2	0	0	2	0	16	0	16	26
Trucks Exiting Leg				7				0				1	8
Buses Exiting Leg				11				0				7	18
Total Exiting Leg				18				0				8	26

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Large Trucks

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
Total	0	0	0	0	1	0	0	1	0	6	0	6	7
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1	0	3	0	3	5
Grand Total	1	0	0	1	2	0	0	2	0	9	0	9	12
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	8.3	0.0	0.0	8.3	16.7	0.0	0.0	16.7	0.0	75.0	0.0	75.0	
Exiting Leg Total	11				0				1				12

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

4:30 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	1	0	2	0	2	3
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
5:15 PM	1	0	0	1	1	0	0	1	0	2	0	2	4
Total Volume	1	0	0	1	2	0	0	2	0	5	0	5	8
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.000	0.000	0.250	0.500	0.000	0.000	0.500	0.000	0.625	0.000	0.625	0.500
Entering Leg	1	0	0	1	2	0	0	2	0	5	0	5	8
Exiting Leg				7				0				1	8
Total				8				2				6	16

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Holland Avenue				Winter Street				Holland Avenue				
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
4:00 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:15 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
Total	8	0	0	8	0	0	0	0	0	8	0	8	16
5:00 PM	2	0	0	2	0	0	0	0	0	4	0	4	6
5:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
5:30 PM	2	0	0	2	0	0	0	0	0	3	0	3	5
5:45 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
Total	7	0	0	7	0	0	0	0	0	12	0	12	19
Grand Total	15	0	0	15	0	0	0	0	0	20	0	20	35
Approach %	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	57.1	0.0	57.1	
Exiting Leg Total	20				0				15				35

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

4:00 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
4:00 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:15 PM	3	0	0	3	0	0	0	0	0	2	0	2	5
4:30 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
4:45 PM	1	0	0	1	0	0	0	0	0	2	0	2	3
Total Volume	8	0	0	8	0	0	0	0	0	8	0	8	16
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.667	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	1.000	0.000	1.000	0.800
Entering Leg	8	0	0	8	0	0	0	0	0	8	0	8	16
Exiting Leg				8				0				8	16
Total				16				0				16	32

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Holland Avenue						Winter Street						Holland Avenue						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
4:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	3	5
4:15 PM	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	1	0	0	1	0	2	0	0	0	0	0	0	0	2	0	0	0	0	2	4
4:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	2	3
Total	8	0	0	1	0	9	0	0	0	0	0	0	0	7	0	0	0	0	7	16
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
5:15 PM	2	0	0	0	0	2	2	0	0	0	2	4	0	5	0	0	0	0	5	11
5:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	0	6	0	0	0	0	6	9
5:45 PM	2	0	0	0	0	2	0	0	0	0	2	2	0	9	0	0	0	0	9	13
Total	7	0	0	0	0	7	2	0	0	0	4	6	0	23	0	0	0	0	23	36
Grand Total	15	0	0	1	0	16	2	0	0	0	4	6	0	30	0	0	0	0	30	52
Approach %	93.8	0.0	0.0	6.3	0.0		33.3	0.0	0.0	0.0	66.7		0.0	100.0	0.0	0.0	0.0			
Total %	28.8	0.0	0.0	1.9	0.0	30.8	3.8	0.0	0.0	0.0	7.7	11.5	0.0	57.7	0.0	0.0	0.0	57.7		
Exiting Leg Total	33						4						15						52	

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

5:00 PM	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
5:15 PM	2	0	0	0	0	2	2	0	0	0	2	4	0	5	0	0	0	0	5
5:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	0	6	0	0	0	0	6
5:45 PM	2	0	0	0	0	2	0	0	0	0	2	2	0	9	0	0	0	0	9
Total Volume	7	0	0	0	0	7	2	0	0	0	4	6	0	23	0	0	0	0	23
% Approach Total	100.0	0.0	0.0	0.0	0.0		33.3	0.0	0.0	0.0	66.7		0.0	100.0	0.0	0.0	0.0		
PHF	0.583	0.000	0.000	0.000	0.000	0.583	0.250	0.000	0.000	0.000	0.500	0.375	0.000	0.639	0.000	0.000	0.000	0.639	0.692
Entering Leg	7	0	0	0	0	7	2	0	0	0	4	6	0	23	0	0	0	23	36
Exiting Leg	25						4						7						36
Total	32						10						30						72

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Thursday, November 16, 2017**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
4:00 PM	0	0	0	18	12	30	0	0	0	15	17	32	0	0	0	4	7	11	73
4:15 PM	0	0	0	25	12	37	0	0	0	12	13	25	0	0	0	5	5	10	72
4:30 PM	0	0	0	36	21	57	0	0	0	10	15	25	0	0	0	3	6	9	91
4:45 PM	0	0	0	29	19	48	0	0	0	8	22	30	0	0	0	2	7	9	87
Total	0	0	0	108	64	172	0	0	0	45	67	112	0	0	0	14	25	39	323
5:00 PM	0	0	0	18	15	33	0	0	0	19	21	40	0	0	0	5	2	7	80
5:15 PM	0	0	0	64	17	81	0	0	0	15	23	38	0	0	0	6	5	11	130
5:30 PM	0	0	0	54	19	73	0	0	0	15	23	38	0	0	0	3	1	4	115
5:45 PM	0	0	0	79	20	99	0	0	0	14	36	50	0	0	0	3	1	4	153
Total	0	0	0	215	71	286	0	0	0	63	103	166	0	0	0	17	9	26	478
Grand Total	0	0	0	323	135	458	0	0	0	108	170	278	0	0	0	31	34	65	801
Approach %	0.0	0.0	0.0	70.5	29.5		0.0	0.0	0.0	38.8	61.2		0.0	0.0	0.0	47.7	52.3		
Total %	0.0	0.0	0.0	40.3	16.9	57.2	0.0	0.0	0.0	13.5	21.2	34.7	0.0	0.0	0.0	3.9	4.2	8.1	
Exiting Leg Total	458						278						65						801

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

5:00 PM	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
5:00 PM	0	0	0	18	15	33	0	0	0	19	21	40	0	0	0	5	2	7	80
5:15 PM	0	0	0	64	17	81	0	0	0	15	23	38	0	0	0	6	5	11	130
5:30 PM	0	0	0	54	19	73	0	0	0	15	23	38	0	0	0	3	1	4	115
5:45 PM	0	0	0	79	20	99	0	0	0	14	36	50	0	0	0	3	1	4	153
Total Volume	0	0	0	215	71	286	0	0	0	63	103	166	0	0	0	17	9	26	478
% Approach Total	0.0	0.0	0.0	75.2	24.8		0.0	0.0	0.0	38.0	62.0		0.0	0.0	0.0	65.4	34.6		
PHF	0.000	0.000	0.000	0.680	0.888	0.722	0.000	0.000	0.000	0.829	0.715	0.830	0.000	0.000	0.000	0.708	0.450	0.591	0.781
Entering Leg	0	0	0	215	71	286	0	0	0	63	103	166	0	0	0	17	9	26	478
Exiting Leg						286						166						26	478
Total						572						332						52	956

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	64	0	0	64	11	0	0	11	0	67	1	68	143
11:15 AM	68	0	0	68	14	2	0	16	0	73	0	73	157
11:30 AM	64	0	0	64	9	0	0	9	0	60	1	61	134
11:45 AM	69	0	0	69	14	5	0	19	0	77	0	77	165
Total	265	0	0	265	48	7	0	55	0	277	2	279	599
12:00 PM	64	0	2	66	14	5	0	19	0	70	0	70	155
12:15 PM	82	0	1	83	13	4	0	17	0	74	0	74	174
12:30 PM	72	0	2	74	13	1	0	14	0	79	0	79	167
12:45 PM	60	0	1	61	15	3	0	18	0	82	1	83	162
Total	278	0	6	284	55	13	0	68	0	305	1	306	658
1:00 PM	57	0	0	57	8	1	0	9	0	79	0	79	145
1:15 PM	73	0	0	73	15	1	0	16	0	74	0	74	163
1:30 PM	72	0	0	72	13	0	0	13	0	74	0	74	159
1:45 PM	77	0	0	77	12	1	0	13	0	88	0	88	178
Total	279	0	0	279	48	3	0	51	0	315	0	315	645
Grand Total	822	0	6	828	151	23	0	174	0	897	3	900	1902
Approach %	99.3	0.0	0.7		86.8	13.2	0.0		0.0	99.7	0.3		
Total %	43.2	0.0	0.3	43.5	7.9	1.2	0.0	9.1	0.0	47.2	0.2	47.3	
Exiting Leg Total	1054				0				848				1902
Cars	794	0	6	800	148	23	0	171	0	862	3	865	1836
% Cars	96.6	0.0	100.0	96.6	98.0	100.0	0.0	98.3	0.0	96.1	100.0	96.1	96.5
Exiting Leg Total	1016				0				820				1836
Heavy Vehicles	28	0	0	28	3	0	0	3	0	35	0	35	66
% Heavy Vehicles	3.4	0.0	0.0	3.4	2.0	0.0	0.0	1.7	0.0	3.9	0.0	3.9	3.5
Exiting Leg Total	38				0				28				66

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:45 AM	69	0	0	69	14	5	0	19	0	77	0	77	165
12:00 PM	64	0	2	66	14	5	0	19	0	70	0	70	155
12:15 PM	82	0	1	83	13	4	0	17	0	74	0	74	174
12:30 PM	72	0	2	74	13	1	0	14	0	79	0	79	167
Total Volume	287	0	5	292	54	15	0	69	0	300	0	300	661
% Approach Total	98.3	0.0	1.7		78.3	21.7	0.0		0.0	100.0	0.0		
PHF	0.875	0.000	0.625	0.880	0.964	0.750	0.000	0.908	0.000	0.949	0.000	0.949	0.950
Cars	275	0	5	280	53	15	0	68	0	289	0	289	637
Cars %	95.8	0.0	100.0	95.9	98.1	100.0	0.0	98.6	0.0	96.3	0.0	96.3	96.4
Heavy Vehicles	12	0	0	12	1	0	0	1	0	11	0	11	24
Heavy Vehicles %	4.2	0.0	0.0	4.1	1.9	0.0	0.0	1.4	0.0	3.7	0.0	3.7	3.6
Cars Enter Leg	275	0	5	280	53	15	0	68	0	289	0	289	637
Heavy Enter Leg	12	0	0	12	1	0	0	1	0	11	0	11	24
Total Entering Leg	287	0	5	292	54	15	0	69	0	300	0	300	661
Cars Exiting Leg				347				0				290	637
Heavy Exiting Leg				12				0				12	24
Total Exiting Leg				359				0				302	661

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Cars

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	60	0	0	60	11	0	0	11	0	63	1	64	135
11:15 AM	66	0	0	66	14	2	0	16	0	71	0	71	153
11:30 AM	62	0	0	62	9	0	0	9	0	58	1	59	130
11:45 AM	68	0	0	68	14	5	0	19	0	75	0	75	162
Total	256	0	0	256	48	7	0	55	0	267	2	269	580
12:00 PM	59	0	2	61	13	5	0	18	0	65	0	65	144
12:15 PM	79	0	1	80	13	4	0	17	0	71	0	71	168
12:30 PM	69	0	2	71	13	1	0	14	0	78	0	78	163
12:45 PM	60	0	1	61	15	3	0	18	0	76	1	77	156
Total	267	0	6	273	54	13	0	67	0	290	1	291	631
1:00 PM	54	0	0	54	8	1	0	9	0	78	0	78	141
1:15 PM	71	0	0	71	15	1	0	16	0	69	0	69	156
1:30 PM	71	0	0	71	12	0	0	12	0	74	0	74	157
1:45 PM	75	0	0	75	11	1	0	12	0	84	0	84	171
Total	271	0	0	271	46	3	0	49	0	305	0	305	625
Grand Total	794	0	6	800	148	23	0	171	0	862	3	865	1836
Approach %	99.3	0.0	0.8		86.5	13.5	0.0		0.0	99.7	0.3		
Total %	43.2	0.0	0.3	43.6	8.1	1.3	0.0	9.3	0.0	46.9	0.2	47.1	
Exiting Leg Total	1016				0				820				1836

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:45 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:45 AM	68	0	0	68	14	5	0	19	0	75	0	75	162
12:00 PM	59	0	2	61	13	5	0	18	0	65	0	65	144
12:15 PM	79	0	1	80	13	4	0	17	0	71	0	71	168
12:30 PM	69	0	2	71	13	1	0	14	0	78	0	78	163
Total Volume	275	0	5	280	53	15	0	68	0	289	0	289	637
% Approach Total	98.2	0.0	1.8		77.9	22.1	0.0		0.0	100.0	0.0		
PHF	0.870	0.000	0.625	0.875	0.946	0.750	0.000	0.895	0.000	0.926	0.000	0.926	0.948
Entering Leg	275	0	5	280	53	15	0	68	0	289	0	289	637
Exiting Leg				347				0				290	637
Total				627				68				579	1274

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Heavy Vehicles (Combined-Large Trucks and Buses)

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	4	0	0	4	0	0	0	0	0	4	0	4	8
11:15 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
11:30 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
11:45 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
Total	9	0	0	9	0	0	0	0	0	10	0	10	19
12:00 PM	5	0	0	5	1	0	0	1	0	5	0	5	11
12:15 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
12:30 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
12:45 PM	0	0	0	0	0	0	0	0	0	6	0	6	6
Total	11	0	0	11	1	0	0	1	0	15	0	15	27
1:00 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
1:15 PM	2	0	0	2	0	0	0	0	0	5	0	5	7
1:30 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
1:45 PM	2	0	0	2	1	0	0	1	0	4	0	4	7
Total	8	0	0	8	2	0	0	2	0	10	0	10	20
Grand Total	28	0	0	28	3	0	0	3	0	35	0	35	66
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	42.4	0.0	0.0	42.4	4.5	0.0	0.0	4.5	0.0	53.0	0.0	53.0	
Exiting Leg Total	38				0				28				66
Large Trucks	11	0	0	11	2	0	0	2	0	15	0	15	28
% Large Trucks	39.3	0.0	0.0	39.3	66.7	0.0	0.0	66.7	0.0	42.9	0.0	42.9	42.4
Exiting Leg Total	17				0				11				28
Buses	17	0	0	17	1	0	0	1	0	20	0	20	38
% Buses	60.7	0.0	0.0	60.7	33.3	0.0	0.0	33.3	0.0	57.1	0.0	57.1	57.6
Exiting Leg Total	21				0				17				38

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:00 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
12:00 PM	5	0	0	5	1	0	0	1	0	5	0	5	11
12:15 PM	3	0	0	3	0	0	0	0	0	3	0	3	6
12:30 PM	3	0	0	3	0	0	0	0	0	1	0	1	4
12:45 PM	0	0	0	0	0	0	0	0	0	6	0	6	6
Total Volume	11	0	0	11	1	0	0	1	0	15	0	15	27
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.550	0.000	0.000	0.550	0.250	0.000	0.000	0.250	0.000	0.625	0.000	0.625	0.614
Large Trucks	5	0	0	5	0	0	0	0	0	7	0	7	12
Large Trucks %	45.5	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0	46.7	0.0	46.7	44.4
Buses	6	0	0	6	1	0	0	1	0	8	0	8	15
Buses %	54.5	0.0	0.0	54.5	100.0	0.0	0.0	100.0	0.0	53.3	0.0	53.3	55.6
Trucks Enter Leg	5	0	0	5	0	0	0	0	0	7	0	7	12
Bus Enter Leg	6	0	0	6	1	0	0	1	0	8	0	8	15
Total Entering Leg	11	0	0	11	1	0	0	1	0	15	0	15	27
Trucks Exiting Leg				7				0				5	12
Buses Exiting Leg				9				0				6	15
Total Exiting Leg				16				0				11	27

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Large Trucks

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	2	0	0	2	0	0	0	0	0	1	0	1	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	0	0	4	0	0	0	0	0	2	0	2	6
12:00 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
12:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
12:30 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	5	0	0	5	0	0	0	0	0	7	0	7	12
1:00 PM	1	0	0	1	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
1:30 PM	1	0	0	1	1	0	0	1	0	0	0	0	2
1:45 PM	0	0	0	0	1	0	0	1	0	3	0	3	4
Total	2	0	0	2	2	0	0	2	0	6	0	6	10
Grand Total	11	0	0	11	2	0	0	2	0	15	0	15	28
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	39.3	0.0	0.0	39.3	7.1	0.0	0.0	7.1	0.0	53.6	0.0	53.6	
Exiting Leg Total	17				0				11				28

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:00 PM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
12:00 PM	1	0	0	1	0	0	0	0	0	3	0	3	4
12:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
12:30 PM	2	0	0	2	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Volume	5	0	0	5	0	0	0	0	0	7	0	7	12
% Approach Total	100.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.625	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.583	0.750
Entering Leg	5	0	0	5	0	0	0	0	0	7	0	7	12
Exiting Leg				7				0				5	12
Total				12				0				12	24

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Buses

	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:00 AM	2	0	0	2	0	0	0	0	0	3	0	3	5
11:15 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
11:45 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
Total	5	0	0	5	0	0	0	0	0	8	0	8	13
12:00 PM	4	0	0	4	1	0	0	1	0	2	0	2	7
12:15 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
12:30 PM	1	0	0	1	0	0	0	0	0	1	0	1	2
12:45 PM	0	0	0	0	0	0	0	0	0	4	0	4	4
Total	6	0	0	6	1	0	0	1	0	8	0	8	15
1:00 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
1:15 PM	2	0	0	2	0	0	0	0	0	2	0	2	4
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	2	0	0	2	0	0	0	0	0	1	0	1	3
Total	6	0	0	6	0	0	0	0	0	4	0	4	10
Grand Total	17	0	0	17	1	0	0	1	0	20	0	20	38
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	44.7	0.0	0.0	44.7	2.6	0.0	0.0	2.6	0.0	52.6	0.0	52.6	
Exiting Leg Total	21				0				17				38

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

11:15 AM	Holland Avenue				Winter Street				Holland Avenue				Total
	from North				from East				from South				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	
11:15 AM	2	0	0	2	0	0	0	0	0	2	0	2	4
11:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
11:45 AM	1	0	0	1	0	0	0	0	0	2	0	2	3
12:00 PM	4	0	0	4	1	0	0	1	0	2	0	2	7
Total Volume	7	0	0	7	1	0	0	1	0	7	0	7	15
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.438	0.000	0.000	0.438	0.250	0.000	0.000	0.250	0.000	0.875	0.000	0.875	0.536
Entering Leg	7	0	0	7	1	0	0	1	0	7	0	7	15
Exiting Leg				8				0				7	15
Total				15				1				14	30

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Holland Avenue						Winter Street						Holland Avenue						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
11:00 AM	3	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	4
11:15 AM	2	0	0	0	0	2	1	0	0	0	0	1	0	2	0	0	0	0	2	5
11:30 AM	2	0	0	0	0	2	1	0	0	0	0	1	0	1	0	0	0	0	1	4
11:45 AM	8	0	0	0	0	8	1	2	0	0	0	3	0	2	0	0	0	0	2	13
Total	15	0	0	0	0	15	3	2	0	0	0	5	0	6	0	0	0	0	6	26
12:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	3	4
12:15 PM	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	4
12:45 PM	4	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	4	8
Total	12	0	0	0	0	12	0	0	0	0	0	0	0	8	0	0	0	0	8	20
1:00 PM	1	0	0	1	0	2	0	0	0	0	0	0	0	3	0	0	0	0	3	5
1:15 PM	5	0	0	0	0	5	1	0	0	0	0	1	0	6	0	0	0	0	6	12
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
1:45 PM	8	0	0	0	0	8	0	0	0	0	0	0	0	3	0	0	0	0	3	11
Total	14	0	0	1	0	15	1	0	0	0	0	1	0	13	0	0	0	0	13	29
Grand Total	41	0	0	1	0	42	4	2	0	0	0	6	0	27	0	0	0	0	27	75
Approach %	97.6	0.0	0.0	2.4	0.0		66.7	33.3	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0			
Total %	54.7	0.0	0.0	1.3	0.0	56.0	5.3	2.7	0.0	0.0	0.0	8.0	0.0	36.0	0.0	0.0	0.0	36.0		
Exiting Leg Total	32						0						43						75	

Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:30 PM	Holland Avenue						Winter Street						Holland Avenue						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
12:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	4
12:45 PM	4	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0	0	4	8
1:00 PM	1	0	0	1	0	2	0	0	0	0	0	0	0	0	3	0	0	0	3	5
1:15 PM	5	0	0	0	0	5	1	0	0	0	0	0	1	0	6	0	0	0	6	12
Total Volume	13	0	0	1	0	14	1	0	0	0	0	1	0	14	0	0	0	14	29	
% Approach Total	92.9	0.0	0.0	7.1	0.0		100.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0			
PHF	0.650	0.000	0.000	0.250	0.000	0.700	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.583	0.000	0.000	0.000	0.583	0.604	
Entering Leg	13	0	0	1	0	14	1	0	0	0	0	1	0	14	0	0	0	14	29	
Exiting Leg	16						0						13						29	
Total	30						1						27						58	

PDI File #: **175971 L**
 Location: **N: Holland Avenue S: Holland Avenue**
 Location: **E: Winter Street**
 City, State: **Somerville, MA**
 Client: **Toole/ H. Georgallas**
 Site Code: **TBA**
 Count Date: **Saturday, November 18, 2017**
 Start Time: **11:00 AM**
 End Time: **2:00 PM**
 Class:



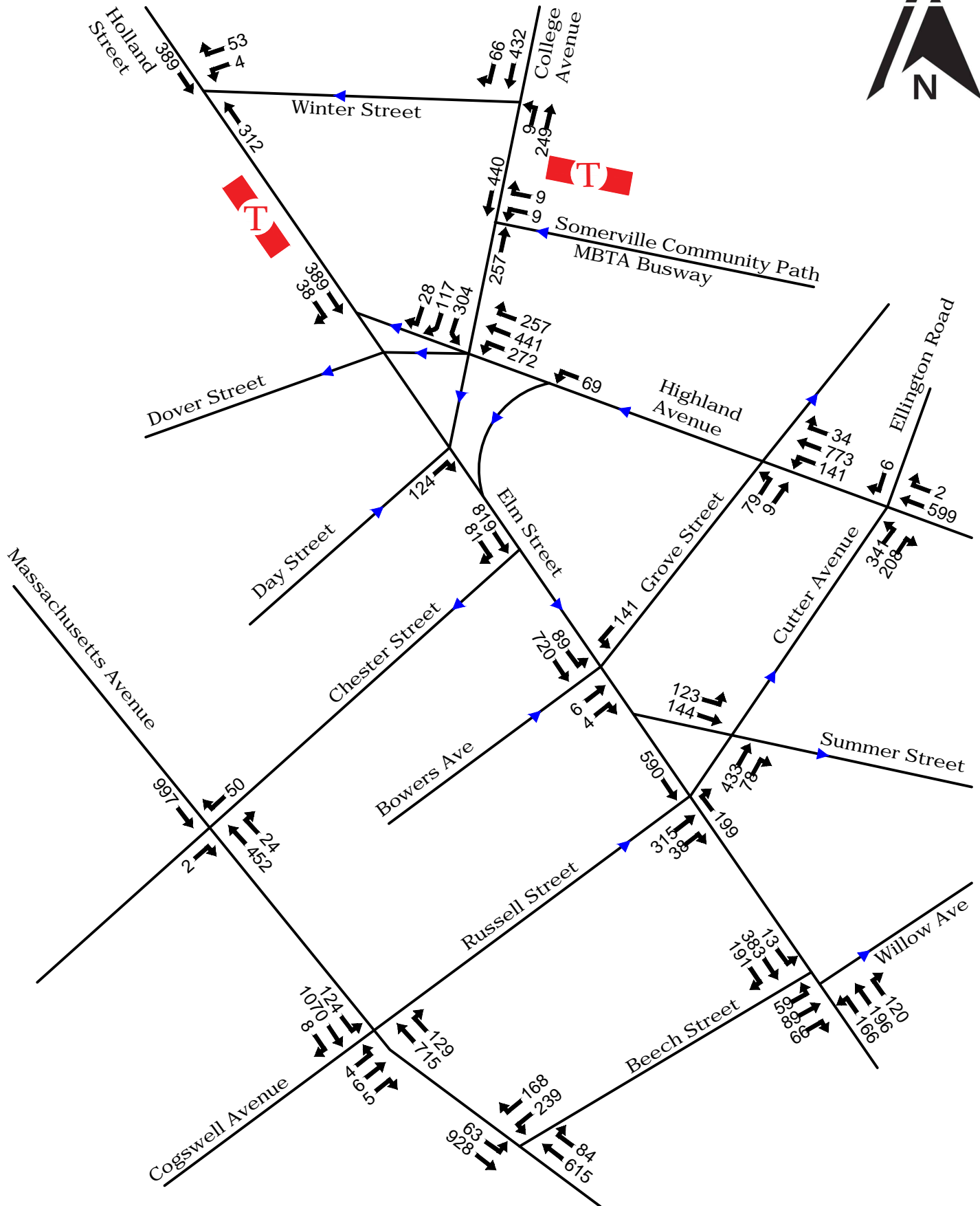
Pedestrians

	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:00 AM	0	0	0	10	27	37	0	0	0	15	12	27	0	0	0	5	1	6	70
11:15 AM	0	0	0	10	27	37	0	0	0	21	13	34	0	0	0	3	3	6	77
11:30 AM	0	0	0	9	16	25	0	0	0	24	26	50	0	0	0	4	5	9	84
11:45 AM	0	0	0	7	25	32	0	0	0	27	37	64	0	0	0	9	2	11	107
Total	0	0	0	36	95	131	0	0	0	87	88	175	0	0	0	21	11	32	338
12:00 PM	0	0	0	11	16	27	0	0	0	44	30	74	0	0	0	3	7	10	111
12:15 PM	0	0	0	11	25	36	0	0	0	33	41	74	0	0	0	3	10	13	123
12:30 PM	0	0	0	12	30	42	0	0	0	41	30	71	0	0	0	2	5	7	120
12:45 PM	0	0	0	22	36	58	0	0	0	40	34	74	0	0	0	4	6	10	142
Total	0	0	0	56	107	163	0	0	0	158	135	293	0	0	0	12	28	40	496
1:00 PM	0	0	0	19	22	41	0	0	0	31	40	71	0	0	0	1	3	4	116
1:15 PM	0	0	0	11	32	43	0	0	0	34	25	59	0	0	0	3	6	9	111
1:30 PM	0	0	0	19	22	41	0	0	0	20	41	61	0	0	0	4	6	10	112
1:45 PM	0	0	0	26	24	50	0	0	0	38	39	77	0	0	0	4	11	15	142
Total	0	0	0	75	100	175	0	0	0	123	145	268	0	0	0	12	26	38	481
Grand Total	0	0	0	167	302	469	0	0	0	368	368	736	0	0	0	45	65	110	1315
Approach %	0.0	0.0	0.0	35.6	64.4		0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	40.9	59.1		
Total %	0.0	0.0	0.0	12.7	23.0	35.7	0.0	0.0	0.0	28.0	28.0	56.0	0.0	0.0	0.0	3.4	4.9	8.4	
Exiting Leg Total	469						736						110						1315

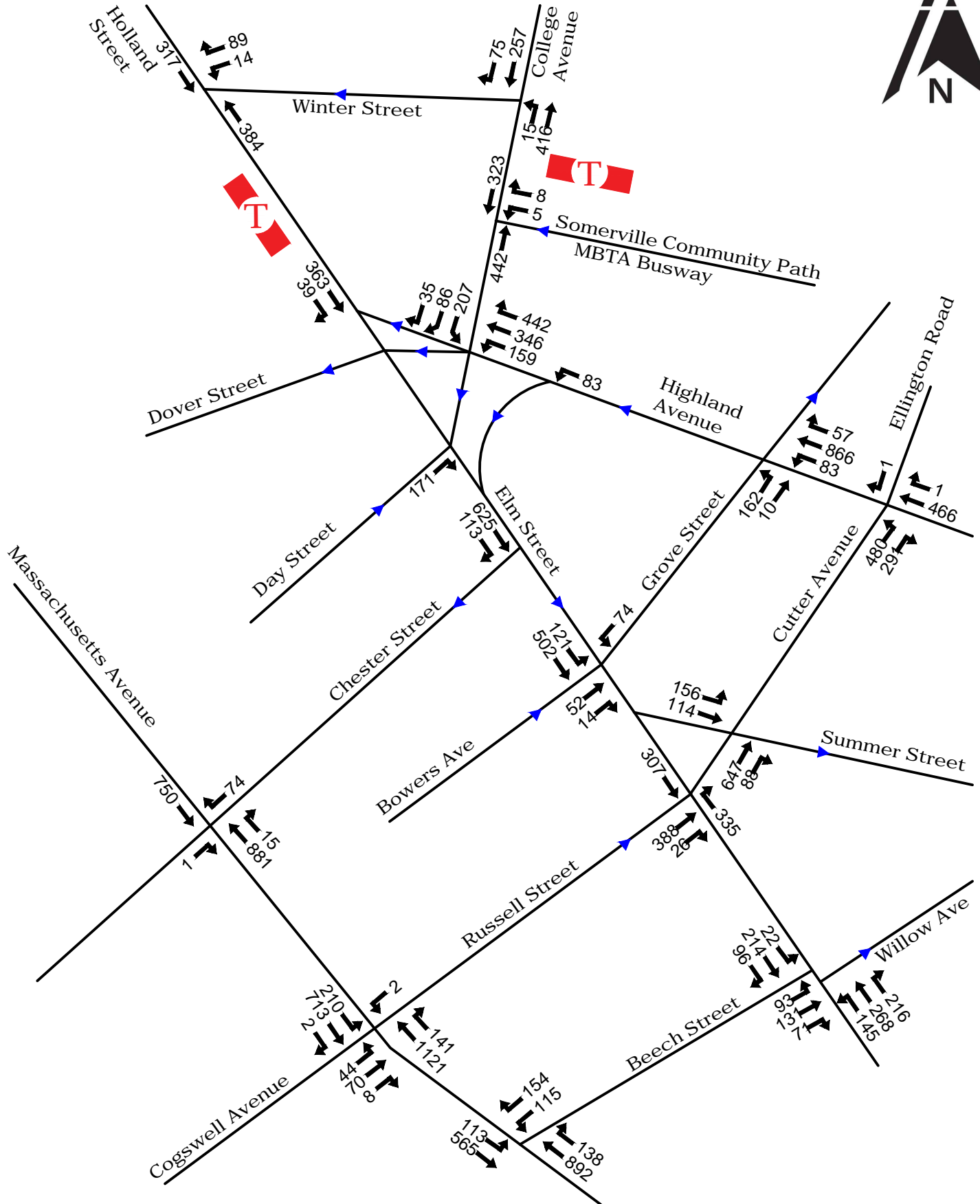
Peak Hour Analysis from 11:00 AM to 02:00 PM begins at:

12:15 PM	Holland Avenue						Winter Street						Holland Avenue						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
12:15 PM	0	0	0	11	25	36	0	0	0	33	41	74	0	0	0	3	10	13	123
12:30 PM	0	0	0	12	30	42	0	0	0	41	30	71	0	0	0	2	5	7	120
12:45 PM	0	0	0	22	36	58	0	0	0	40	34	74	0	0	0	4	6	10	142
1:00 PM	0	0	0	19	22	41	0	0	0	31	40	71	0	0	0	1	3	4	116
Total Volume	0	0	0	64	113	177	0	0	0	145	145	290	0	0	0	10	24	34	501
% Approach Total	0.0	0.0	0.0	36.2	63.8		0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	29.4	70.6		
PHF	0.000	0.000	0.000	0.727	0.785	0.763	0.000	0.000	0.000	0.884	0.884	0.980	0.000	0.000	0.000	0.625	0.600	0.654	0.882
Entering Leg	0	0	0	64	113	177	0	0	0	145	145	290	0	0	0	10	24	34	501
Exiting Leg	177						290						34						501
Total	354						580						68						1002

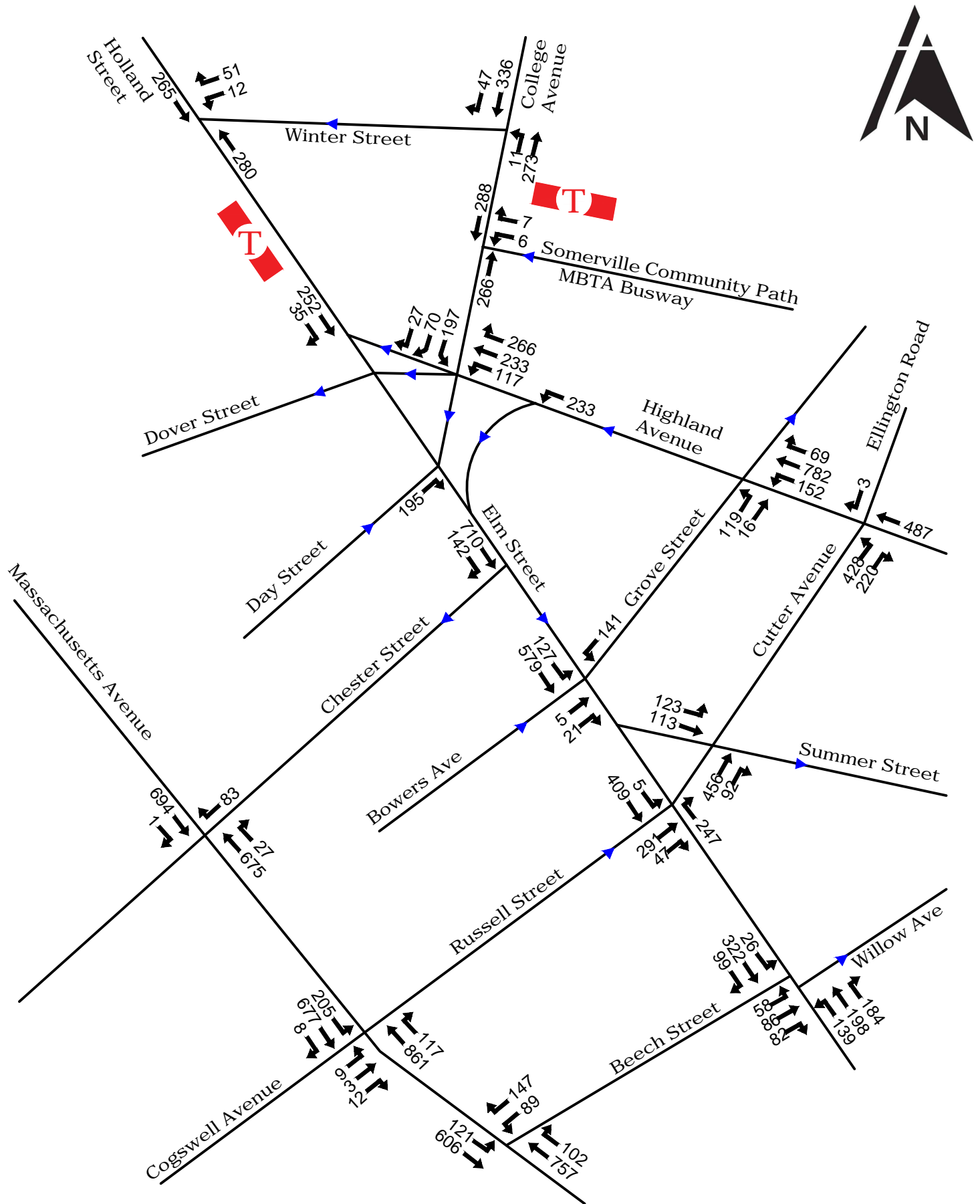
AM PEAK - EXISTING



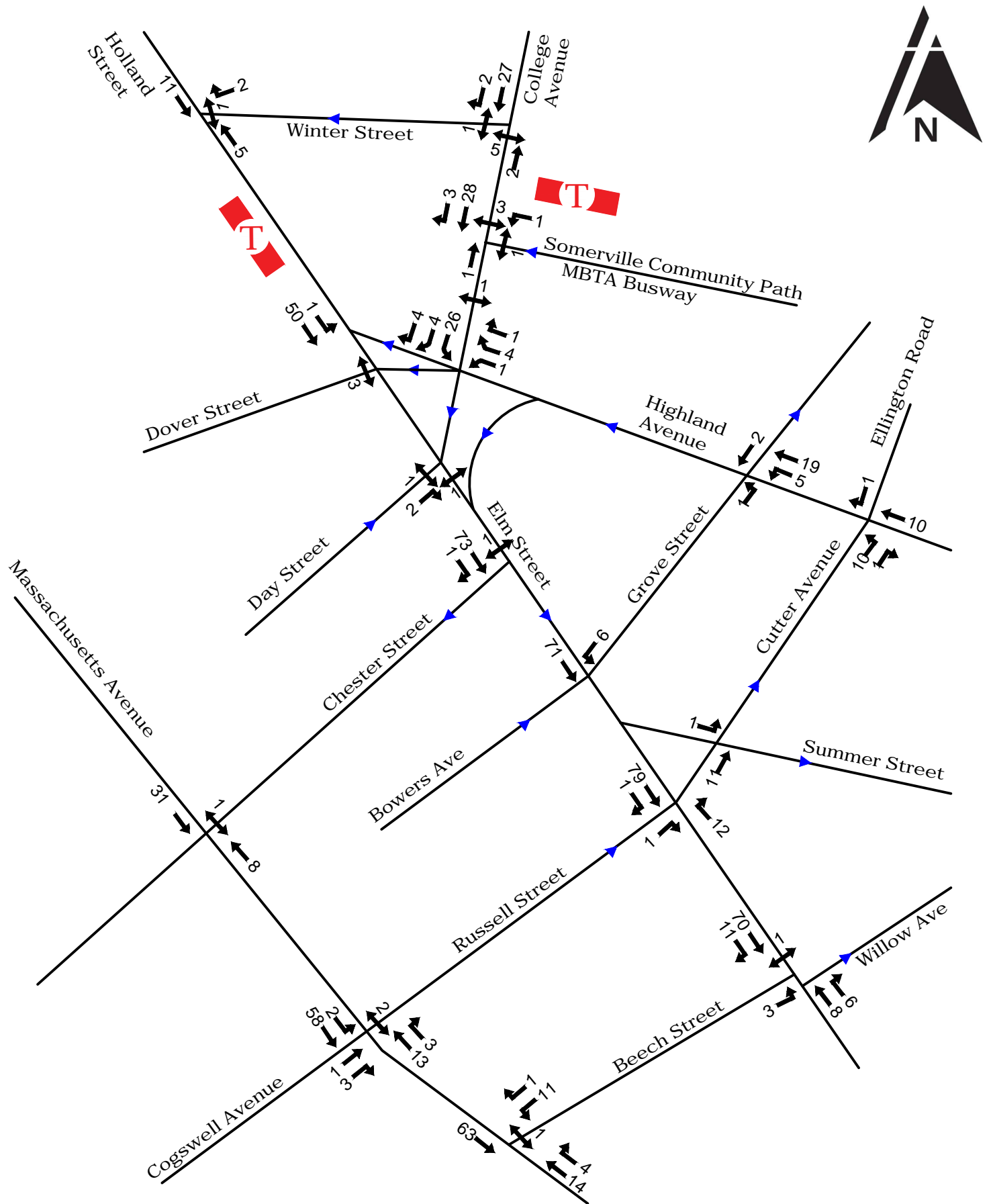
PM PEAK - EXISTING

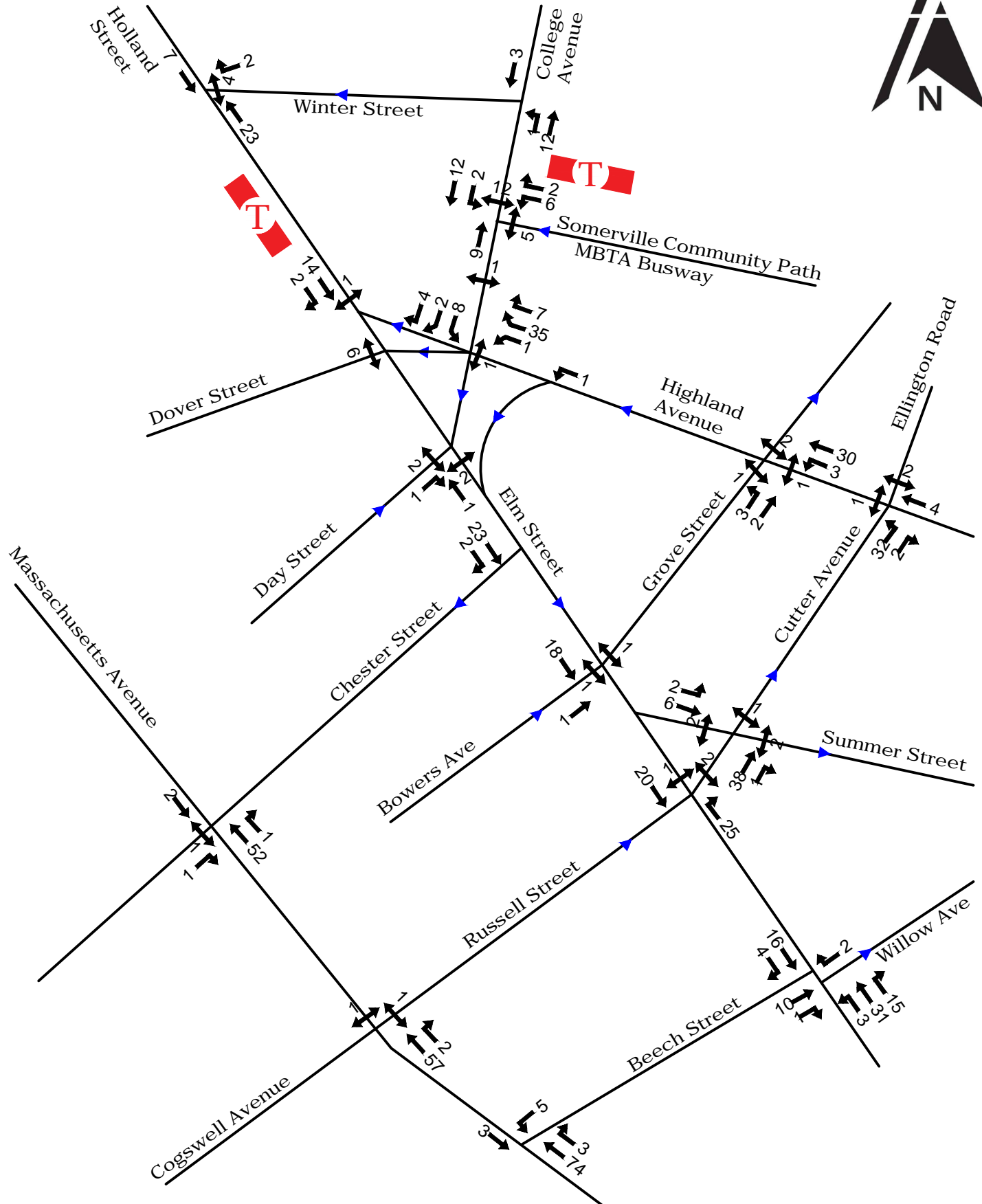


SATURDAY MIDDAY PEAK - EXISTING

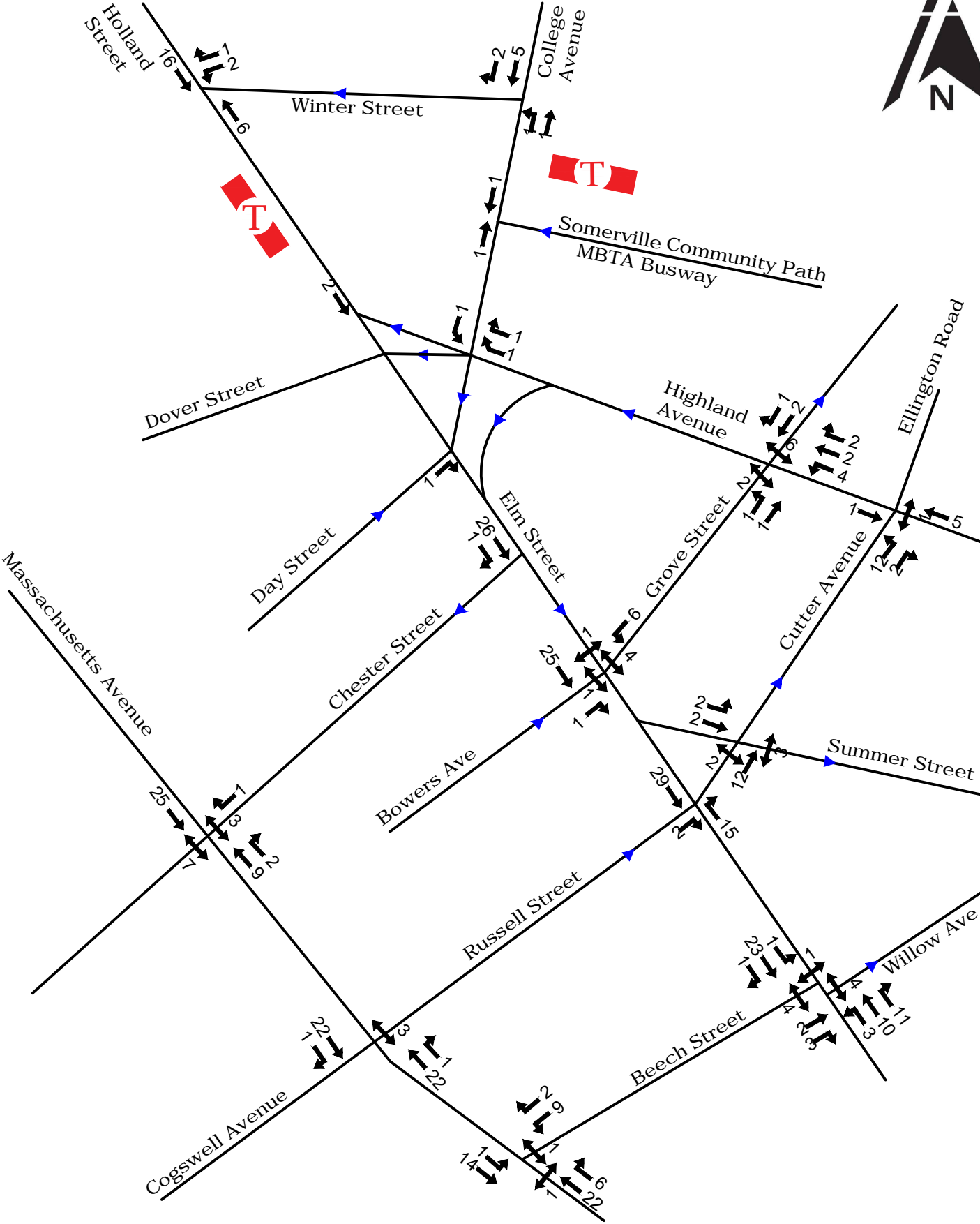


AM PEAK BIKE - EXISTING

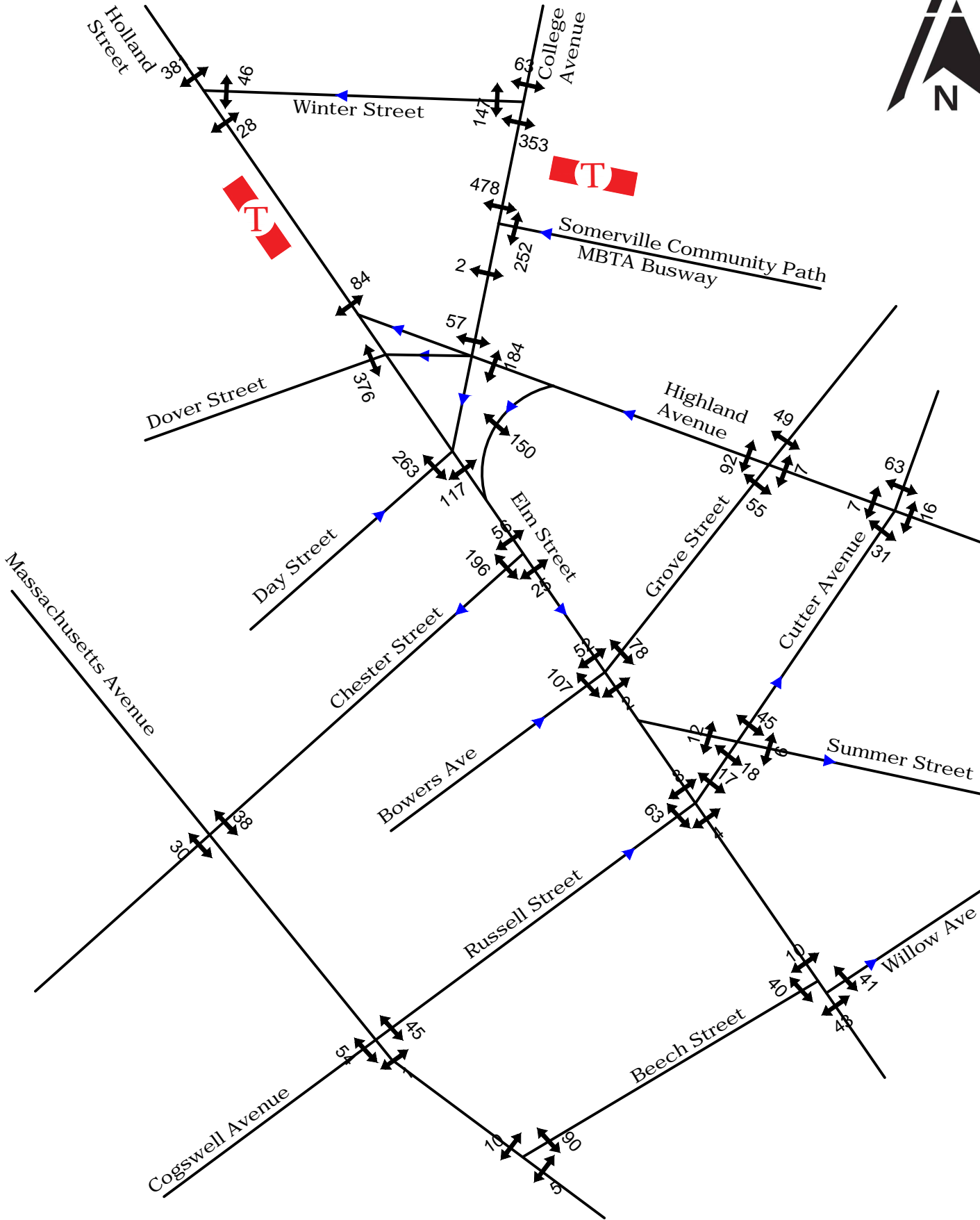




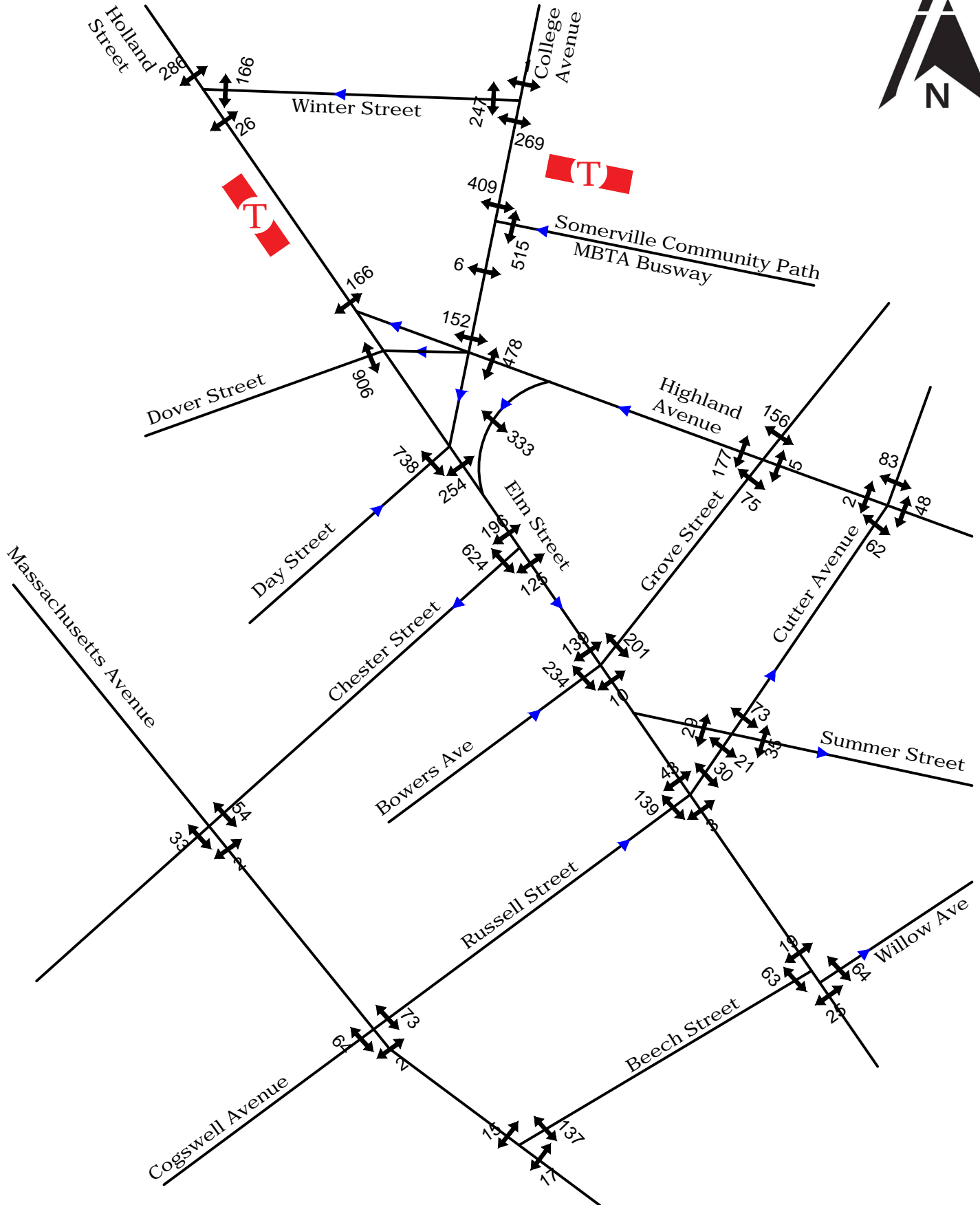
SATURDAY MID-DAY PEAK BIKE - EXISTING



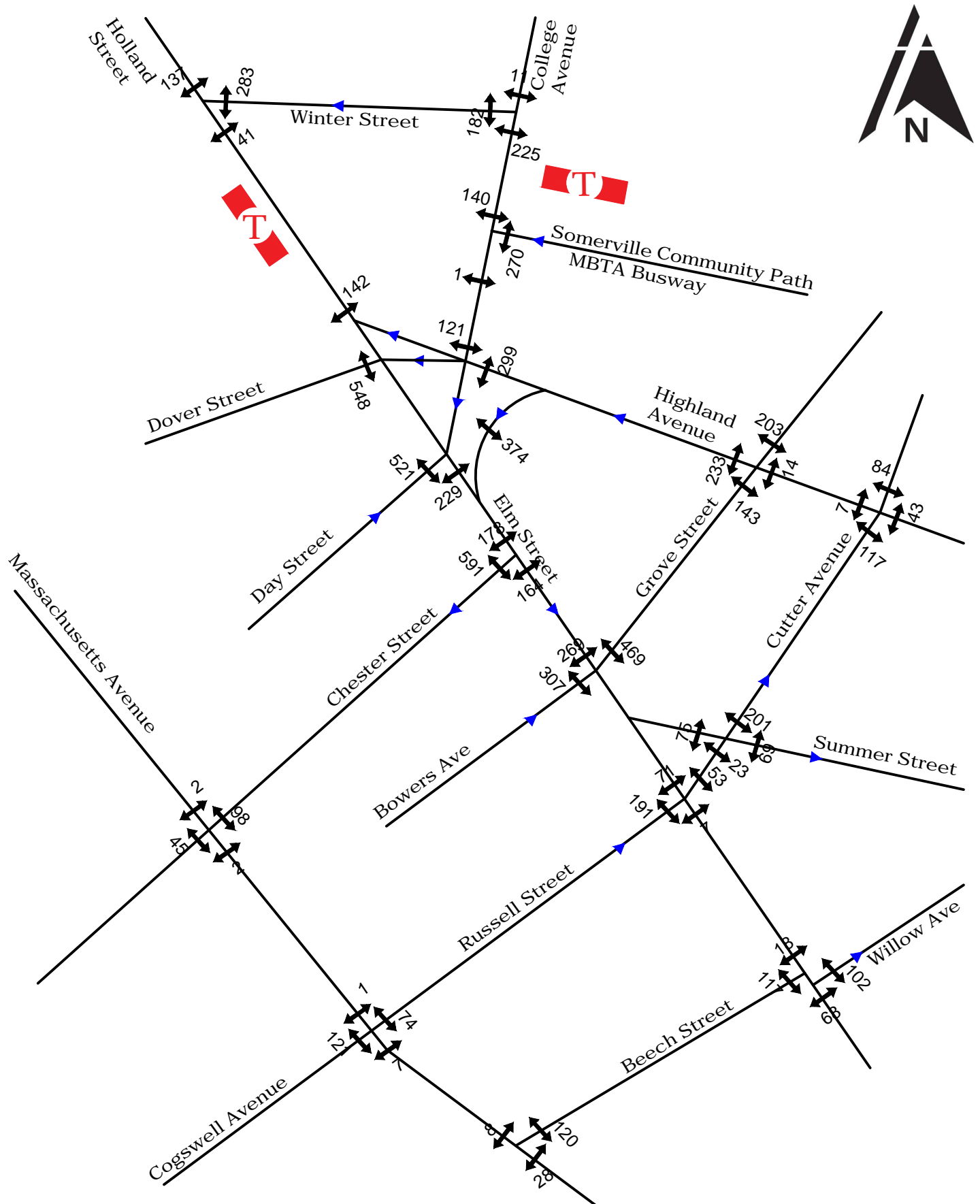
AM PEAK PED - EXISTING



PM PEAK PED - EXISTING



SATURDAY MID-DAY PEAK PED - EXISTING



Massachusetts Highway Department
Statewide Traffic Data Collection
2019 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.22	1.14	1.12	1.06	1.00	0.96	0.87	0.85	0.96	0.99	1.04	1.12	0.85
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.15	1.06	1.07	1.00	0.89	0.88	0.89	0.89	0.95	0.92	1.02	1.01	0.97
R4-R7	1.09	1.09	1.11	1.02	0.96	0.92	0.89	0.89	0.99	0.98	1.09	1.13	0.98
U1-Boston	1.03	1.01	0.98	0.94	0.94	0.92	0.95	0.93	0.94	0.94	0.97	1.04	0.96
U1-Essex	1.09	1.06	1.03	0.99	0.94	0.90	0.88	0.86	0.93	0.94	0.99	1.06	0.93
U1-Southeast	1.06	1.05	1.01	0.97	0.95	0.93	0.93	0.90	0.94	0.94	0.98	1.04	0.98
U1-West	1.19	1.14	1.09	0.95	0.92	0.89	0.89	0.86	0.91	0.95	0.97	1.07	0.84
U1-Worcester	1.02	1.04	0.97	0.94	0.93	0.91	0.95	0.91	0.93	0.92	0.95	1.10	0.88
U2	1.01	1.00	0.94	0.93	0.91	0.89	0.93	0.90	0.90	0.91	0.94	1.02	0.99
U3	1.06	1.03	0.98	0.94	0.93	0.91	0.95	0.91	0.92	0.93	0.97	1.00	0.98
U4-U7	1.01	1.00	0.95	0.92	0.88	0.86	0.92	0.91	0.92	0.94	0.99	1.04	0.99
Rec - East	1.04	1.16	1.12	0.98	0.92	0.88	0.77	0.81	0.94	1.02	1.08	1.12	0.99
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.98

Round off:

0-999 = 10

>1000 = 100

U = Urban

R = Rural

1 - Interstate

2 - Freeway and Expressway

3 - Other Principal Arterial

4 - Minor Arterial

5 - Major Collector

6 - Minor Collector

7 - Local Road and Street

Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.

Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113,1114, 1116,2196,2197 and 2198.

APPENDIX C – SAFETY ANALYSIS

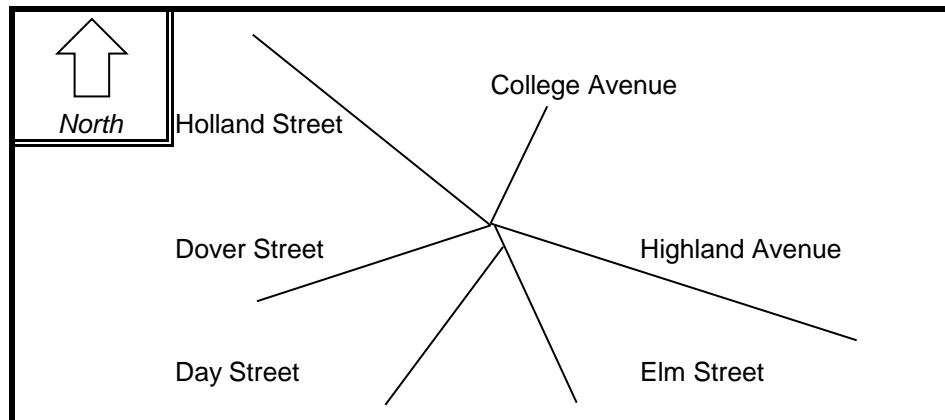
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 2020*
 DISTRICT : 4 UNSIGNALIZED : ☐ SIGNALIZED : ☒ X
 *Projected from November 2017 Counts

~ INTERSECTION DATA ~

MAJOR STREET : Highland Avenue, Holland Street, College Avenue, Elm Street
 MINOR STREET(S) : Dover Street, Day Street

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	WB	NB	EB		
PEAK HOURLY VOLUMES (AM) :						2,059

" K " FACTOR :

0.090

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

22,878

TOTAL # OF CRASHES :

15

OF YEARS :

3

AVERAGE # OF CRASHES PER YEAR (A) :

5.00

CRASH RATE CALCULATION :

0.60

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

Comments : Statewide Average = 0.78 c/mev; District 4 Average = 0.73 c/mev

Project Title & Date: Sira Naturals

Sep-20

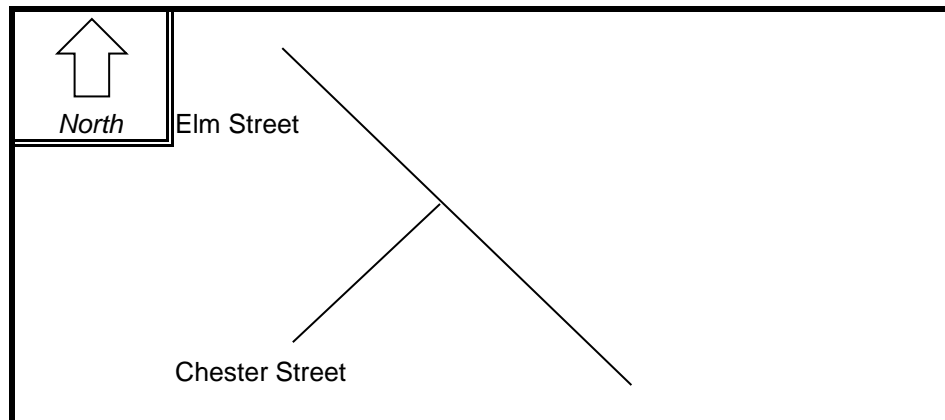
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 2020*
 DISTRICT : 4 UNSIGNALIZED : ☒ SIGNALIZED : ☐
 *Projected from November 2017 Counts

~ INTERSECTION DATA ~

MAJOR STREET : Elm Street
 MINOR STREET(S) : Chester Street

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	WB	NB	EB		
PEAK HOURLY VOLUMES (AM) :						908

" K " FACTOR :

0.090

INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

10,089

TOTAL # OF CRASHES :

4

OF YEARS :

3

AVERAGE # OF CRASHES PER YEAR (A) :

1.33

CRASH RATE CALCULATION :

0.36

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

Comments : Statewide Average = 0.57 c/mev; District 4 Average = 0.57 c/mev

Project Title & Date: SIRA Naturals

Sep-20

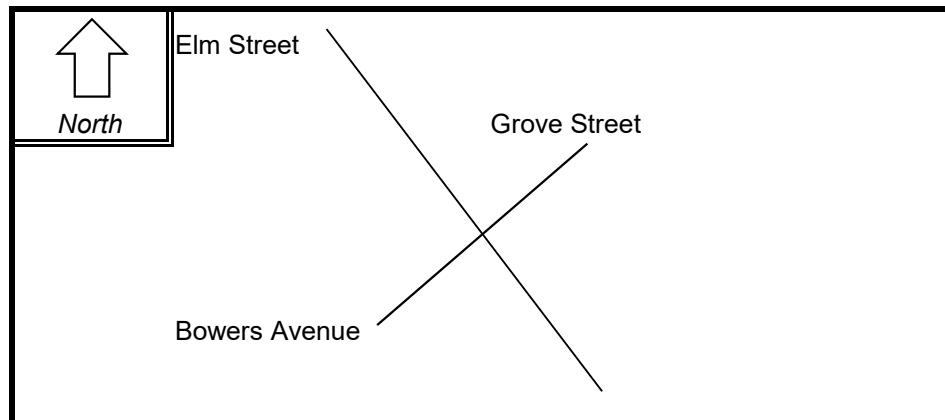
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 2020*
 DISTRICT : 4 UNSIGNALIZED : ☒ SIGNALIZED : ☐
 *Projected from November 2017 Counts

~ INTERSECTION DATA ~

MAJOR STREET : Elm Street
 MINOR STREET(S) : Grove Street
Bowers Avenue

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	WB	NB	EB		
PEAK HOURLY VOLUMES (AM) :						971

" K " FACTOR :

0.090

INTERSECTION ADT (V) = TOTAL DAILY
 APPROACH VOLUME :

10,789

TOTAL # OF CRASHES :

1

OF
 YEARS :

3

AVERAGE # OF
 CRASHES PER YEAR (A) :

0.33

CRASH RATE CALCULATION :

0.08

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

Comments : Statewide Average = 0.78 c/mev; District 4 Average = 0.73 c/mev

Project Title & Date: SIRA Naturals

Sep-20

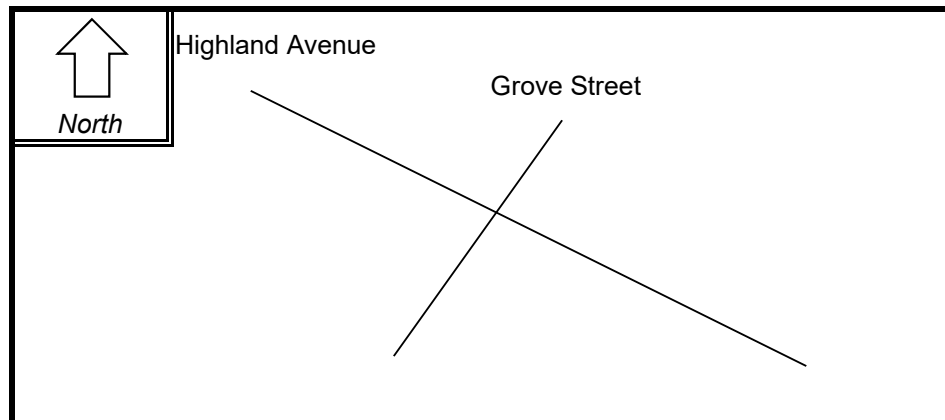
INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 2020*
 DISTRICT : 4 UNSIGNALIZED : ☒ SIGNALIZED : ☐
 *Projected from November 2017 Counts

~ INTERSECTION DATA ~

MAJOR STREET : Highland Avenue
 MINOR STREET(S) : Grove Street

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	WB	NB	EB		
PEAK HOURLY VOLUMES (PM) :						1,190

" K " FACTOR :

0.090

INTERSECTION ADT (V) = TOTAL DAILY
 APPROACH VOLUME :

13,222

TOTAL # OF CRASHES :

7

OF
 YEARS :

3

AVERAGE # OF
 CRASHES PER YEAR (A) :

2.33

CRASH RATE CALCULATION :

0.48

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

Comments : Statewide Average = 0.78 c/mev; District 4 Average = 0.73 c/mev

Project Title & Date: SIRA Naturals

Sep-20

APPENDIX D – TRIP GENERATION

Residence	Work Place	Total
Boston	Somerville	15,041
Cambridge	Somerville	10,123
Medford	Somerville	1,419
Everett	Somerville	240
Chelsea	Somerville	312
Malden	Somerville	286
Revere	Somerville	26
Arlington	Somerville	462
Lexington	Somerville	656
Belmont	Somerville	264
Newton	Somerville	1,032
Waltham	Somerville	1,158
Watertown	Somerville	691
Somerville	Somerville	7,391
Somerville	Boston	2,236
Somerville	Cambridge	988
Somerville	Medford	1,358
Somerville	Everett	827
Somerville	Chelsea	306
Somerville	Malden	857
Somerville	Revere	343
Somerville	Arlington	427
Somerville	Lexington	155
Somerville	Belmont	150
Somerville	Newton	134
Somerville	Waltham	391
Somerville	Watertown	191

47,464

Travel Flow	%	Project Trips	Note
Work in Somerville	67%	7	Enter based on Study Area entry TMCs, navigate to closest lot, exit same direction as enter
Live in Somerville	18%	2	Attribute to highest commute share city/town (Boston - Enter/Exit by College Ave)
Work and Live in Somerville	16%	1	From highest volume approach (Enter/Exit by Highland Ave)

Entering Study Area (Work in Somerville)	TMCs	%	Trips	Rounded Trips
Holland Street Thru	366	20%	1.41	1
College Ave Left	209	12%	0.81	1
Highland Left/Thru/Right	1015	56%	3.91	4
Day Street Right	173	10%	0.67	1
Bowers Ave Thru	53	3%	0.20	0

1816

Entering Streets	All Trips
Holland Street	1
College Ave	3
Highland Ave	5
Day Street	1

Marijuana Dispensary (882)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

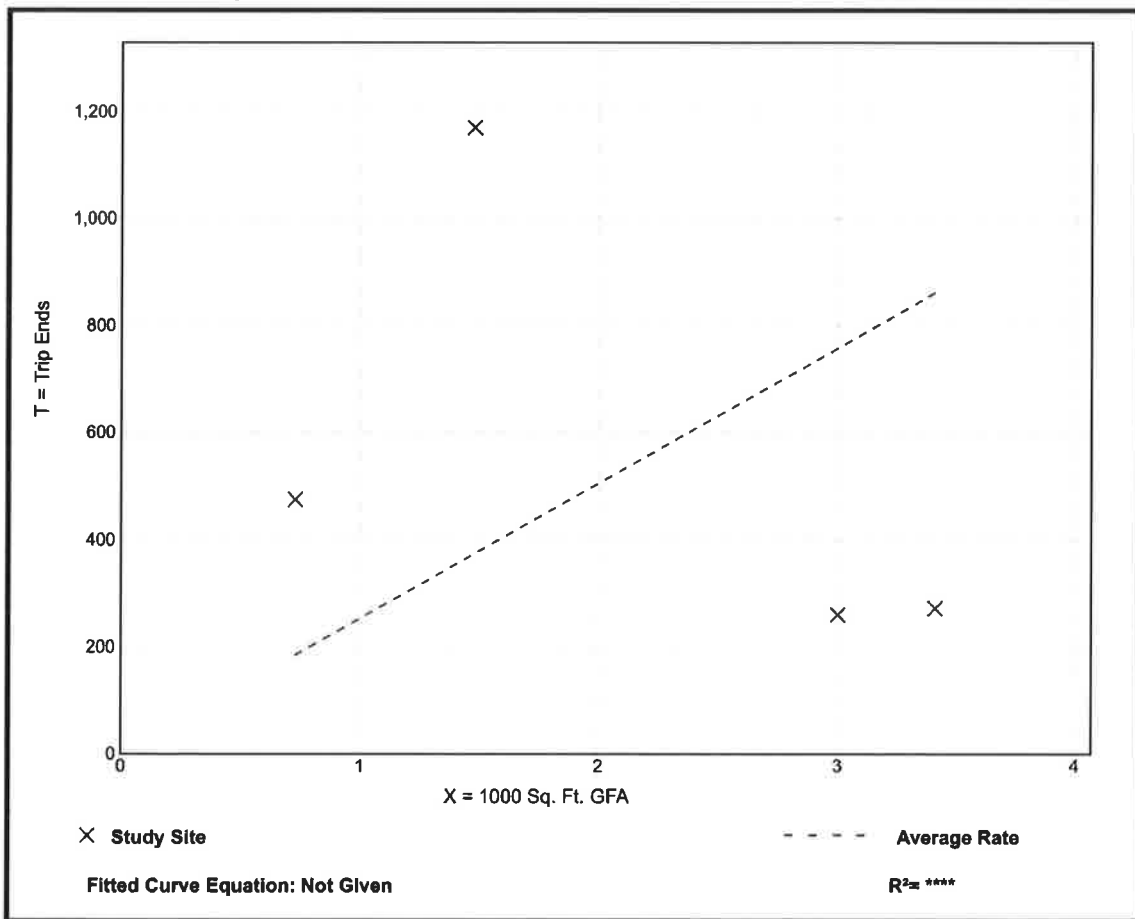
Setting/Location: General Urban/Suburban
Number of Studies: 4
1000 Sq. Ft. GFA: 2
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
252.70	79.74 - 791.22	336.11

Data Plot and Equation

Caution – Small Sample Size



Marijuana Dispensary (882)

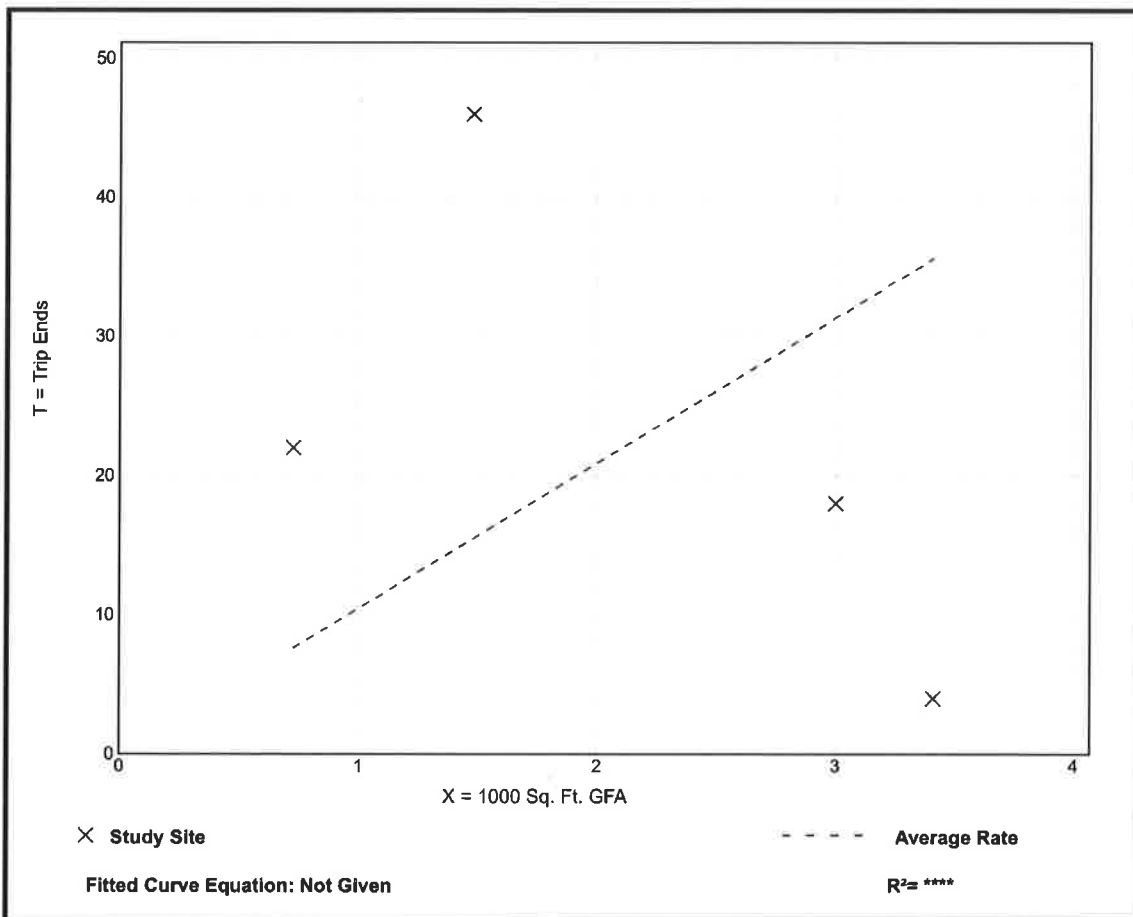
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 4
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 56% entering, 44% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.44	1.17 - 31.08	14.00

Data Plot and Equation

Caution – Small Sample Size



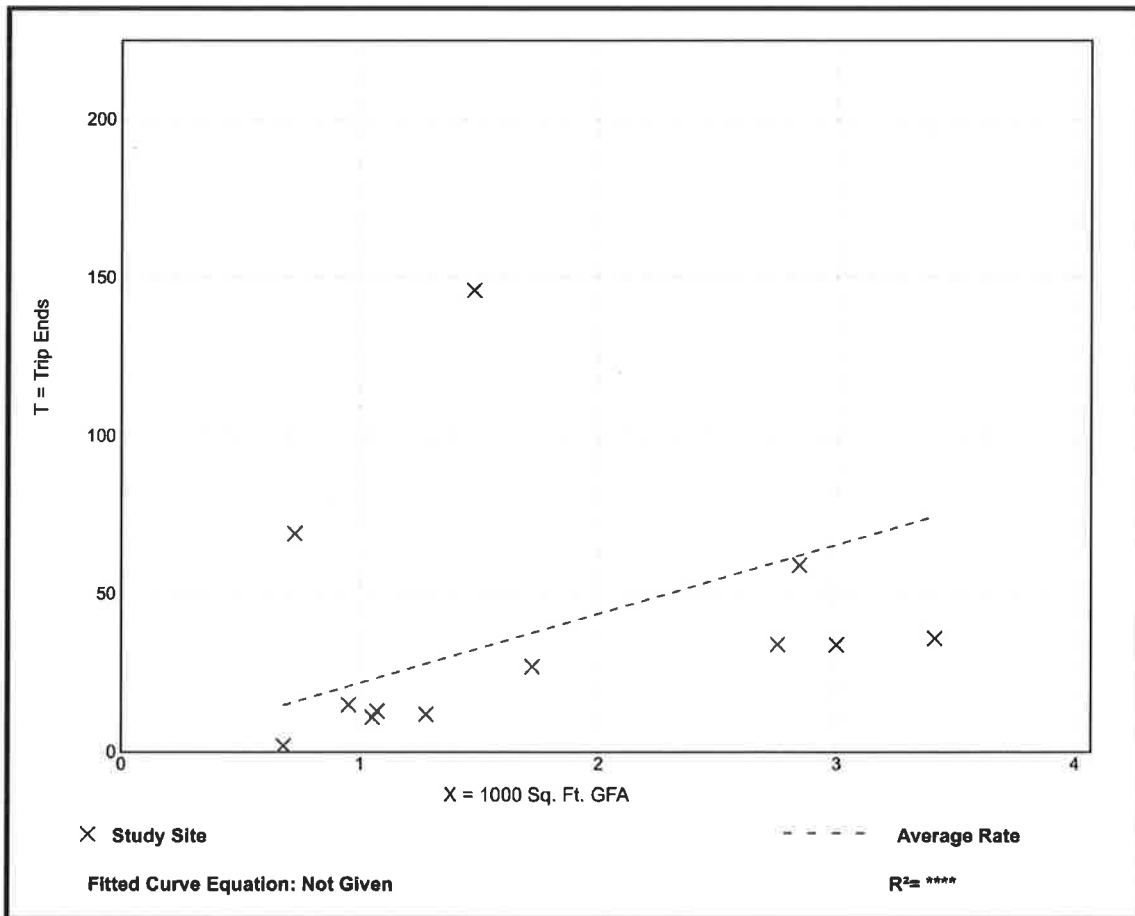
Marijuana Dispensary (882)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 12
 1000 Sq. Ft. GFA: 2
 Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
21.83	2.94 - 98.65	27.36

Data Plot and Equation



APPENDIX E – INTERSECTION CAPACITY ANALYSIS

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵				
Traffic Volume (vph)	392	39	275	445	259	125	307	0	118	29		
Future Volume (vph)	392	39	275	445	259	125	307	0	118	29		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.987			0.850	0.850	0.865		0.899				
Flt Protected			0.950				0.950	0.984				
Satd. Flow (prot)	3493	0	1770	1583	1583	1611	1681	1565	0	0		
Flt Permitted			0.950				0.950	0.984				
Satd. Flow (perm)	3493	0	1770	1583	1583	1611	1681	1565	0	0		
Right Turn on Red		Yes			Yes	Yes				Yes		
Satd. Flow (RTOR)	185				282	361		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	426	42	299	484	282	136	334	0	128	32		
Shared Lane Traffic (%)							23%					
Lane Group Flow (vph)	468	0	299	484	282	136	257	237	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		13.0			13.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

2020 Existing Weekday AM Peak Hour

Synchro 10 Report
Page 1

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	5.0	5.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.60		0.40	0.73	0.27	0.23	0.45	0.38				
Control Delay	26.0		22.3	32.0	1.4	0.9	3.0	2.2				
Queue Delay	0.0		0.0	0.0	0.0	0.0	7.2	6.5				
Total Delay	26.0		22.3	32.0	1.4	0.9	10.2	8.8				
LOS	C		C	C	A	A	B	A				
Approach Delay	26.0		21.2					9.5				
Approach LOS	C		C					A				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 18.3

Intersection LOS: B

Intersection Capacity Utilization 54.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	468	299	484	282	136	257	237
v/c Ratio	0.60	0.40	0.73	0.27	0.23	0.45	0.38
Control Delay	26.0	22.3	32.0	1.4	0.9	3.0	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	7.2	6.5
Total Delay	26.0	22.3	32.0	1.4	0.9	10.2	8.8
Queue Length 50th (ft)	86	130	252	0	0	10	8
Queue Length 95th (ft)	139	201	379	23	0	m14	m12
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	780	743	664	1036	586	571	625
Starvation Cap Reductn	0	0	0	0	0	263	331
Spillback Cap Reductn	0	0	0	51	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.40	0.73	0.29	0.23	0.83	0.81

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵	↵	↵
Traffic Volume (vph)	392	39	275	445	259	125	307	0	118	29
Future Volume (vph)	392	39	275	445	259	125	307	0	118	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.99		1.00	0.85	0.85	0.86	1.00	0.90		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (prot)	3492		1770	1583	1583	1611	1681	1565		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (perm)	3492		1770	1583	1583	1611	1681	1565		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	426	42	299	484	282	136	334	0	128	32
RTOR Reduction (vph)	152	0	0	0	141	112	0	97	0	0
Lane Group Flow (vph)	316	0	299	484	141	24	257	140	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	628		743	664	791	289	537	500		
v/s Ratio Prot	0.09		0.07	c0.31	0.09	0.02	c0.15	0.09		
v/s Ratio Perm			0.10							
v/c Ratio	0.50		0.40	0.73	0.18	0.08	0.48	0.28		
Uniform Delay, d1	37.0		24.6	24.2	13.7	34.1	27.3	25.4		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.06	0.13		
Incremental Delay, d2	2.9		1.6	6.9	0.5	0.6	1.6	0.7		
Delay (s)	39.8		26.3	31.1	14.2	34.7	3.3	4.0		
Level of Service	D		C	C	B	C	A	A		
Approach Delay (s)	39.8		25.3					3.6		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			24.1			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.62							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			54.1%			ICU Level of Service		A		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

09/10/2020



















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					↑↑	
Traffic Volume (vph)	0	0	0	0	826	82
Future Volume (vph)	0	0	0	0	826	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.986	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3490	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3490	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						263
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	898	89
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	987	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	29.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings

3: Elm Street & Grove Street


















09/10/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	90	726	0	0	7	5	143	0	0
Future Volume (vph)	0	0	0	90	726	0	0	7	5	143	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.948											
Flt Protected					0.995					0.950		
Satd. Flow (prot)	0	0	1863	0	3522	0	0	1766	0	1770	0	0
Flt Permitted					0.995					0.950		
Satd. Flow (perm)	0	0	1863	0	3522	0	0	1766	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	230				337		
Travel Time (s)	3.2				5.4	5.2				7.7		
Confl. Peds. (#/hr)	78											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	98	789	0	0	8	5	155	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	887	0	0	13	0	155	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 43.9%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM Unsignalized Intersection Capacity Analysis

3: Elm Street & Grove Street

















09/10/2020

																									
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR													
Lane Configurations					 																				
Traffic Volume (veh/h)	0	0	0	90	726	0	0	7	5	143	0	0													
Future Volume (Veh/h)	0	0	0	90	726	0	0	7	5	143	0	0													
Sign Control	Free				Free				Stop																
Grade	0%				0%				0%																
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92													
Hourly flow rate (vph)	0	0	0	98	789	0	0	8	5	155	0	0													
Pedestrians												78													
Lane Width (ft)												12.0													
Walking Speed (ft/s)												3.5													
Percent Blockage												7													
Right turn flare (veh)																									
Median type	None			None																					
Median storage (veh)																									
Upstream signal (ft)																									
pX, platoon unblocked																									
vC, conflicting volume	789			78				985	1063	394	678	1063	78												
vC1, stage 1 conf vol																									
vC2, stage 2 conf vol																									
vCu, unblocked vol	789			78				985	1063	394	678	1063	78												
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 %	100			93				100	96	99	42	100	100												
cM capacity (veh/h)	827			1406				181	191	605	269	191	895												
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1																				
Volume Total	0	361	526	13	155																				
Volume Left	0	98	0	0	155																				
Volume Right	0	0	0	5	0																				
cSH	1700	1406	1700	259	269																				
Volume to Capacity	0.00	0.07	0.31	0.05	0.58																				
Queue Length 95th (ft)	0	6	0	4	83																				
Control Delay (s)	0.0	2.6	0.0	19.6	35.1																				
Lane LOS	A			C	E																				
Approach Delay (s)	0.0	1.0			19.6	35.1																			
Approach LOS				C	E																				
Intersection Summary																									
Average Delay			6.3																						
Intersection Capacity Utilization			43.9%	ICU Level of Service					A																
Analysis Period (min)			15																						

Lanes, Volumes, Timings

4: Highland Avenue & Grove Street

















09/10/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	143	779	35	80	10	0	0	0	0
Future Volume (vph)	0	0	0	143	779	35	80	10	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.995							
Flt Protected					0.993			0.957				
Satd. Flow (prot)	0	0	1863	0	3497	0	0	1783	0	0	0	1863
Flt Permitted					0.993			0.957				
Satd. Flow (perm)	0	0	1863	0	3497	0	0	1783	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				55		49	92					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	155	847	38	87	11	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1040	0	0	98	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	38.6%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/10/2020

																									
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR													
Lane Configurations																									
Traffic Volume (veh/h)	0	0	0	143	779	35	80	10	0	0	0	0													
Future Volume (Veh/h)	0	0	0	143	779	35	80	10	0	0	0	0													
Sign Control	Free			Free			Stop			Stop															
Grade	0%			0%			0%			0%															
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92													
Hourly flow rate (vph)	0	0	0	155	847	38	87	11	0	0	0	0													
Pedestrians	92						55			49															
Lane Width (ft)	12.0						12.0			12.0															
Walking Speed (ft/s)	3.5						3.5			3.5															
Percent Blockage	9						5			5															
Right turn flare (veh)																									
Median type	None			None																					
Median storage (veh)																									
Upstream signal (ft)																									
pX, platoon unblocked																									
vC, conflicting volume	934				55				880	1299	55	1230	1280	584											
vC1, stage 1 conf vol																									
vC2, stage 2 conf vol																									
vCu, unblocked vol	934				55				880	1299	55	1230	1280	584											
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 %	100				89				51	92	100	100	100	100											
cM capacity (veh/h)	695				1467				178	129	948	102	133	396											
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1																				
Volume Total	0	578	462	98	0																				
Volume Left	0	155	0	87	0																				
Volume Right	0	0	38	0	0																				
cSH	1700	1467	1700	171	1700																				
Volume to Capacity	0.00	0.11	0.27	0.57	0.00																				
Queue Length 95th (ft)	0	9	0	76	0																				
Control Delay (s)	0.0	2.9	0.0	51.3	0.0																				
Lane LOS	A			F	A																				
Approach Delay (s)	0.0	1.6			51.3	0.0																			
Approach LOS				F	A																				
Intersection Summary																									
Average Delay				5.9																					
Intersection Capacity Utilization				38.6%	ICU Level of Service			A																	
Analysis Period (min)				15																					

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵				
Traffic Volume (vph)	366	40	161	349	446	173	209	0	87	36		
Future Volume (vph)	366	40	161	349	446	173	209	0	87	36		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.985			0.850	0.850	0.865		0.884				
Flt Protected			0.950				0.950	0.989				
Satd. Flow (prot)	3486	0	1770	1583	1583	1611	1681	1547	0	0		
Flt Permitted			0.950				0.950	0.989				
Satd. Flow (perm)	3486	0	1770	1583	1583	1611	1681	1547	0	0		
Right Turn on Red		Yes			Yes	Yes				Yes		
Satd. Flow (RTOR)	185				485	444		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	398	43	175	379	485	188	227	0	95	39		
Shared Lane Traffic (%)							17%					
Lane Group Flow (vph)	441	0	175	379	485	188	188	173	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		15.0			15.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

2020 Existing Weekday PM Peak Hour

Synchro 10 Report
Page 1

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	8.0	2.0	2.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.57		0.24	0.57	0.43	0.29	0.33	0.28				
Control Delay	24.5		19.8	26.3	1.8	1.1	2.3	1.7				
Queue Delay	0.0		0.0	0.0	0.2	0.0	2.3	2.5				
Total Delay	24.5		19.8	26.3	2.0	1.1	4.6	4.2				
LOS	C		B	C	A	A	A	A				
Approach Delay	24.5		13.9					4.4				
Approach LOS	C		B					A				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 47.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	184	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	441	175	379	485	188	188	173
v/c Ratio	0.57	0.24	0.57	0.43	0.29	0.33	0.28
Control Delay	24.5	19.8	26.3	1.8	1.1	2.3	1.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	2.3	2.5
Total Delay	24.5	19.8	26.3	2.0	1.1	4.6	4.2
Queue Length 50th (ft)	76	70	180	0	0	5	4
Queue Length 95th (ft)	127	118	275	28	0	26	27
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	779	743	664	1121	654	571	619
Starvation Cap Reductn	0	0	0	0	0	265	332
Spillback Cap Reductn	0	0	0	130	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.24	0.57	0.49	0.29	0.61	0.60
Intersection Summary							

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↰	↱	↱	↱	↰	↕		
Traffic Volume (vph)	366	40	161	349	446	173	209	0	87	36
Future Volume (vph)	366	40	161	349	446	173	209	0	87	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.99		1.00	0.85	0.85	0.86	1.00	0.88		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (prot)	3487		1770	1583	1583	1611	1681	1547		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (perm)	3487		1770	1583	1583	1611	1681	1547		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	398	43	175	379	485	188	227	0	95	39
RTOR Reduction (vph)	152	0	0	0	243	154	0	97	0	0
Lane Group Flow (vph)	289	0	175	379	243	34	188	76	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	627		743	664	791	289	537	495		
v/s Ratio Prot	0.08		0.04	c0.24	0.15	0.02	c0.11	0.05		
v/s Ratio Perm			0.06							
v/c Ratio	0.46		0.24	0.57	0.31	0.12	0.35	0.15		
Uniform Delay, d1	36.7		22.7	22.1	14.8	34.3	26.0	24.3		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.04	0.13		
Incremental Delay, d2	2.4		0.7	3.5	1.0	0.8	1.4	0.5		
Delay (s)	39.1		23.5	25.7	15.8	35.2	2.6	3.7		
Level of Service	D		C	C	B	D	A	A		
Approach Delay (s)	39.1		20.7					3.1		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			22.9			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.47							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			47.9%			ICU Level of Service		A		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

09/10/2020



















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					↑↑	
Traffic Volume (vph)	0	0	0	0	630	114
Future Volume (vph)	0	0	0	0	630	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.977	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3458	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3458	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						624
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	685	124
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	809	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings

3: Elm Street & Grove Street


















09/10/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	122	506	0	0	53	15	75	0	0
Future Volume (vph)	0	0	0	122	506	0	0	53	15	75	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.971											
Flt Protected					0.990					0.950		
Satd. Flow (prot)	0	0	1863	0	3504	0	0	1809	0	1770	0	0
Flt Permitted					0.990					0.950		
Satd. Flow (perm)	0	0	1863	0	3504	0	0	1809	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	236				337		
Travel Time (s)	3.2				5.4	5.4				7.7		
Confl. Peds. (#/hr)	201											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	133	550	0	0	58	16	82	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	683	0	0	74	0	82	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 35.0%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM Unsignalized Intersection Capacity Analysis

3: Elm Street & Grove Street

















09/10/2020

																		
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations					 													
Traffic Volume (veh/h)	0	0	0	122	506	0	0	53	15	75	0	0						
Future Volume (Veh/h)	0	0	0	122	506	0	0	53	15	75	0	0						
Sign Control	Free			Free			Stop			Stop								
Grade	0%			0%			0%			0%								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92						
Hourly flow rate (vph)	0	0	0	133	550	0	0	58	16	82	0	0						
Pedestrians												201						
Lane Width (ft)												12.0						
Walking Speed (ft/s)												3.5						
Percent Blockage												19						
Right turn flare (veh)																		
Median type	None			None														
Median storage (veh)																		
Upstream signal (ft)																		
pX, platoon unblocked																		
vC, conflicting volume	550			201			816	1017	275	787	1017	201						
vC1, stage 1 conf vol																		
vC2, stage 2 conf vol																		
vCu, unblocked vol	550			201			816	1017	275	787	1017	201						
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 %	100			88			100	65	98	36	100	100						
cM capacity (veh/h)	1016			1106			209	168	722	129	168	652						
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1													
Volume Total	0	316	367	74	82													
Volume Left	0	133	0	0	82													
Volume Right	0	0	0	16	0													
cSH	1700	1106	1700	201	129													
Volume to Capacity	0.00	0.12	0.22	0.37	0.64													
Queue Length 95th (ft)	0	10	0	40	84													
Control Delay (s)	0.0	4.3	0.0	32.9	72.3													
Lane LOS	A			D		F												
Approach Delay (s)	0.0	2.0			32.9	72.3												
Approach LOS				D		F												
Intersection Summary																		
Average Delay	11.6																	
Intersection Capacity Utilization	35.0%			ICU Level of Service				A										
Analysis Period (min)	15																	

Lanes, Volumes, Timings

4: Highland Avenue & Grove Street

















09/10/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	84	873	58	164	11	0	0	0	0
Future Volume (vph)	0	0	0	84	873	58	164	11	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991							
Flt Protected					0.996			0.955				
Satd. Flow (prot)	0	0	1863	0	3493	0	0	1779	0	0	0	1863
Flt Permitted					0.996			0.955				
Satd. Flow (perm)	0	0	1863	0	3493	0	0	1779	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				75		156	177					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	91	949	63	178	12	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1103	0	0	190	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	45.2%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/10/2020

																			
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR							
Lane Configurations																			
Traffic Volume (veh/h)	0	0	0	84	873	58	164	11	0	0	0	0							
Future Volume (Veh/h)	0	0	0	84	873	58	164	11	0	0	0	0							
Sign Control	Free				Free				Stop										
Grade	0%				0%				0%										
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
Hourly flow rate (vph)	0	0	0	91	949	63	178	12	0	0	0	0							
Pedestrians	177						75				156								
Lane Width (ft)	12.0						12.0				12.0								
Walking Speed (ft/s)	3.5						3.5				3.5								
Percent Blockage	17						7				15								
Right turn flare (veh)																			
Median type	None				None														
Median storage (veh)																			
Upstream signal (ft)																			
pX, platoon unblocked																			
vC, conflicting volume	1168			75			908	1425	75	1324	1394	839							
vC1, stage 1 conf vol																			
vC2, stage 2 conf vol																			
vCu, unblocked vol	1168			75			908	1425	75	1324	1394	839							
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 %	100			94			0	88	100	100	100	100							
cM capacity (veh/h)	506			1414			142	99	902	71	104	219							
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1														
Volume Total	0	566	538	190	0														
Volume Left	0	91	0	178	0														
Volume Right	0	0	63	0	0														
cSH	1700	1414	1700	138	1700														
Volume to Capacity	0.00	0.06	0.32	1.37	0.00														
Queue Length 95th (ft)	0	5	0	307	0														
Control Delay (s)	0.0	1.8	0.0	267.5	0.0														
Lane LOS	A		F		A														
Approach Delay (s)	0.0	0.9	267.5		0.0														
Approach LOS			F		A														
Intersection Summary																			
Average Delay			40.1																
Intersection Capacity Utilization			45.2%		ICU Level of Service				A										
Analysis Period (min)			15																

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↶	↷	↷	↷	↶	↶				
Traffic Volume (vph)	399	40	280	453	264	128	313	0	121	30		
Future Volume (vph)	399	40	280	453	264	128	313	0	121	30		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.986			0.850	0.850	0.865		0.898				
Flt Protected			0.950				0.950	0.984				
Satd. Flow (prot)	3490	0	1770	1583	1583	1611	1681	1564	0	0		
Flt Permitted			0.950				0.950	0.984				
Satd. Flow (perm)	3490	0	1770	1583	1583	1611	1681	1564	0	0		
Right Turn on Red		Yes			Yes	Yes				Yes		
Satd. Flow (RTOR)	185				287	357		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	434	43	304	492	287	139	340	0	132	33		
Shared Lane Traffic (%)							23%					
Lane Group Flow (vph)	477	0	304	492	287	139	262	243	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		13.0			13.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	5.0	5.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.61		0.41	0.74	0.28	0.24	0.46	0.39				
Control Delay	26.5		22.4	32.6	1.4	1.0	3.1	2.3				
Queue Delay	0.0		0.0	0.0	0.0	0.0	7.9	7.1				
Total Delay	26.5		22.4	32.6	1.4	1.0	11.0	9.4				
LOS	C		C	C	A	A	B	A				
Approach Delay	26.5		21.5					10.2				
Approach LOS	C		C					B				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	477	304	492	287	139	262	243
v/c Ratio	0.61	0.41	0.74	0.28	0.24	0.46	0.39
Control Delay	26.5	22.4	32.6	1.4	1.0	3.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	7.9	7.1
Total Delay	26.5	22.4	32.6	1.4	1.0	11.0	9.4
Queue Length 50th (ft)	89	133	258	0	0	10	9
Queue Length 95th (ft)	143	204	388	23	0	m14	m13
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	779	743	664	1038	582	571	625
Starvation Cap Reductn	0	0	0	0	0	262	329
Spillback Cap Reductn	0	0	0	52	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.41	0.74	0.29	0.24	0.85	0.82

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↙	↘	↘	↘	↙	↔		
Traffic Volume (vph)	399	40	280	453	264	128	313	0	121	30
Future Volume (vph)	399	40	280	453	264	128	313	0	121	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.99		1.00	0.85	0.85	0.86	1.00	0.90		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (prot)	3491		1770	1583	1583	1611	1681	1564		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (perm)	3491		1770	1583	1583	1611	1681	1564		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	43	304	492	287	139	340	0	132	33
RTOR Reduction (vph)	152	0	0	0	144	114	0	97	0	0
Lane Group Flow (vph)	325	0	304	492	144	25	262	146	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	628		743	664	791	289	537	500		
v/s Ratio Prot	0.09		0.07	c0.31	0.09	0.02	c0.16	0.09		
v/s Ratio Perm			0.10							
v/c Ratio	0.52		0.41	0.74	0.18	0.09	0.49	0.29		
Uniform Delay, d1	37.1		24.7	24.4	13.7	34.2	27.4	25.5		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.07	0.13		
Incremental Delay, d2	3.0		1.7	7.3	0.5	0.6	1.6	0.8		
Delay (s)	40.1		26.4	31.7	14.3	34.7	3.5	4.1		
Level of Service	D		C	C	B	C	A	A		
Approach Delay (s)	40.1		25.6					3.8		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			24.3			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.63							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			54.6%			ICU Level of Service		A		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

09/10/2020



















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					↑↑	
Traffic Volume (vph)	0	0	0	0	841	84
Future Volume (vph)	0	0	0	0	841	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.986	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3490	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3490	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						263
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	914	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	1005	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings

3: Elm Street & Grove Street


















09/10/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	92	739	0	0	8	6	146	0	0
Future Volume (vph)	0	0	0	92	739	0	0	8	6	146	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.941											
Flt Protected					0.994					0.950		
Satd. Flow (prot)	0	0	1863	0	3518	0	0	1753	0	1770	0	0
Flt Permitted					0.994					0.950		
Satd. Flow (perm)	0	0	1863	0	3518	0	0	1753	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	230				337		
Travel Time (s)	3.2				5.4	5.2				7.7		
Confl. Peds. (#/hr)	78											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	100	803	0	0	9	7	159	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	903	0	0	16	0	159	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		15	9		15	9		15	9	
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 44.5%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM Unsignalized Intersection Capacity Analysis

3: Elm Street & Grove Street

















09/10/2020

																		
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations					 													
Traffic Volume (veh/h)	0	0	0	92	739	0	0	8	6	146	0	0						
Future Volume (Veh/h)	0	0	0	92	739	0	0	8	6	146	0	0						
Sign Control	Free				Free				Stop									
Grade	0%				0%				0%									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92						
Hourly flow rate (vph)	0	0	0	100	803	0	0	9	7	159	0	0						
Pedestrians												78						
Lane Width (ft)												12.0						
Walking Speed (ft/s)												3.5						
Percent Blockage												7						
Right turn flare (veh)																		
Median type	None			None														
Median storage (veh)																		
Upstream signal (ft)																		
pX, platoon unblocked																		
vC, conflicting volume	803			78				1003	1081	402	691	1081	78					
vC1, stage 1 conf vol																		
vC2, stage 2 conf vol																		
vCu, unblocked vol	803			78				1003	1081	402	691	1081	78					
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 %	100			93				100	95	99	39	100	100					
cM capacity (veh/h)	817			1406				175	186	598	260	186	895					
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1													
Volume Total	0	368	535	16	159													
Volume Left	0	100	0	0	159													
Volume Right	0	0	0	7	0													
cSH	1700	1406	1700	266	260													
Volume to Capacity	0.00	0.07	0.31	0.06	0.61													
Queue Length 95th (ft)	0	6	0	5	91													
Control Delay (s)	0.0	2.6	0.0	19.4	38.3													
Lane LOS	A			C	E													
Approach Delay (s)	0.0	1.1			19.4	38.3												
Approach LOS				C	E													
Intersection Summary																		
Average Delay				6.8														
Intersection Capacity Utilization				44.5%	ICU Level of Service				A									
Analysis Period (min)				15														

Lanes, Volumes, Timings

4: Highland Avenue & Grove Street

















09/10/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	146	793	36	82	11	0	0	0	0
Future Volume (vph)	0	0	0	146	793	36	82	11	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.994							
Flt Protected					0.993			0.958				
Satd. Flow (prot)	0	0	1863	0	3493	0	0	1785	0	0	0	1863
Flt Permitted					0.993			0.958				
Satd. Flow (perm)	0	0	1863	0	3493	0	0	1785	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				55		49	92					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	159	862	39	89	12	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1060	0	0	101	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	39.2%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/10/2020

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	146	793	36	82	11	0	0	0	0
Future Volume (Veh/h)	0	0	0	146	793	36	82	11	0	0	0	0
Sign Control	Free				Free				Stop			
Grade	0%				0%				0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	159	862	39	89	12	0	0	0	0
Pedestrians	92						55				49	
Lane Width (ft)	12.0						12.0				12.0	
Walking Speed (ft/s)	3.5						3.5				3.5	
Percent Blockage	9						5				5	
Right turn flare (veh)												
Median type	None				None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	950			55			896	1323	55	1254	1304	592
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	950			55			896	1323	55	1254	1304	592
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 %	100			89			49	90	100	100	100	100
cM capacity (veh/h)	685			1467			173	125	948	97	128	391
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1							
Volume Total	0	590	470	101	0							
Volume Left	0	159	0	89	0							
Volume Right	0	0	39	0	0							
cSH	1700	1467	1700	165	1700							
Volume to Capacity	0.00	0.11	0.28	0.61	0.00							
Queue Length 95th (ft)	0	9	0	83	0							
Control Delay (s)	0.0	2.9	0.0	56.1	0.0							
Lane LOS		A		F	A							
Approach Delay (s)	0.0	1.6		56.1	0.0							
Approach LOS				F	A							
Intersection Summary												
Average Delay			6.4									
Intersection Capacity Utilization			39.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵				
Traffic Volume (vph)	373	41	164	356	454	177	213	0	89	37		
Future Volume (vph)	373	41	164	356	454	177	213	0	89	37		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.985			0.850	0.850	0.865		0.883				
Flt Protected			0.950				0.950	0.989				
Satd. Flow (prot)	3486	0	1770	1583	1583	1611	1681	1545	0	0		
Flt Permitted			0.950				0.950	0.989				
Satd. Flow (perm)	3486	0	1770	1583	1583	1611	1681	1545	0	0		
Right Turn on Red		Yes			Yes	Yes				Yes		
Satd. Flow (RTOR)	185				493	438		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	405	45	178	387	493	192	232	0	97	40		
Shared Lane Traffic (%)							17%					
Lane Group Flow (vph)	450	0	178	387	493	192	193	176	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		15.0			15.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	8.0	2.0	2.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.58		0.24	0.58	0.44	0.30	0.34	0.28				
Control Delay	25.0		19.8	26.6	1.9	1.2	2.4	1.7				
Queue Delay	0.0		0.0	0.0	0.2	0.0	2.5	2.5				
Total Delay	25.0		19.8	26.6	2.0	1.2	4.9	4.3				
LOS	C		B	C	A	A	A	A				
Approach Delay	25.0		14.0					4.6				
Approach LOS	C		B					A				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	184	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	450	178	387	493	192	193	176
v/c Ratio	0.58	0.24	0.58	0.44	0.30	0.34	0.28
Control Delay	25.0	19.8	26.6	1.9	1.2	2.4	1.7
Queue Delay	0.0	0.0	0.0	0.2	0.0	2.5	2.5
Total Delay	25.0	19.8	26.6	2.0	1.2	4.9	4.3
Queue Length 50th (ft)	80	71	185	0	0	5	4
Queue Length 95th (ft)	131	120	282	28	0	27	26
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	779	743	664	1125	649	571	619
Starvation Cap Reductn	0	0	0	0	0	265	331
Spillback Cap Reductn	0	0	0	135	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.24	0.58	0.50	0.30	0.63	0.61
Intersection Summary							

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/10/2020



Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵	↵	↵
Traffic Volume (vph)	373	41	164	356	454	177	213	0	89	37
Future Volume (vph)	373	41	164	356	454	177	213	0	89	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.98		1.00	0.85	0.85	0.86	1.00	0.88		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (prot)	3486		1770	1583	1583	1611	1681	1546		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (perm)	3486		1770	1583	1583	1611	1681	1546		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	405	45	178	387	493	192	232	0	97	40
RTOR Reduction (vph)	152	0	0	0	247	157	0	97	0	0
Lane Group Flow (vph)	298	0	178	387	247	35	193	79	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	627		743	664	791	289	537	494		
v/s Ratio Prot	0.09		0.04	c0.24	0.16	0.02	c0.11	0.05		
v/s Ratio Perm			0.06							
v/c Ratio	0.48		0.24	0.58	0.31	0.12	0.36	0.16		
Uniform Delay, d1	36.8		22.8	22.3	14.8	34.4	26.1	24.4		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.05	0.13		
Incremental Delay, d2	2.6		0.8	3.7	1.0	0.8	1.5	0.5		
Delay (s)	39.3		23.5	26.0	15.8	35.2	2.7	3.6		
Level of Service	D		C	C	B	D	A	A		
Approach Delay (s)	39.3		20.8					3.1		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			23.0			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.49							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			48.1%			ICU Level of Service		A		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

09/10/2020



















Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					↑↑	
Traffic Volume (vph)	0	0	0	0	642	117
Future Volume (vph)	0	0	0	0	642	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.977	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3458	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3458	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						624
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	698	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	825	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.4%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings

3: Elm Street & Grove Street


















09/10/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	125	515	0	0	54	16	77	0	0
Future Volume (vph)	0	0	0	125	515	0	0	54	16	77	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.970											
Flt Protected					0.990					0.950		
Satd. Flow (prot)	0	0	1863	0	3504	0	0	1807	0	1770	0	0
Flt Permitted					0.990					0.950		
Satd. Flow (perm)	0	0	1863	0	3504	0	0	1807	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	236				337		
Travel Time (s)	3.2				5.4	5.4				7.7		
Confl. Peds. (#/hr)	201											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	136	560	0	0	59	17	84	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	696	0	0	76	0	84	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 35.5%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM Unsignalized Intersection Capacity Analysis

3: Elm Street & Grove Street

















09/10/2020

																		
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR						
Lane Configurations					 													
Traffic Volume (veh/h)	0	0	0	125	515	0	0	54	16	77	0	0						
Future Volume (Veh/h)	0	0	0	125	515	0	0	54	16	77	0	0						
Sign Control	Free				Free				Stop									
Grade	0%				0%				0%									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92						
Hourly flow rate (vph)	0	0	0	136	560	0	0	59	17	84	0	0						
Pedestrians												201						
Lane Width (ft)												12.0						
Walking Speed (ft/s)												3.5						
Percent Blockage												19						
Right turn flare (veh)																		
Median type	None			None														
Median storage (veh)																		
Upstream signal (ft)																		
pX, platoon unblocked																		
vC, conflicting volume	560			201				832	1033	280	800	1033	201					
vC1, stage 1 conf vol																		
vC2, stage 2 conf vol																		
vCu, unblocked vol	560			201				832	1033	280	800	1033	201					
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 %	100			88				100	64	98	32	100	100					
cM capacity (veh/h)	1007			1106				203	164	717	124	164	652					
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1													
Volume Total	0	323	373	76	84													
Volume Left	0	136	0	0	84													
Volume Right	0	0	0	17	0													
cSH	1700	1106	1700	198	124													
Volume to Capacity	0.00	0.12	0.22	0.38	0.68													
Queue Length 95th (ft)	0	10	0	42	91													
Control Delay (s)	0.0	4.4	0.0	34.1	80.5													
Lane LOS	A			D		F												
Approach Delay (s)	0.0	2.0			34.1	80.5												
Approach LOS				D		F												
Intersection Summary																		
Average Delay	12.6																	
Intersection Capacity Utilization	35.5%			ICU Level of Service					A									
Analysis Period (min)	15																	

Lanes, Volumes, Timings

4: Highland Avenue & Grove Street

















09/10/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	86	889	60	167	12	0	0	0	0
Future Volume (vph)	0	0	0	86	889	60	167	12	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991							
Flt Protected					0.996			0.955				
Satd. Flow (prot)	0	0	1863	0	3493	0	0	1779	0	0	0	1863
Flt Permitted					0.996			0.955				
Satd. Flow (perm)	0	0	1863	0	3493	0	0	1779	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				75		156	177					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	93	966	65	182	13	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1124	0	0	195	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	45.9%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/10/2020

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	86	889	60	167	12	0	0	0	0
Future Volume (Veh/h)	0	0	0	86	889	60	167	12	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	93	966	65	182	13	0	0	0	0
Pedestrians		177						75			156	
Lane Width (ft)		12.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		17						7			15	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1187			75			921	1448	75	1347	1416	848
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1187			75			921	1448	75	1347	1416	848
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 %	100			93			0	86	100	100	100	100
cM capacity (veh/h)	497			1414			139	96	902	67	101	216
Direction, Lane #	SE 1	NW 1	NW 2	NE 1	SW 1							
Volume Total	0	576	548	195	0							
Volume Left	0	93	0	182	0							
Volume Right	0	0	65	0	0							
cSH	1700	1414	1700	135	1700							
Volume to Capacity	0.00	0.07	0.32	1.45	0.00							
Queue Length 95th (ft)	0	5	0	327	0							
Control Delay (s)	0.0	1.8	0.0	297.5	0.0							
Lane LOS		A		F	A							
Approach Delay (s)	0.0	0.9		297.5	0.0							
Approach LOS				F	A							
Intersection Summary												
Average Delay			44.8									
Intersection Capacity Utilization			45.9%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵	↵			
Traffic Volume (vph)	399	40	352	453	264	128	313	0	121	30		
Future Volume (vph)	399	40	352	453	264	128	313	0	121	30		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.986			0.850	0.850	0.865		0.898				
Flt Protected			0.950				0.950	0.984				
Satd. Flow (prot)	3490	0	1770	1583	1583	1611	1681	1564	0	0		
Flt Permitted			0.950				0.950	0.984				
Satd. Flow (perm)	3490	0	1770	1583	1583	1611	1681	1564	0	0		
Right Turn on Red		Yes			Yes	Yes					Yes	
Satd. Flow (RTOR)	185				287	357		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	434	43	383	492	287	139	340	0	132	33		
Shared Lane Traffic (%)							23%					
Lane Group Flow (vph)	477	0	383	492	287	139	262	243	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		13.0			13.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	10.0	5.0	5.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.61		0.52	0.74	0.28	0.24	0.46	0.39				
Control Delay	26.5		24.6	32.6	1.4	1.0	3.1	2.3				
Queue Delay	0.0		0.0	0.0	0.0	0.0	7.9	7.1				
Total Delay	26.5		24.6	32.6	1.4	1.0	11.0	9.4				
LOS	C		C	C	A	A	B	A				
Approach Delay	26.5		22.3					10.2				
Approach LOS	C		C					B				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.2

Intersection LOS: B

Intersection Capacity Utilization 58.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	0	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	477	383	492	287	139	262	243
v/c Ratio	0.61	0.52	0.74	0.28	0.24	0.46	0.39
Control Delay	26.5	24.6	32.6	1.4	1.0	3.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	7.9	7.1
Total Delay	26.5	24.6	32.6	1.4	1.0	11.0	9.4
Queue Length 50th (ft)	89	177	258	0	0	10	9
Queue Length 95th (ft)	143	264	388	23	0	m14	m13
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	779	743	664	1038	582	571	625
Starvation Cap Reductn	0	0	0	0	0	262	329
Spillback Cap Reductn	0	0	0	52	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.52	0.74	0.29	0.24	0.85	0.82

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020










Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↰	↱	↱	↱	↰	↱	↱	
Traffic Volume (vph)	399	40	352	453	264	128	313	0	121	30
Future Volume (vph)	399	40	352	453	264	128	313	0	121	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.99		1.00	0.85	0.85	0.86	1.00	0.90		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (prot)	3491		1770	1583	1583	1611	1681	1564		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.98		
Satd. Flow (perm)	3491		1770	1583	1583	1611	1681	1564		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	43	383	492	287	139	340	0	132	33
RTOR Reduction (vph)	152	0	0	0	144	114	0	97	0	0
Lane Group Flow (vph)	325	0	383	492	144	25	262	146	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	628		743	664	791	289	537	500		
v/s Ratio Prot	0.09		0.09	c0.31	0.09	0.02	c0.16	0.09		
v/s Ratio Perm			0.12							
v/c Ratio	0.52		0.52	0.74	0.18	0.09	0.49	0.29		
Uniform Delay, d1	37.1		26.1	24.4	13.7	34.2	27.4	25.5		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.07	0.13		
Incremental Delay, d2	3.0		2.5	7.3	0.5	0.6	1.6	0.8		
Delay (s)	40.1		28.7	31.7	14.3	34.7	3.5	4.1		
Level of Service	D		C	C	B	C	A	A		
Approach Delay (s)	40.1		26.4					3.8		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			24.8			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.63							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			58.6%			ICU Level of Service		B		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

















09/11/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	841	84
Future Volume (vph)	0	0	0	0	841	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.986	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3490	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3490	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						263
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	914	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	1005	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	30.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings
3: Elm Street & Grove Street


















09/11/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	92	739	0	0	8	6	146	0	0
Future Volume (vph)	0	0	0	92	739	0	0	8	6	146	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.941											
Flt Protected					0.994					0.950		
Satd. Flow (prot)	0	0	1863	0	3518	0	0	1753	0	1770	0	0
Flt Permitted					0.994					0.950		
Satd. Flow (perm)	0	0	1863	0	3518	0	0	1753	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	230				337		
Travel Time (s)	3.2				5.4	5.2				7.7		
Confl. Peds. (#/hr)	78											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	100	803	0	0	9	7	159	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	903	0	0	16	0	159	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type: Unsignalized												
Intersection Capacity Utilization 44.5%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM Unsignalized Intersection Capacity Analysis
















3: Elm Street & Grove Street

09/11/2020

												
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					 							
Traffic Volume (veh/h)	0	0	0	92	739	0	0	8	6	146	0	0
Future Volume (Veh/h)	0	0	0	92	739	0	0	8	6	146	0	0
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	100	803	0	0	9	7	159	0	0
Pedestrians												78
Lane Width (ft)												12.0
Walking Speed (ft/s)												3.5
Percent Blockage												7
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	803			78			1003	1081	402	691	1081	78
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	803			78			1003	1081	402	691	1081	78
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 %	100			93			100	95	99	39	100	100
cM capacity (veh/h)	817			1406			175	186	598	260	186	895
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1							
Volume Total	0	368	535	16	159							
Volume Left	0	100	0	0	159							
Volume Right	0	0	0	7	0							
cSH	1700	1406	1700	266	260							
Volume to Capacity	0.00	0.07	0.31	0.06	0.61							
Queue Length 95th (ft)	0	6	0	5	91							
Control Delay (s)	0.0	2.6	0.0	19.4	38.3							
Lane LOS		A		C	E							
Approach Delay (s)	0.0	1.1		19.4	38.3							
Approach LOS				C	E							
Intersection Summary												
Average Delay			6.8									
Intersection Capacity Utilization			44.5%	ICU Level of Service					A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
4: Highland Avenue & Grove Street
















09/11/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	146	793	36	82	11	0	0	0	0
Future Volume (vph)	0	0	0	146	793	36	82	11	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.994							
Flt Protected					0.993			0.958				
Satd. Flow (prot)	0	0	0	0	3493	0	0	1785	0	0	0	1863
Flt Permitted					0.993			0.958				
Satd. Flow (perm)	0	0	0	0	3493	0	0	1785	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				55		49	92					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	159	862	39	89	12	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1060	0	0	101	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	39.2%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/11/2020

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	146	793	36	82	11	0	0	0	0
Future Volume (Veh/h)	0	0	0	146	793	36	82	11	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	159	862	39	89	12	0	0	0	0
Pedestrians		92						55			49	
Lane Width (ft)		0.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		0						5			5	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		601										
pX, platoon unblocked												
vC, conflicting volume	950			55			896	1323	55	1254	1304	592
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	950			55			896	1323	55	1254	1304	592
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 %	100			89			53	90	100	100	100	100
cM capacity (veh/h)	685			1467			189	125	948	97	128	429
Direction, Lane #	NW 1	NW 2	NE 1	SW 1								
Volume Total	590	470	101	0								
Volume Left	159	0	89	0								
Volume Right	0	39	0	0								
cSH	1467	1700	178	1700								
Volume to Capacity	0.11	0.28	0.57	0.00								
Queue Length 95th (ft)	9	0	75	0								
Control Delay (s)	2.9	0.0	48.7	0.0								
Lane LOS	A		E	A								
Approach Delay (s)	1.6		48.7	0.0								
Approach LOS			E	A								
Intersection Summary												
Average Delay			5.7									
Intersection Capacity Utilization			39.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
Lane Configurations	↑↑		↵	↵	↵	↵	↵	↵				
Traffic Volume (vph)	375	41	250	358	455	177	214	0	89	37		
Future Volume (vph)	375	41	250	358	455	177	214	0	89	37		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00		
Frt	0.985			0.850	0.850	0.865		0.884				
Flt Protected			0.950				0.950	0.989				
Satd. Flow (prot)	3486	0	1770	1583	1583	1611	1681	1547	0	0		
Flt Permitted			0.950				0.950	0.989				
Satd. Flow (perm)	3486	0	1770	1583	1583	1611	1681	1547	0	0		
Right Turn on Red		Yes			Yes	Yes				Yes		
Satd. Flow (RTOR)	185				495	437		142				
Link Speed (mph)	30		30					30				
Link Distance (ft)	870		151					118				
Travel Time (s)	19.8		3.4					2.7				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
Adj. Flow (vph)	408	45	272	389	495	192	233	0	97	40		
Shared Lane Traffic (%)							17%					
Lane Group Flow (vph)	453	0	272	389	495	192	193	177	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Right	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0		12					12				
Link Offset(ft)	0		0					0				
Crosswalk Width(ft)	16		16					16				
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		9	15	9	9	9	15		9	9		
Number of Detectors	1		1	1	1	1	1	1				
Detector Template	Thru		Left	Right	Right	Right	Left	Thru				
Leading Detector (ft)	50		20	50	50	50	50	50				
Trailing Detector (ft)	0		0	0	0	0	0	0				
Detector 1 Position(ft)	0		0	0	0	0	0	0				
Detector 1 Size(ft)	50		20	50	50	50	50	50				
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0				
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA				
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3			1	2
Permitted Phases			8									
Detector Phase	8		7	7 8	1 7 8	7	1 2 3	1 2 3				
Switch Phase												
Minimum Initial (s)	15.0		15.0			15.0					10.0	3.0
Minimum Split (s)	21.0		21.0			21.0					14.0	5.0
Total Split (s)	24.0		24.0			24.0					18.0	6.0
Total Split (%)	24.0%		24.0%			24.0%					18%	6%
Maximum Green (s)	18.0		18.0			18.0					14.0	4.0
Yellow Time (s)	4.0		4.0			4.0					3.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020

Lane Group	Ø3	Ø9	Ø10
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Enter Blocked Intersection			
Lane Alignment			
Median Width(ft)			
Link Offset(ft)			
Crosswalk Width(ft)			
Two way Left Turn Lane			
Headway Factor			
Turning Speed (mph)			
Number of Detectors			
Detector Template			
Leading Detector (ft)			
Trailing Detector (ft)			
Detector 1 Position(ft)			
Detector 1 Size(ft)			
Detector 1 Type			
Detector 1 Channel			
Detector 1 Extend (s)			
Detector 1 Queue (s)			
Detector 1 Delay (s)			
Turn Type			
Protected Phases	3	9	10
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	8.0	2.0	2.0
Minimum Split (s)	14.0	7.0	7.0
Total Split (s)	14.0	7.0	7.0
Total Split (%)	14%	7%	7%
Maximum Green (s)	10.0	5.0	5.0
Yellow Time (s)	3.0	2.0	2.0

Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2	Ø1	Ø2
All-Red Time (s)	2.0		2.0			2.0					1.0	0.0
Lost Time Adjust (s)	0.0		0.0			0.0						
Total Lost Time (s)	6.0		6.0			6.0						
Lead/Lag			Lag			Lag					Lag	
Lead-Lag Optimize?			Yes			Yes					Yes	
Vehicle Extension (s)	0.2		0.2			0.2					0.2	0.2
Recall Mode	Max		Max			Max					Max	Max
Walk Time (s)	5.0		5.0			5.0					5.0	3.0
Flash Dont Walk (s)	0.0		0.0			0.0					0.0	0.0
Pedestrian Calls (#/hr)	0		0			0					0	0
Act Effect Green (s)	18.0		42.0	42.0	58.0	18.0	34.0	34.0				
Actuated g/C Ratio	0.18		0.42	0.42	0.58	0.18	0.34	0.34				
v/c Ratio	0.58		0.37	0.59	0.44	0.30	0.34	0.29				
Control Delay	25.2		21.7	26.7	1.9	1.2	2.4	1.8				
Queue Delay	0.0		0.0	0.0	0.2	0.0	2.5	2.6				
Total Delay	25.2		21.7	26.7	2.0	1.2	4.9	4.4				
LOS	C		C	C	A	A	A	A				
Approach Delay	25.2		15.0					4.7				
Approach LOS	C		B					A				

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 14.1

Intersection LOS: B

Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: Day Street/College Avenue & Highland Avenue & Holland Street



Lanes, Volumes, Timings

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020

Lane Group	Ø3	Ø9	Ø10
All-Red Time (s)	1.0	0.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes
Vehicle Extension (s)	0.2	3.0	3.0
Recall Mode	Max	Max	Max
Walk Time (s)	5.0	0.0	0.0
Flash Dont Walk (s)	0.0	0.0	0.0
Pedestrian Calls (#/hr)	0	184	0
Act Effect Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Queues

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020



Lane Group	SBT	NWL	NWR	NWR2	NER2	SWL	SWT
Lane Group Flow (vph)	453	272	389	495	192	193	177
v/c Ratio	0.58	0.37	0.59	0.44	0.30	0.34	0.29
Control Delay	25.2	21.7	26.7	1.9	1.2	2.4	1.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	2.5	2.6
Total Delay	25.2	21.7	26.7	2.0	1.2	4.9	4.4
Queue Length 50th (ft)	81	116	186	0	0	5	5
Queue Length 95th (ft)	133	182	284	29	0	27	m27
Internal Link Dist (ft)	790	71					38
Turn Bay Length (ft)							
Base Capacity (vph)	779	743	664	1126	648	571	619
Starvation Cap Reductn	0	0	0	0	0	265	332
Spillback Cap Reductn	0	0	0	135	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.37	0.59	0.50	0.30	0.63	0.62

Intersection Summary

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

HCM Signalized Intersection Capacity Analysis

1: Day Street/College Avenue & Highland Avenue & Holland Street

09/11/2020










Movement	SBT	SBR2	NWL	NWR	NWR2	NER2	SWL	SWT	SWR	SWR2
Lane Configurations	↑↑		↰	↱	↱	↱	↰	↱	↱	
Traffic Volume (vph)	375	41	250	358	455	177	214	0	89	37
Future Volume (vph)	375	41	250	358	455	177	214	0	89	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	4.0	6.0	4.0	4.0		
Lane Util. Factor	0.95		1.00	1.00	1.00	1.00	0.95	0.95		
Frt	0.99		1.00	0.85	0.85	0.86	1.00	0.88		
Flt Protected	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (prot)	3486		1770	1583	1583	1611	1681	1547		
Flt Permitted	1.00		0.95	1.00	1.00	1.00	0.95	0.99		
Satd. Flow (perm)	3486		1770	1583	1583	1611	1681	1547		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	408	45	272	389	495	192	233	0	97	40
RTOR Reduction (vph)	152	0	0	0	248	157	0	97	0	0
Lane Group Flow (vph)	301	0	272	389	248	35	193	80	0	0
Turn Type	NA		D.P+P	custom	custom	Prot	Split	NA		
Protected Phases	8		7	7 8	1 7 8	7	1 2 3	1 2 3		
Permitted Phases			8							
Actuated Green, G (s)	18.0		36.0	42.0	56.0	18.0	34.0	34.0		
Effective Green, g (s)	18.0		36.0	42.0	50.0	18.0	32.0	32.0		
Actuated g/C Ratio	0.18		0.36	0.42	0.50	0.18	0.32	0.32		
Clearance Time (s)	6.0		6.0			6.0				
Vehicle Extension (s)	0.2		0.2			0.2				
Lane Grp Cap (vph)	627		743	664	791	289	537	495		
v/s Ratio Prot	0.09		0.07	c0.25	0.16	0.02	c0.11	0.05		
v/s Ratio Perm			0.09							
v/c Ratio	0.48		0.37	0.59	0.31	0.12	0.36	0.16		
Uniform Delay, d1	36.8		24.2	22.3	14.8	34.4	26.1	24.4		
Progression Factor	1.00		1.00	1.00	1.00	1.00	0.05	0.13		
Incremental Delay, d2	2.6		1.4	3.8	1.0	0.8	1.5	0.5		
Delay (s)	39.4		25.6	26.1	15.9	35.2	2.7	3.7		
Level of Service	D		C	C	B	D	A	A		
Approach Delay (s)	39.4		21.6					3.2		
Approach LOS	D		C					A		
Intersection Summary										
HCM 2000 Control Delay			23.4			HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio			0.49							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		26.0		
Intersection Capacity Utilization			49.5%			ICU Level of Service		A		
Analysis Period (min)			15							

c Critical Lane Group

Lanes, Volumes, Timings

2: Elm Street & Chester Street

















09/11/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	645	117
Future Volume (vph)	0	0	0	0	645	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt					0.977	
Flt Protected						
Satd. Flow (prot)	0	0	0	0	3458	0
Flt Permitted						
Satd. Flow (perm)	0	0	0	0	3458	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	375			238	295	
Travel Time (s)	8.5			5.4	6.7	
Confl. Peds. (#/hr)						624
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Mid-Block Traffic (%)	0%			0%	1%	
Adj. Flow (vph)	0	0	0	0	701	127
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	828	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Stop	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	26.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection Sign configuration not allowed in HCM analysis.

Lanes, Volumes, Timings
3: Elm Street & Grove Street


















09/11/2020

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	128	515	0	0	54	16	81	0	0
Future Volume (vph)	0	0	0	128	515	0	0	54	16	81	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.970											
Flt Protected					0.990					0.950		
Satd. Flow (prot)	0	0	1863	0	3504	0	0	1807	0	1770	0	0
Flt Permitted					0.990					0.950		
Satd. Flow (perm)	0	0	1863	0	3504	0	0	1807	0	1770	0	0
Link Speed (mph)	30				30	30				30		
Link Distance (ft)	141				238	236				337		
Travel Time (s)	3.2				5.4	5.4				7.7		
Confl. Peds. (#/hr)	201											
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	139	560	0	0	59	17	88	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	699	0	0	76	0	88	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0	12				12		
Link Offset(ft)	0				0	0				0		
Crosswalk Width(ft)	16				16	16				16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Free		Free				Stop				Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	35.8%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

3: Elm Street & Grove Street
















09/11/2020

													
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations					 								
Traffic Volume (veh/h)	0	0	0	128	515	0	0	54	16	81	0	0	
Future Volume (Veh/h)	0	0	0	128	515	0	0	54	16	81	0	0	
Sign Control	Free				Free				Stop				
Grade	0%				0%				0%				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	0	0	0	139	560	0	0	59	17	88	0	0	
Pedestrians												201	
Lane Width (ft)												12.0	
Walking Speed (ft/s)												3.5	
Percent Blockage												19	
Right turn flare (veh)													
Median type	None			None									
Median storage (veh)													
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	560			201				838	1039	280	806	1039	201
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	560			201				838	1039	280	806	1039	201
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 %	100			87				100	64	98	28	100	100
cM capacity (veh/h)	1007			1106				200	162	717	122	162	652
Direction, Lane #	NB 1	SB 1	SB 2	NE 1	SW 1								
Volume Total	0	326	373	76	88								
Volume Left	0	139	0	0	88								
Volume Right	0	0	0	17	0								
cSH	1700	1106	1700	196	122								
Volume to Capacity	0.00	0.13	0.22	0.39	0.72								
Queue Length 95th (ft)	0	11	0	43	100								
Control Delay (s)	0.0	4.4	0.0	34.6	88.3								
Lane LOS		A		D	F								
Approach Delay (s)	0.0	2.1		34.6	88.3								
Approach LOS				D	F								
Intersection Summary													
Average Delay	13.7												
Intersection Capacity Utilization	35.8%			ICU Level of Service					A				
Analysis Period (min)	15												

Lanes, Volumes, Timings

4: Highland Avenue & Grove Street
















09/11/2020

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	0	90	889	64	170	12	0	0	0	0
Future Volume (vph)	0	0	0	90	889	64	170	12	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991							
Flt Protected					0.996			0.955				
Satd. Flow (prot)	0	0	0	0	3493	0	0	1779	0	0	0	1863
Flt Permitted					0.996			0.955				
Satd. Flow (perm)	0	0	0	0	3493	0	0	1779	0	0	0	1863
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		450			383			77			162	
Travel Time (s)		10.2			8.7			1.8			3.7	
Confl. Peds. (#/hr)				75		156	177					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	98	966	70	185	13	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1134	0	0	198	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	46.4%				ICU Level of Service A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis

4: Highland Avenue & Grove Street

09/11/2020

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	90	889	64	170	12	0	0	0	0
Future Volume (Veh/h)	0	0	0	90	889	64	170	12	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	98	966	70	185	13	0	0	0	0
Pedestrians		177						75			156	
Lane Width (ft)		0.0						12.0			12.0	
Walking Speed (ft/s)		3.5						3.5			3.5	
Percent Blockage		0						7			15	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		601										
pX, platoon unblocked												
vC, conflicting volume	1192			75			931	1463	75	1360	1428	851
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1192			75			931	1463	75	1360	1428	851
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 %	100			93			0	86	100	100	100	100
cM capacity (veh/h)	495			1414			164	94	902	65	98	258
Direction, Lane #	NW 1	NW 2	NE 1	SW 1								
Volume Total	581	553	198	0								
Volume Left	98	0	185	0								
Volume Right	0	70	0	0								
cSH	1414	1700	156	1700								
Volume to Capacity	0.07	0.33	1.27	0.00								
Queue Length 95th (ft)	6	0	290	0								
Control Delay (s)	1.9	0.0	217.8	0.0								
Lane LOS	A		F	A								
Approach Delay (s)	1.0		217.8	0.0								
Approach LOS			F	A								
Intersection Summary												
Average Delay			33.2									
Intersection Capacity Utilization			46.4%	ICU Level of Service					A			
Analysis Period (min)			15									