

Transportation Impact Study

Liberty Cannabis Dispensary

304 Somerville Avenue
Somerville, MA

Prepared by
McMahon Associates, Inc.
120 Water Street, 4th Floor
Boston, MA 02109
617.556.0020

Prepared for
Holistic Industries, Inc.

March 2022

TABLE OF CONTENTS

INTRODUCTION.....	1
<i>PROJECT DESCRIPTION.....</i>	<i>1</i>
<i>STUDY METHODOLOGY.....</i>	<i>3</i>
<i>STUDY AREA INTERSECTIONS.....</i>	<i>3</i>
EXISTING CONDITIONS.....	4
<i>ROADWAY NETWORK.....</i>	<i>4</i>
<i>STUDY AREA INTERSECTIONS.....</i>	<i>5</i>
<i>PUBLIC TRANSPORTATION</i>	<i>6</i>
<i>FIELD REVIEW.....</i>	<i>8</i>
<i>EXISTING CONDITION VOLUMES.....</i>	<i>10</i>
<i>CRASH SUMMARY</i>	<i>18</i>
CURRENT-YEAR BUILD CONDITIONS.....	19
<i>SITE-GENERATED TRAFFIC</i>	<i>19</i>
<i>PROJECT TRIP DISTRIBUTION AND ASSIGNMENT.....</i>	<i>21</i>
<i>2022 BUILD VOLUMES.....</i>	<i>22</i>
FUTURE YEAR CONDITIONS.....	30
<i>FUTURE ROADWAY IMPROVEMENTS</i>	<i>30</i>
<i>BACKGROUND TRAFFIC GROWTH</i>	<i>30</i>
<i>2027 DESIGN YEAR BUILD TRAFFIC VOLUMES.....</i>	<i>30</i>
TRANSPORATION OPERATIONS ANALYSIS.....	35
<i>VEHICULAR CAPACITY ANALYSIS.....</i>	<i>35</i>
<i>PEDESTRIAN ANALYSIS.....</i>	<i>37</i>
<i>BICYCLE ANALYSIS</i>	<i>39</i>
<i>TRANSIT ANALYSIS.....</i>	<i>39</i>
<i>SITE ACCESS AND CIRCULATION.....</i>	<i>41</i>
<i>SIGHT DISTANCE</i>	<i>41</i>
PROJECT MITIGATION	41
TRANSPORTATION DEMAND MANAGEMENT.....	42
CONCLUSIONS.....	43

LIST OF TABLES

Table 1: Bus Route Frequency Summary	8
Table 2: Automatic Traffic Recorder Data	10
Table 3: Mode Share Summary	11
Table 4: Estimated ITE Trip Generation	19
Table 5: Delivery Schedule.....	20
Table 6: Estimated Change in Trips.....	21
Table 7: Estimated Change in Trips.....	21
Table 8: Signalized Intersection Capacity Analysis	36
Table 9: Unsignalized/Pedestrian Crossing Intersections.....	36
Table 10: Signalized Crosswalks.....	38
Table 11: Sight Distance Requirements	41

LIST OF FIGURES

Figure 1: Site Location Map	2
Figure 2: Existing Transit Facilities.....	9
Figure 3: 2022 Existing Weekday Morning Peak Hour Vehicle Volumes.....	12
Figure 4: 2022 Existing Weekday Afternoon Peak Hour Vehicle Volumes	13
Figure 5: 2022 Existing Saturday Midday Peak Hour Vehicle Volumes	14
Figure 6: 2022 Existing Weekday Morning Peak Hour Pedestrian & Bicycle Volumes.....	15
Figure 7: 2022 Existing Weekday Afternoon Peak Hour Pedestrian & Bicycle Volumes.....	16
Figure 8: 2022 Existing Saturday Midday Peak Hour Pedestrian & Bicycle Volumes	17
Figure 9: Directions of Arrivals and Departures	23
Figure 10: Weekday Morning Peak Hour New Project Vehicle Trips	24
Figure 11: Weekday Afternoon Peak Hour New Project Vehicle Trips.....	25
Figure 12: Saturday Midday Peak Hour New Project Vehicle Trips.....	26
Figure 13: 2022 Build Weekday Morning Peak Hour Vehicle Volumes	27
Figure 14: 2022 Build Weekday Afternoon Peak Hour Vehicle Volumes	28
Figure 15: 2022 Build Saturday Midday Peak Hour Vehicle Volumes	29
Figure 16: 2027 Build Weekday Morning Peak Hour Traffic Volumes	32
Figure 17: 2027 Build Weekday Afternoon Peak Hour Volumes.....	33
Figure 18: 2027 Build Saturday Midday Peak Hour Volumes	34
Figure 19: Pedestrian & Bicycle Levels of Traffic Stress	40

LIST OF APPENDICES

Appendix A: Traffic Count Data
Appendix B: Traffic Projection Model
Appendix C: Crash Data
Appendix D: Journey-to-Work Data
Appendix E: 2022 Existing Capacity/Level-of-Service Analysis
Appendix F: 2022 Build Capacity/Level-of-Service Analysis
Appendix G: 2027 Design Year Build Capacity/Level-of-Service Analysis
Appendix H: Capacity/Level-of-Service Analysis Summary

INTRODUCTION

McMahon Associates has completed a review of the existing transportation operations and potential impacts associated with the proposed conversion of the Liberty Cannabis dispensary located at 304 Somerville Avenue from medical-only to adult retail sales. The purpose of this impact study is to evaluate existing and projected transportation operations in the area surrounding the project site.

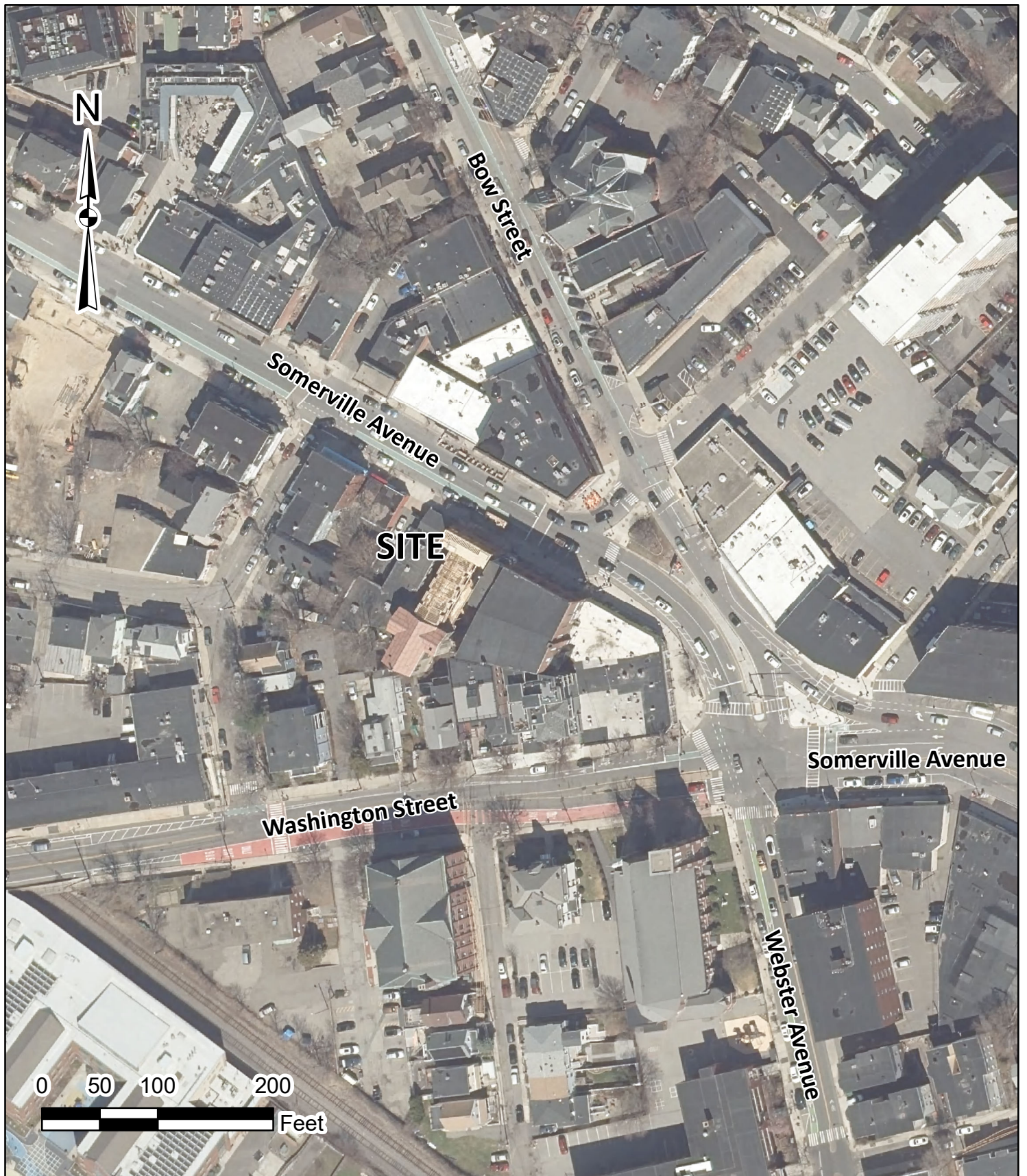
The assessment documented in this traffic impact study is based on a review of existing traffic volumes and the anticipated traffic generating characteristics of the proposed project. The study examines existing and projected traffic operations at key intersections in the vicinity of the project site. The study area was selected based on a review of the surrounding roadway network and estimated trip generating characteristics of the proposed project. This study provides a detailed analysis of traffic operations during the weekday morning, weekday afternoon, and Saturday midday peak hours when the combination of adjacent roadway volumes and project trips would be expected to be the greatest.

Based on the analysis presented in this study, the traffic projected to be generated by the proposed redevelopment is shown to have a negligible effect on the area roadways and intersections. The following report documents these findings.

Project Description

The project site is located at 304 Somerville Avenue in Union Square, Somerville, Massachusetts. As shown in Figure 1, the site is bounded by Somerville Avenue to the north and existing buildings to the south, east, and west. The site is currently a medical cannabis dispensary operating as an appointment-only facility with five points of sale. The site is primarily accessed via Somerville Avenue with a small driveway located just west of the building. The driveway provides access to a small space behind a security gate that is used for parking and deliveries.

The proposed project would convert the existing medical-only dispensary to an adult retail dispensary with an additional five points of sale. The building would not be changed, and the site would continue to operate on an appointment-only basis. Access to the site would not be changed as a result of the proposed project. Four bicycle parking spaces would be added — two behind the security gate for employees and two in front of the security gate for customers.



Study Methodology

This transportation impact study evaluates existing and projected transportation operations within the study area for the weekday morning, weekday afternoon, and Saturday midday peak hour conditions, when the combination of the adjacent roadway volumes and estimated project trips would be expected to be the greatest.

The study was conducted in three steps. The first step consisted of an inventory of existing transportation conditions within the project study area. As part of this inventory, turning movement counts (TMCs) and automatic traffic recorder (ATR) counts were collected at key locations, confirmed by the City of Somerville's Mobility Division. A field visit was completed to document intersection and roadway geometries and inventory existing pedestrian, bicycle, and public transportation infrastructure.

The second step of the study built upon the data collected in the first step of the study to establish the basis for evaluating potential impacts associated with the projected build conditions, under Existing and Design Year conditions. During this second step, the projected traffic demands associated with the proposed adult retail sales dispensary and other planned future developments that could influence traffic volumes at the study area intersections were assessed. Consistent with City of Somerville transportation impact study guidelines, the 2022 Build traffic volumes were forecasted to the future year 2027 to establish 2027 Design Year Build conditions.

The third step of this study determined if measures were necessary to improve future traffic operations and safety, minimize potential traffic impacts, and provide safe and efficient access to the proposed project site.

Study Area Intersections

Based on a review of the anticipated traffic generating characteristics of the proposed project and a review of the adjacent roadways serving the project site, the following study area intersections were selected for analysis:

- Somerville Avenue at Bow Street/Webster Avenue & Washington Street
- Bow Street at Warren Avenue
- Somerville Avenue at Warren Avenue
- Somerville Avenue at Hawkins Street

This report documents existing and future traffic conditions for the study area intersections noted above.

EXISTING CONDITIONS

An accurate assessment of the potential transportation impacts associated with the proposed redevelopment requires a comprehensive understanding of the existing conditions within the project study area. The existing conditions assessment included in this study consists of an inventory of intersection and roadway geometries, pedestrian and bicycle infrastructure, public transportation infrastructure, and the collection of traffic volumes. The existing conditions in the vicinity of the project site are summarized below. Additional information on the pedestrian and bicycle conditions is provided in the pedestrian and bicycle levels of traffic stress sections (PLTS and BLTS, respectively).

Roadway Network

Somerville Avenue

Somerville Avenue generally extends in a northwest-southeast direction through the City of Somerville and is classified as an urban principal arterial under City of Somerville jurisdiction. For the purposes of the analysis contained within this report, Somerville Avenue is described as an east/west roadway. Within the study area, Somerville Avenue is one-way eastbound and provides access to a mix of commercial and residential land uses. In the vicinity of the project site, Somerville Avenue provides one 11-foot-wide travel lane and one 12-foot-wide travel lane. Parking is provided on both sides of the roadway, and a five-foot-wide bike lane extends along the southern side of the roadway between the parking lane and travel lanes. The sidewalk on the north side of the roadway measures approximately 12 feet wide with an effective width of approximately six feet. On the south side of the roadway, the sidewalk measures approximately 14 feet wide with an effective width of approximately five feet. Both sidewalks are in good condition. No speed limits are posted on Somerville Avenue in the vicinity of the site. As such, the City of Somerville prevailing speed limit of 25 miles per hour (mph) would apply.

Bow Street

Bow Street is an urban minor arterial under City of Somerville jurisdiction which for the purposes of this report is considered an east/west roadway. Bow Street is one-way westbound, forming a one-way pair with Somerville Avenue on the western side of Union Square, and provides access to both commercial and residential land uses. In the vicinity of its intersection with Somerville Avenue, Washington Street, and Webster Avenue, no on-street parking is provided. West of its intersection with Warren Avenue, parallel parking is provided on the south side of the roadway, and reverse angle parking is provided on the east side of the roadway. Near the intersection of Somerville Avenue at Bow Street/Webster Avenue & Washington Street, a sidewalk in good condition and measuring approximately 16 feet wide with an effective width of approximately eight feet runs along the east side of Bow Street. West of Warren Avenue, approximately ten-foot-wide sidewalks extend along both sides of the roadway. The sidewalks west of Warren Avenue is generally in good condition and is primarily concrete with some brick segments. A safety zone speed limit of 20 mph is posted on Bow Street just west of its intersection with Warren Avenue.

Washington Street

Washington Street generally extends in the east-west direction and is classified as an urban minor arterial under City of Somerville jurisdiction. Approaching Union Square, Washington Street provides one travel lane in each direction, with an exclusive bus and bike lane in the eastbound direction and an on-street bike lane in the westbound direction. A raised median separates the eastbound and

westbound directions of travel. No on-street parking is provided on Washington Street in the vicinity of the study area. The sidewalk on the north side of the roadway measures approximately 13 feet with an effective width of approximately six feet. On the south side, the sidewalk measures between six and ten feet wide. The sidewalks along Washington Street are generally in good condition with some brick segments. A speed limit of 20 mph is posted on Washington Street.

Webster Avenue

Webster Avenue runs in a generally north-south direction in the City of Somerville and is classified as an urban minor arterial under City of Somerville jurisdiction. Webster Avenue provides one approximately 11-foot-wide travel lane in each direction. Sharrows exist in the northbound direction, and a dedicated bicycle lane measuring approximately five feet wide extends along the west side of the southbound travel lane. Parking is provided on the western side of the roadway. Sidewalks on both sides of the street measure between eight and nine feet and are in good condition. A safety zone speed limit of 20 mph is posted on Webster Avenue between Washington Street and Newton Street.

Warren Avenue

Warren Avenue is a local road which runs in the northeast-southwest direction between Somerville Avenue and Columbus Avenue. Warren Avenue measures approximately 26 feet wide and accommodates two-way travel. In the vicinity of its intersection with Bow Street, parking is prohibited on the east side of the roadway, and metered parking exists on the west side of the roadway. Sidewalks extend along both sides of the roadway measuring approximately seven feet wide. The sidewalks are in generally good condition, though some minor cracking exists on the western sidewalk. A speed limit of 20 mph is posted on Warren Avenue in the vicinity of the study area.

Study Area Intersections

Somerville Avenue at Bow Street/Webster Avenue and Washington Street

The intersection of Somerville Avenue at Bow Street/Webster Avenue and Washington Street is a four-leg signalized intersection under City of Somerville jurisdiction. The northbound Webster Avenue approach to the intersection consists of one general purpose lane. The southbound Somerville Avenue approach consists of one through/right-turn lane and one dedicated left-turn lane. The eastbound Washington Street approach to the intersection consists of one left-turn/through lane and one dedicated right-turn lane. The westbound Somerville Avenue approach consists of one dedicated left-turn lane, one dedicated through lane, and one channelized right-turn lane. Crosswalks exist across all four legs of the intersection as well as the westbound channelized right-turn, and all crosswalks are accompanied by pedestrian signals and curb ramps which include elements to generally comply with the Americans with Disabilities Act (ADA). Dedicated bicycle lanes continue through the intersection from the southbound Somerville Avenue approach and the westbound Somerville Avenue approach. Departing the intersection, dedicated bicycle lanes continue eastbound on Somerville Avenue, northbound on Bow Street, and southbound on Webster Avenue.

The signal at the intersection currently provides three primary phases: one for eastbound and westbound traffic, one for northbound traffic, and one for southbound traffic. The channelized westbound right-turn movement operates as an overlap during the southbound traffic phase.

Concurrent pedestrian phasing with 5-second Leading Pedestrian Intervals (LPIs) are provided for all crosswalks.

Bow Street at Warren Avenue

The intersection of Bow Street at Warren Avenue is a four-leg intersection under City of Somerville jurisdiction. The westbound Bow Street approach consists of one general traffic lane and one dedicated bicycle lane and is under signal control. The northbound and southbound Warren Avenue approaches each consist of one general traffic lane and are under stop control. Crosswalks are provided across the westbound, northbound, and southbound approaches. The crosswalk across the Bow Street approach is accompanied by an actuated pedestrian signal, and all three crosswalks are accompanied by curb ramps which include elements to generally comply with ADA. The westbound bicycle lane continues through the intersection and along Bow Street to the west of the intersection.

Somerville Avenue at Warren Avenue

The intersection of Somerville Avenue at Warren Avenue is a three-leg intersection under City of Somerville jurisdiction. The eastbound Somerville Avenue approach consists of one through lane and one left-turn/through lane. The Somerville Avenue approach is under pedestrian-actuated signal control and is otherwise free-flowing. Crosswalks exist across the eastern and western legs of the intersection and are accompanied by curb ramps which include elements to generally comply with ADA. A dedicated bicycle lane extends along the southern side of Somerville Avenue and continues through the intersection towards Washington Street.

Somerville Avenue at Hawkins Street

The intersection of Somerville Avenue and Hawkins Street is a three-leg intersection. The northbound Hawkins Street approach consists of a single right-turn lane under stop control, and the eastbound Somerville Avenue approach consists of two free-flowing through lanes. Crosswalks exist across the western and southern legs of the intersection, and they are accompanied by curb ramps which include elements to generally comply with ADA. The curb ramp across the western Somerville Avenue leg is also accompanied by a flashing advanced-warning sign. A dedicated bicycle lane extends along the southern side of Somerville Avenue and continues through the intersection.

Public Transportation

The project is served by numerous Massachusetts Bay Transportation Authority (MBTA) bus routes as well as the future MBTA Green Line Extension Union Square station. A summary of the public transportation within a half mile of the site is provided below, and the average frequencies for the bus routes serving the study area is provided in Table 1. The locations and average number of boardings and alightings at the key bus stops in the vicinity of the site are shown in Figure 2.

Route 69

MBTA Route 69 operates between Harvard Square and Lechmere. The closest stop pair to the site is on Cambridge Street at Norfolk Street, which is an approximately 11-minute and 0.5-mile walk. Neither stop has a bus shelter.

Route 80

MBTA Route 80 operates between Arlington Center and Lechmere. The closest stop pair is on McGrath Highway. Both stops are an approximately 11-minute and 0.5 mile walk from the project

site. The outbound stop has a shelter and is located on an on-ramp to the McGrath Highway overpass. The inbound stop is located on a three-lane section of the road.

Route 85

MBTA Route 85 operates between Spring Hill and Kendall Square. The inbound route operates on Somerville Avenue directly by the site. The closest inbound stop is on Somerville Avenue at Union Square. The closest outbound stop is on Bow Street at Warren Avenue. Both stops are under a one-minute walk from the site and neither has a shelter.

Route 86

MBTA Route 86 operates between Sullivan Square and Cleveland Circle. The closest pair of stops to the site are one block away on Washington Street and each stop is an approximately two-minute walk. Neither stop has a shelter.

Route 87

MBTA Route 87 operates between Arlington and Lechmere via Somerville Avenue. The inbound route operates on Somerville Avenue directly by the site. The closest inbound stop is on Somerville Avenue at Union Square. The closest outbound stop is on Bow Street at Warren Avenue, just outside Union Square. Both stops are under a one-minute walk from the site and neither has a shelter.

Route 88

MBTA Route 88 operates between Arlington and Lechmere via Highland Avenue. The closest stop pair to the site is on Highland Avenue at Walnut Street, which is an approximately 11-minute and 0.5-mile walk. Both stops have shelters.

Route 90

MBTA Route 90 operates between Davis Square and Assembly Row. Its closest stop pair to the site is on Highland Avenue at Walnut Street, which is an approximately 11-minute and 0.5-mile walk. Both stops have shelters.

Route 91

MBTA Route 91 operates between Central Square and Sullivan Square. Its closest inbound (to Central Square) stop to the site is on Somerville Avenue at Stone Avenue and is an approximately two-minute walk. This stop has a shelter. The closest outbound stop to the site is an approximately five-minute and 0.3-mile walk on Prospect Street at Bennett Court. This stop does not have a shelter.

Route CT2

MBTA Route CT2 operates between Sullivan Square and Ruggles. Its closest outbound (to Sullivan Square) stop is an approximately five-minute and 0.3-mile walk on Prospect Street at Bennett Court. This stop does not have a shelter. Its closest inbound (to Ruggles) stop to the site is on Somerville Avenue at Stone Avenue and is an approximately two-minute walk. This stop has a shelter.

Green Line

There is currently no rapid transit service within a half mile of the project site. However, MBTA anticipates opening the Union Square extension of the Green Line D Branch in March 2022. This new service will allow for access to the new dispensary from most of the MBTA's rapid transit network. Green Line service to Union Square is anticipated to have same frequencies as the existing Green Line service. As of January 2022, the D Branch of the Green Line has a weekday peak frequency of

eight to nine minutes and a weekday off-peak and weekend frequency of ten to twelve minutes. The new Union Square station will be located on Prospect Street, which is an approximately six-minute and 0.3-mile walk from the project site.

Table 1: Bus Route Frequency Summary

Period	Frequency by Route (Minutes)								
	Rt. 69	Rt. 80	Rt. 85	Rt. 86	Rt. 87	Rt. 88	Rt. 90	Rt. 91	Rt. CT2
AM Peak	12	24	38	11	18	18	35	24	23
Midday	25	26	n/a	33	25	25	65	50	58
PM Peak	20	26	47	13	20	20	35	25	40
Evening	40	56	n/a	35	29	30	60	45	n/a
Saturday	27	40	n/a	31	30	30	61	46	n/a
Sunday	40	68	n/a	32	41	40	70	45	n/a

n/a Not applicable

Field Review

Field reviews of the existing study area were conducted on Tuesday, January 25, 2022, and Friday, March 5, 2022. These reviews included the documentation of:

- Lane widths
- Traffic control devices
- Existing pedestrian and bicycle infrastructure
- Sight distance from the existing driveway on Somerville Avenue
- Posted speed limits
- General traffic operations

Each of these elements from the field reviews have been incorporated into the vehicular capacity, pedestrian, bicycle, and transit analyses documented within this report.



Existing Condition Volumes

Existing Volume Data Collection

To assess peak hour traffic conditions, manual turning movement counts (TMCs) were conducted at the study area intersections between 6:00 AM and 8:00 PM on Tuesday, February 15, 2022, and between 10:00 AM and 2:00 PM on Saturday, February 12, 2022. In addition, two 72-hour automatic traffic recorder (ATR) counts were conducted, one on Somerville Avenue west of Hawkins Street and one on Bow Street west of Warren Avenue.

The results of the turning movement counts are tabulated by 15-minute periods and are provided in Appendix A of this report. The four highest consecutive 15-minute intervals during each of these count periods constitute the peak hours that are the basis of the traffic analysis provided in this report. Based on a review of the peak period traffic data, the weekday morning peak hour at the study area intersections occurs between 7:45 AM and 8:45 AM, the weekday afternoon peak hour occurs between 5:00 PM and 6:00 PM, and the Saturday midday peak hour occurs between 12:45 PM and 1:45 PM.

The ATR counts were conducted from Thursday, March 3, 2022, through Saturday, March 5, 2022, to avoid Somerville school breaks. The results of the ATR are summarized in Table 2 below and provided in Appendix A.

Seasonal Variation

Based on MassDOT's 2019 Weekday Seasonal Factors, February traffic volumes on urban principal arterial roadways like Somerville Avenue are approximately three percent lower than an average month. To account for this variation, the counted traffic volumes were adjusted upward by three percent to reflect an average month.

Existing Transportation Volumes

The resulting seasonally adjusted 2022 Existing condition vehicle volumes are shown in Figure 3, Figure 4, and Figure 5 for the weekday morning, weekday afternoon, and Saturday midday peak hours, respectively, and are documented in the traffic projection model provided in Appendix B of this report. The counted volume of pedestrians and bicyclists under 2022 Existing conditions are shown in Figure 6, Figure 7, and Figure 8, respectively.

A summary of the daily ATR count data is provided below.

Table 2: Automatic Traffic Recorder Data

	Weekday¹	Saturday²		85th %⁴
Location	ADT	ADT	HV%³	Speed
Somerville Avenue EB	7,710	7,210	2.5%	24
Bow Street WB	9,350	9,340	3.3%	20

1 Average daily traffic on Thursday, March 3, 2022

2 Average daily traffic on Saturday, March 5, 2022

3 Heavy vehicle percentage

4 85th percentile speed in miles per hour

Existing Site Trips

To understand the actual number of trips generated by the existing medical-only dispensary, entering and exiting pedestrian counts were conducted on Thursday, January 27, 2022, from 6:00 AM to 8:00 PM. During these counts, the total number of person trips to the site between 6:00 AM and 10:00 AM was two, both of which were entering trips. Overall person trips to and from the existing dispensary generally increase beginning at 10:30 AM, fluctuating throughout the day with a peak around 5:00 PM. The highest hourly volume of person trips was identified to occur from 5:00 PM to 6:00 PM. During this weekday afternoon peak hour, a total of 23 trips (nine entering trips and 14 exiting trips) were observed.

U.S. Census Data

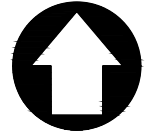
To assess the typical modes of transportation used for trips in the area of the site, data from the U.S. Census American Community Survey (ACS) was reviewed for Census tract 3512.04. Table 3 presents the resulting mode share for trips within the project's Census tract based on the 2015-2019 ACS data. The "work from home" and "other means" categories of the data were distributed proportionally between each of the modes displayed below.

Table 3: Mode Share Summary

Mode	Mode Share
Drove alone	37.8%
Carpooled	1.5%
Public transportation	27.9%
Bicycle	15.2%
Walked	17.6%

Additionally, the average vehicle occupancy for the Census tract containing the project site (Census tract 3512.04) was calculated based on single occupancy and carpooling data available from the ACS for the years 2015 to 2019. The resulting vehicle occupancy rate was identified as 1.04 persons per vehicle.

The calculated mode share and vehicle occupancy have been utilized to estimate the breakdown of estimated person trips associated with the proposed project and is discussed in the trip generation section of the report in more detail.



SCHEMATIC-
NOT TO SCALE

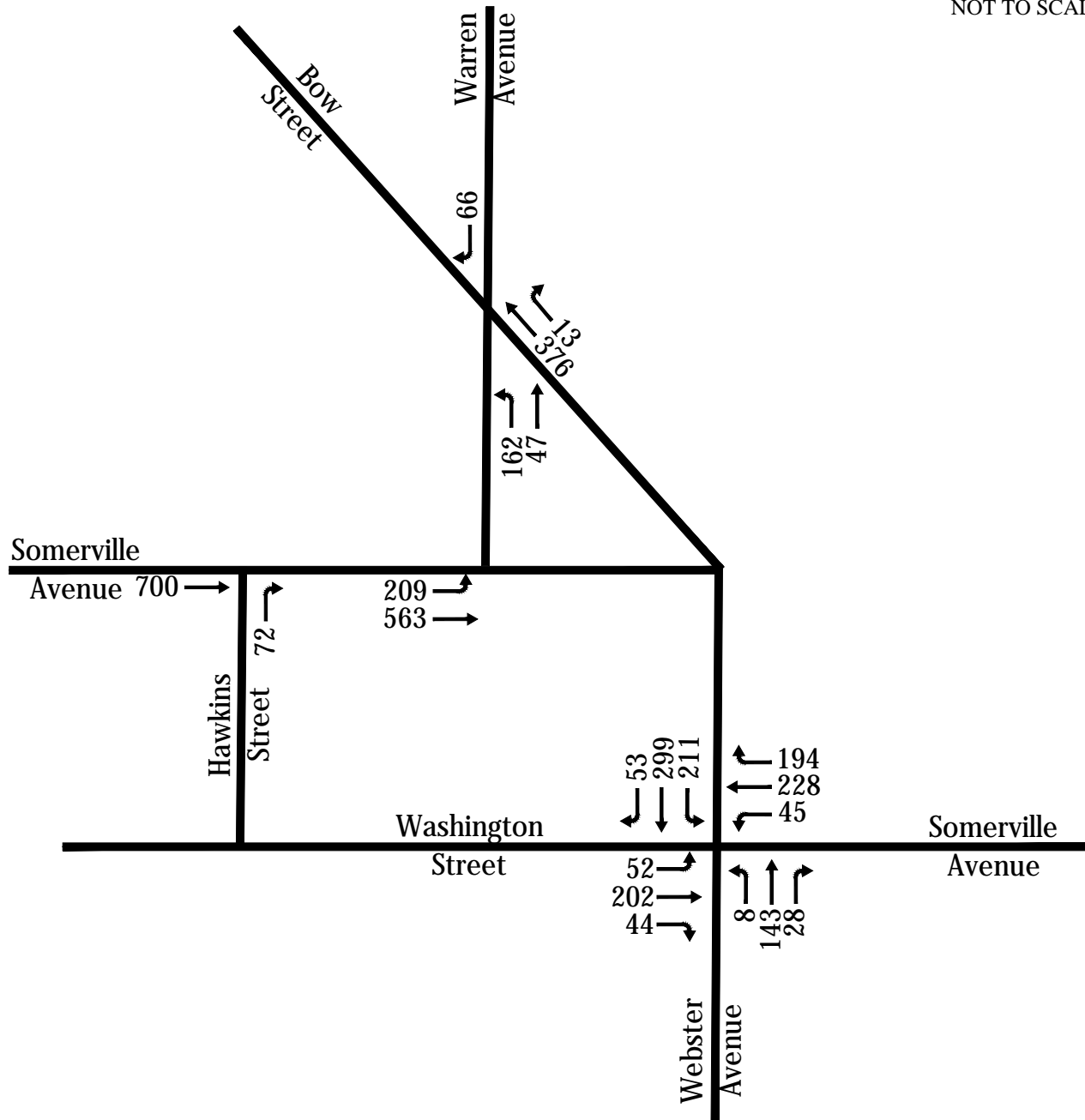
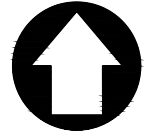


Figure 3
2022 Existing Weekday Morning
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

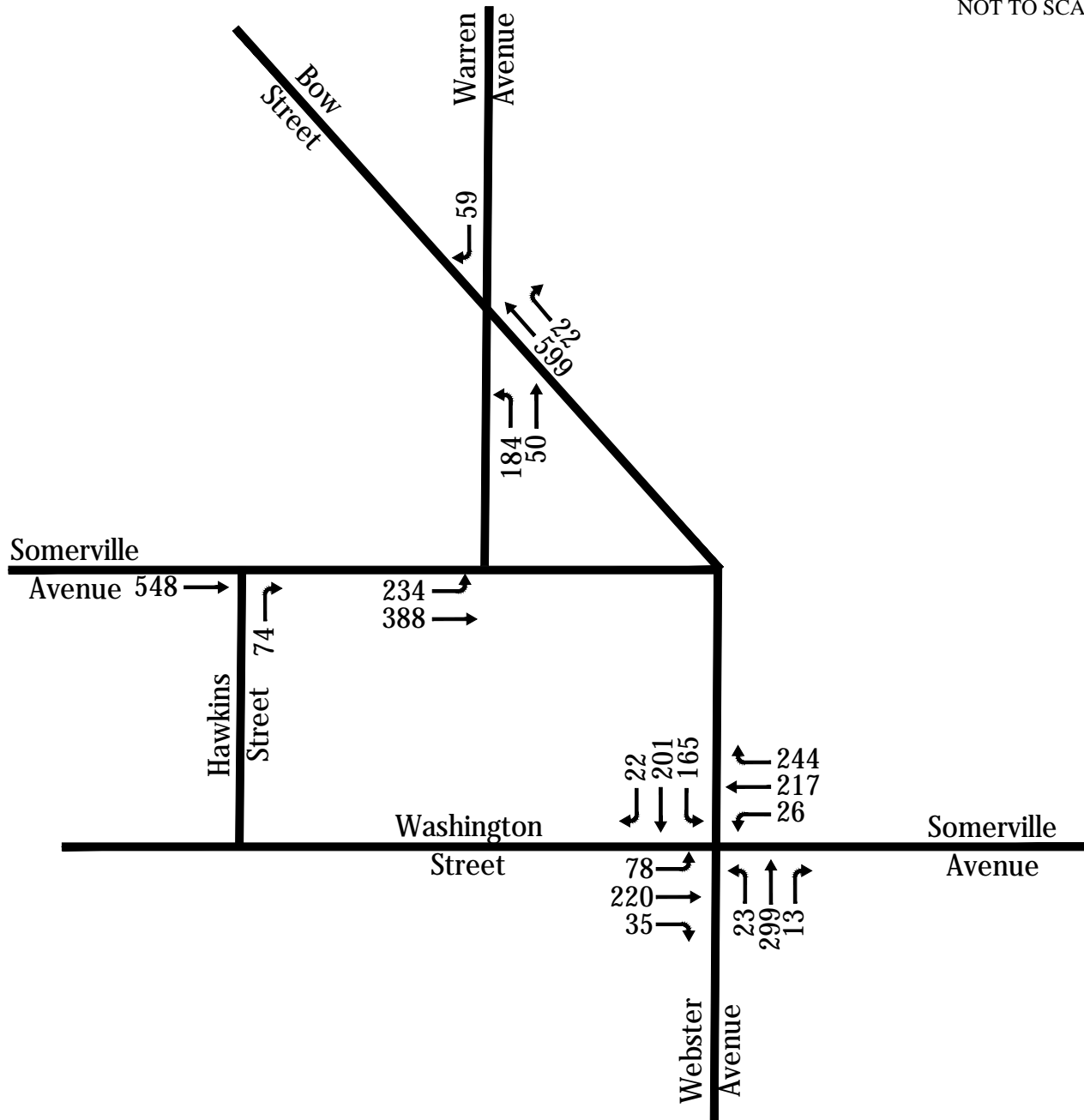
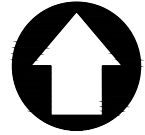


Figure 4
2022 Existing Weekday Afternoon
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

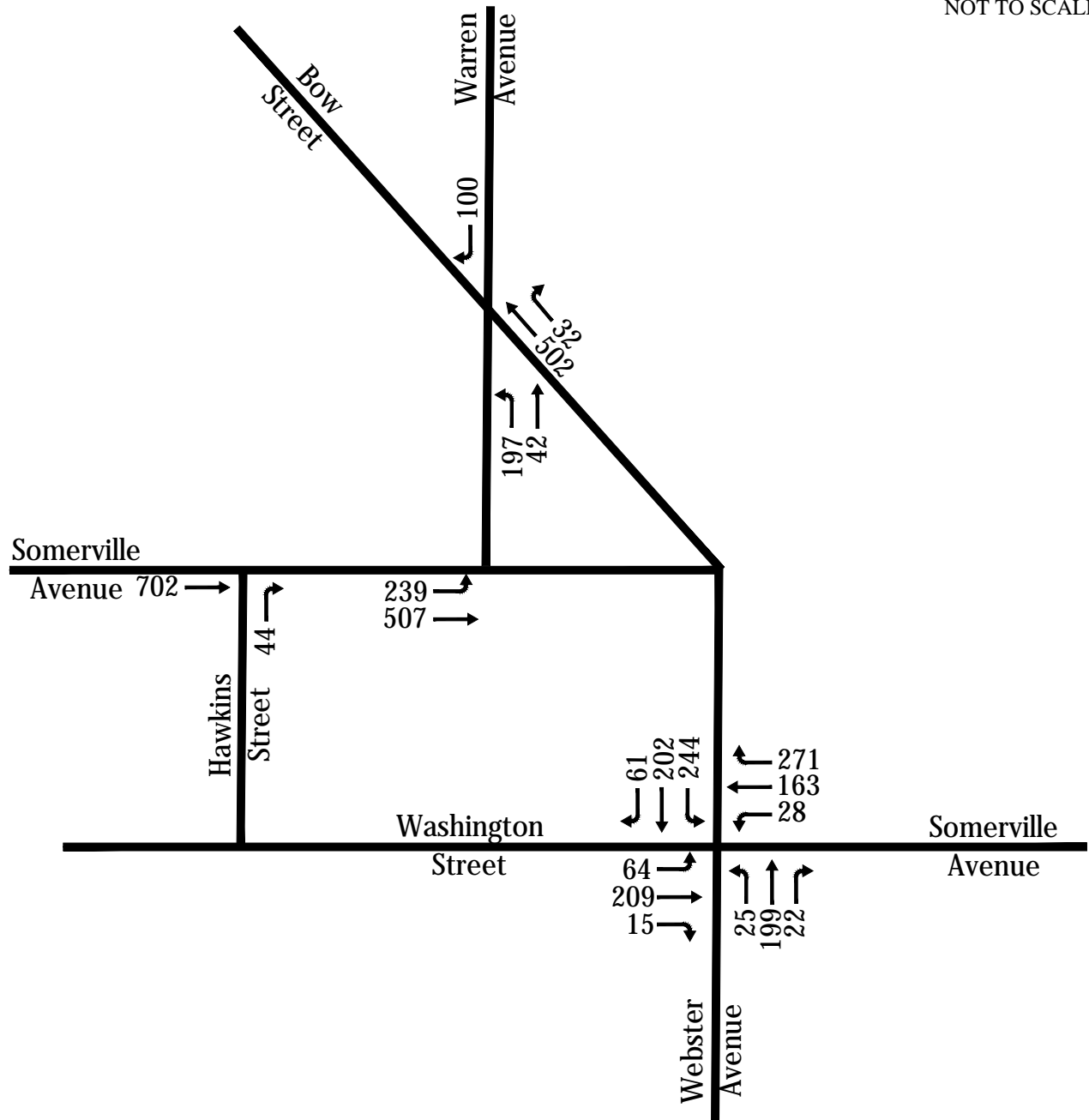
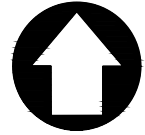


Figure 5
2022 Existing Saturday Midday
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

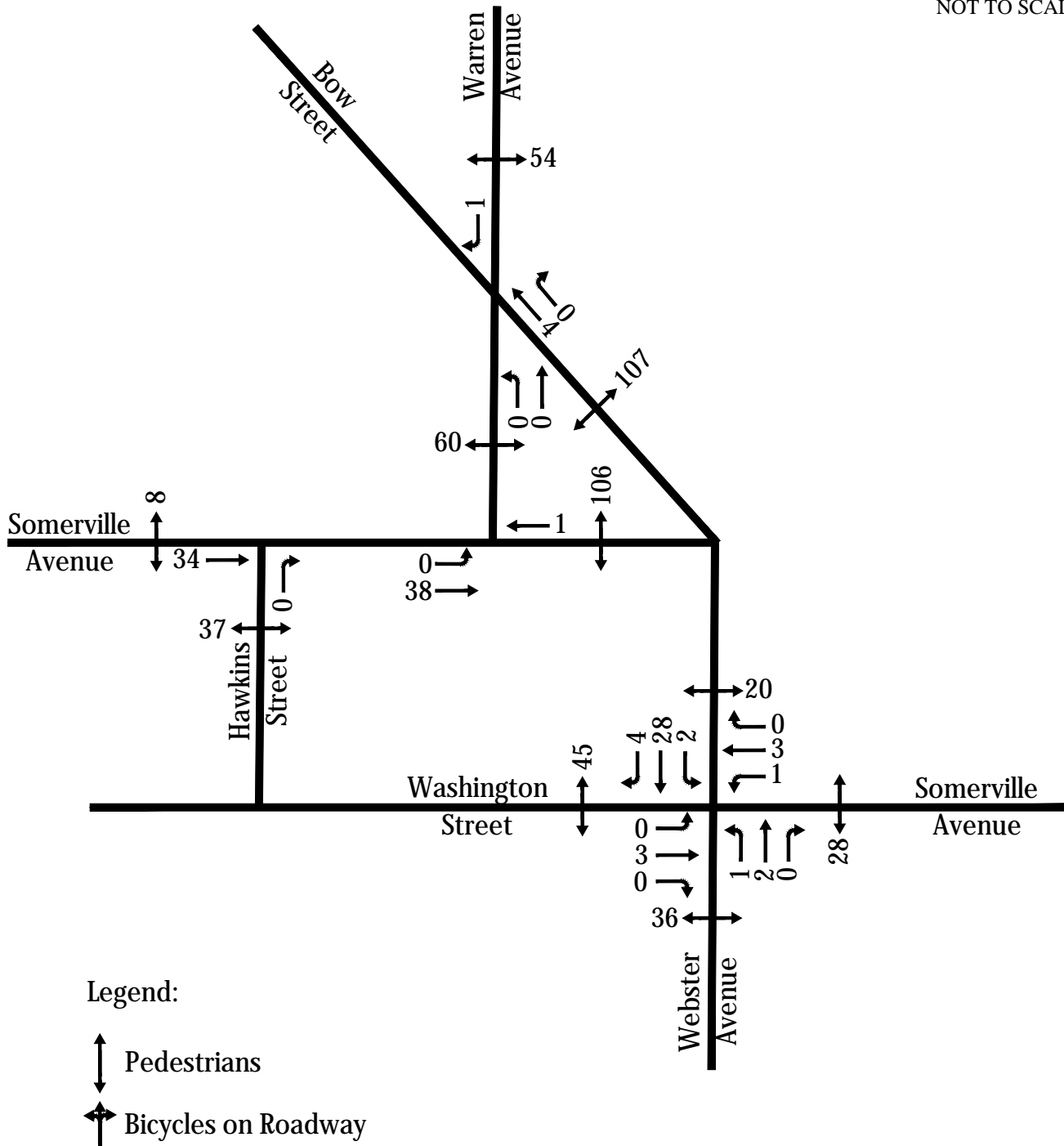
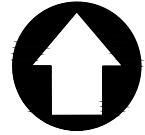


Figure 6
2022 Existing Weekday Morning
Peak Hour Pedestrian and Bicycle Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

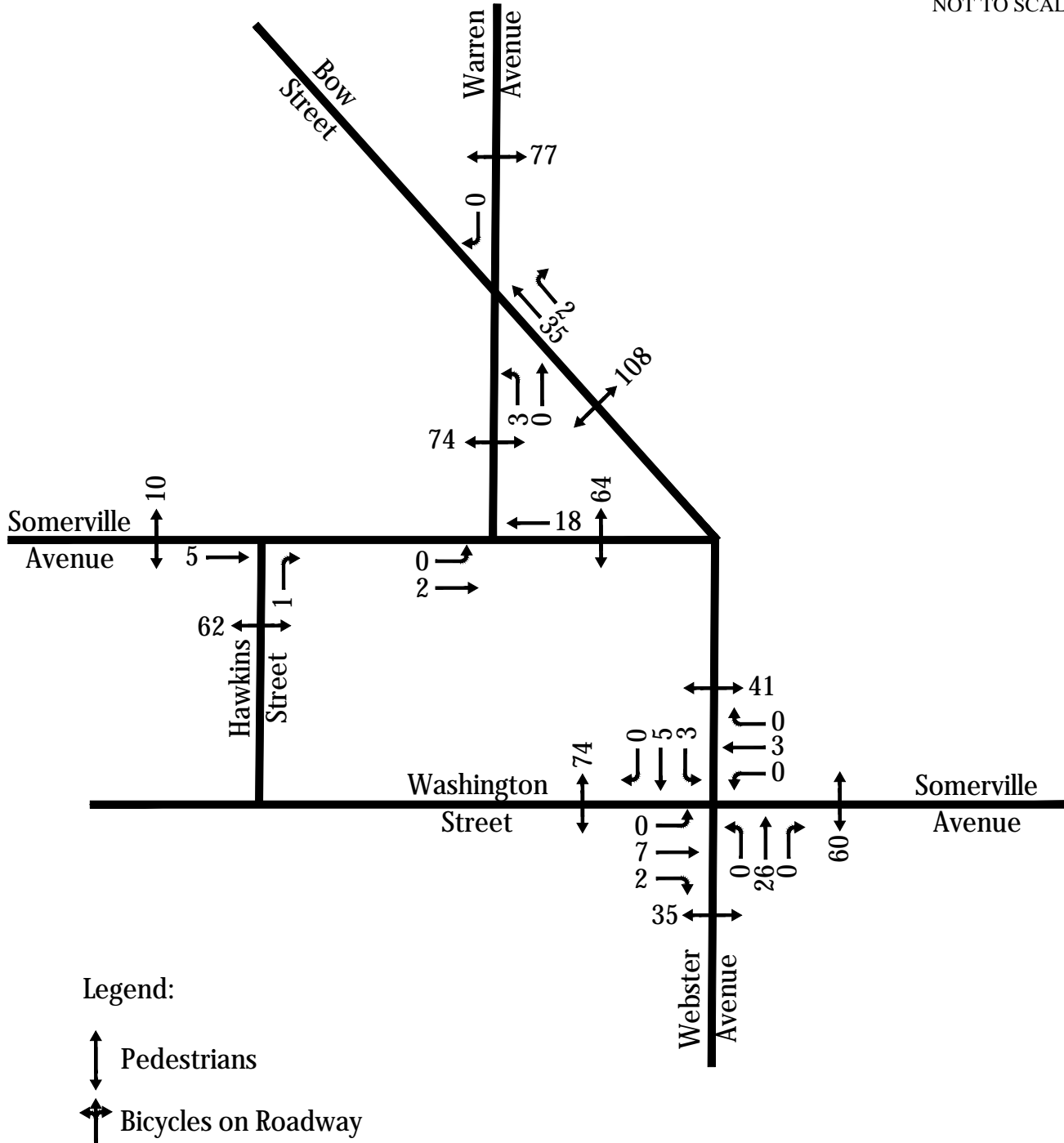


Figure 7
2022 Existing Weekday Afternoon
Peak Hour Pedestrian and Bicycle Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

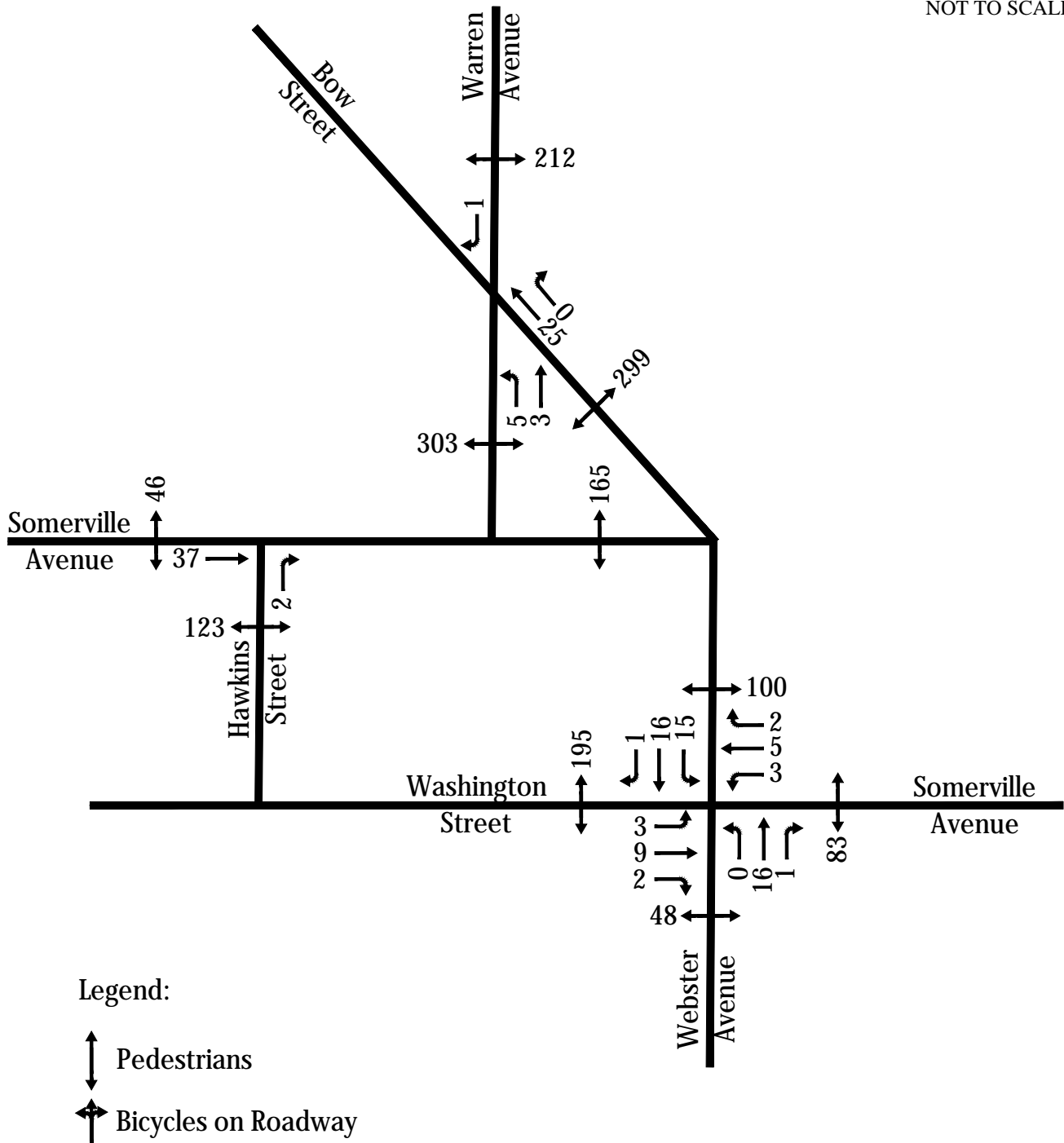


Figure 8
2022 Existing Saturday Midday
Peak Hour Pedestrian and Bicycle Volumes
Liberty Cannabis
Somerville, Massachusetts

Crash Summary

Crash data for the study area intersections was obtained from MassDOT for the most recent five-year period available. The results of the crash analysis are summarized below and are provided in Appendix C.

The MassDOT Crash Rate Worksheet calculations were used to determine whether the crash frequencies at the study area intersections were unusually high given the travel demands at each location. The MassDOT Crash Rate Worksheet calculates a crash rate expressed in crashes per million entering vehicles. The calculated rate is then compared to the average rate for signalized and unsignalized intersections statewide and within MassDOT District 4. For unsignalized intersections, the statewide and District 4 average crash rates are both 0.57 crashes per million entering vehicles. For signalized intersections the District 4 crash rate is 0.73 crashes per million entering vehicles, and the statewide average is 0.78 crashes per million entering vehicles.

During the five-year period reviewed, the intersection of Somerville Avenue at Bow Street/Webster Avenue & Washington Street is reported to have experienced a total of eight crashes resulting in a crash rate of 0.22 crashes per million entering vehicles, which is well below the statewide and District averages. Of the eight reported crashes, three were sideswipe crashes, one was an angle crash, and one was a single-vehicle crash. Two of the reported crashes involved a pedestrian. Five crashes resulted in property damage only, one crash resulted in a nonfatal injury, and the outcome of the remaining two crashes is unknown.

Between 2015 and 2019, the combined intersections of Somerville Avenue and Bow Street at Warren Avenue are reported to have experienced a total of 14 crashes, resulting in a crash rate of approximately 0.48 crashes per million entering vehicles. Five of the reported crashes were rear-end crashes, four crashes were angle crashes, two were sideswipes, two were single vehicle crashes, and one crash was of unknown type. Nine crashes resulted in property damage only, two crashes resulted in a nonfatal injury, and the outcome of three crashes is unknown.

The intersection of Somerville Avenue at Hawkins Street is reported to have experienced two crashes during the five-year period reviewed resulting in a crash rate of 0.11 crashes per million entering vehicles. One of the reported crashes was an angle crash, and the other was a rear-end crash. Both crashes resulted in property damage only.

Each of the study area intersections is encompassed by larger Highway Safety Improvement Plan (HSIP) pedestrian and bicycle crash clusters from 2010-2019 within the Union Square area. Since its identification as an HSIP intersection, Somerville Avenue at Bow Street/Webster Avenue and Washington Street has been reconstructed, which may result in a reduction in the severity of crashes at the intersection. In addition, traffic signal timing updates proposed by the City of Somerville, described in more detail later in this report, may improve the operations at the intersection.

CURRENT-YEAR BUILD CONDITIONS

Site-Generated Traffic

ITE Trip Generation

In order to estimate the total number of vehicle trips associated with the proposed adult-use dispensary, the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual, 11th Edition*, was referenced. For the proposed dispensary, Land Use Code 882 (Marijuana Dispensary) was utilized. The estimated ITE vehicle trips were then converted to person trips utilizing the vehicle occupancy rate of 1.04 persons per vehicle identified based on U.S. Census data. The number of person trips was then distributed among the various modes proportionally based on the estimated U.S. Census tract mode shares. The resulting trip generation by mode for the proposed project based on ITE data for LUC 882 is displayed in Table 4 below.

Table 4: Estimated ITE Trip Generation

Description	Weekday AM			Weekday PM			Saturday Midday			Weekday Daily			Saturday Daily		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Proposed ITE Trips ¹	16	15	31	28	28	56	43	43	86	317	317	634	389	389	778
Person Trips ²	16	15	31	28	28	56	43	43	86	317	317	634	389	389	778
Drive alone	6	6	12	11	11	22	16	16	32	120	120	240	147	147	294
Carpool	1	0	1	0	0	0	1	1	2	5	5	10	6	6	12
Public transportation	4	4	8	8	8	16	12	12	24	88	88	176	108	108	216
Bicycle	2	2	4	4	4	8	6	6	12	48	48	96	59	59	118
Walk	3	3	6	5	5	10	8	8	16	56	56	112	69	69	138
Resulting Vehicle Trips	7	6	13	11	11	22	17	17	34	125	125	250	153	153	306

1 ITE Land Use Code 882 (Marijuana Dispensary), based on 3,000 square feet.

2 Based on a vehicle occupancy rate of 1.04 persons/vehicle from Census Journey to Work data for Census Tract 3512.04

As shown in Table 4, based on ITE data the proposed adult-use dispensary would be estimated to generate approximately 13 vehicle trips (7 entering vehicles and 6 exiting vehicles) during the weekday morning peak hour, approximately 22 vehicle trips (11 entering vehicles and 11 exiting vehicles) during the weekday afternoon peak hour, and approximately 34 vehicle trips (17 entering vehicles and 17 exiting vehicles) during the Saturday midday peak hour. Over an average weekday, the proposed project is estimated to generate approximately 250 vehicle trips (125 entering vehicles and 125 exiting vehicles), and approximately 306 vehicle trips (153 entering vehicles and 153 exiting vehicles) during a Saturday. Based on current store hours, the dispensary would not be open during the weekday morning peak hour; however, the ITE estimates have been provided to account for potential employee arrival during those times.

ITE does not provide differentiated trip estimates for medical-only dispensaries vs. adult-use dispensaries and bases trips per square foot of the building. Because the size of the building is not proposed to change as part of the project, no changes in trips would be reflected from the existing medical use to the proposed adult retail sales utilizing ITE trip generation estimates.

Project-Specific Trip Generation

A review of estimated trips has also been conducted by reviewing the number of points of sale, appointment length, anticipated staffing, and anticipated deliveries. The existing medical dispensary

has five points of sale with 15-minute appointments per register which results in a maximum of approximately 20 customer trips entering and exiting per hour. The proposed dispensary including adult-use would include a maximum of ten points of sale with continued 15-minute appointments per register resulting in a maximum additional 20 customer trips entering and exiting per hour.

Deliveries to the project site currently occur three to five times per week and would be expected to occur approximately five times a week with the proposed adult-use in place. Deliveries are typically scheduled outside of the peak hours of the adjacent street traffic (deliveries would be scheduled between 12:00 PM and 4:00 PM) and would continue to be scheduled as such with the proposed project in place. Deliveries are expected to continue to be completed using light commercial vehicles/vans, approximately 25 feet in length, utilizing the existing driveway to access the area and building door behind the gate. The approximate number of deliveries expected to the project site during a typical weekday are presented in Table 5 below.

Table 5: Delivery Schedule

Day	Period	Deliveries
Weekday	7:00AM-9:00AM	0
	9:00AM-4:00PM	1
	4:00PM-6:00PM	0
	6:00PM-7:00AM	0
Weekends	All Day	0

Because deliveries are expected to occur outside of the weekday morning, weekday afternoon, and Saturday midday peak periods, the projected peak hour trip generation for these periods does not include deliveries.

The existing dispensary has six to eight employees over all shifts on a typical day. Anticipated staffing levels for the proposed adult use would increase to approximately eight to ten employees on weekdays and ten to fourteen employees on the weekend over all shifts on a given day. With typical shifts occurring from 9:00 AM to 5:30 PM and from 2:00 PM to 8:30 PM, a portion of the existing and proposed trips to the site during the weekday morning, weekday afternoon, and Saturday midday peak hours would be attributed to employees. For the purposes of this analysis, the number of employees accessing the site has been divided between the two standard shifts.

Table 6 provides a summary of the estimated existing and proposed trips to the site using the above information for the weekday morning, weekday afternoon and Saturday midday peak hours.

Table 6: Estimated Change in Trips

Description	Weekday AM			Weekday PM			Saturday Midday		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Customer Trips	0	0	0	20	20	40	20	20	40
<u>Existing Employee Trips</u>	<u>4</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>0</u>	<u>4</u>
Total Existing Trips	4	0	4	20	24	44	24	20	44
Proposed Customer Trips	0	0	0	40	40	80	40	40	80
<u>Proposed Employee Trips</u>	<u>5</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>5</u>	<u>5</u>	<u>7</u>	<u>0</u>	<u>7</u>
Total Proposed Trips	5	0	5	40	45	85	47	40	87
Total New Person Trips	1	0	1	20	21	41	23	20	43

Trip estimates based on employee scheduling and sale appointment slots.

The number of trips outlined in Table 6, above, includes the estimated maximum number of customer trips within an hour assuming all points of sale are in use and all available appointment slots are utilized. The estimated number of existing trips are shown to be above the actual observed number of trips into and out of the site described in the Existing Site Trips section above.

The increases in person trips distributed by mode are summarized in Table 7 below.

Table 7: Estimated Change in Trips

Description	Weekday AM			Weekday PM			Saturday Midday		
	In	Out	Total	In	Out	Total	In	Out	Total
Total New Person Trips ¹	1	0	1	20	21	41	23	20	43
Drive Alone	1	0	1	8	8	16	9	7	16
Carpool	0	0	0	0	0	0	0	0	0
Public Transportation	0	0	0	6	6	12	7	6	13
Bicycle	0	0	0	3	3	6	3	3	6
Walk	0	0	0	3	4	7	4	4	8
Total Vehicle Trips	1	0	1	8	8	16	9	7	16

1 Mode share based on US Census data for tract 3512.04

After applying the mode splits for Census tract 3512.04, the resulting increase in vehicle trips on the adjacent roadway network includes approximately one new vehicle trip during the weekday morning peak hour, 16 new vehicle trips (eight entering vehicles and eight exiting vehicles) during the weekday afternoon peak hour, and approximately 16 new vehicle trips (nine entering vehicles and seven exiting vehicles) during the Saturday midday peak hour.

Project Trip Distribution and Assignment

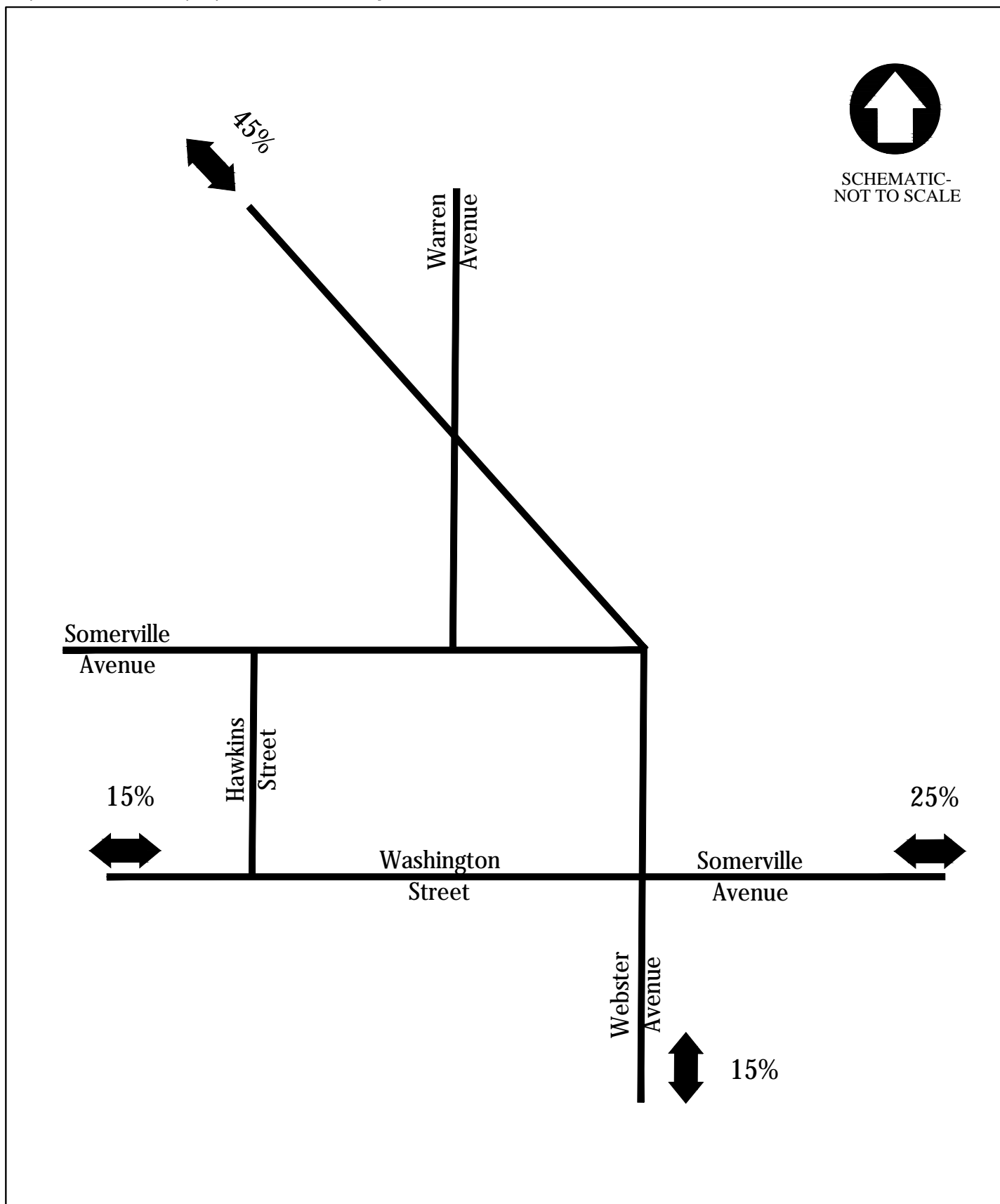
The traffic estimated to be generated by the proposed development was distributed onto the study area roadways and intersections based on Census Journey-to-Work data for employees who work in Somerville. The Journey-to-Work data is included in Appendix D of this report. The resulting arrival

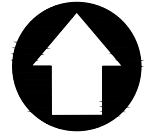
and departure patterns are presented in Figure 9 and the traffic projection model found in Appendix B.

The project-related vehicle traffic was then assigned to the surrounding roadway network based on the project trip distribution patterns presented in Figure 9. The resulting distributed new project vehicle trips are shown in Figure 10, Figure 11, and Figure 12 for the weekday morning, weekday afternoon, and Saturday midday peak hours, respectively.

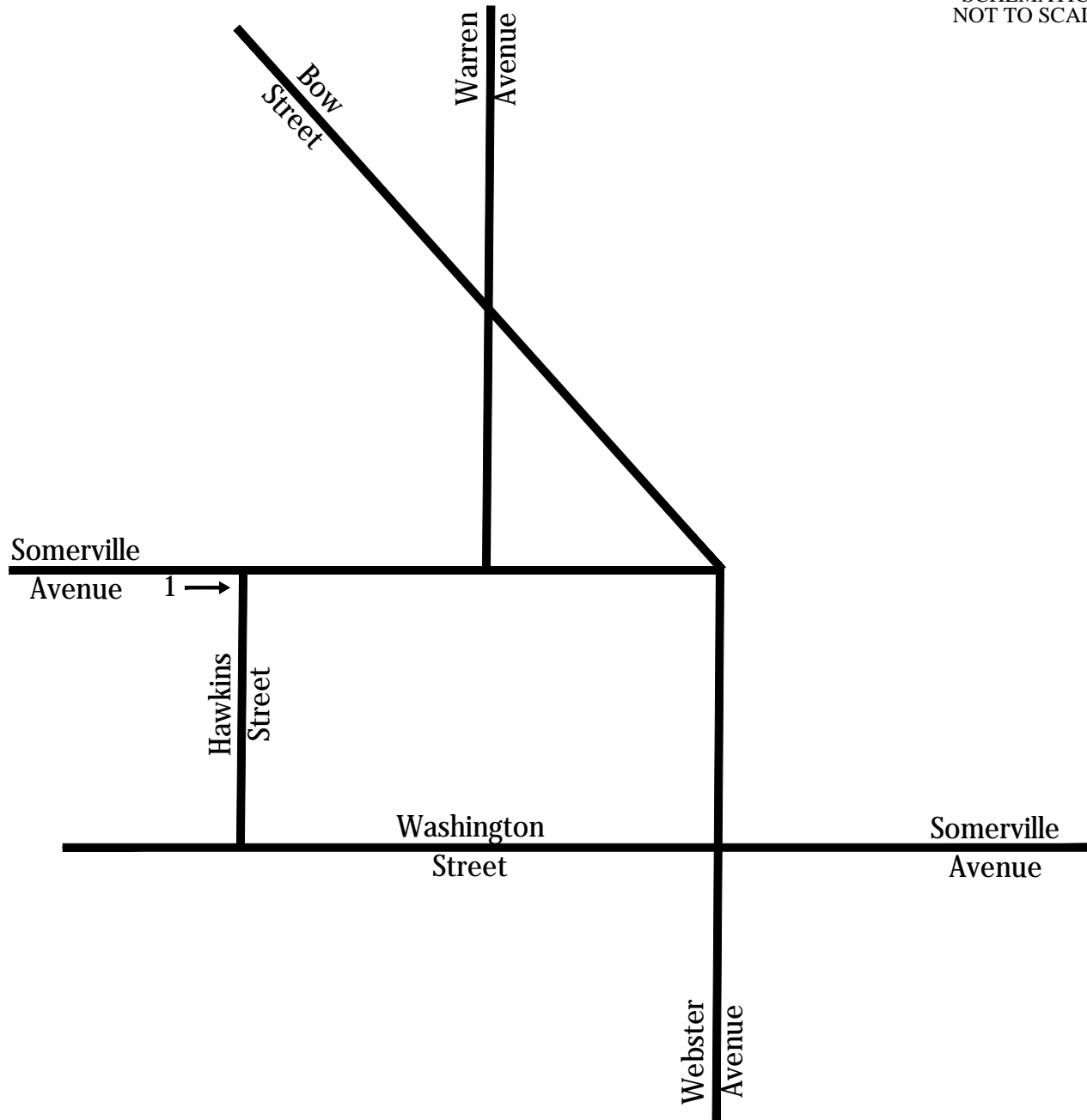
2022 Build Volumes

To establish the 2022 Build peak hour traffic volumes, the distributed new project trips were added to the 2022 Existing peak hour traffic volumes to reflect the 2022 Build peak hour traffic volumes. The resulting 2022 Build weekday morning, weekday afternoon, and Saturday midday peak hour traffic volumes are presented in Figure 13, Figure 14, and Figure 15, respectively, and are documented in the traffic projection model presented in Appendix B of this report.

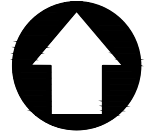




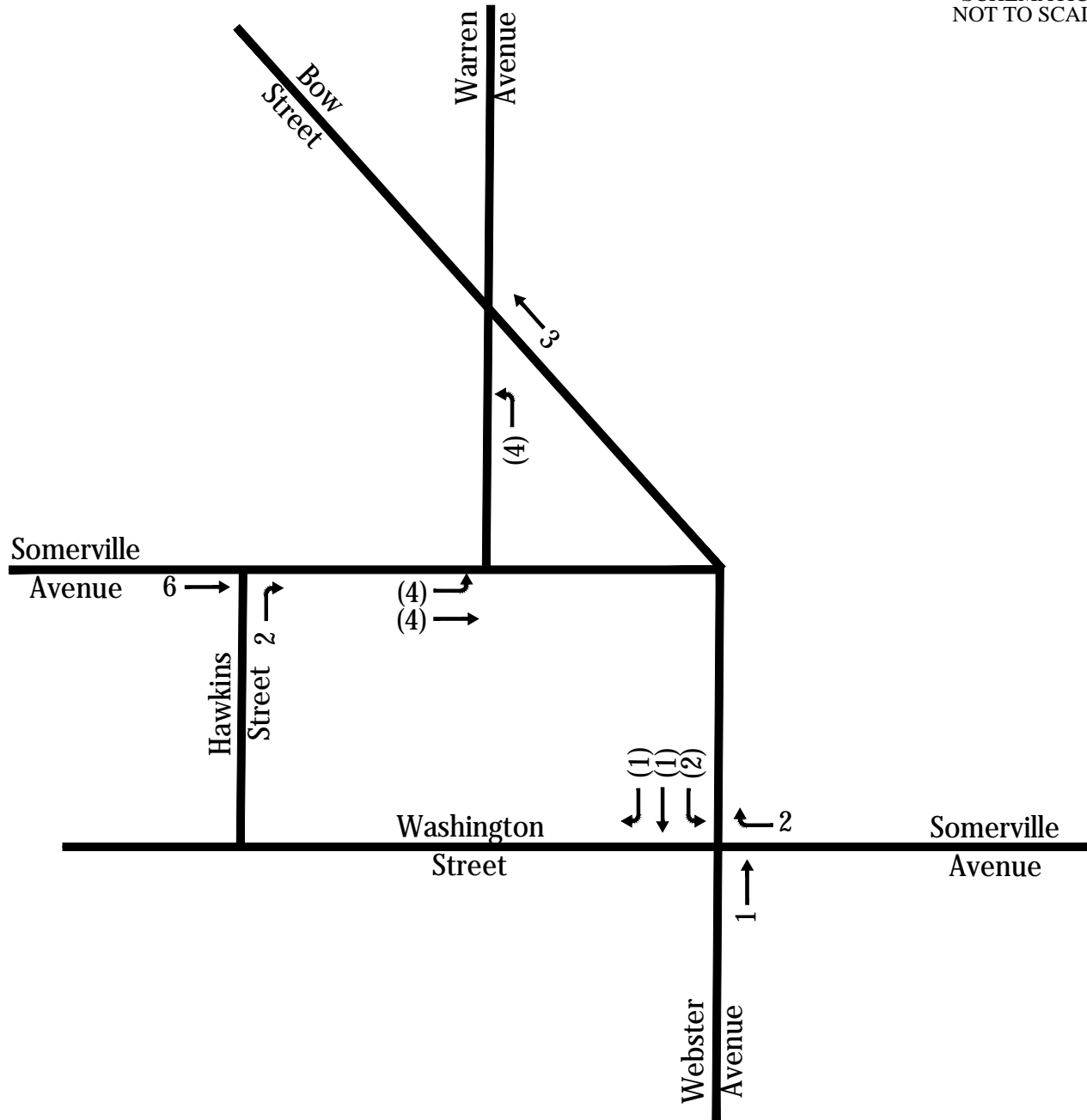
SCHEMATIC-
NOT TO SCALE



Legend
Entering Trips (Exiting Trips)



SCHEMATIC-
NOT TO SCALE

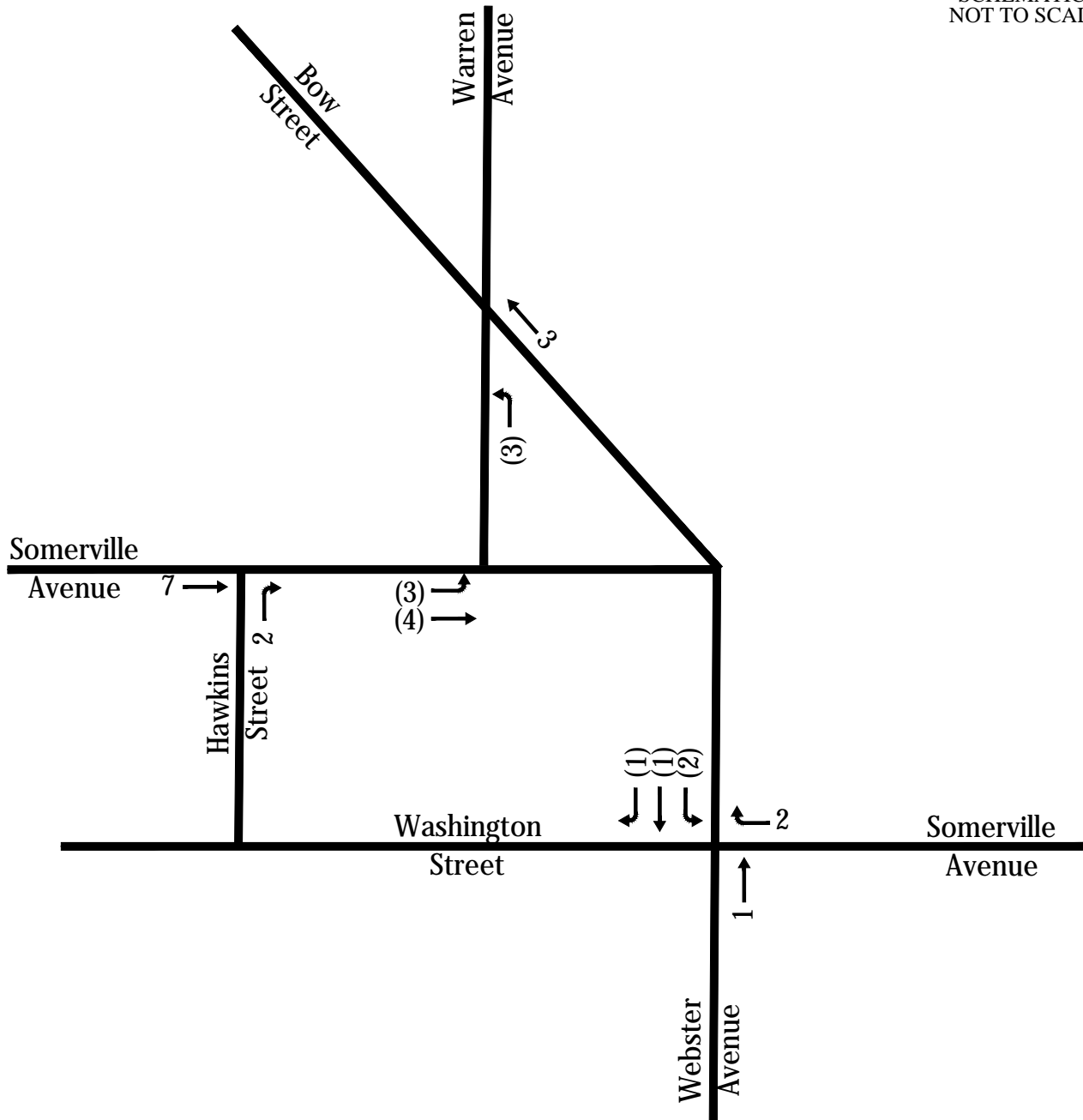


Legend
Entering Trips (Exiting Trips)

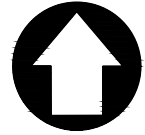
Figure 11
Weekday Afternoon Peak Hour
New Project Trips
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE



Legend
Entering Trips (Exiting Trips)



SCHEMATIC-
NOT TO SCALE

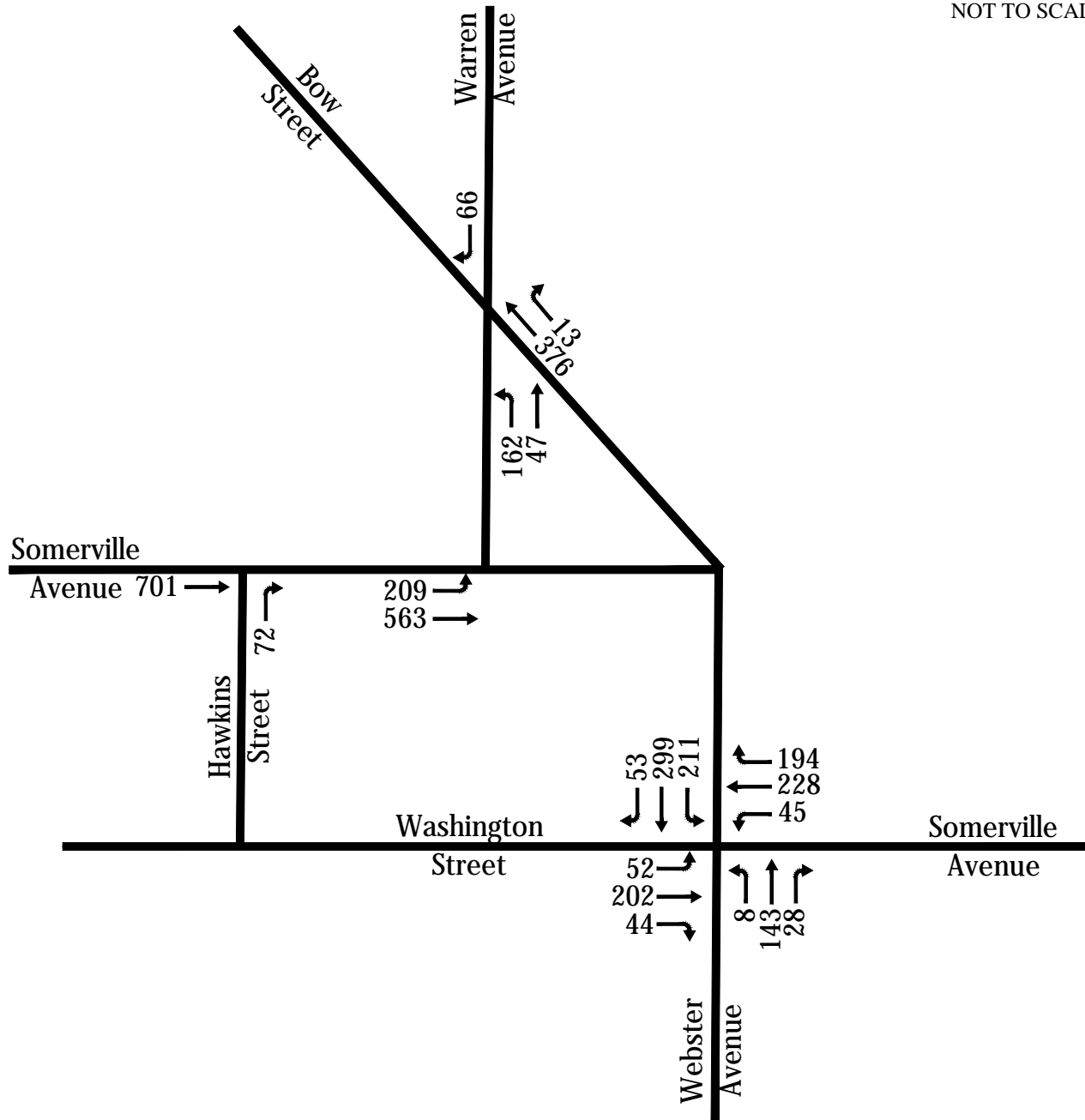
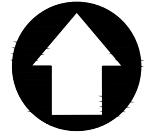


Figure 13
2022 Build Weekday Morning
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

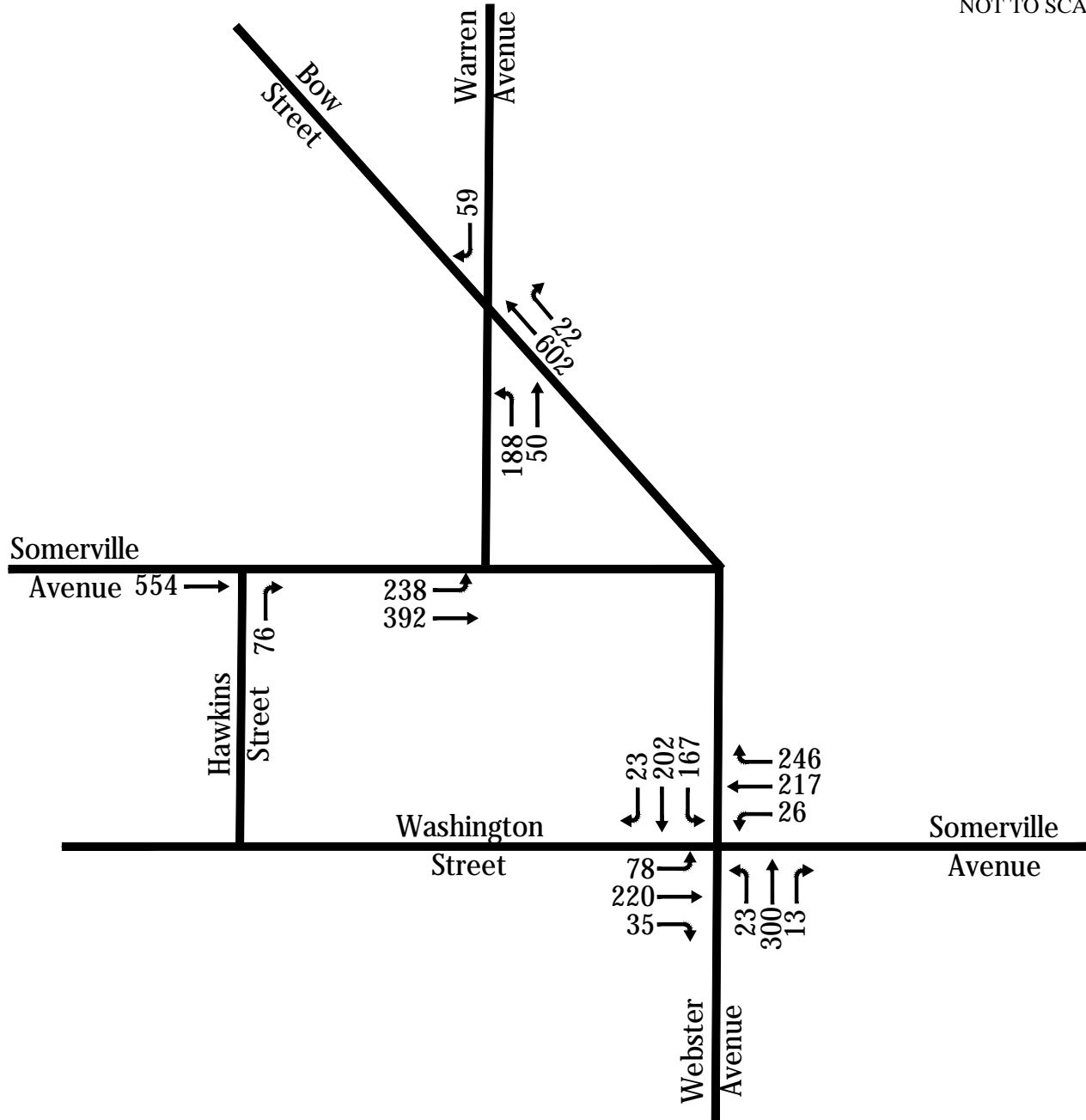
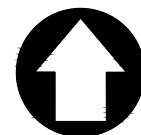
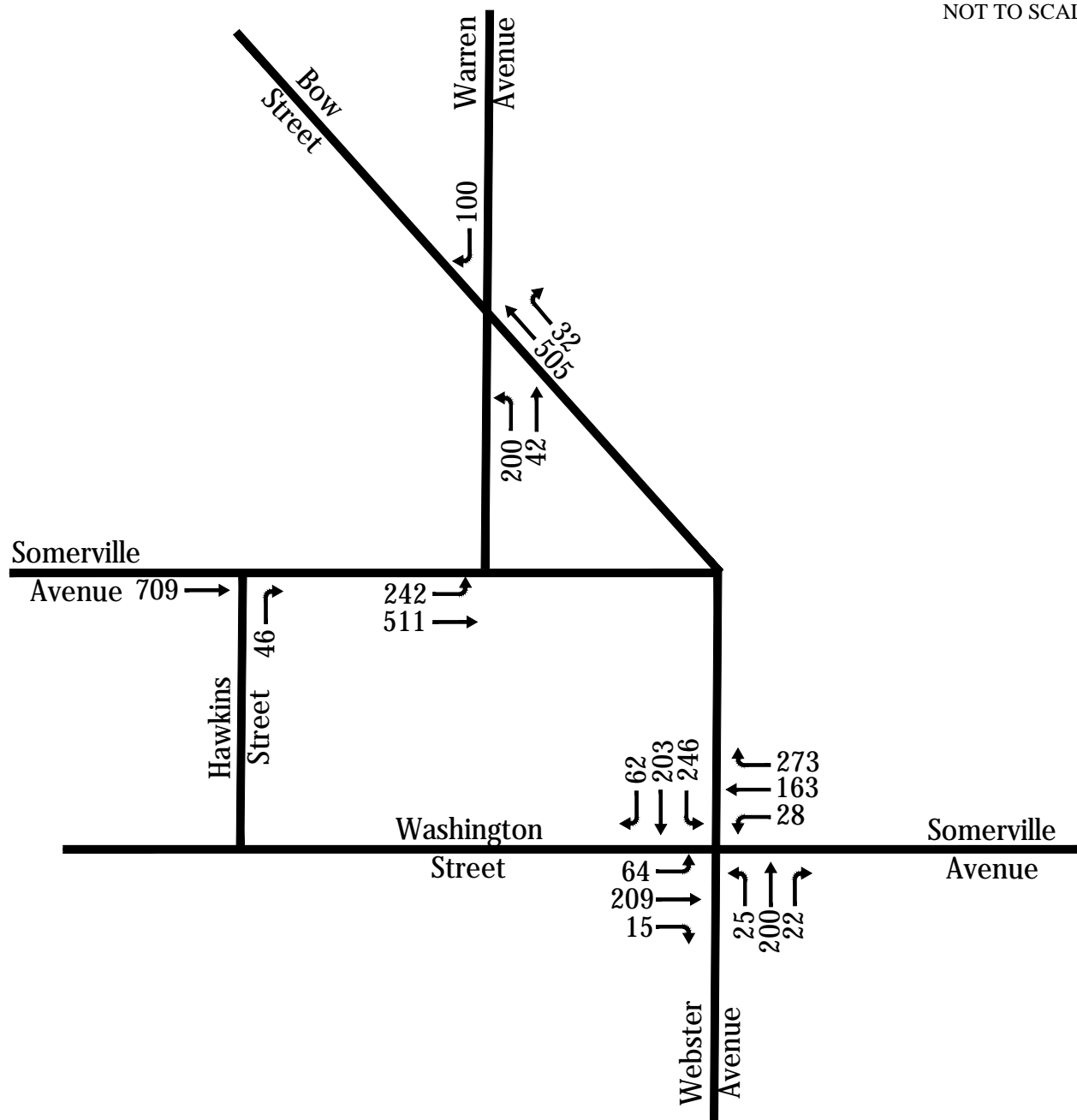


Figure 14
2022 Build Weekday Afternoon
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE



FUTURE YEAR CONDITIONS

To determine future traffic demands on the study area roadways, the 2022 Build traffic volumes were projected to the future year 2027. Traffic volumes on the roadways in 2027 are assumed to include the 2022 Build traffic volumes as well as new traffic resulting from general growth in the study area and from other planned development projects. The potential background traffic growth unrelated to the proposed project was considered in the development of the 2027 Design Year Build peak hour traffic volume networks. A more detailed description of the development of the 2027 Design Year Build traffic volume networks is presented below.

Future Roadway Improvements

Planned roadway improvement projects can affect area travel patterns and future traffic operations. Based on discussions with the City of Somerville, traffic signal phasing and timing changes were identified at the intersection of Somerville Avenue at Bow Street/Webster Avenue and Washington Street under the future condition. The changes include the addition of an exclusive pedestrian phase and yield control of the channelized right-turn lane from Somerville Avenue onto Bow Street. These proposed signal modifications were incorporated into the 2027 Design Year Build traffic analysis.

Background Traffic Growth

Traffic growth is primarily a function of changes in motor vehicle use and expected land development in the region. To predict a rate at which traffic on the roadways in the vicinity of the site can be expected to grow during the five-year forecast period (2022 to 2027), both planned area developments and historic traffic growth were examined.

Site-Specific Growth

Based on discussions with the City of Somerville, no specific planned developments were identified to be included in the projections of future growth.

Background Traffic Growth

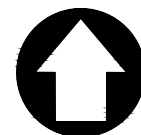
Background traffic growth accounts for changes in traffic volumes associated with general changes in population and other developments that are not known at this time. In order to establish an annual growth rate for the study area, the City of Somerville was consulted. A background growth rate of one quarter percent per year, compounded annually, was established to capture traffic growth associated with general changes in population and from other developments which may not be known at this time.

The resulting projected traffic volumes at the study area intersections are documented in the traffic projection model located in Appendix B.

2027 Design Year Build Traffic Volumes

The 2022 Existing peak hour traffic volumes were grown by one quarter percent per year (compounded annually) over the five-year study period (2022 to 2027), and the estimated vehicle trips from the proposed project were added to establish the 2027 Design Year Build weekday morning, weekday afternoon, and Saturday midday peak hour traffic volumes, which are illustrated

in Figure 16, Figure 17, and Figure 18, respectively, and are documented in the traffic projection model presented in Appendix B of this report.



SCHEMATIC-
NOT TO SCALE

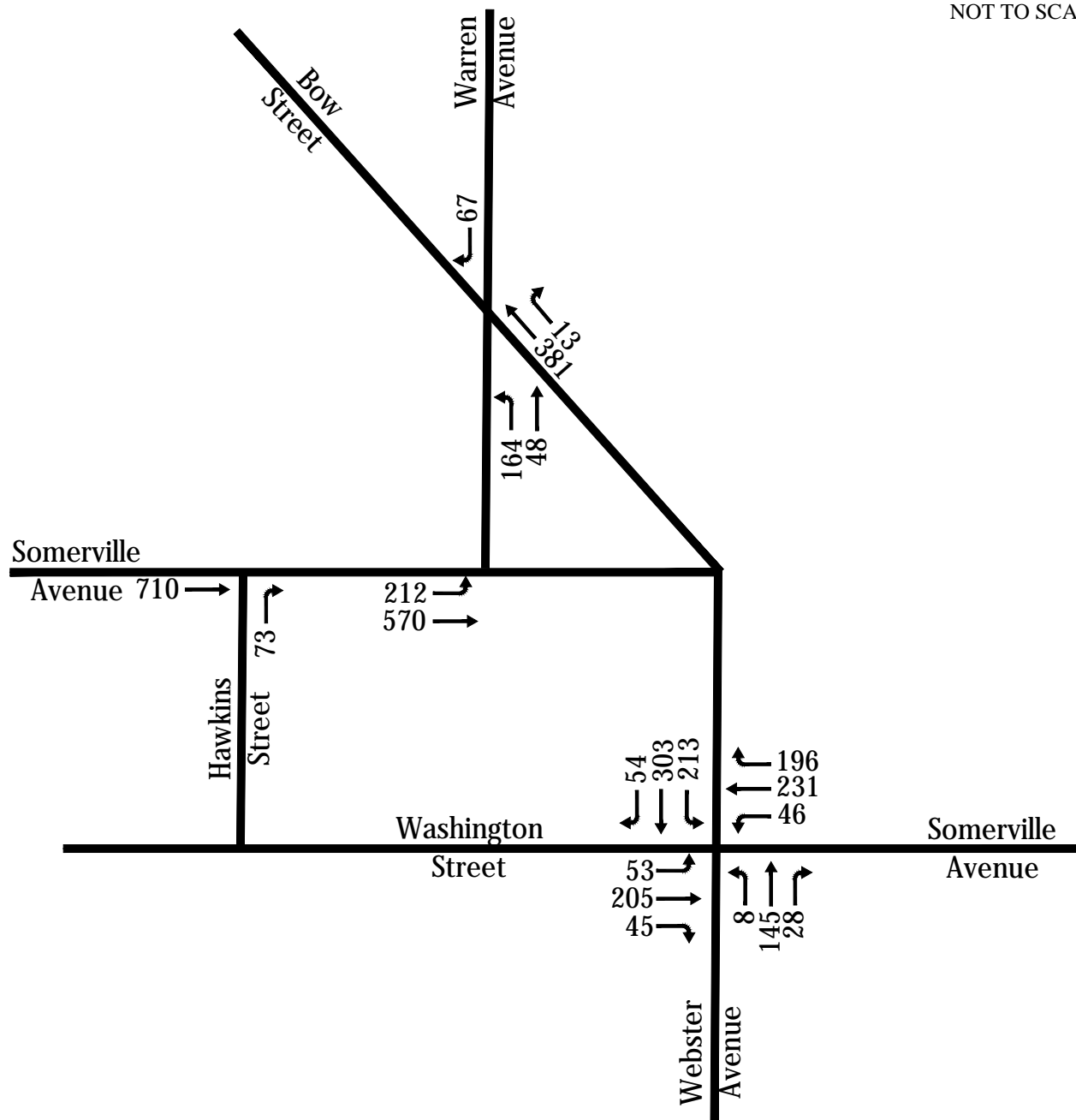
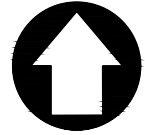


Figure 16
2027 Build Weekday Morning
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

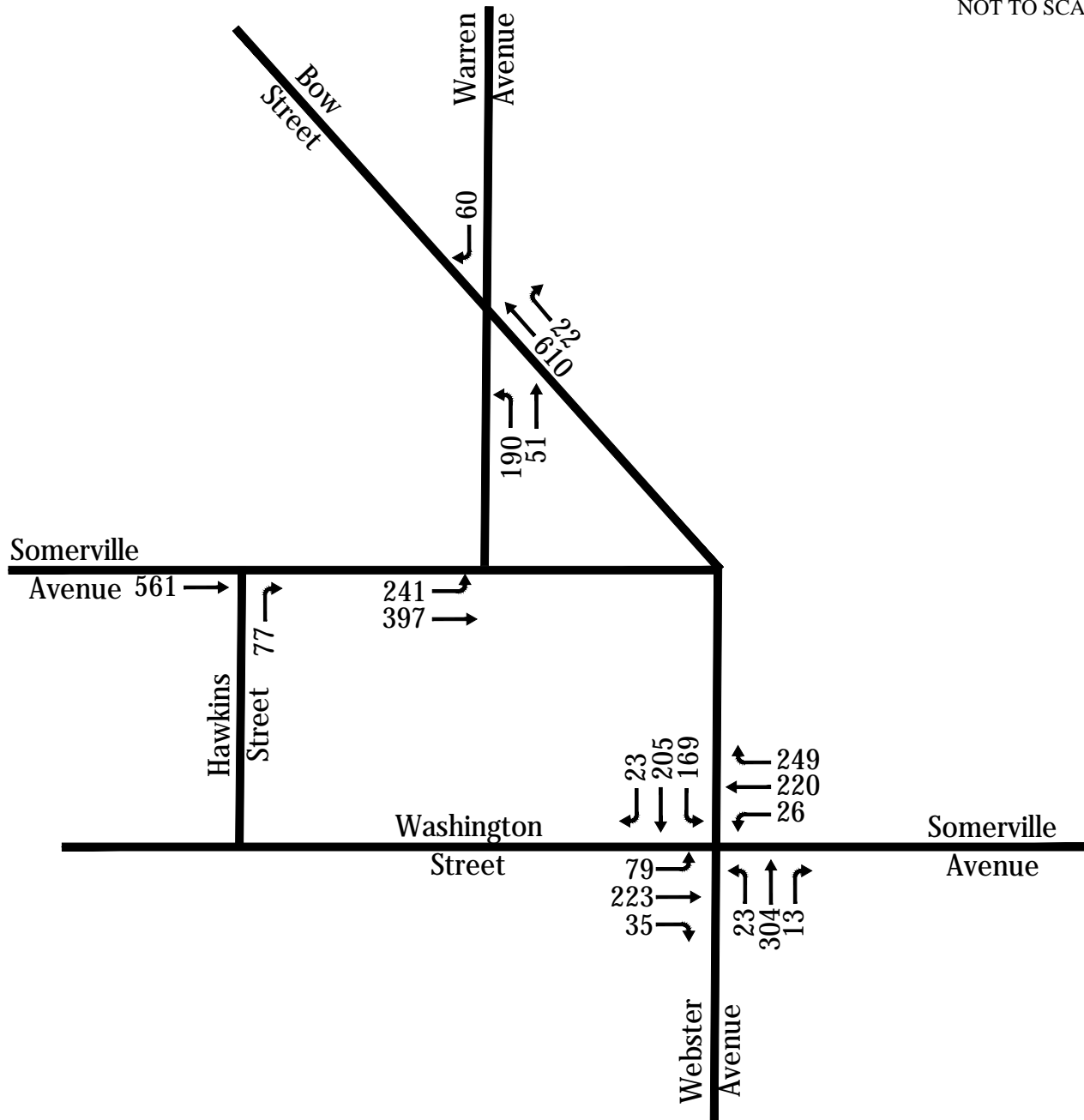


Figure 17
2027 Build Weekday Afternoon
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts



SCHEMATIC-
NOT TO SCALE

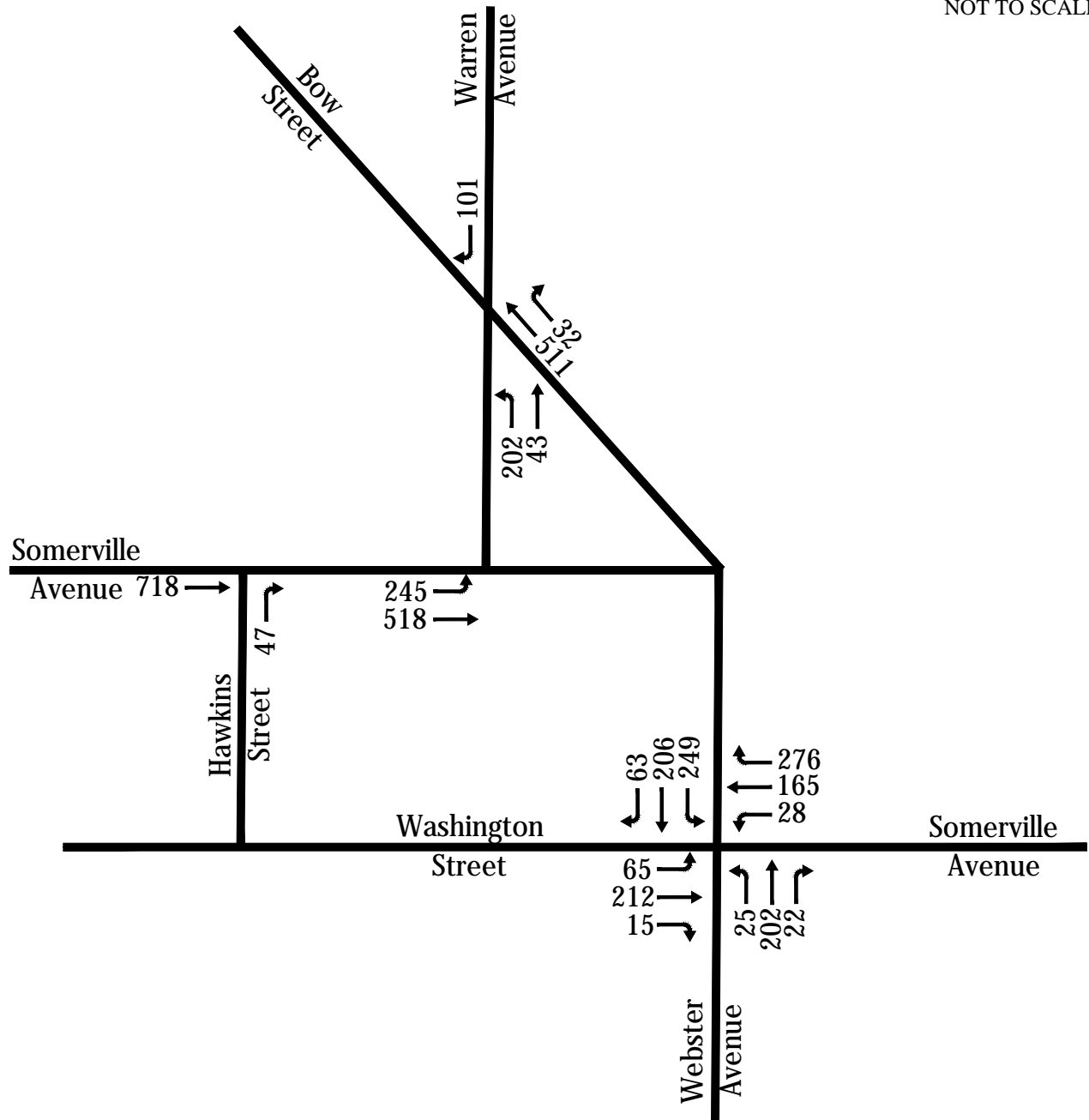


Figure 18
2027 Build Saturday Midday
Peak Hour Traffic Volumes
Liberty Cannabis
Somerville, Massachusetts

TRANSPORATION OPERATIONS ANALYSIS

In previous sections of this report, the quantity of pedestrians, vehicles, and bicycles at the study area intersections has been discussed. The following sections describe the overall quality of flow of the various modes through study area intersections during the weekday morning, weekday afternoon, and Saturday midday peak hours. The following section presents capacity analysis for vehicular operations, pedestrian level of traffic stress, bicycle level of traffic stress and an evaluation of potential impacts to public transit.

Vehicular Capacity Analysis

As a basis for this assessment, intersection capacity analysis was conducted using the Synchro capacity analysis software at the study area intersections under the 2022 Existing, 2022 Build, and 2027 Design Year Build peak hour traffic conditions. The analysis is based on Synchro capacity analysis methodologies and procedures contained in the *Highway Capacity Manual* (HCM). In accordance with City of Somerville guidelines, the capacity analysis for the unsignalized study area intersections was performed using HCM2000 methodology, rather than the current HCM6 methodology. Average total vehicle delay is reported as level-of-service (LOS) on a scale of A to F. LOS A represents delays of 10 seconds or less and LOS F represents delays in excess of 50 seconds for unsignalized intersections and greater than 80 seconds for signalized intersections.

The Synchro model used in the capacity analysis was calibrated for the northbound Warren Street approach at its intersection with Bow Street. Based on field observations and anticipated driver behaviors in urban areas such as Somerville, the critical gap which a driver would accept in order to turn onto, or cross Bow Street from Warren Street was adjusted to lower than the default value in the HCM. The adjustment to gap acceptance is intended to better reflect the typical conditions experienced on the northbound Warren Street approach. No other calibration adjustments were made within the Synchro model as the remaining study area movements were shown to generally be representative of observed operations in the field.

The detailed Synchro capacity analysis worksheet for the 2022 Existing, 2022 Build, and 2027 Design Year Build traffic conditions are presented in Appendix E, Appendix F, and Appendix G, respectively. The capacity analysis results for the study area intersections are displayed in Table 8 and Table 9 for the signalized and unsignalized/pedestrian crossing intersections, respectively. A more detailed summary of the capacity analysis for each study area intersection is provided in Appendix H. The results of the specific capacity analysis at the study area intersections are discussed below.

Table 8: Signalized Intersection Capacity Analysis

Intersection	Peak Period	2022 Existing			2022 Build			2027 Build		
		LOS ¹	Delay ²	ICU ³	LOS	Delay	ICU	LOS	Delay	ICU
Somerville Avenue at	AM	E	64.3	0.99	E	64.3	0.99	E	68.4	0.76
Bow Street/Webster Avenue	PM	E	68.6	0.98	E	68.7	0.98	E	66.5	0.79
& Washington Street	SAT	E	64.0	0.95	E	64.1	0.95	E	64.8	0.74

1 Level-of-Service

2 Average vehicle delay in seconds

3 Intersection capacity utilization

As shown in Table 8, the fully signalized intersection of Somerville Avenue at Bow Street/Webster Avenue & Washington Street is shown to currently operate at overall LOS E during the weekday morning, weekday afternoon, and Saturday midday peak hours. Under 2022 Build conditions with the proposed project in place, the intersection is shown to continue to operate at an overall LOS E during all three peak hours analyzed with negligible additional delay as a result of the proposed project. Under 2027 Design Year Build conditions, with the proposed signal updates incorporated and the additional background growth, the intersection is shown to continue to operate at an overall LOS E during the weekday morning, weekday afternoon, and Saturday midday peak hours.

A summary of traffic operations at the unsignalized intersections and pedestrian crossing intersections is provided in Table 9 below.

Table 9: Unsignalized/Pedestrian Crossing Intersections

	Peak	2022 Existing					2022 Build			2027 Build		
Intersection	Period	Movement		LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Bow Street at Warren Avenue	AM	WB	TR	A	4.1	0.30	A	4.1	0.30	A	4.1	0.30
		NB	LT	C	17.8	0.45	C	17.8	0.45	C	18.2	0.46
		SB	R	B	12.2	0.15	B	12.2	0.15	B	12.3	0.15
	PM	WB	TR	A	5.5	0.47	A	5.6	0.47	A	5.6	0.48
		NB	LT	F	62.0	0.90	F	65.9	0.92	F	72.8	0.95
		SB	R	C	16.7	0.21	C	16.8	0.21	C	17.0	0.21
	SAT	WB	TR	A	6.3	0.46	A	6.3	0.46	A	6.3	0.47
		NB	LT	F	75.6	0.92	F	79.5	0.94	F	87.2	0.97
		SB	R	C	22.1	0.36	C	22.2	0.36	C	22.6	0.37
Somerville Avenue at Warren Avenue	AM	EB	LT	A	9.7	0.40	A	9.7	0.40	A	9.7	0.40
	PM	EB	LT	A	6.2	0.29	A	6.2	0.29	A	6.2	0.30
	SAT	EB	LT	A	9.0	0.37	A	9.4	0.38	A	9.4	0.39
Somerville Avenue at Hawkins Street	AM	NB	R	B	11.9	0.16	B	11.9	0.16	B	12.0	0.16
	PM	NB	R	B	11.2	0.13	B	11.3	0.14	B	11.3	0.14
	SAT	NB	R	B	11.3	0.09	B	11.4	0.09	B	11.4	0.09

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio

At the intersection of Bow Street at Warren Avenue, the westbound Bow Street approach is shown to operate at LOS A during the peak hours analyzed. The southbound Warren Avenue approach is shown to operate at LOS B during the weekday morning peak hour and at LOS C during the weekday afternoon and Saturday peak hours. The northbound Warren Avenue approach is shown to operate at LOS C during the weekday morning peak hour and at LOS F but under capacity during the weekday afternoon and Saturday midday peak hours. With the proposed project in place, under both the 2022 Build and 2027 Design Year Build conditions, all movements at the intersection are projected to continue to operate at the same LOS as under Existing conditions, with minor increases to delay focused on the northbound Warren Avenue approach. Due to limitations of the Synchro capacity analysis software, the capacity analysis reported in Table 9 for the Warren Avenue approaches does not factor in additional gaps in the Bow Street traffic due to the pedestrian crossing signal at the intersection. Based on field observations during the weekday afternoon peak hour, the reported delays and queues summarized for the northbound Warren Avenue approach are expected to be more conservative than observed operations.

The eastbound Somerville Avenue approach at its intersection with Bow Street is shown to operate at LOS A during the weekday morning, weekday afternoon, and Saturday midday peak hours, under all conditions analyzed. The vehicle trips added to the intersection due to the proposed project are not shown to substantially impact the operations at the intersection of Somerville Avenue with Bow Street.

The stop-controlled Hawkins Street approach to Somerville Avenue is projected to operate at LOS B during all peak hours and conditions. The additional vehicle trips traveling through the intersection of Somerville Avenue and Hawkins Street are not shown to have a significant impact on the operations at the intersection.

Overall, the proposed redevelopment is not projected to have a significant impact on vehicular operations at the study area intersections.

Pedestrian Analysis

Signalized Crosswalks

As part of the evaluation of the pedestrian operations within the study area, the widths, crossing distances, Walk and Flashing Don't Walk timings, and maximum pedestrian delay for the crosswalks at the signalized intersections within the study area are presented in Table 10 below.

Table 10: Signalized Crosswalks

Intersection	Crossing	Crosswalk Width (ft)	Crosswalk Length (ft)	Cycle Length (s)	Walk (s)	Flashing	MUTCD ¹	Max. Ped. Delay (s)
						Don't Walk (s)	Flashing Don't Walk (s)	
Somerville Avenue at	Western	10	70	180	9	21	20	167
Bow Street/Webster Avenue	Eastern	10	60	180	9	19	18	167
& Washington Street	Channelized Lane	10	22	180	9	19	7	167
	Southern	10	34	180	9	22	10	167
	Northern	10	72	180	9	22	21	167
Bow Street at Warren Avenue	Eastern	9	26	45	10	5	8	31
Somerville Avenue at Warren Avenue	Eastern	12	32	80	9	22	10	67
	Western	10	38	80	9	22	11	67

* Signal timings including Walk, Flashing Don't Walk, and cycle length are based on field observations

1 MUTCD Flashing Don't Walk based on a walking speed of 3.5 feet per second

Based on the existing crosswalk lengths and the field measured Walk and Flashing Don't Walk timings, each of the signalized crosswalks within the study area, with the exception of Somerville Avenue at Warren Avenue, are shown to meet the minimum clearance interval requirements for a walking speed of 3.5 feet per second. Future changes to the intersection of Somerville Avenue at Bow Street/Webster Avenue and Washington Street would include changes to the pedestrian phasing but are not specifically known at this time.

Pedestrian Level of Traffic Stress

Pedestrian Level of Traffic Stress (PLTS) is a measurement that analyzes segments of sidewalk based on the overall level of comfort that it provides pedestrians. PLTS is based on sidewalk widths and conditions, and the separation provided from vehicle traffic, and assigns a score from PLTS1 to PLTS4. PLTS1 represents high-quality, accessible conditions which are comfortable to walk on and provide separation from vehicles. PLTS4 represents conditions which do not provide separated infrastructure for pedestrians or are inaccessible due to the condition, width, or some other characteristic of the sidewalks. The PLTS for the nearby roadway segments serving the project site, including on the routes to critical transit stops, are presented in Figure 19.

As shown in Figure 19, the sidewalks in the surrounding area all are shown to provide PLTS2 conditions or better. This suggests that the site will be accessible by foot, as well as by transit. The proposed project would not change pedestrian access to the site, and the impact of the estimated increase in pedestrian activity associated with the project is expected to be negligible.

Bicycle Analysis

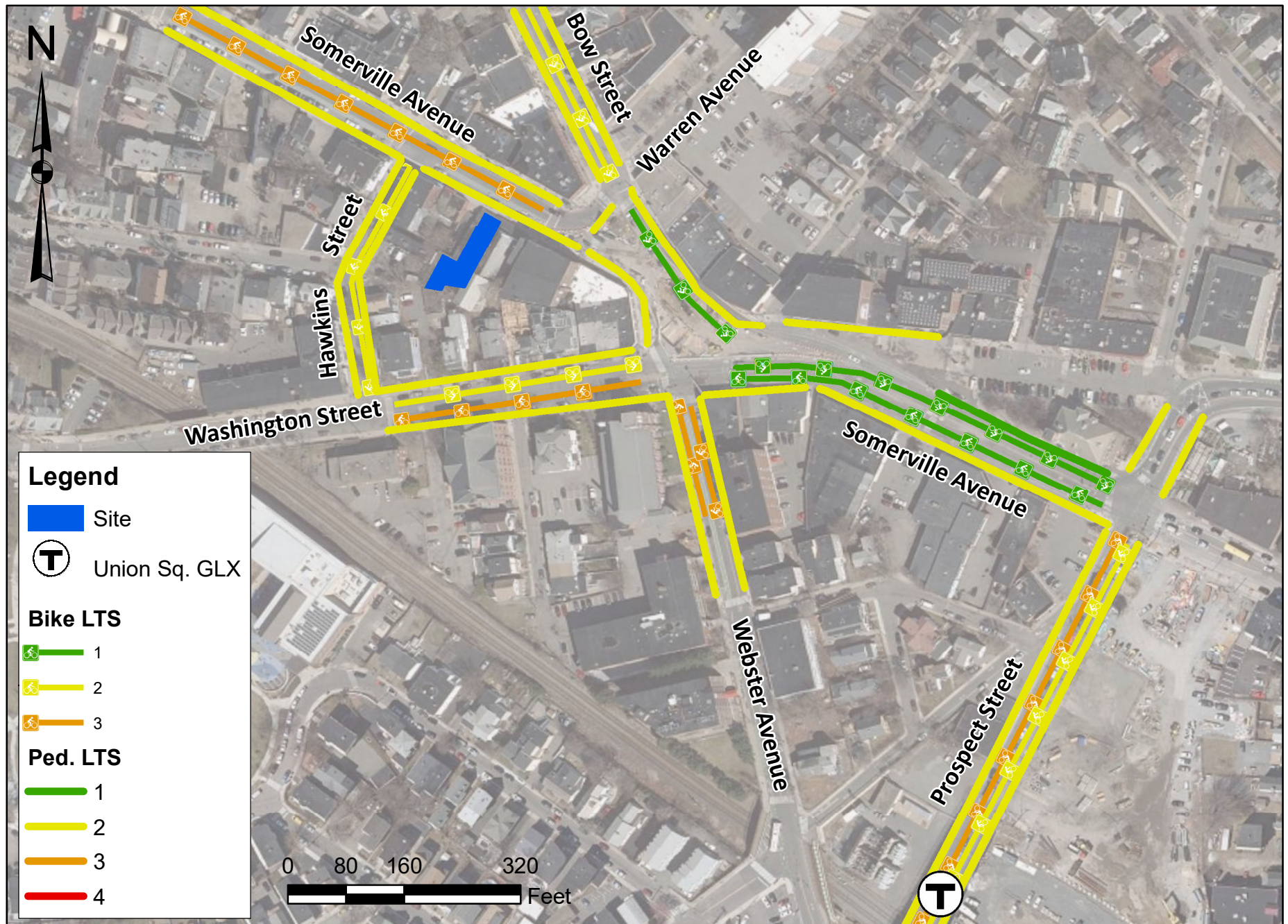
Bicycle Level of Traffic Stress

Similar to Pedestrian Level of Traffic Stress, Bicycle Level of Traffic Stress (BLTS) is a measurement that summarizes and groups the quality of different types of bicycle infrastructure based on the overall experience of cyclists who use it. BLTS combines inputs such as the type and width of bicycle infrastructure and the nature of vehicle traffic on a given roadway segment and assigns that segment a score from BLTS1 to BLTS4. BLTS1 represents conditions that are comfortable for a wide variety of cyclists including children and senior citizens, and BLTS4 represents conditions that are only comfortable for a small segment of experienced, confident cyclists. The BLTS for the nearby roadway segments serving the project site are presented in Figure 19.

As shown, the roadways surrounding the site vary from BLTS1 to BLTS3, with Somerville Avenue in front of the site shown to provide BLTS3 conditions. The impact of the estimated increase in bicycle volumes associated with the project is expected to be negligible.

Transit Analysis

As discussed in previous sections of this report, the proposed project is not anticipated to generate a large number of transit trips. During the weekday morning peak hour, the proposed redevelopment is estimated to generate zero new transit trips. During the weekday afternoon peak hour, 12 trips (six entering trips and six exiting trips) are estimated to arrive and depart using public transit. During the Saturday midday peak hour, a total of 13 trips (seven entering trips and six exiting trips) are estimated to arrive and depart using public transit. These trips equate to approximately one new transit trip every five minutes, which is expected to have a negligible impact on the overall transit operations within and around the study area.



Site Access and Circulation

The site is currently be accessed by vehicles via one driveway on Somerville Avenue. The majority of trips traveling to and from the site do so by foot utilizing the primary access through doors on Somerville Avenue. The proposed project would not alter the existing access and egress points, and access would continue to be provided via the existing driveway and doors on Somerville Avenue. The driveway would continue to be used for limited parking and for the loading and unloading of deliveries as outlined in the Transportation Access Plan (TAP) submitted as part of the project.

Sight Distance

A field review of sight distance was conducted at the location of the existing site driveway on Somerville Avenue. The American Association of State Highway and Transportation Officials (AASHTO) publication, *A Policy on Geometric Design, 2018 Edition*, defines minimum and recommended sight distances at intersections. The minimum sight distance is based on the required stopping sight distance (SSD) for vehicles traveling along the main road. The recommended sight distance allows vehicles to enter the main street traffic flow without requiring the mainline traffic to slow to less than 70% of their speed and is referred to as intersection sight distance (ISD). According to AASHTO, "If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient time to anticipate and avoid collisions." The available sight distance at the project site driveway is shown in Table 11.

Table 11: Sight Distance Requirements

Site Driveway		Speed	85th %	SSD ¹	ISD ²		Meets
Location	Looking	Limit	Speed	Required	Recommended	Sight Distance	Required
		(mph)	(mph)	(ft)	(ft)	Measured (ft)	SSD/ISD?
Somerville Avenue	Left (West)	25	24	155	240	490	Yes

1 Stopping sight distance (see AASHTO equations 3-2 and 3-3) for the Citywide speed limit of 25 mph.

2 Intersection sight distance (see AASHTO equations 9-1 and 9-2) for the Citywide speed limit of 25 mph.

Based on the field review, the available sight distance at the existing site driveway is shown to exceed the required and recommended AASHTO sight distances for the speed limit of 25 mph and the 85th percentile speed on the roadway. The sight lines provided by the project site driveway are shown to allow for safe and efficient access to and from the site.

PROJECT MITIGATION

As outlined in this report, the proposed project is not shown to have a significant impact to the transportation operations of the surrounding roadways and intersections. Additionally, changes to the intersection of Somerville Avenue at Bow Street/Webster Avenue and Washington Street including revised traffic signal timing and phasing are proposed to be implemented in the near future. Therefore, no transportation specific mitigation has been proposed as part of this project. The Transportation Demand Management section outlines the commitments of the project to help reduce the use of single occupancy vehicles traveling to and from the project site.

TRANSPORTATION DEMAND MANAGEMENT

As part of the proposed project, Liberty Cannabis will implement a Transportation Demand Management (TDM) program to encourage the use of alternative modes of transportation and reduce single occupancy vehicles trips to the site. This TDM program would include elements such as those listed below:

- Establish TDM Coordinator – Liberty Cannabis would establish a TDM coordinator to oversee site-related transportation demand management and to provide a commuter information center within the building to assist employees, including posting bus schedules for the routes serving the Union Square area in a central employee area.
- Truck Deliveries – Truck deliveries and service vehicles will serve the site during the off-peak hours whenever possible to minimize the impacts to traffic operations on the surrounding roadways and intersections. The on-site parking area will continue to be utilized for all deliveries, minimizing the impacts of vehicle loading and unloading.
- Public Transit – Bus schedules for the nearby MBTA bus routes will be provided in a central employee area.
- Bicycle Storage – In addition to the existing bicycle racks within Union Square, racks providing parking for a total of four bicycles are proposed to be constructed on site. One rack will be located directly adjacent to the main entrance to the building and is intended to provide parking for two customer's bicycles. An additional rack with capacity for two bicycles will be provided for employee within the parking area located behind the fence.
- Local Hiring – To minimize the total commuting distance of employees and reduce barriers to alternative transportation modes, as many of the new employees hired to provide the expanded use at the site will be located in Somerville or surrounding communities as possible.
- Appointment Purchases – The appointment-only nature of the proposed dispensary will limit total travel to and from the site.

CONCLUSIONS

The proposed project includes the conversion of the existing medical-only Liberty Cannabis dispensary located at 304 Somerville Avenue in Union Square, Somerville, into an adult retail sales dispensary. The proposed project would maintain the existing building footprint and current appointment-only operations and add five additional points of sale. The existing access points to the site would not be changed.

Based on the analysis presented in this transportation impact study, the proposed project is estimated to generate approximately one new vehicle trip (one entering trip and no exiting trips) during the weekday morning peak hour, approximately 16 new vehicle trips (eight entering vehicles and eight exiting vehicles) during the weekday afternoon peak hour, and approximately 16 new trips (nine entering vehicles and seven exiting vehicles) during the Saturday midday peak hour.

The capacity analysis indicates that the proposed mixed-use development is projected to have a negligible impact on the operations of the study area intersections. At the signalized intersection of Somerville Avenue at Bow Street/Webster Avenue and Washington Street, overall intersection operations are shown to be maintained at overall LOS E for all peak hours analyzed under 2022 Existing, 2022 Build and 2027 Design Year Build conditions. The key movements at all other study area intersections are projected to continue operating at the same LOS as under 2022 Existing conditions for the 2022 Build and 2027 Design Year Build conditions for all peak hours analyzed.

The site is well served by the existing pedestrian, bicycle, and public transit infrastructure of Union Square. The small number of trips anticipated to travel via each of these modes are anticipated to have a negligible impact on the transportation network within the study area.

The available sight distance at the existing site driveway would not be impacted as part of the proposed redevelopment. The sight lines at the existing site driveway meets the required sight distances for both the speed limit and 85th percentile speed on Somerville Avenue allowing for safe and efficient access to and from the site.

Based on a review of the analysis contained within this transportation impact study, the proposed site redevelopment is not shown to have a significant impact on the overall transportation operations of the study area intersections and roadways.

Appendix for Transportation Impact Study

Liberty Cannabis

304 Somerville Avenue
Somerville, MA

Prepared by
McMahon Associates, Inc.
120 Water Street, 4th Floor
Boston, MA 02109
617.556.0020

Prepared for
Holistic Industries, Inc.

March 2022

APPENDIX A

Traffic Count Data

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 1

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

Start Time	From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	
06:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	40	0	0	41
06:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	42	0	1	45
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	2	49
06:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	69	0	0	71
Total	0	0	0	0	0	0	0	5	0	0	0	0	0	198	0	3	206
07:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	81	0	2	87
07:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	121	0	3	128
07:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	137	0	4	145
07:45 AM	0	0	0	0	0	0	0	10	0	0	0	0	0	178	0	7	195
Total	0	0	0	0	0	0	0	22	0	0	0	0	0	517	0	16	555
08:00 AM	0	0	0	0	0	0	0	7	0	0	0	1	0	194	0	4	206
08:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	195	0	4	204
08:30 AM	0	0	0	0	0	1	0	7	0	0	0	0	0	176	0	3	187
08:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	153	0	5	160
Total	0	0	0	0	0	1	0	21	0	0	0	1	0	718	0	16	757
09:00 AM	0	0	0	0	0	0	0	3	0	0	0	1	0	143	0	5	152
09:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	150	0	4	158
09:30 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	139	0	3	147
09:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	125	0	2	130
Total	0	0	0	0	0	0	0	15	0	0	0	1	0	557	0	14	587
10:00 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	125	0	4	132
10:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	130	0	3	136
10:30 AM	0	0	0	0	0	0	0	2	0	3	0	4	0	108	0	3	120
10:45 AM	0	0	0	0	0	0	0	5	0	2	0	0	0	141	0	7	155
Total	0	0	0	0	0	0	0	12	0	5	0	5	0	504	0	17	543
11:00 AM	0	0	0	0	0	0	0	8	0	1	0	1	0	147	0	5	162
11:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	133	0	4	140
11:30 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	134	0	3	142
11:45 AM	0	0	0	0	0	0	0	3	0	3	0	5	0	163	0	6	180
Total	0	0	0	0	0	0	0	18	0	4	0	7	0	577	0	18	624
12:00 PM	0	0	0	0	0	0	0	8	0	2	0	2	0	151	0	2	165
12:15 PM	0	0	0	0	0	0	0	6	0	0	0	1	0	156	0	6	169
12:30 PM	0	0	0	0	0	0	0	5	0	2	0	1	0	154	0	11	173
12:45 PM	0	0	0	0	0	0	0	6	0	1	0	1	0	166	0	3	177
Total	0	0	0	0	0	0	0	25	0	5	0	5	0	627	0	22	684
01:00 PM	0	0	0	0	0	0	0	4	0	1	0	1	0	141	0	5	152
01:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	157	0	7	168
01:30 PM	0	0	0	0	0	0	0	4	0	1	0	2	0	130	0	4	141
01:45 PM	0	0	0	0	0	0	0	8	0	4	0	2	0	153	0	8	175
Total	0	0	0	0	0	0	0	20	0	6	0	5	0	581	0	24	636
02:00 PM	0	0	0	0	0	0	0	6	0	3	0	2	0	160	0	11	182
02:15 PM	0	0	0	0	0	0	0	8	0	1	0	1	0	174	0	5	189
02:30 PM	0	0	0	0	0	0	0	4	0	2	0	2	0	170	0	10	188
02:45 PM	0	0	0	0	0	0	0	15	0	1	0	1	0	184	0	3	204
Total	0	0	0	0	0	0	0	33	0	7	0	6	0	688	0	29	763

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 2

Groups Printed- Cars & Peds - Trucks & Buses - Bikes by Direction

	From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
03:00 PM	0	0	0	0	0	0	0	13	0	2	0	3	0	166	0	8	192
03:15 PM	0	0	0	0	0	0	0	7	0	3	0	3	0	160	0	5	178
03:30 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	170	0	7	186
03:45 PM	0	0	0	0	0	1	0	12	0	1	0	0	0	170	0	8	192
Total	0	0	0	0	0	1	0	41	0	6	0	6	0	666	0	28	748
04:00 PM	0	0	0	0	0	0	0	11	0	2	0	3	0	161	0	12	189
04:15 PM	0	0	0	0	0	0	0	12	0	1	0	1	0	180	0	9	203
04:30 PM	0	0	0	0	0	0	0	8	0	1	0	2	0	147	0	7	165
04:45 PM	0	0	0	0	0	0	0	6	0	1	0	1	0	172	0	8	188
Total	0	0	0	0	0	0	0	37	0	5	0	7	0	660	0	36	745
05:00 PM	0	0	0	0	0	0	0	7	0	3	0	2	0	182	0	4	198
05:15 PM	0	0	0	0	0	2	0	11	0	4	0	3	0	190	0	7	217
05:30 PM	0	0	0	0	0	0	0	12	0	6	0	3	0	192	0	10	223
05:45 PM	0	0	0	0	0	0	0	8	0	1	0	1	0	201	0	6	217
Total	0	0	0	0	0	2	0	38	0	14	0	9	0	765	0	27	855
06:00 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	165	0	8	181
06:15 PM	0	0	0	0	0	0	0	4	0	1	0	1	0	155	0	10	171
06:30 PM	0	0	0	0	0	0	0	3	0	2	0	2	0	131	0	10	148
06:45 PM	0	0	0	0	0	0	0	7	0	2	0	3	0	164	0	9	185
Total	0	0	0	0	0	0	0	22	0	5	0	6	0	615	0	37	685
07:00 PM	0	0	0	0	0	0	0	8	0	1	0	6	0	167	0	6	188
07:15 PM	0	0	0	0	0	0	0	13	0	3	0	0	0	134	0	5	155
07:30 PM	0	0	0	0	0	0	0	12	0	1	0	1	0	115	0	9	138
07:45 PM	0	0	0	0	0	0	0	5	0	3	0	2	0	80	0	6	96
Total	0	0	0	0	0	0	0	38	0	8	0	9	0	496	0	26	577
Grand Total	0	0	0	0	0	4	0	347	0	65	0	67	0	8169	0	313	8965
Apprch %	0	0	0	0	0	1.1	0	98.9	0	49.2	0	50.8	0	96.3	0	3.7	
Total %	0	0	0	0	0	0	0	3.9	0	0.7	0	0.7	0	91.1	0	3.5	
Cars & Peds	0	0	0	0	0	0	0	347	0	65	0	67	0	7732	0	313	8524
% Cars & Peds	0	0	0	0	0	0	0	100	0	100	0	100	0	94.7	0	100	95.1
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	205	0	0	205
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0	0	2.3
Bikes by Direction	0	0	0	0	0	4	0	0	0	0	0	0	0	232	0	0	236
% Bikes by Direction	0	0	0	0	0	100	0	0	0	0	0	0	0	2.8	0	0	2.6

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total

Peak Hour Analysis From 06:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

07:45 AM	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	178	0	7	185	195
08:00 AM	0	0	0	0	0	0	0	0	7	7	0	0	0	1	1	0	194	0	4	198	206
08:15 AM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	195	0	4	199	204
08:30 AM	0	0	0	0	0	0	1	0	7	8	0	0	0	0	0	0	176	0	3	179	187
Total Volume	0	0	0	0	0	0	1	0	29	30	0	0	0	1	1	0	743	0	18	761	792
% App. Total	0	0	0	0	0	0	3.3	0	96.7		0	0	0	100		0	97.6	0	2.4		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.725	.750	.000	.000	.000	.250	.250	.000	.953	.000	.643	.956	.961
Cars & Peds	0	0	0	0	0	0	0	0	29	29	0	0	0	1	1	0	687	0	18	705	735
% Cars & Peds																					
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	18
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0	0	2.4	2.3
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	38	0	0	38	39
% Bikes by Direction	0	0	0	0	0	0	100	0	0	3.3	0	0	0	0	0	0	5.1	0	0	5.0	4.9

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

Peak Hour Analysis From 01:00 PM to 07:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	0	0	0	0	0	0	0	0	7	7	0	3	0	2	5	0	182	0	4	186	198
05:15 PM	0	0	0	0	0	0	2	0	11	13	0	4	0	3	7	0	190	0	7	197	217
05:30 PM	0	0	0	0	0	0	0	0	12	12	0	6	0	3	9	0	192	0	10	202	223
05:45 PM	0	0	0	0	0	0	0	0	8	8	0	1	0	1	2	0	201	0	6	207	217
Total Volume	0	0	0	0	0	0	2	0	38	40	0	14	0	9	23	0	765	0	27	792	855
% App. Total	0	0	0	0	0	0	5	0	95		0	60.9	0	39.1		0	96.6	0	3.4		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.792	.769	.000	.583	.000	.750	.639	.000	.951	.000	.675	.957	.959
Cars & Peds	0	0	0	0	0	0	0	0	38	38	0	14	0	9	23	0	735	0	27	762	823
% Cars & Peds																					
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	12
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0	1.5	1.4
Bikes by Direction	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	18	0	0	18	20
% Bikes by Direction	0	0	0	0	0	0	100	0	0	5.0	0	0	0	0	0	0	2.4	0	0	2.3	2.3

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 1

Groups Printed- Cars & Peds																	
	From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
06:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	39	0	0	40
06:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	37	0	1	40
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	2	45
06:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	64	0	0	66
Total	0	0	0	0	0	0	0	5	0	0	0	0	0	183	0	3	191
07:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	75	0	2	81
07:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	108	0	3	115
07:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	131	0	4	139
07:45 AM	0	0	0	0	0	0	0	10	0	0	0	0	0	164	0	7	181
Total	0	0	0	0	0	0	0	22	0	0	0	0	0	478	0	16	516
08:00 AM	0	0	0	0	0	0	0	7	0	0	0	1	0	181	0	4	193
08:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	181	0	4	190
08:30 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	161	0	3	171
08:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	141	0	5	148
Total	0	0	0	0	0	0	0	21	0	0	0	1	0	664	0	16	702
09:00 AM	0	0	0	0	0	0	0	3	0	0	0	1	0	131	0	5	140
09:15 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	134	0	4	142
09:30 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	129	0	3	137
09:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	118	0	2	123
Total	0	0	0	0	0	0	0	15	0	0	0	1	0	512	0	14	542
10:00 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	114	0	4	121
10:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	118	0	3	124
10:30 AM	0	0	0	0	0	0	0	2	0	3	0	4	0	103	0	3	115
10:45 AM	0	0	0	0	0	0	0	5	0	2	0	0	0	128	0	7	142
Total	0	0	0	0	0	0	0	12	0	5	0	5	0	463	0	17	502
11:00 AM	0	0	0	0	0	0	0	8	0	1	0	1	0	136	0	5	151
11:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	129	0	4	136
11:30 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	126	0	3	134
11:45 AM	0	0	0	0	0	0	0	3	0	3	0	5	0	157	0	6	174
Total	0	0	0	0	0	0	0	18	0	4	0	7	0	548	0	18	595
12:00 PM	0	0	0	0	0	0	0	8	0	2	0	2	0	138	0	2	152
12:15 PM	0	0	0	0	0	0	0	6	0	0	0	1	0	149	0	6	162
12:30 PM	0	0	0	0	0	0	0	5	0	2	0	1	0	149	0	11	168
12:45 PM	0	0	0	0	0	0	0	6	0	1	0	1	0	158	0	3	169
Total	0	0	0	0	0	0	0	25	0	5	0	5	0	594	0	22	651
01:00 PM	0	0	0	0	0	0	0	4	0	1	0	1	0	134	0	5	145
01:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	152	0	7	163
01:30 PM	0	0	0	0	0	0	0	4	0	1	0	2	0	121	0	4	132
01:45 PM	0	0	0	0	0	0	0	8	0	4	0	2	0	149	0	8	171
Total	0	0	0	0	0	0	0	20	0	6	0	5	0	556	0	24	611
02:00 PM	0	0	0	0	0	0	0	6	0	3	0	2	0	152	0	11	174
02:15 PM	0	0	0	0	0	0	0	8	0	1	0	1	0	167	0	5	182
02:30 PM	0	0	0	0	0	0	0	4	0	2	0	2	0	160	0	10	178
02:45 PM	0	0	0	0	0	0	0	15	0	1	0	1	0	173	0	3	193
Total	0	0	0	0	0	0	0	33	0	7	0	6	0	652	0	29	727

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 2

Groups Printed- Cars & Peds

	Somerville Avenue From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
03:00 PM	0	0	0	0	0	0	0	13	0	2	0	3	0	161	0	8	187
03:15 PM	0	0	0	0	0	0	0	7	0	3	0	3	0	155	0	5	173
03:30 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	161	0	7	177
03:45 PM	0	0	0	0	0	0	0	12	0	1	0	0	0	159	0	8	180
Total	0	0	0	0	0	0	0	41	0	6	0	6	0	636	0	28	717
04:00 PM	0	0	0	0	0	0	0	11	0	2	0	3	0	157	0	12	185
04:15 PM	0	0	0	0	0	0	0	12	0	1	0	1	0	173	0	9	196
04:30 PM	0	0	0	0	0	0	0	8	0	1	0	2	0	142	0	7	160
04:45 PM	0	0	0	0	0	0	0	6	0	1	0	1	0	165	0	8	181
Total	0	0	0	0	0	0	0	37	0	5	0	7	0	637	0	36	722
05:00 PM	0	0	0	0	0	0	0	7	0	3	0	2	0	176	0	4	192
05:15 PM	0	0	0	0	0	0	0	11	0	4	0	3	0	184	0	7	209
05:30 PM	0	0	0	0	0	0	0	12	0	6	0	3	0	184	0	10	215
05:45 PM	0	0	0	0	0	0	0	8	0	1	0	1	0	191	0	6	207
Total	0	0	0	0	0	0	0	38	0	14	0	9	0	735	0	27	823
06:00 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	159	0	8	175
06:15 PM	0	0	0	0	0	0	0	4	0	1	0	1	0	151	0	10	167
06:30 PM	0	0	0	0	0	0	0	3	0	2	0	2	0	123	0	10	140
06:45 PM	0	0	0	0	0	0	0	7	0	2	0	3	0	158	0	9	179
Total	0	0	0	0	0	0	0	22	0	5	0	6	0	591	0	37	661
07:00 PM	0	0	0	0	0	0	0	8	0	1	0	6	0	163	0	6	184
07:15 PM	0	0	0	0	0	0	0	13	0	3	0	0	0	129	0	5	150
07:30 PM	0	0	0	0	0	0	0	12	0	1	0	1	0	114	0	9	137
07:45 PM	0	0	0	0	0	0	0	5	0	3	0	2	0	77	0	6	93
Total	0	0	0	0	0	0	0	38	0	8	0	9	0	483	0	26	564
Grand Total	0	0	0	0	0	0	0	347	0	65	0	67	0	7732	0	313	8524
Apprch %	0	0	0	0	0	0	0	100	0	49.2	0	50.8	0	96.1	0	3.9	
Total %	0	0	0	0	0	0	0	4.1	0	0.8	0	0.8	0	90.7	0	3.7	

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	164	0	7	171	181
08:00 AM	0	0	0	0	0	0	0	0	7	7	0	0	0	1	1	0	181	0	4	185	193
08:15 AM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	181	0	4	185	190
08:30 AM	0	0	0	0	0	0	0	0	7	7	0	0	0	0	0	0	161	0	3	164	171
Total Volume	0	0	0	0	0	0	0	0	29	29	0	0	0	1	1	0	687	0	18	705	735
% App. Total	0	0	0	0	0	0	0	0	100		0	0	0	100		0	97.4	0	2.6		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.725	.725	.000	.000	.000	.250	.250	.000	.949	.000	.643	.953	.952

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 3

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	7	7	0	3	0	2	5	0	176	0	4	180	192
05:15 PM	0	0	0	0	0	0	0	0	11	11	0	4	0	3	7	0	184	0	7	191	209
05:30 PM	0	0	0	0	0	0	0	0	12	12	0	6	0	3	9	0	184	0	10	194	215
05:45 PM	0	0	0	0	0	0	0	0	8	8	0	1	0	1	2	0	191	0	6	197	207
Total Volume	0	0	0	0	0	0	0	0	38	38	0	14	0	9	23	0	735	0	27	762	823
% App. Total	0	0	0	0		0	0	0	100		0	60.9	0	39.1		0	96.5	0	3.5		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.792	.792	.000	.583	.000	.750	.639	.000	.962	.000	.675	.967	.957

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 1

Groups Printed- Trucks & Buses																	
	From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 2

Groups Printed- Trucks & Buses

	Somerville Avenue From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	205	0	0	205
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 10:15 AM																					
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	7
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	9
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	7
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	25	25
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.694	.000	.000	.694	.694

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 3

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 02:00 PM																					
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	6
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	8
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	24	24
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.750

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 1

Groups Printed- Bikes by Direction

Start Time	From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	
06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	22
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	10	0	0	11
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	40	0	0	41
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	25
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 2

Groups Printed- Bikes by Direction

	Somerville Avenue From North				Somerville Avenue From East				#304 Liberty Cannabis Site From South				Somerville Avenue From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Ped WB SSW		Exit		Enter	Right	Thru	Left	Ped EB SSW	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
03:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0	8
Total	0	0	0	0	0	1	0	0	0	0	0	0	0	19	0	0	20
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
05:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Total	0	0	0	0	0	2	0	0	0	0	0	0	0	18	0	0	20
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16
07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8
Grand Total	0	0	0	0	0	4	0	0	0	0	0	0	0	232	0	0	236
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	
Total %	0	0	0	0	0	1.7	0	0	0	0	0	0	0	98.3	0	0	

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	10
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	10	0	0	10	11
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	10
Total Volume	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	40	0	0	40	41
% App. Total	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	1.00	.000	.000	1.00	.932

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 3

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	6
Total Volume	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	19	0	0	19	21
% App. Total	0	0	0	0		0	100	0	0		0	0	0	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.792	.000	.000	.792	.875

Transportation Data Corporation

Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

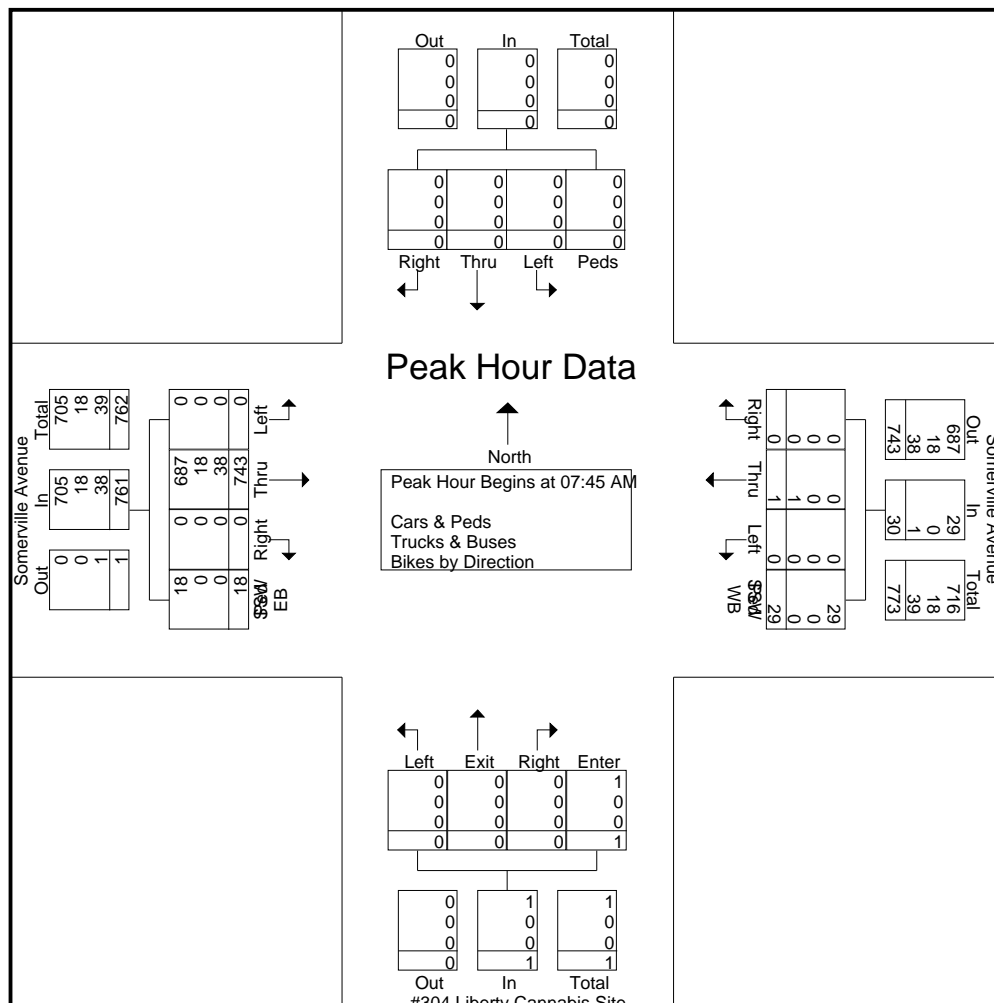
File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 1

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total

Peak Hour Analysis From 06:00 AM to 12:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

07:45 AM	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	178	0	7	185	195
08:00 AM	0	0	0	0	0	0	0	0	7	7	0	0	0	1	1	0	194	0	4	198	206
08:15 AM	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	195	0	4	199	204
08:30 AM	0	0	0	0	0	0	1	0	7	8	0	0	0	0	0	0	176	0	3	179	187
Total Volume	0	0	0	0	0	0	1	0	29	30	0	0	0	1	1	0	743	0	18	761	792
% App. Total	0	0	0	0	0	0	3.3	0	96.7		0	0	0	100		0	97.6	0	2.4		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.725	.750	.000	.000	.000	.250	.250	.000	.953	.000	.643	.956	.961
Cars & Peds	0	0	0	0	0	0	0	0	0	29	29	0	0	0	1	1	0	687	0	18	705
% Cars & Peds																					
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	18
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0	0	2.4	2.3
Bikes by Direction	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	38	0	0	38	39
% Bikes by Direction	0	0	0	0	0	0	100	0	0	3.3	0	0	0	0	0	0	5.1	0	0	5.0	4.9



Transportation Data Corporation

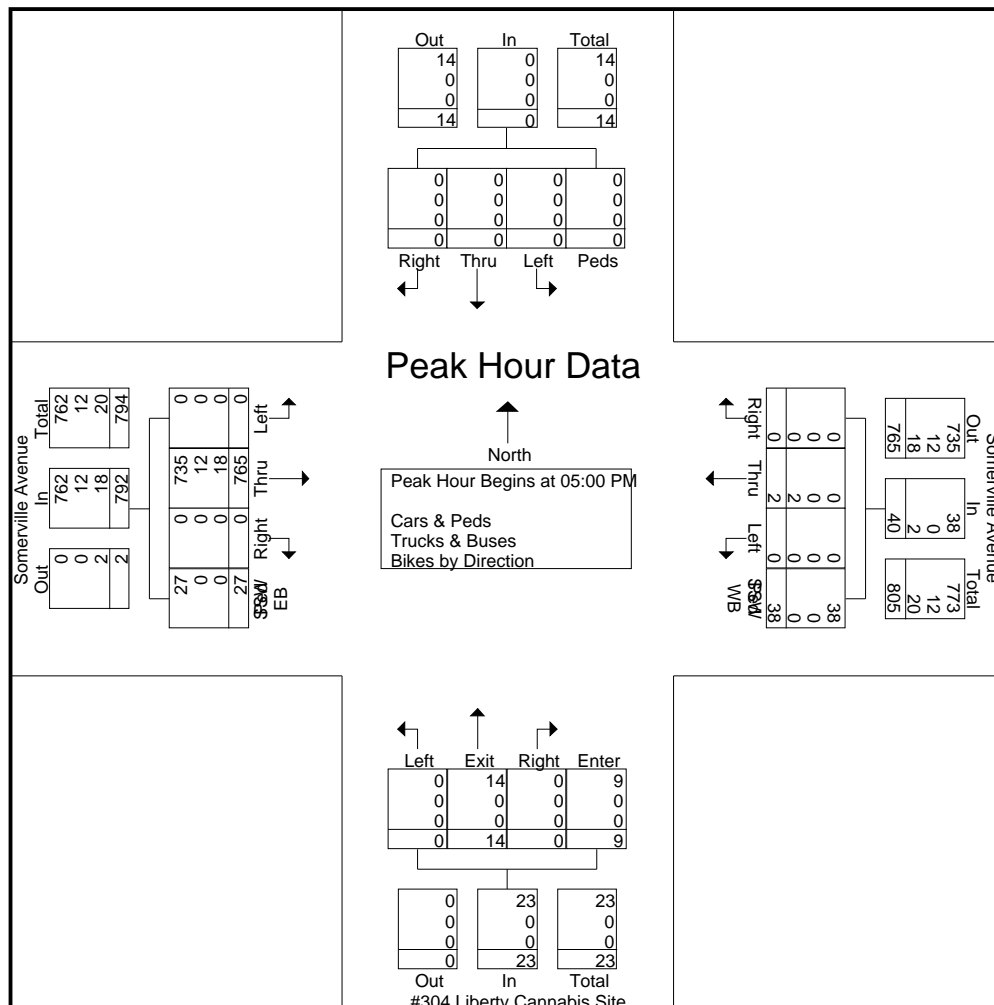
Mario Perone, mperone1@verizon.net

tel (781) 587-0086 cell (781) 439-4999

S: #304 Liberty Cannabis Site Trip Gen
E/W: Somerville Ave. (Peds by Direction)
City, State: Somerville, MA
Client: McM/Zoe Dickerson

File Name : 05513A
Site Code : Y1920812
Start Date : 1/27/2022
Page No : 2

	From North					Somerville Avenue From East					#304 Liberty Cannabis Site From South					Somerville Avenue From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Ped WB SSW	App. Total		Exit		Enter	App. Total	Right	Thru	Left	Ped EB SSW	App. Total	Int. Total
Peak Hour Analysis From 01:00 PM to 07:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	7	7	0	3	0	2	5	0	182	0	4	186	198
05:15 PM	0	0	0	0	0	0	2	0	11	13	0	4	0	3	7	0	190	0	7	197	217
05:30 PM	0	0	0	0	0	0	0	0	12	12	0	6	0	3	9	0	192	0	10	202	223
05:45 PM	0	0	0	0	0	0	0	0	8	8	0	1	0	1	2	0	201	0	6	207	217
Total Volume	0	0	0	0	0	0	2	0	38	40	0	14	0	9	23	0	765	0	27	792	855
% App. Total	0	0	0	0	0	0	5	0	95		0	60.9	0	39.1		0	96.6	0	3.4		
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.792	.769	.000	.583	.000	.750	.639	.000	.951	.000	.675	.957	.959
Cars & Peds	0	0	0	0	0	0	0	0	38	38	0	14	0	9	23	0	735	0	27	762	823
% Cars & Peds																					
Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	12
% Trucks & Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0	1.5	1.4
Bikes by Direction	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	18	0	0	18	20
% Bikes by Direction	0	0	0	0	0	0	100	0	0	5.0	0	0	0	0	0	0	2.4	0	0	2.3	2.3



Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PASSENGER CARS & HEAVY VEHICLES COMBINED

Webster Avenue Northbound					Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	4	29	4	0	48	43	10	0	16	23	1	0	3	38	50
10:15 AM	0	2	32	2	0	47	34	2	0	8	43	3	0	9	26	66
10:30 AM	0	8	29	1	0	58	58	3	0	8	26	0	0	4	42	55
10:45 AM	0	6	43	4	0	43	48	6	0	13	47	7	0	11	43	60
11:00 AM	0	2	38	3	0	60	53	7	0	11	38	5	0	6	36	81
11:15 AM	0	5	54	1	0	58	43	5	0	13	41	5	0	4	44	72
11:30 AM	0	6	54	9	0	40	38	8	0	10	36	4	0	8	45	59
11:45 AM	0	3	35	6	0	57	39	6	0	14	52	7	0	9	43	69
12:00 PM	0	4	35	5	0	69	58	13	0	7	42	6	0	7	44	83
12:15 PM	0	6	45	8	0	60	38	7	0	17	55	3	0	11	44	60
12:30 PM	0	5	46	6	0	57	50	10	0	17	44	9	0	5	64	54
12:45 PM	0	6	51	6	0	58	40	17	0	16	52	3	0	7	40	67
1:00 PM	0	4	42	5	0	57	60	8	0	13	53	6	0	6	32	62
1:15 PM	0	6	47	6	0	62	58	15	0	12	41	2	0	8	35	72
1:30 PM	0	8	53	4	0	60	38	19	0	21	57	4	0	6	51	62
1:45 PM	0	3	45	9	0	48	61	9	0	14	51	4	0	11	45	58

MID PEAK HOUR 12:45 PM to 1:45 PM	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	24	193	21	0	237	196	59	0	62	203	15	0	27	158	263
PHF	0.92				0.91				0.85				0.94			
HV %	0.0%	0.0%	0.0%	4.8%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%	3.7%	4.4%	3.0%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

HEAVY VEHICLES

Webster Avenue Northbound					Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	3	1
10:15 AM	0	0	1		0	4	0	0	0	0	2	0	0	1	3	2
10:30 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	2
10:45 AM	0	1	1	0	0	0	0	0	0	0	2	0	0	1	1	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	4
11:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3
12:00 PM	0	0	0	0	0	2	0	0	0	1	3	0	0	0	1	1
12:15 PM	0	0	0	1	0	2	0	0	0	0	1	0	0	1	1	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	1	5	2
12:45 PM	0	0	0	0	0	2	0	0	0	0	2	0	0	0	1	1
1:00 PM	0	0	0	1	0	2	0	0	0	0	3	0	0	0	2	0
1:15 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2	5
1:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	1	2	2
1:45 PM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	2	1

MID PEAK HOUR 12:30 PM to 1:30 PM <i>PHF</i>	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	1	0	6	0	0	0	0	9	0	0	1	10	8
	0.25				0.75				0.75				0.59			

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

Webster Avenue Northbound					Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
10:00 AM	0	2	1	8	0	6	0	4	0	0	0	35	0	2	2	5
10:15 AM	1	1	0	6	0	3	0	15	0	1	0	26	0	0	1	19
10:30 AM	1	1	0	11	1	4	1	29	0	1	0	31	0	2	1	13
10:45 AM	0	2	0	4	1	9	0	17	0	1	0	24	0	2	0	16
11:00 AM	0	2	1	14	2	2	0	18	0	0	1	23	0	0	3	13
11:15 AM	0	4	0	13	5	7	0	15	0	1	1	44	1	2	1	17
11:30 AM	1	2	0	16	2	6	1	21	2	2	0	31	0	1	4	20
11:45 AM	0	3	1	14	0	5	0	20	1	2	1	37	0	0	2	15
12:00 PM	1	1	0	11	4	4	0	9	0	0	1	32	0	1	3	15
12:15 PM	0	7	0	16	1	3	0	29	1	5	0	48	0	4	2	30
12:30 PM	0	3	1	11	3	5	1	17	0	1	0	47	0	1	2	16
12:45 PM	0	7	1	9	3	3	0	13	0	2	2	46	0	0	2	14
1:00 PM	0	3	0	11	7	3	1	20	1	3	0	41	3	1	0	16
1:15 PM	0	5	0	13	4	7	0	40	0	1	0	58	0	4	0	28
1:30 PM	0	1	0	15	1	3	0	27	2	3	0	50	0	0	0	25
1:45 PM	1	5	0	25	3	4	2	29	1	0	0	55	0	2	2	16

MID PEAK HOUR 12:45 PM to 1:45 PM	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	16	1	48	15	16	1	100	3	9	2	195	3	5	2	83

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F



PASSENGER CARS & HEAVY VEHICLES COMBINED

Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound				
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	14	0	0	18	9	0	0	1	13	0	0	6	11	21
6:15 AM	0	1	8	2	0	17	19	1	0	0	16	0	0	6	29	19
6:30 AM	0	0	11	1	0	14	24	1	0	2	9	3	0	5	34	22
6:45 AM	0	1	10	0	0	21	22	1	0	1	27	2	0	5	57	29
7:00 AM	0	2	15	3	0	27	42	7	0	7	21	3	0	17	40	34
7:15 AM	0	4	28	3	0	25	52	3	0	4	30	6	0	24	39	25
7:30 AM	0	1	45	13	0	37	64	5	0	10	35	11	0	31	49	29
7:45 AM	0	5	43	8	0	50	58	16	0	13	35	9	0	22	51	48
8:00 AM	0	2	41	7	0	43	63	18	0	13	55	9	0	8	58	43
8:15 AM	0	1	30	7	0	61	86	8	0	8	51	15	0	7	61	50
8:30 AM	0	0	24	5	0	47	77	8	0	16	55	10	0	7	51	45
8:45 AM	0	3	32	1	0	43	84	7	0	6	37	10	0	8	44	57
9:00 AM	0	2	37	3	0	40	71	1	0	12	39	9	0	5	32	44
9:15 AM	0	3	22	0	0	36	53	3	0	11	32	3	0	3	40	47
9:30 AM	0	3	30	1	0	28	44	3	0	6	34	1	0	4	45	33
9:45 AM	0	4	20	6	0	39	50	2	0	9	34	8	0	10	33	41
10:00 AM	0	3	29	3	0	31	43	3	0	8	25	2	0	5	39	51
10:15 AM	0	1	31	4	0	32	29	8	0	6	37	1	0	6	46	42
10:30 AM	0	3	24	3	0	21	26	3	0	8	31	5	0	6	46	31
10:45 AM	0	5	38	1	0	46	29	8	0	3	34	5	0	1	49	44
11:00 AM	0	1	28	7	0	43	35	3	0	5	38	5	0	6	36	41
11:15 AM	0	4	30	3	0	36	28	5	0	9	38	2	0	11	31	37
11:30 AM	0	3	24	1	0	40	43	4	0	11	33	3	0	6	32	55
11:45 AM	0	8	16	2	0	52	40	9	0	2	24	4	0	3	34	57
12:00 PM	0	2	29	1	0	37	38	2	0	7	39	4	0	7	36	56
12:15 PM	0	2	37	7	0	48	43	13	0	8	33	5	0	7	28	42
12:30 PM	0	2	29	1	0	56	34	11	0	14	38	4	0	10	29	60
12:45 PM	0	5	32	5	0	50	31	5	0	12	37	3	0	4	22	52
1:00 PM	0	2	34	2	0	40	34	1	0	5	45	2	0	7	34	54
1:15 PM	0	1	37	3	0	43	22	2	0	13	32	4	0	3	34	41
1:30 PM	0	6	30	3	0	47	32	1	0	8	47	7	0	8	34	54
1:45 PM	0	4	35	6	0	41	27	10	0	9	39	5	0	11	38	44
2:00 PM	0	3	33	5	0	40	21	6	0	13	37	8	0	10	48	57
2:15 PM	0	2	35	6	0	37	40	11	0	12	32	8	0	15	35	63
2:30 PM	0	6	45	9	0	30	36	14	0	14	43	6	0	16	53	34
2:45 PM	0	2	33	6	0	45	56	9	0	19	46	8	0	14	48	50
3:00 PM	0	1	60	15	0	38	44	7	0	24	53	5	0	8	46	57
3:15 PM	0	3	57	5	0	46	29	3	0	20	44	4	0	9	36	49
3:30 PM	0	3	54	4	0	38	33	3	0	13	57	4	0	3	51	50
3:45 PM	0	5	56	3	0	44	44	7	0	22	47	5	0	8	42	58
4:00 PM	0	8	61	3	0	28	38	7	0	26	46	6	0	5	32	48
4:15 PM	0	3	56	6	0	30	34	4	0	13	66	1	0	5	51	50
4:30 PM	0	2	49	4	0	52	41	8	0	22	53	7	0	8	40	56
4:45 PM	0	6	47	6	0	36	39	5	0	24	47	5	0	13	47	57
5:00 PM	0	7	67	3	0	44	48	6	0	19	57	9	0	4	56	49
5:15 PM	0	2	77	6	0	36	57	5	0	14	53	10	0	13	48	64
5:30 PM	0	4	71	3	0	39	43	3	0	22	55	8	0	3	57	52
5:45 PM	0	9	69	1	0	41	47	7	0	20	49	7	0	5	50	67
6:00 PM	0	6	63	3	0	32	29	8	0	19	54	3	0	7	70	49
6:15 PM	0	4	64	6	0	42	48	5	0	15	54	4	0	6	56	53
6:30 PM	0	3	49	5	0	27	45	6	0	11	47	3	0	12	46	55
6:45 PM	0	5	51	1	0	35	39	6	0	17	27	3	0	3	22	46
7:00 PM	0	2	34	2	0	34	37	10	0	10	34	7	0	1	47	57
7:15 PM	0	6	48	5	0	36	41	9	0	20	34	5	0	4	35	51
7:30 PM	0	4	39	0	0	29	37	5	0	18	38	6	0	7	27	36
7:45 PM	0	6	33	1	0	42	26	4	0	7	28	2	0	5	35	40

AM PEAK HOUR 7:45 AM to 8:45 AM PHF HV %	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	8	138	27	0	201	284	50	0	50	196	43	0	44	221	186
	0.77				0.86				0.89				0.93			
	0.0%	0.0%	3.6%	0.0%	0.0%	6.0%	2.1%	4.0%	0.0%	4.0%	8.2%	9.3%	0.0%	13.6%	9.5%	8.1%

MID PEAK HOUR 12:15 PM to 1:15 PM PHF HV %	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	11	132	15	0	194	142	30	0	39	153	14	0	28	113	208
	0.86				0.88				0.92				0.88			
	0.0%	0.0%	1.5%	20.0%	0.0%	7.2%	1.4%	16.7%	0.0%	7.7%	9.2%	0.0%	0.0%	17.9%	3.5%	5.3%

PM PEAK HOUR 5:00 PM to 6:00 PM PHF HV %	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	22	284	13	0	160	195	21	0	75	214	34	0	25	211	232
	0.94				0.96				0.95				0.94			
	0.0%	0.0%	0.4%	0.0%	0.0%	1.9%	3.1%	0.0%	0.0%	4.0%	3.7%	0.0%	0.0%	12.0%	2.4%	2.6%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F



HEAVY VEHICLES

Webster Avenue Northbound					Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	1	0	0	3	1	0	0	0	1	0	0	2	2	4
6:15 AM	0	0	0	0	0	3	1	0	0	0	1	0	0	0	4	4
6:30 AM	0	0	2	0	0	2	0	0	0	0	0	1	0	2	3	3
6:45 AM	0	0	0	0	0	4	0	0	0	0	3	0	0	1	14	7
7:00 AM	0	0	0	0	0	4	1	0	0	0	2	0	0	2	4	8
7:15 AM	0	0	1	0	0	3	1	0	0	0	2	0	0	3	6	4
7:30 AM	0	0	1	0	0	2	4	0	0	0	2	0	0	0	3	7
7:45 AM	0	0	0	0	0	5	2	0	0	0	3	1	0	2	6	7
8:00 AM	0	0	2	0	0	2	1	0	0	1	3	0	0	1	3	4
8:15 AM	0	0	2	0	0	4	2	2	0	0	3	2	0	2	5	2
8:30 AM	0	0	1	0	0	1	1	0	0	1	7	1	0	1	7	2
8:45 AM	0	0	0	0	0	4	2	2	0	0	5	0	0	2	5	4
9:00 AM	0	0	1	0	0	5	1	0	0	2	4	0	0	2	4	6
9:15 AM	0	0	0	0	0	4	2	0	0	0	5	0	0	1	1	6
9:30 AM	0	1	0	0	0	4	2	0	0	0	3	0	0	1	5	5
9:45 AM	0	1	0	0	0	6	0	0	0	2	6	1	0	1	5	4
10:00 AM	0	0	1	0	0	3	0	0	0	0	5	1	0	1	5	3
10:15 AM	0	0	1	0	0	2	0	2	0	0	7	0	0	2	3	5
10:30 AM	0	1	0	0	0	0	2	0	0	1	4	1	0	3	3	1
10:45 AM	0	0	3	0	0	3	2	1	0	0	1	1	0	0	3	4
11:00 AM	0	1	2	0	0	6	1	0	0	1	5	0	0	2	4	4
11:15 AM	0	0	4	0	0	7	1	1	0	0	2	0	0	0	4	0
11:30 AM	0	0	1	0	0	2	1	0	0	1	3	0	0	1	3	7
11:45 AM	0	0	0	0	0	4	2	1	0	0	1	0	0	0	3	1
12:00 PM	0	0	1	0	0	2	4	1	0	2	2	0	0	2	2	7
12:15 PM	0	0	1	2	0	5	1	1	0	0	3	0	0	1	1	2
12:30 PM	0	0	1	0	0	3	0	3	0	1	5	0	0	1	1	4
12:45 PM	0	0	0	1	0	4	1	1	0	2	2	0	0	1	0	4
1:00 PM	0	0	0	0	0	2	0	0	0	0	4	0	0	2	2	1
1:15 PM	0	0	0	0	0	3	2	0	0	1	3	0	0	0	4	1
1:30 PM	0	0	2	0	0	3	0	0	0	1	5	0	0	0	3	3
1:45 PM	0	1	1	0	0	3	1	0	0	1	4	0	0	1	7	1
2:00 PM	0	0	1	1	0	1	0	0	0	1	9	1	0	1	7	5
2:15 PM	0	0	0	0	0	4	1	0	0	1	2	0	0	1	7	4
2:30 PM	0	1	2	0	0	1	2	0	0	0	6	0	0	0	5	3
2:45 PM	0	0	3	0	0	3	2	1	0	0	6	0	0	3	6	1
3:00 PM	0	0	0	0	0	3	1	0	0	2	0	2	0	0	3	2
3:15 PM	0	0	1	0	0	3	1	0	0	0	2	0	0	2	2	2
3:30 PM	0	0	0	0	0	3	2	0	0	0	4	0	0	1	1	2
3:45 PM	0	0	1	0	0	1	2	0	0	1	2	0	0	0	1	2
4:00 PM	0	1	1	0	0	3	3	0	0	0	4	0	0	2	1	3
4:15 PM	0	0	0	0	0	2	2	0	0	0	5	0	0	0	1	4
4:30 PM	0	1	0	0	0	3	0	1	0	0	4	0	0	1	1	2
4:45 PM	0	0	1	0	0	4	1	1	0	0	5	0	0	2	2	3
5:00 PM	0	0	0	0	0	1	2	0	0	0	3	0	0	0	1	0
5:15 PM	0	0	0	0	0	1	1	0	0	2	2	0	0	2	1	4
5:30 PM	0	0	1	0	0	0	2	0	0	0	1	0	0	0	1	1
5:45 PM	0	0	0	0	0	1	1	0	0	1	2	0	0	1	2	1
6:00 PM	0	0	0	0	0	1	2	0	0	0	1	0	0	1	1	2
6:15 PM	0	0	1	0	0	1	0	0	0	0	1	0	0	1	1	3
6:30 PM	0	0	1	0	0	3	1	0	0	0	4	0	0	1	2	1
6:45 PM	0	0	0	0	0	3	1	0	0	0	2	0	0	1	1	0
7:00 PM	0	0	1	0	0	1	1	0	0	0	1	0	0	1	1	0
7:15 PM	0	0	0	0	0	1	1	0	0	0	5	0	0	1	0	2
7:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
7:45 PM	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0	0

AM PEAK HOUR 8:15 AM to 9:15 AM PHF	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	4	0	0	14	6	4	0	3	19	3	0	7	21	14
0.50				0.75				0.69				0.88				

MID PEAK HOUR 10:15 AM to 11:15 AM PHF	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	2	6	0	0	11	5	3	0	2	17	2	0	7	13	14
0.67				0.68				0.75				0.85				

PM PEAK HOUR 2:00 PM to 3:00 PM PHF	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	1	6	1	0	9	5	1	0	2	23	1	0	5	25	13
0.67				0.63				0.59				0.83				

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 1
 Location: Somerville, MA
 Street 1: Somerville Avenue/Bow Street
 Street 2: Webster Avenue/Washington Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F

PEDESTRIANS & BICYCLES

Start Time	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
6:00 AM	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0
6:15 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0
6:30 AM	0	0	0	1	1	2	0	1	0	0	0	2	1	0	0	2
6:45 AM	0	0	0	1	2	1	0	2	0	0	0	11	0	0	0	4
7:00 AM	0	0	0	1	0	0	0	2	0	0	0	5	0	0	0	0
7:15 AM	0	2	0	2	1	6	0	3	0	0	0	14	0	0	0	6
7:30 AM	0	0	0	8	1	6	0	5	0	0	0	34	1	0	0	18
7:45 AM	0	2	0	13	0	9	2	3	0	0	0	13	0	0	0	9
8:00 AM	0	0	0	16	0	3	2	5	0	2	0	5	1	3	0	5
8:15 AM	0	0	0	2	1	9	0	6	0	0	0	16	0	0	0	6
8:30 AM	1	0	0	5	1	7	0	6	0	1	0	11	0	0	0	8
8:45 AM	0	1	0	3	5	12	0	5	0	0	0	12	2	1	0	6
9:00 AM	0	2	0	3	2	6	0	3	0	0	0	7	0	0	0	7
9:15 AM	0	0	0	1	0	6	0	4	0	1	0	9	0	0	0	2
9:30 AM	0	0	0	2	0	7	0	5	0	1	0	11	0	0	0	5
9:45 AM	0	0	0	1	3	1	0	6	0	1	0	7	0	0	0	4
10:00 AM	0	0	0	4	1	3	0	3	0	0	0	11	0	0	0	4
10:15 AM	0	1	0	1	1	2	2	3	0	0	0	5	0	0	0	2
10:30 AM	0	0	0	3	1	2	0	4	0	0	0	5	0	0	0	4
10:45 AM	0	1	0	4	1	2	0	5	0	1	1	4	2	1	0	1
11:00 AM	0	0	0	3	2	2	0	4	0	0	0	5	0	0	0	2
11:15 AM	0	0	0	2	0	2	0	3	0	0	0	9	0	1	0	2
11:30 AM	0	0	0	5	2	6	0	5	0	0	0	8	0	0	1	6
11:45 AM	0	0	0	6	1	4	0	7	0	0	0	16	0	0	0	7
12:00 PM	0	1	0	13	0	2	0	5	0	0	0	11	0	1	0	7
12:15 PM	0	0	0	10	0	2	0	4	1	2	0	11	0	0	1	5
12:30 PM	0	0	0	10	3	0	0	9	0	0	0	8	0	2	0	8
12:45 PM	0	0	0	4	0	2	0	7	0	0	0	13	0	0	0	8
1:00 PM	0	1	0	2	1	3	0	4	0	0	0	5	0	0	0	5
1:15 PM	0	0	0	1	2	0	0	3	0	0	0	4	0	0	0	2
1:30 PM	0	2	0	5	0	2	0	2	0	1	0	8	0	3	0	10
1:45 PM	0	0	0	8	1	0	0	8	0	0	0	9	0	0	0	12
2:00 PM	0	2	0	5	0	1	0	1	0	0	0	6	0	1	0	17
2:15 PM	0	0	1	6	1	1	0	10	0	1	0	9	0	0	0	6
2:30 PM	0	1	0	18	0	2	0	18	0	0	0	10	0	0	0	3
2:45 PM	0	2	0	34	0	2	0	7	0	0	0	40	0	0	0	43
3:00 PM	0	0	0	19	1	0	0	10	0	0	0	56	0	1	1	32
3:15 PM	0	3	0	13	1	0	1	8	0	1	0	17	0	0	0	17
3:30 PM	0	1	0	11	0	0	0	10	0	0	0	19	0	0	0	14
3:45 PM	0	3	0	12	3	4	0	7	1	0	0	17	0	0	0	11
4:00 PM	0	4	0	5	1	1	0	5	0	0	0	19	0	1	1	4
4:15 PM	0	2	0	8	1	1	0	4	1	1	0	12	0	0	1	5
4:30 PM	1	4	0	6	0	1	0	5	0	1	0	15	0	0	1	5
4:45 PM	0	5	0	4	0	0	0	8	0	1	0	15	0	0	0	16
5:00 PM	0	5	0	11	1	1	0	8	0	1	1	15	0	1	0	14
5:15 PM	0	6	0	6	1	2	0	14	0	4	1	15	0	1	0	13
5:30 PM	0	9	0	9	1	1	0	3	0	2	0	21	0	0	0	13
5:45 PM	0	6	0	9	0	1	0	16	0	0	0	23	0	1	0	20
6:00 PM	0	7	1	2	0	0	0	6	0	1	0	15	0	0	0	10
6:15 PM	1	2	0	4	1	1	0	2	0	1	0	16	0	0	0	10
6:30 PM	0	4	0	5	0	1	0	7	0	0	0	22	0	1	1	5
6:45 PM	1	9	1	5	0	2	0	7	0	1	0	14	0	0	1	4
7:00 PM	0	3	1	5	1	0	0	15	0	3	0	7	0	0	0	13
7:15 PM	0	2	0	2	2	2	0	4	0	0	0	4	0	0	0	14
7:30 PM	0	3	0	4	0	3	0	6	0	1	0	13	0	0	1	4
7:45 PM	0	3	1	4	0	0	0	3	0	0	0	6	0	1	0	6

AM PEAK HOUR 7:45 AM to 8:45 AM	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	1	2	0	36	2	28	4	20	0	3	0	45	1	3	0	28

MID PEAK HOUR 12:15 PM to 1:15 PM	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	1	0	26	4	7	0	24	1	2	0	37	0	2	1	26

PM PEAK HOUR 5:00 PM to 6:00 PM	Webster Avenue Northbound				Somerville Avenue/Bow Street Southbound				Washington Street Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	26	0	35	3	5	0	41	0	7	2	74	0	3	0	60

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PASSENGER CARS & HEAVY VEHICLES COMBINED

Bow Street Northbound					Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	0	92	3	0	0	0	0	0	35	9	0	0	0	0	15
10:15 AM	0	0	100	5	0	0	0	0	0	39	10	0	0	0	0	12
10:30 AM	0	0	91	1	0	0	0	0	0	37	5	0	0	0	0	15
10:45 AM	0	0	116	3	0	0	0	0	0	27	13	0	0	0	0	18
11:00 AM	0	0	121	4	0	0	0	0	0	35	14	0	0	0	0	16
11:15 AM	0	0	134	6	0	0	0	0	0	48	7	0	0	0	0	15
11:30 AM	0	0	116	8	0	0	0	0	0	39	15	0	0	0	0	17
11:45 AM	0	0	113	6	0	0	0	0	0	55	10	0	0	0	0	15
12:00 PM	0	0	118	4	0	0	0	0	0	46	11	0	0	0	0	20
12:15 PM	0	0	117	9	0	0	0	0	0	50	14	0	0	0	0	21
12:30 PM	0	0	112	4	0	0	0	0	0	58	13	0	0	0	0	19
12:45 PM	0	0	123	10	0	0	0	0	0	39	10	0	0	0	0	29
1:00 PM	0	0	105	6	0	0	0	0	0	49	13	0	0	0	0	19
1:15 PM	0	0	125	8	0	0	0	0	0	50	12	0	0	0	0	25
1:30 PM	0	0	130	7	0	0	0	0	0	53	6	0	0	0	0	24
1:45 PM	0	0	113	7	0	0	0	0	0	50	10	0	0	0	0	17

MID PEAK HOUR 12:45 PM to 1:45 PM	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	483	31	0	0	0	0	0	191	41	0	0	0	0	97
PHF	0.94				0.00				0.94				0.84			
HV %	0.0%	0.0%	1.7%	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%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

HEAVY VEHICLES

Bow Street Northbound					Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0
11:00 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
11:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 10:15 AM to 11:15 AM <i>PHF</i>	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	7	0	0	0	0	0	0	3	1	0	0	0	0	0
	0.58				0.00				0.33				0.00			

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

Bow Street Northbound					Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
10:00 AM	0	5	0	34	0	0	0	4	0	0	0	32	0	0	0	23
10:15 AM	0	3	0	49	0	0	0	0	0	0	0	39	0	0	2	37
10:30 AM	0	4	0	48	0	0	0	7	2	0	0	46	0	0	0	27
10:45 AM	1	4	1	43	0	0	0	4	0	1	0	38	0	1	1	31
11:00 AM	0	7	0	28	0	0	0	1	0	0	0	20	0	0	0	31
11:15 AM	1	4	0	58	0	0	0	6	2	1	0	26	0	1	0	46
11:30 AM	2	6	1	47	0	0	0	1	0	2	0	47	0	0	1	41
11:45 AM	2	4	1	60	0	0	0	7	0	0	0	57	0	0	0	53
12:00 PM	0	7	1	56	0	0	0	2	0	0	0	54	0	0	0	55
12:15 PM	1	14	0	88	0	0	0	4	2	0	0	64	0	0	0	63
12:30 PM	1	8	0	75	0	1	0	5	2	1	0	68	0	0	0	39
12:45 PM	0	8	0	51	0	0	0	0	0	0	1	53	0	0	0	47
1:00 PM	1	7	0	100	0	0	0	3	3	2	0	90	0	0	1	65
1:15 PM	0	8	0	80	0	0	0	10	1	0	0	85	0	2	0	49
1:30 PM	0	2	0	68	0	0	0	10	1	1	1	75	0	0	0	51
1:45 PM	0	8	0	89	0	0	0	8	1	0	0	70	0	0	1	55

MID PEAK HOUR 12:45 PM to 1:45 PM	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	1	25	0	299	0	0	0	23	5	3	2	303	0	2	1	212

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F

PASSENGER CARS & HEAVY VEHICLES COMBINED

Bow Street Northbound					Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	37	0	0	0	0	0	0	3	3	0	0	0	0	2
6:15 AM	0	0	26	1	0	0	0	0	0	13	1	0	0	0	0	1
6:30 AM	0	0	32	1	0	0	0	0	0	6	3	0	0	0	0	6
6:45 AM	0	0	39	1	0	0	0	0	0	9	1	0	0	0	0	7
7:00 AM	0	0	55	2	0	0	0	0	0	14	5	0	0	0	0	10
7:15 AM	0	0	61	1	0	0	0	0	0	30	6	0	0	0	0	8
7:30 AM	0	0	92	2	0	0	0	0	0	30	8	0	0	0	0	25
7:45 AM	0	0	100	3	0	0	0	0	0	42	10	0	0	0	0	16
8:00 AM	0	0	99	3	0	0	0	0	0	42	13	0	0	0	0	21
8:15 AM	0	0	87	4	0	0	0	0	0	42	9	0	0	0	0	13
8:30 AM	0	0	79	3	0	0	0	0	0	31	14	0	0	0	0	14
8:45 AM	0	0	97	0	0	0	0	0	0	30	8	0	0	0	0	10
9:00 AM	0	0	83	5	0	0	0	0	0	27	16	0	0	0	0	15
9:15 AM	0	0	82	4	0	0	0	0	0	30	7	0	0	0	0	13
9:30 AM	0	0	65	5	0	0	0	0	0	36	10	0	0	0	0	10
9:45 AM	0	0	74	2	0	0	0	0	0	20	7	0	0	0	0	11
10:00 AM	0	0	85	2	0	0	0	0	0	36	5	0	0	0	0	15
10:15 AM	0	0	79	6	0	0	0	0	0	24	8	0	0	0	0	13
10:30 AM	0	0	62	2	0	0	0	0	0	20	7	0	0	0	0	10
10:45 AM	0	0	83	6	0	0	0	0	0	32	5	0	0	0	0	16
11:00 AM	0	0	72	5	0	0	0	0	0	31	9	0	0	0	0	16
11:15 AM	0	0	74	6	0	0	0	0	0	37	8	0	0	0	0	10
11:30 AM	0	0	88	4	0	0	0	0	0	36	8	0	0	0	0	22
11:45 AM	0	0	84	4	0	0	0	0	0	33	11	0	0	0	0	19
12:00 PM	0	0	79	5	0	0	0	0	0	36	9	0	0	0	0	18
12:15 PM	0	0	99	4	0	0	0	0	0	39	7	0	0	0	0	20
12:30 PM	0	0	107	6	0	0	0	0	0	30	4	0	0	0	0	8
12:45 PM	0	0	97	8	0	0	0	0	0	40	2	0	0	0	0	16
1:00 PM	0	0	87	4	0	0	0	0	0	47	11	0	0	0	0	14
1:15 PM	0	0	92	5	0	0	0	0	0	43	17	0	0	0	0	16
1:30 PM	0	0	81	4	0	0	0	0	0	42	13	0	0	0	0	23
1:45 PM	0	0	92	2	0	0	0	0	0	31	7	0	0	0	0	12
2:00 PM	0	0	89	7	0	0	0	0	0	27	7	0	0	0	0	17
2:15 PM	0	0	110	2	0	0	0	0	0	30	14	0	0	0	0	21
2:30 PM	0	0	85	5	0	0	0	0	0	44	15	0	0	0	0	23
2:45 PM	0	0	98	8	0	0	0	0	0	59	21	0	0	0	0	17
3:00 PM	0	0	127	7	0	0	0	0	0	55	20	0	0	0	0	26
3:15 PM	0	0	126	7	0	0	0	0	0	46	13	0	0	0	0	15
3:30 PM	0	0	112	9	0	0	0	0	0	28	23	0	0	0	0	19
3:45 PM	0	0	133	6	0	0	0	0	0	32	13	0	0	0	0	12
4:00 PM	0	0	124	7	0	0	0	0	0	46	17	0	0	0	0	16
4:15 PM	0	0	116	2	0	0	0	0	0	38	11	0	0	0	0	20
4:30 PM	0	0	128	2	0	0	0	0	0	43	13	0	0	0	0	13
4:45 PM	0	0	122	8	0	0	0	0	0	46	13	0	0	0	0	15
5:00 PM	0	0	134	2	0	0	0	0	0	61	16	0	0	0	0	17
5:15 PM	0	0	143	3	0	0	0	0	0	31	9	0	0	0	0	19
5:30 PM	0	0	157	6	0	0	0	0	0	41	13	0	0	0	0	10
5:45 PM	0	0	148	10	0	0	0	0	0	46	11	0	0	0	0	11
6:00 PM	0	0	133	2	0	0	0	0	0	34	17	0	0	0	0	9
6:15 PM	0	0	127	5	0	0	0	0	0	41	17	0	0	0	0	15
6:30 PM	0	0	114	5	0	0	0	0	0	36	18	0	0	0	0	10
6:45 PM	0	0	117	6	0	0	0	0	0	40	13	0	0	0	0	9
7:00 PM	0	0	99	3	0	0	0	0	0	21	8	0	0	0	0	21
7:15 PM	0	0	98	13	0	0	0	0	0	23	10	0	0	0	0	13
7:30 PM	0	0	93	1	0	0	0	0	0	33	6	0	0	0	0	5
7:45 PM	0	0	82	1	0	0	0	0	0	34	8	0	0	0	0	10

AM PEAK HOUR 7:30 AM to 8:30 AM		Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	378	12	0	0	0	0	0	156	40	0	0	0	0	75
HV %		0.0%	0.0%	6.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

MID PEAK HOUR 12:45 PM to 1:45 PM		Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	357	21	0	0	0	0	0	172	43	0	0	0	0	69
HV %		0.0%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	4.7%	0.0%	0.0%	0.0%	0.0%	1.4%

PM PEAK HOUR 5:00 PM to 6:00 PM		Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	582	21	0	0	0	0	0	179	49	0	0	0	0	57
HV %		0.0%	0.0%	1.7%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F



HEAVY VEHICLES

Start Time	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 AM	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	0	0	0	0	0	0	2	0	0	0	0	0	0
7:30 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	7	0	0	0	0	0	0	1	0	0	0	0	0	0
8:15 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	5	0	0	0	0	0	0	3	0	0	0	0	0	0
9:00 AM	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	1
9:30 AM	0	0	5	0	0	0	0	0	0	2	0	0	0	0	0	1
9:45 AM	0	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0
10:00 AM	0	0	5	0	0	0	0	0	0	2	0	0	0	0	0	0
10:15 AM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	2	1	0	0	0	0	0	1	1	0	0	0	0	0
10:45 AM	0	0	7	0	0	0	0	0	0	1	0	0	0	0	0	1
11:00 AM	0	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	4	0	0	0	0	0	0	5	0	0	0	0	0	0
11:30 AM	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	7	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	1
12:30 PM	0	0	5	0	0	0	0	0	0	1	0	0	0	0	0	1
12:45 PM	0	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00 PM	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0
1:15 PM	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
1:30 PM	0	0	4	0	0	0	0	0	0	2	1	0	0	0	0	1
1:45 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	5	1	0	0	0	0	0	1	0	0	0	0	0	1
2:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0
3:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	4	0	0	0	0	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0
6:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0
7:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:45 AM to 9:45 AM PHF	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	24	0	0	0	0	0	0	6	0	0	0	0	0	2
	0.67				0.00				0.50				0.50			

MID PEAK HOUR 10:30 AM to 11:30 AM PHF	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	19	1	0	0	0	0	0	8	1	0	0	0	0	1
	0.71				0.00				0.45				0.25			

PM PEAK HOUR 2:00 PM to 3:00 PM PHF	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	14	2	0	0	0	0	0	2	0	0	0	0	0	3
	0.67				0.00				0.50				0.75			

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 2
 Location: Somerville, MA
 Street 1: Bow Street
 Street 2: Warren Avenue
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F

PEDESTRIANS & BICYCLES

	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 AM	0	0	0	5	0	0	0	1	0	0	0	2	1	0	0	2
6:30 AM	0	0	0	7	0	0	0	0	0	0	0	4	0	0	0	5
6:45 AM	1	0	0	7	0	1	0	2	0	0	0	6	0	0	0	4
7:00 AM	0	1	0	4	0	0	0	1	0	0	0	3	0	0	0	6
7:15 AM	0	2	0	11	0	0	0	2	0	0	0	8	0	0	0	12
7:30 AM	0	1	0	24	0	0	0	0	0	0	0	8	0	0	0	9
7:45 AM	0	3	0	26	0	0	0	0	0	0	0	12	0	0	0	8
8:00 AM	0	1	0	43	0	0	0	2	0	0	0	19	0	0	0	22
8:15 AM	0	0	0	21	0	0	0	0	0	0	0	18	0	0	1	12
8:30 AM	0	0	0	17	0	0	0	1	0	0	0	11	0	0	0	12
8:45 AM	0	3	0	14	0	0	0	1	0	0	0	14	0	0	0	4
9:00 AM	0	4	0	11	0	0	0	1	0	0	0	8	0	0	0	6
9:15 AM	0	1	0	15	0	0	0	0	0	0	0	9	0	0	0	3
9:30 AM	0	0	0	12	0	1	0	0	0	0	0	12	1	0	0	7
9:45 AM	1	0	0	13	0	0	0	1	0	0	0	15	0	0	0	7
10:00 AM	0	2	0	23	0	0	0	2	0	0	0	17	0	0	0	14
10:15 AM	0	2	0	13	0	0	0	4	0	0	0	10	1	0	0	6
10:30 AM	0	0	0	16	0	0	0	0	0	0	0	13	0	0	0	11
10:45 AM	0	1	0	18	0	0	0	0	0	0	0	12	0	0	0	13
11:00 AM	1	0	0	11	0	0	0	0	0	0	0	6	1	0	0	8
11:15 AM	1	0	0	17	0	0	0	2	0	0	0	11	0	0	0	10
11:30 AM	0	2	0	9	0	0	0	3	1	0	0	12	0	0	0	9
11:45 AM	0	1	0	18	0	0	0	1	0	0	0	14	0	0	0	7
12:00 PM	0	3	0	27	0	0	0	2	0	0	0	22	0	0	0	6
12:15 PM	0	1	1	33	0	0	0	2	0	0	0	20	0	0	0	8
12:30 PM	0	0	0	22	0	0	0	2	1	0	0	17	0	0	0	3
12:45 PM	0	0	0	31	0	0	0	2	0	0	0	20	0	0	0	7
1:00 PM	0	2	0	21	0	0	0	3	0	0	0	19	0	0	0	8
1:15 PM	1	1	0	18	0	0	0	4	0	0	0	15	0	0	0	5
1:30 PM	0	2	0	14	0	0	0	0	0	0	0	13	0	0	0	5
1:45 PM	0	1	0	19	0	0	0	0	0	0	0	10	1	0	0	9
2:00 PM	0	2	0	25	0	0	0	1	0	0	0	20	0	0	0	6
2:15 PM	0	3	0	35	0	0	0	2	2	1	0	23	0	0	0	6
2:30 PM	0	0	1	43	0	0	0	2	0	1	1	26	0	0	0	18
2:45 PM	0	1	0	49	0	0	0	0	1	0	0	12	0	0	0	16
3:00 PM	0	1	0	58	0	1	0	0	1	1	0	12	0	0	0	21
3:15 PM	1	2	0	19	0	0	0	1	0	0	0	15	0	0	0	11
3:30 PM	0	1	0	23	0	0	0	10	0	0	0	14	0	1	0	19
3:45 PM	0	6	0	28	0	0	0	1	0	0	1	19	1	0	0	13
4:00 PM	0	5	1	19	0	0	0	3	0	0	0	16	0	0	0	8
4:15 PM	0	7	0	23	0	1	0	1	0	0	0	20	0	0	0	15
4:30 PM	0	4	1	20	0	0	0	0	0	0	0	10	0	0	0	13
4:45 PM	0	7	0	20	0	0	0	1	0	0	0	17	0	0	0	13
5:00 PM	0	4	0	38	0	0	0	1	0	1	0	25	0	0	0	18
5:15 PM	0	10	1	23	0	0	0	0	0	1	0	15	0	0	0	10
5:30 PM	0	15	1	32	0	0	0	0	0	0	0	21	0	0	0	21
5:45 PM	1	6	0	15	0	0	0	1	0	1	0	13	0	0	0	28
6:00 PM	0	10	0	17	0	0	0	1	0	0	0	12	0	0	0	9
6:15 PM	0	6	0	16	0	0	0	3	0	0	0	20	0	0	0	13
6:30 PM	0	6	0	27	0	0	0	0	0	0	0	16	0	0	0	16
6:45 PM	0	12	1	19	0	0	0	2	0	1	0	17	0	0	0	22
7:00 PM	0	5	0	13	0	0	0	0	0	0	0	12	0	0	0	16
7:15 PM	0	6	0	15	0	0	0	0	1	0	0	12	1	0	0	15
7:30 PM	0	1	0	9	0	0	0	0	0	0	0	9	0	0	0	16
7:45 PM	0	2	0	10	0	0	0	1	0	0	0	9	0	0	0	7

AM PEAK HOUR 7:30 AM to 8:30 AM	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	5	0	114	0	0	0	2	0	0	0	57	0	0	1	51

MID PEAK HOUR 12:45 PM to 1:45 PM	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	1	5	0	84	0	0	0	9	0	0	0	67	0	0	0	25

PM PEAK HOUR 5:00 PM to 6:00 PM	Bow Street Northbound				Bow Street Southbound				Warren Avenue Eastbound				Warren Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	1	35	2	108	0	0	0	2	0	3	0	74	0	0	0	77

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PASSENGER CARS & HEAVY VEHICLES COMBINED

Hawkins Street Northbound					Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	0	0	9	0	1	0	0	0	1	128	0	0	0	0	0
10:15 AM	0	0	0	6	0	0	0	0	0	1	135	0	0	0	0	0
10:30 AM	0	0	0	10	0	1	0	0	0	1	144	0	0	0	0	0
10:45 AM	0	0	0	6	0	0	0	0	0	0	143	0	0	0	0	0
11:00 AM	0	0	0	10	0	0	0	0	0	1	152	0	0	0	0	0
11:15 AM	0	0	2	12	0	0	0	0	0	0	144	0	0	0	0	0
11:30 AM	0	0	1	8	0	2	0	0	0	1	135	0	0	0	0	0
11:45 AM	0	0	1	9	0	0	0	0	0	0	168	0	0	0	0	0
12:00 PM	0	0	0	10	0	1	0	0	0	1	178	0	0	0	0	0
12:15 PM	0	0	0	10	0	0	0	0	0	0	159	0	0	0	0	0
12:30 PM	0	0	0	9	0	0	0	0	0	0	179	0	0	0	0	0
12:45 PM	0	0	0	8	0	0	0	0	0	0	158	0	0	0	0	0
1:00 PM	0	0	0	13	0	0	0	0	0	0	181	0	0	0	0	0
1:15 PM	0	0	0	9	0	0	0	0	0	0	175	0	0	0	0	0
1:30 PM	0	0	0	12	0	1	0	0	0	1	156	0	0	0	0	0
1:45 PM	0	0	0	15	0	0	0	0	0	0	157	0	0	0	0	0

MID PEAK HOUR 12:30 PM to 1:30 PM	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	39	0	0	0	0	0	0	693	0	0	0	0	0
PHF	0.75				0.00				0.96				0.00			
HV %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

HEAVY VEHICLES

Hawkins Street Northbound					Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
10:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

MID PEAK HOUR 10:15 AM to 11:15 AM PHF	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	1	0	0	0	0	0	0	12	0	0	0	0	0
	0.25				0.00				0.75				0.00			

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/12/2022
 Day of Week: Saturday
 Weather: Clouds & Sun, 40°F

BOSTON

TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

PEDESTRIANS & BICYCLES

Hawkins Street Northbound					Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
10:00 AM	0	0	0	19	0	0	0	28	0	5	1	3	0	0	0	0
10:15 AM	0	0	0	14	0	0	0	32	0	4	0	3	0	0	0	0
10:30 AM	0	0	0	26	0	0	0	47	0	8	0	8	0	0	0	3
10:45 AM	0	0	0	11	0	0	0	46	0	10	0	0	0	1	0	0
11:00 AM	0	0	0	27	0	0	0	29	0	6	1	4	0	0	0	0
11:15 AM	0	0	0	28	0	0	0	47	0	14	0	5	0	1	0	1
11:30 AM	0	0	0	25	0	0	0	44	0	7	0	3	0	0	0	0
11:45 AM	0	0	0	27	0	0	0	55	0	6	0	8	0	0	0	0
12:00 PM	0	0	0	26	0	0	0	75	0	5	0	3	0	1	0	4
12:15 PM	0	0	1	25	0	0	0	87	0	6	0	8	0	0	0	1
12:30 PM	0	0	0	39	0	0	0	95	0	18	0	9	0	1	0	4
12:45 PM	0	0	0	31	0	0	0	89	0	7	0	5	0	1	0	0
1:00 PM	0	0	2	20	0	0	0	96	0	12	0	19	0	0	0	1
1:15 PM	0	0	0	39	0	0	0	100	0	10	0	11	0	0	0	0
1:30 PM	0	0	0	33	0	0	0	138	0	8	0	11	0	0	0	0
1:45 PM	0	0	1	56	0	0	0	90	0	10	0	12	0	0	0	3

MID PEAK HOUR 12:30 PM to 1:30 PM	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	2	129	0	0	0	380	0	47	0	44	0	2	0	5

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTD #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F

PASSENGER CARS & HEAVY VEHICLES COMBINED

Start Time	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0
6:15 AM	0	0	0	5	0	0	0	0	0	0	43	0	0	0	0	0
6:30 AM	0	0	0	3	0	0	0	0	0	0	46	0	0	0	0	0
6:45 AM	0	0	0	2	0	1	0	0	0	0	60	0	0	0	0	0
7:00 AM	0	0	0	6	0	0	0	0	0	0	89	0	0	0	0	0
7:15 AM	0	0	0	15	0	0	0	0	0	0	109	0	0	0	0	0
7:30 AM	0	0	0	9	0	0	0	0	0	0	141	0	0	0	0	0
7:45 AM	0	0	0	20	0	0	0	0	0	0	151	0	0	0	0	0
8:00 AM	0	0	0	18	0	0	0	0	0	0	183	0	0	0	0	0
8:15 AM	0	0	0	24	0	0	0	0	0	1	168	0	0	0	0	0
8:30 AM	0	0	0	8	0	0	0	0	0	2	178	0	0	0	0	0
8:45 AM	0	0	0	5	0	0	0	0	0	0	160	0	0	0	0	0
9:00 AM	0	0	0	8	0	0	0	0	0	0	139	0	0	0	0	0
9:15 AM	0	0	0	3	0	2	0	0	0	0	119	0	0	0	0	0
9:30 AM	0	0	0	6	0	0	0	0	0	0	121	0	0	0	0	0
9:45 AM	0	0	0	10	0	0	0	0	0	0	113	0	0	0	0	0
10:00 AM	0	0	0	12	0	0	0	0	0	0	108	0	0	0	0	0
10:15 AM	0	0	0	5	0	1	0	0	0	1	94	0	0	0	0	0
10:30 AM	0	0	0	6	0	0	0	0	0	0	72	0	0	0	0	0
10:45 AM	0	0	1	6	0	0	0	0	0	0	122	0	0	0	0	0
11:00 AM	0	0	0	8	0	1	0	0	0	1	109	0	0	0	0	0
11:15 AM	0	0	0	7	0	0	0	0	0	0	108	0	0	0	0	0
11:30 AM	0	0	0	4	0	0	0	0	0	0	120	0	0	0	0	0
11:45 AM	0	0	1	8	0	0	0	0	0	0	147	0	0	0	0	0
12:00 PM	0	0	0	13	0	0	0	0	0	0	107	0	0	0	0	0
12:15 PM	0	0	0	14	0	0	0	0	0	0	134	0	0	0	0	0
12:30 PM	0	0	0	9	0	2	0	0	0	0	127	0	0	0	0	0
12:45 PM	0	0	0	7	0	0	0	0	0	0	123	0	0	0	0	0
1:00 PM	0	0	0	7	0	1	0	0	0	0	125	0	0	0	0	0
1:15 PM	0	0	0	10	0	0	0	0	0	0	120	0	0	0	0	0
1:30 PM	0	0	0	8	0	0	0	0	0	0	124	0	0	0	0	0
1:45 PM	0	0	0	9	0	0	0	0	0	0	115	0	0	0	0	0
2:00 PM	0	0	0	6	0	1	0	0	0	0	110	0	0	0	0	0
2:15 PM	0	0	0	14	0	0	0	0	0	0	118	0	0	0	0	0
2:30 PM	0	0	0	18	0	0	0	0	0	0	128	0	0	0	0	0
2:45 PM	0	0	0	29	0	1	0	0	0	0	152	0	0	0	0	0
3:00 PM	0	0	0	23	0	0	0	0	0	0	141	0	0	0	0	0
3:15 PM	0	0	0	14	0	0	0	0	0	0	121	0	0	0	0	0
3:30 PM	0	0	0	17	0	1	0	0	0	0	117	0	0	0	0	0
3:45 PM	0	0	0	14	0	0	0	0	0	1	119	0	0	0	0	0
4:00 PM	0	0	1	19	0	1	0	0	0	0	116	0	0	0	0	0
4:15 PM	0	0	0	17	0	0	0	0	0	1	102	0	0	0	0	0
4:30 PM	0	0	0	11	0	0	0	0	0	0	122	0	0	0	0	0
4:45 PM	0	0	0	13	0	0	0	0	0	1	126	0	0	0	0	0
5:00 PM	0	0	0	17	0	0	0	0	0	0	157	0	0	0	0	0
5:15 PM	0	0	0	15	0	1	0	0	0	0	131	0	0	0	0	0
5:30 PM	0	0	0	22	0	0	0	0	0	1	122	0	0	0	0	0
5:45 PM	0	0	0	18	0	1	0	0	0	0	120	0	0	0	0	0
6:00 PM	0	0	0	19	0	1	0	0	0	0	116	0	0	0	0	0
6:15 PM	0	0	0	24	0	0	0	0	0	0	124	0	0	0	0	0
6:30 PM	0	0	0	17	0	0	0	0	0	0	112	0	0	0	0	0
6:45 PM	0	0	0	14	0	0	0	0	0	0	114	0	0	0	0	0
7:00 PM	0	0	2	11	0	1	0	0	0	0	98	0	0	0	0	0
7:15 PM	0	0	0	6	0	0	0	0	0	0	102	0	0	0	0	0
7:30 PM	0	0	0	8	0	0	0	0	0	0	101	0	0	0	0	0
7:45 PM	0	0	0	7	0	1	0	0	0	1	104	0	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM PHF HV %	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	70	0	0	0	0	0	3	680	0	0	0	0	0
	0.73				0.00				0.93				0.00			
	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%

MID PEAK HOUR 11:45 AM to 12:45 PM PHF HV %	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	1	44	0	2	0	0	0	0	515	0	0	0	0	0
	0.80				0.25				0.88				0.00			
	0.0%	0.0%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	0.0%	0.0%	0.0%	0.0%	0.0%

PM PEAK HOUR 2:30 PM to 3:30 PM PHF HV %	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	84	0	1	0	0	0	0	542	0	0	0	0	0
	0.72				0.25				0.89				0.00			
	0.0%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F



HEAVY VEHICLES

Hawkins Street Northbound					Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
6:30 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0
8:30 AM	0	0	0	1	0	0	0	0	0	0	10	0	0	0	0	0
8:45 AM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
11:15 AM	0	0	0	1	0	0	0	0	0	0	14	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	9	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
12:30 PM	0	0	0	2	0	0	0	0	0	0	10	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0
2:30 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
3:30 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
6:00 PM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM PHF	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	3	0	0	0	0	0	0	32	0	0	0	0	0
0.75				0.00				0.80				0.00				

MID PEAK HOUR 10:30 AM to 11:30 AM PHF	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	3	0	0	0	0	0	0	41	0	0	0	0	0
0.75				0.00				0.73				0.00				

PM PEAK HOUR 2:00 PM to 3:00 PM PHF	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	0	0	1	0	0	0	0	0	0	26	0	0	0	0	0
0.25				0.00				0.72				0.00				

Client: Zoe Dickerson
 Project #: 864_013_MM
 BTM #: Location 3
 Location: Somerville, MA
 Street 1: Somerville Avenue
 Street 2: Hawkins Street
 Count Date: 2/15/2022
 Day of Week: Tuesday
 Weather: Clouds & Sun, 30°F

PEDESTRIANS & BICYCLES

	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
6:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	3	0	0	0	5	0	2	0	0	0	0	0	0
6:45 AM	0	0	0	8	0	0	0	6	0	1	0	2	0	1	0	0
7:00 AM	0	0	0	9	0	0	0	3	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	6	0	0	0	6	0	7	0	1	0	0	0	0
7:30 AM	0	0	0	4	0	0	0	3	0	5	0	0	0	0	0	0
7:45 AM	0	0	0	6	0	0	0	4	0	9	0	0	0	0	0	0
8:00 AM	0	0	0	15	0	0	0	9	0	4	0	3	0	0	0	0
8:15 AM	0	0	0	8	0	0	0	8	0	10	0	2	0	0	0	1
8:30 AM	0	0	0	8	0	0	0	2	0	11	0	3	0	0	0	0
8:45 AM	0	0	0	8	0	0	0	15	0	15	0	1	0	0	0	0
9:00 AM	0	0	1	13	0	0	0	9	0	6	0	4	0	0	0	0
9:15 AM	0	0	0	4	0	0	0	11	0	6	0	0	0	0	0	0
9:30 AM	0	0	0	7	0	0	0	7	0	8	0	2	0	0	0	1
9:45 AM	0	0	0	9	0	0	0	15	0	4	0	2	0	1	0	0
10:00 AM	0	0	0	8	0	0	0	17	0	3	0	2	0	0	0	0
10:15 AM	0	0	0	3	0	0	0	5	0	3	0	0	0	0	0	0
10:30 AM	0	0	0	6	0	0	0	11	0	2	0	0	0	0	0	1
10:45 AM	0	0	0	7	0	0	0	12	0	3	0	1	0	0	0	2
11:00 AM	0	0	0	7	0	0	0	10	0	4	0	4	0	0	0	1
11:15 AM	0	0	0	8	0	0	0	8	0	2	0	1	0	2	0	0
11:30 AM	0	0	0	6	0	0	0	13	0	4	0	0	0	0	0	0
11:45 AM	0	0	0	9	0	0	0	21	0	4	0	1	0	0	0	0
12:00 PM	0	0	0	3	0	0	0	23	0	2	0	4	0	0	0	0
12:15 PM	0	0	0	11	0	0	0	26	0	3	0	2	0	0	0	0
12:30 PM	0	0	0	10	0	0	0	18	0	3	0	3	0	0	0	0
12:45 PM	0	0	0	13	0	0	0	18	0	2	0	2	0	0	0	0
1:00 PM	0	0	0	14	0	0	0	17	0	0	0	1	0	0	0	2
1:15 PM	0	0	0	10	0	0	0	24	0	2	0	3	0	0	0	0
1:30 PM	0	0	0	9	0	0	0	16	0	2	0	2	0	0	0	2
1:45 PM	0	0	0	9	0	0	0	15	0	0	0	1	0	0	0	0
2:00 PM	0	0	0	14	0	0	0	16	0	2	0	2	0	0	0	0
2:15 PM	0	0	0	8	0	0	0	9	0	2	0	1	0	0	0	1
2:30 PM	0	0	0	12	0	0	0	10	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	17	0	0	0	12	0	1	0	2	0	0	0	2
3:00 PM	0	0	1	6	0	0	0	17	0	0	0	1	0	0	0	0
3:15 PM	0	0	0	10	0	0	0	13	0	1	0	2	0	0	0	0
3:30 PM	0	0	0	14	0	0	0	16	0	1	0	2	0	0	0	1
3:45 PM	0	0	0	19	0	0	0	17	0	1	0	4	0	0	0	0
4:00 PM	0	0	0	18	0	0	0	13	0	0	0	4	0	1	0	2
4:15 PM	0	0	1	9	0	0	0	12	0	2	0	2	0	0	0	0
4:30 PM	0	0	0	15	0	0	0	11	0	1	0	5	0	1	0	0
4:45 PM	0	0	0	8	0	0	0	18	0	2	0	1	0	0	0	0
5:00 PM	0	0	0	18	0	0	0	21	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	13	0	0	0	12	0	1	0	2	0	0	0	0
5:30 PM	0	0	1	18	0	0	0	9	0	2	0	1	0	0	0	0
5:45 PM	0	0	0	13	0	0	0	12	0	1	0	7	0	0	0	1
6:00 PM	0	0	0	14	0	0	0	11	0	0	0	5	0	0	0	0
6:15 PM	0	0	0	14	0	0	0	8	0	2	0	4	0	0	0	1
6:30 PM	0	0	0	10	0	0	0	7	0	1	0	1	0	0	0	1
6:45 PM	0	0	0	19	0	0	0	14	0	2	0	4	0	1	0	1
7:00 PM	0	0	0	12	0	0	0	10	0	1	0	1	0	0	0	0
7:15 PM	0	0	0	7	0	0	0	14	0	4	0	0	0	0	0	1
7:30 PM	0	0	0	9	0	0	0	13	0	3	0	4	0	0	0	1
7:45 PM	0	0	0	9	0	0	0	10	0	0	0	5	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	37	0	0	0	23	0	34	0	8	0	0	0	1

MID PEAK HOUR 11:45 AM to 12:45 PM	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	33	0	0	0	88	0	12	0	10	0	0	0	0

PM PEAK HOUR 2:30 PM to 3:30 PM	Hawkins Street Northbound				Driveway Southbound				Somerville Avenue Eastbound				Somerville Avenue Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	1	45	0	0	0	52	0	2	0	5	0	0	0	3

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Volume Report

Job 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Thursday, March 3, 2022

Time	Total	EB			Time	Total	EB		
0000	19	19	0		1200	124	124	0	
0015	13	13	0		1215	153	153	0	
0030	9	9	0		1230	111	111	0	
0045	10	51	10	51	1245	116	504	116	504
0100	10		0	0	1300	114		114	0
0115	6		0		1315	115		115	0
0130	4		0		1330	125		125	0
0145	5	25	5	25	1345	141	495	141	495
0200	2		0		1400	138		138	0
0215	7		0		1415	113		113	0
0230	1		0		1430	121		121	0
0245	6	16	6	16	1445	124	496	124	496
0300	2		0		1500	124		124	0
0315	3		0		1515	140		140	0
0330	4		0		1530	126		126	0
0345	4	13	4	13	1545	124	514	124	514
0400	7		0		1600	119		119	0
0415	6		0		1615	130		130	0
0430	6		0		1630	113		113	0
0445	14	33	14	33	1645	115	477	115	477
0500	8		0		1700	123		123	0
0515	22		0		1715	129		129	0
0530	22		0		1730	136		136	0
0545	25	77	25	77	1745	136	524	136	524
0600	33		0		1800	102		102	0
0615	53		0		1815	125		125	0
0630	58		0		1830	107		107	0
0645	76	220	76	220	1845	119	453	119	453
0700	83		0		1900	96		96	0
0715	115		0		1915	113		113	0
0730	110		0		1930	116		116	0
0745	140	448	140	448	1945	91	416	91	416
0800	151		0	0	2000	82		82	0
0815	180		0		2015	73		73	0
0830	147		0		2030	77		77	0
0845	149	627	149	627	2045	75	307	75	307
0900	125		0		2100	82		82	0
0915	132		0		2115	47		47	0
0930	107		0		2130	70		70	0
0945	130	494	130	494	2145	58	257	58	257
1000	118		0		2200	54		54	0
1015	119		0		2215	44		44	0
1030	114		0		2230	43		43	0
1045	133	484	133	484	2245	41	182	41	182
1100	129		0		2300	30		30	0
1115	111		0		2315	27		27	0
1130	120		0		2330	29		29	0
1145	123	483	123	483	2345	28	114	28	114
Total					7710		7710	0	

Volume Report

Job 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Friday, March 4, 2022

Time	Total	EB			Time	Total	EB		
0000	31	31	0		1200	107	107	0	
0015	20	20	0		1215	89	89	0	
0030	15	15	0		1230	126	126	0	
0045	11	77	11	77	1245	143	465	143	465
0100	16	16	0	0	1300	148	148	0	0
0115	5	5	0		1315	164	164	0	
0130	12	12	0		1330	160	160	0	
0145	6	39	6	39	1345	134	606	134	606
0200	2	2	0	0	1400	143	143	0	0
0215	3	3	0		1415	145	145	0	
0230	7	7	0		1430	115	115	0	
0245	2	14	2	14	1445	139	542	139	542
0300	3	3	0	0	1500	132	132	0	0
0315	1	1	0		1515	108	108	0	
0330	4	4	0		1530	125	125	0	
0345	7	15	7	15	1545	116	481	116	481
0400	6	6	0	0	1600	169	169	0	0
0415	6	6	0		1615	121	121	0	
0430	5	5	0		1630	145	145	0	
0445	11	28	11	28	1645	145	580	145	580
0500	10	10	0	0	1700	164	164	0	0
0515	21	21	0		1715	136	136	0	
0530	29	29	0		1730	141	141	0	
0545	29	89	29	89	1745	123	564	123	564
0600	40	40	0	0	1800	129	129	0	0
0615	43	43	0		1815	134	134	0	
0630	50	50	0		1830	108	108	0	
0645	58	191	58	191	1845	63	434	63	434
0700	72	72	0	0	1900	116	116	0	0
0715	118	118	0		1915	122	122	0	
0730	135	135	0		1930	125	125	0	
0745	130	455	130	455	1945	124	487	124	487
0800	158	158	0	0	2000	97	97	0	0
0815	151	151	0		2015	107	107	0	
0830	146	146	0		2030	93	93	0	
0845	129	584	129	584	2045	97	394	97	394
0900	143	143	0	0	2100	87	87	0	0
0915	118	118	0		2115	72	72	0	
0930	120	120	0		2130	66	66	0	
0945	128	509	128	509	2145	65	290	65	290
1000	106	106	0	0	2200	65	65	0	0
1015	91	91	0		2215	42	42	0	
1030	122	122	0		2230	50	50	0	
1045	108	427	108	427	2245	47	204	47	204
1100	130	130	0	0	2300	55	55	0	0
1115	144	144	0		2315	42	42	0	
1130	145	145	0		2330	43	43	0	
1145	150	569	150	569	2345	36	176	36	176
Total					8220	8220	0	0	0

Volume Report

Job 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Saturday, March 5, 2022

Time	Total	EB			Time	Total	EB		
0000	34	34	0		1200	119	119	0	
0015	44	44	0		1215	142	142	0	
0030	31	31	0		1230	88	88	0	
0045	40	149	40	149	1245	83	432	83	432
0100	25	25	0	0	1300	85	85	0	0
0115	37	37	0		1315	132	132	0	
0130	30	30	0		1330	143	143	0	
0145	21	113	21	113	1345	142	502	142	502
0200	20	20	0	0	1400	135	135	0	0
0215	17	17	0		1415	134	134	0	
0230	8	8	0		1430	138	138	0	
0245	13	58	13	58	1445	109	516	109	516
0300	9	9	0	0	1500	139	139	0	0
0315	4	4	0		1515	118	118	0	
0330	6	6	0		1530	144	144	0	
0345	5	24	5	24	1545	133	534	133	534
0400	7	7	0	0	1600	150	150	0	0
0415	9	9	0		1615	155	155	0	
0430	3	3	0		1630	133	133	0	
0445	6	25	6	25	1645	130	568	130	568
0500	1	1	0	0	1700	139	139	0	0
0515	7	7	0		1715	105	105	0	
0530	13	13	0		1730	101	101	0	
0545	18	39	18	39	1745	120	465	120	465
0600	13	13	0	0	1800	113	113	0	0
0615	30	30	0		1815	113	113	0	
0630	26	26	0		1830	109	109	0	
0645	37	106	37	106	1845	98	433	98	433
0700	27	27	0	0	1900	97	97	0	0
0715	33	33	0		1915	88	88	0	
0730	47	47	0		1930	107	107	0	
0745	65	172	65	172	1945	91	383	91	383
0800	70	70	0	0	2000	111	111	0	0
0815	67	67	0		2015	81	81	0	
0830	66	66	0		2030	38	38	0	
0845	112	315	112	315	2045	39	269	39	269
0900	103	103	0	0	2100	67	67	0	0
0915	106	106	0		2115	60	60	0	
0930	97	97	0		2130	61	61	0	
0945	117	423	117	423	2145	73	261	73	261
1000	95	95	0	0	2200	72	72	0	0
1015	121	121	0		2215	55	55	0	
1030	140	140	0		2230	52	52	0	
1045	117	473	117	473	2245	51	230	51	230
1100	143	143	0	0	2300	55	55	0	0
1115	131	131	0		2315	39	39	0	
1130	143	143	0		2330	27	27	0	
1145	144	561	144	561	2345	35	156	35	156
Total					7207	7207	0	0	0

Volume Report

Job 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Thursday, March 3, 2022

Time	Total	NB			Time	Total	NB		
0000	26	26	0		1200	125	125	0	
0015	22	22	0		1215	154	154	0	
0030	18	18	0		1230	149	149	0	
0045	8	74	8	74	1245	156	584	156	584
0100	8	8	0	0	1300	109	109	0	0
0115	10	10	0		1315	142	142	0	
0130	13	13	0		1330	132	132	0	
0145	4	35	4	35	1345	155	538	155	538
0200	6	6	0	0	1400	182	182	0	0
0215	1	1	0		1415	154	154	0	
0230	7	7	0		1430	156	156	0	
0245	7	21	7	21	1445	192	684	192	684
0300	5	5	0	0	1500	173	173	0	0
0315	9	9	0		1515	185	185	0	
0330	5	5	0		1530	173	173	0	
0345	7	26	7	26	1545	204	735	204	735
0400	6	6	0	0	1600	184	184	0	0
0415	3	3	0		1615	187	187	0	
0430	10	10	0		1630	179	179	0	
0445	13	32	13	32	1645	200	750	200	750
0500	17	17	0	0	1700	191	191	0	0
0515	21	21	0		1715	193	193	0	
0530	26	26	0		1730	206	206	0	
0545	39	103	39	103	1745	207	797	207	797
0600	39	39	0	0	1800	196	196	0	0
0615	42	42	0		1815	178	178	0	
0630	45	45	0		1830	194	194	0	
0645	74	200	74	200	1845	158	726	158	726
0700	73	73	0	0	1900	131	131	0	0
0715	84	84	0		1915	146	146	0	
0730	121	121	0		1930	137	137	0	
0745	132	410	132	410	1945	123	537	123	537
0800	151	151	0	0	2000	119	119	0	0
0815	129	129	0		2015	118	118	0	
0830	134	134	0		2030	102	102	0	
0845	125	539	125	539	2045	90	429	90	429
0900	97	97	0	0	2100	96	96	0	0
0915	103	103	0		2115	86	86	0	
0930	123	123	0		2130	71	71	0	
0945	125	448	125	448	2145	73	326	73	326
1000	109	109	0	0	2200	66	66	0	0
1015	126	126	0		2215	60	60	0	
1030	123	123	0		2230	66	66	0	
1045	96	454	96	454	2245	44	236	44	236
1100	127	127	0	0	2300	38	38	0	0
1115	122	122	0		2315	35	35	0	
1130	131	131	0		2330	28	28	0	
1145	152	532	152	532	2345	29	130	29	130
Total					9346	9346	0	0	0

Volume Report

Job 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Friday, March 4, 2022

Time	Total	NB			Time	Total	NB		
0000	33	33	0		1200	172	172	0	
0015	22	22	0		1215	146	146	0	
0030	19	19	0		1230	163	163	0	
0045	16	16	90	0	1245	176	176	657	0
0100	17	17	0		1300	141	141	0	
0115	12	12	0		1315	178	178	0	
0130	10	10	0		1330	158	158	0	
0145	5	5	44	0	1345	151	151	628	0
0200	4	4	0		1400	147	147	0	
0215	5	5	0		1415	149	149	0	
0230	7	7	0		1430	142	142	0	
0245	7	7	23	0	1445	176	176	614	0
0300	2	2	0		1500	170	170	0	
0315	9	9	0		1515	203	203	0	
0330	5	5	0		1530	194	194	0	
0345	4	4	20	0	1545	185	185	752	0
0400	5	5	0		1600	219	219	0	
0415	4	4	0		1615	198	198	0	
0430	12	12	0		1630	182	182	0	
0445	14	14	35	0	1645	190	190	789	0
0500	8	8	0		1700	209	209	0	
0515	24	24	0		1715	187	187	0	
0530	22	22	0		1730	188	188	0	
0545	40	40	94	0	1745	197	197	781	0
0600	36	36	0		1800	165	165	0	
0615	51	51	0		1815	159	159	0	
0630	45	45	0		1830	184	184	0	
0645	71	71	203	0	1845	186	186	694	0
0700	69	69	0		1900	165	165	0	
0715	81	81	0		1915	166	166	0	
0730	118	118	0		1930	169	169	0	
0745	140	140	408	0	1945	148	148	648	0
0800	163	163	0		2000	132	132	0	
0815	155	155	0		2015	124	124	0	
0830	144	144	0		2030	118	118	0	
0845	127	127	589	0	2045	125	125	499	0
0900	127	127	0		2100	116	116	0	
0915	118	118	0		2115	99	99	0	
0930	130	130	0		2130	112	112	0	
0945	127	127	502	0	2145	91	91	418	0
1000	135	135	0		2200	73	73	0	
1015	121	121	0		2215	91	91	0	
1030	162	162	0		2230	53	53	0	
1045	109	109	527	0	2245	52	52	269	0
1100	173	173	0		2300	61	61	0	
1115	114	114	0		2315	58	58	0	
1130	142	142	0		2330	59	59	0	
1145	174	174	603	0	2345	56	56	234	0
Total	10121	10121	0						

Volume Report

Job 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street

BOSTON TRAFFIC DATA

PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Saturday, March 5, 2022

Time	Total	NB			Time	Total	NB		
0000	54	54	0		1200	166	166	0	
0015	39	39	0		1215	179	179	0	
0030	40	40	0		1230	169	169	0	
0045	35	168	35	168	1245	161	675	161	675
0100	25	25	0	0	1300	158	158	0	0
0115	26	26	0		1315	156	156	0	
0130	26	26	0		1330	178	178	0	
0145	29	106	29	106	1345	156	648	156	648
0200	23	23	0	0	1400	156	156	0	0
0215	21	21	0		1415	155	155	0	
0230	18	18	0		1430	149	149	0	
0245	16	78	16	78	1445	138	598	138	598
0300	14	14	0	0	1500	175	175	0	0
0315	8	8	0		1515	154	154	0	
0330	8	8	0		1530	139	139	0	
0345	4	34	4	34	1545	153	621	153	621
0400	6	6	0	0	1600	184	184	0	0
0415	7	7	0		1615	169	169	0	
0430	5	5	0		1630	154	154	0	
0445	2	20	2	20	1645	182	689	182	689
0500	8	8	0	0	1700	182	182	0	0
0515	15	15	0		1715	169	169	0	
0530	20	20	0		1730	158	158	0	
0545	26	69	26	69	1745	156	665	156	665
0600	22	22	0	0	1800	154	154	0	0
0615	31	31	0		1815	143	143	0	
0630	32	32	0		1830	143	143	0	
0645	32	117	32	117	1845	132	572	132	572
0700	42	42	0	0	1900	180	180	0	0
0715	46	46	0		1915	124	124	0	
0730	61	61	0		1930	135	135	0	
0745	81	230	81	230	1945	136	575	136	575
0800	90	90	0	0	2000	113	113	0	0
0815	80	80	0		2015	144	144	0	
0830	76	76	0		2030	107	107	0	
0845	110	356	110	356	2045	117	481	117	481
0900	120	120	0	0	2100	114	114	0	0
0915	114	114	0		2115	89	89	0	
0930	125	125	0		2130	94	94	0	
0945	130	489	130	489	2145	88	385	88	385
1000	144	144	0	0	2200	74	74	0	0
1015	148	148	0		2215	66	66	0	
1030	142	142	0		2230	93	93	0	
1045	148	582	148	582	2245	83	316	83	316
1100	143	143	0	0	2300	71	71	0	0
1115	148	148	0		2315	61	61	0	
1130	146	146	0		2330	68	68	0	
1145	169	606	169	606	2345	55	255	55	255
Total	9335	9335	0	0					

Classification Report

Job # 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
Direction Eastbound
Thursday, March 3, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	51	0	48	1	2	0	0	0	0	0	0	0	0	0
0100	25	0	22	1	2	0	0	0	0	0	0	0	0	0
0200	16	0	13	3	0	0	0	0	0	0	0	0	0	0
0300	13	0	11	2	0	0	0	0	0	0	0	0	0	0
0400	33	0	21	4	0	3	4	0	0	1	0	0	0	0
0500	77	0	56	12	4	0	3	1	0	1	0	0	0	0
0600	220	0	168	38	8	0	3	0	1	2	0	0	0	0
0700	448	4	385	44	8	4	1	2	0	0	0	0	0	0
0800	627	6	573	28	7	4	3	2	2	2	0	0	0	0
0900	494	6	424	55	3	0	3	1	0	2	0	0	0	0
1000	484	0	416	48	4	8	5	0	0	2	1	0	0	0
1100	483	3	411	53	4	8	3	0	0	1	0	0	0	0
1200	504	1	438	46	6	7	3	1	0	2	0	0	0	0
1300	495	0	430	47	7	7	4	0	0	0	0	0	0	0
1400	496	0	422	55	6	10	1	1	0	1	0	0	0	0
1500	514	0	451	49	9	2	2	1	0	0	0	0	0	0
1600	477	3	425	32	5	5	2	3	1	1	0	0	0	0
1700	524	0	486	28	6	2	1	1	0	0	0	0	0	0
1800	453	1	427	16	6	1	0	1	0	1	0	0	0	0
1900	416	2	400	7	5	1	0	1	0	0	0	0	0	0
2000	307	0	296	9	2	0	0	0	0	0	0	0	0	0
2100	257	1	238	15	2	1	0	0	0	0	0	0	0	0
2200	182	0	176	4	1	0	0	1	0	0	0	0	0	0
2300	114	0	104	8	2	0	0	0	0	0	0	0	0	0
Total	7710	27	6841	605	99	63	38	16	4	16	1	0	0	0
	100.00%	0.35%	88.73%	7.85%	1.28%	0.82%	0.49%	0.21%	0.05%	0.21%	0.01%	0.00%	0.00%	0.00%

Classification Report

Job # 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
Direction Eastbound
Friday, March 4, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	77	0	71	4	2	0	0	0	0	0	0	0	0	0
0100	39	0	34	3	2	0	0	0	0	0	0	0	0	0
0200	14	0	13	1	0	0	0	0	0	0	0	0	0	0
0300	15	0	9	3	0	1	1	0	0	1	0	0	0	0
0400	28	0	19	4	0	3	2	0	0	0	0	0	0	0
0500	89	0	69	14	3	1	1	0	0	1	0	0	0	0
0600	191	1	146	28	8	2	2	1	0	3	0	0	0	0
0700	455	1	405	29	8	4	4	2	0	2	0	0	0	0
0800	584	1	529	31	9	5	6	1	0	2	0	0	0	0
0900	509	1	425	64	9	4	5	0	0	1	0	0	0	0
1000	427	2	374	41	6	2	2	0	0	0	0	0	0	0
1100	569	1	475	72	7	8	5	0	0	1	0	0	0	0
1200	465	1	401	50	1	6	4	0	0	2	0	0	0	0
1300	606	1	513	75	9	6	1	0	0	1	0	0	0	0
1400	542	0	482	51	8	0	1	0	0	0	0	0	0	0
1500	481	1	421	49	6	2	2	0	0	0	0	0	0	0
1600	580	0	539	31	5	5	0	0	0	0	0	0	0	0
1700	564	0	530	26	3	2	0	2	1	0	0	0	0	0
1800	434	0	420	11	2	0	0	1	0	0	0	0	0	0
1900	487	0	467	11	6	3	0	0	0	0	0	0	0	0
2000	394	0	385	8	1	0	0	0	0	0	0	0	0	0
2100	290	2	284	2	2	0	0	0	0	0	0	0	0	0
2200	204	2	195	4	2	1	0	0	0	0	0	0	0	0
2300	176	2	168	3	2	0	1	0	0	0	0	0	0	0
Total	8220	16	7374	615	101	55	37	7	1	14	0	0	0	0
	100.00%	0.19%	89.71%	7.48%	1.23%	0.67%	0.45%	0.09%	0.01%	0.17%	0.00%	0.00%	0.00%	0.00%

Classification Report

Job # 864_013_MM_ATR 1
Area Somerville, MA
Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
Direction Eastbound
Saturday, March 5, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	149	0	143	2	2	0	0	1	0	1	0	0	0	0
0100	113	0	107	3	1	0	0	0	0	2	0	0	0	0
0200	58	0	57	1	0	0	0	0	0	0	0	0	0	0
0300	24	0	24	0	0	0	0	0	0	0	0	0	0	0
0400	25	0	22	3	0	0	0	0	0	0	0	0	0	0
0500	39	1	32	3	2	1	0	0	0	0	0	0	0	0
0600	106	0	87	12	2	1	2	0	0	2	0	0	0	0
0700	172	0	148	16	2	2	1	0	0	3	0	0	0	0
0800	315	0	296	13	4	0	0	0	1	1	0	0	0	0
0900	423	0	392	24	3	2	2	0	0	0	0	0	0	0
1000	473	0	443	22	3	5	0	0	0	0	0	0	0	0
1100	561	0	527	27	4	2	1	0	0	0	0	0	0	0
1200	432	1	411	18	0	1	1	0	0	0	0	0	0	0
1300	502	2	476	20	1	0	3	0	0	0	0	0	0	0
1400	516	3	492	12	3	1	3	2	0	0	0	0	0	0
1500	534	0	509	16	4	1	0	4	0	0	0	0	0	0
1600	568	2	549	9	2	1	4	1	0	0	0	0	0	0
1700	465	1	443	13	3	1	1	2	0	1	0	0	0	0
1800	433	2	414	11	2	1	3	0	0	0	0	0	0	0
1900	383	0	374	4	3	0	0	2	0	0	0	0	0	0
2000	269	1	257	5	3	0	2	0	0	0	1	0	0	0
2100	261	0	250	9	2	0	0	0	0	0	0	0	0	0
2200	230	0	224	4	1	0	1	0	0	0	0	0	0	0
2300	156	2	150	3	1	0	0	0	0	0	0	0	0	0
Total	7207	15	6827	250	48	19	24	12	1	10	1	0	0	0
	100.00%	0.21%	94.73%	3.47%	0.67%	0.26%	0.33%	0.17%	0.01%	0.14%	0.01%	0.00%	0.00%	0.00%

Classification Report

Job # 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street
Direction Northbound
Thursday, March 3, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	74	3	69	1	1	0	0	0	0	0	0	0	0	0
0100	35	1	29	3	2	0	0	0	0	0	0	0	0	0
0200	21	0	18	1	0	2	0	0	0	0	0	0	0	0
0300	26	0	16	5	0	2	1	0	0	2	0	0	0	0
0400	32	0	27	0	2	0	3	0	0	0	0	0	0	0
0500	103	0	74	14	9	4	1	0	0	1	0	0	0	0
0600	200	2	134	38	12	5	7	1	0	1	0	0	0	0
0700	410	6	330	51	6	10	3	3	0	1	0	0	0	0
0800	539	11	450	52	5	15	5	1	0	0	0	0	0	0
0900	448	11	344	62	8	14	6	1	0	1	0	0	0	1
1000	454	9	366	56	4	14	1	3	0	0	0	0	0	1
1100	532	12	440	57	4	7	4	6	0	1	0	0	0	1
1200	584	13	507	43	5	5	2	6	0	1	0	0	0	2
1300	538	17	453	51	7	5	2	1	0	0	0	0	0	2
1400	684	18	558	78	11	12	3	2	0	1	0	0	0	1
1500	735	16	647	57	4	4	2	2	0	1	0	0	0	2
1600	750	15	685	36	2	7	0	4	0	0	1	0	0	0
1700	797	19	724	46	4	3	0	1	0	0	0	0	0	0
1800	726	16	672	32	1	3	1	1	0	0	0	0	0	0
1900	537	8	504	13	9	1	0	0	0	1	0	0	0	1
2000	429	8	394	22	1	0	0	3	0	1	0	0	0	0
2100	326	8	303	14	1	0	0	0	0	0	0	0	0	0
2200	236	3	222	9	1	0	0	1	0	0	0	0	0	0
2300	130	1	120	8	1	0	0	0	0	0	0	0	0	0
Total	9346	197	8086	749	100	113	41	36	0	12	1	0	0	11
	100.00%	2.11%	86.52%	8.01%	1.07%	1.21%	0.44%	0.39%	0.00%	0.13%	0.01%	0.00%	0.00%	0.12%

Classification Report

Job # 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street
Direction Northbound
Friday, March 4, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	90	0	80	4	2	3	1	0	0	0	0	0	0	0
0100	44	0	38	3	3	0	0	0	0	0	0	0	0	0
0200	23	0	19	1	0	2	0	0	0	1	0	0	0	0
0300	20	0	16	1	0	1	1	0	0	0	1	0	0	0
0400	35	0	22	4	4	2	2	0	0	1	0	0	0	0
0500	94	1	56	18	10	3	2	1	0	3	0	0	0	0
0600	203	2	140	28	17	7	7	1	0	1	0	0	0	0
0700	408	3	328	48	16	6	3	2	0	1	0	0	0	1
0800	589	14	494	50	6	12	7	2	0	4	0	0	0	0
0900	502	6	413	61	4	10	4	4	0	0	0	0	0	0
1000	527	13	435	55	7	8	4	5	0	0	0	0	0	0
1100	603	10	497	64	5	15	4	6	0	0	0	0	0	2
1200	657	24	537	62	14	9	4	4	0	3	0	0	0	0
1300	628	19	513	71	8	8	1	4	0	2	0	0	0	2
1400	614	10	524	51	12	8	0	6	0	0	0	0	0	3
1500	752	13	658	60	5	4	2	6	0	1	0	0	0	3
1600	789	22	710	42	4	5	0	5	0	1	0	0	0	0
1700	781	15	717	33	6	3	1	4	0	0	0	0	0	2
1800	694	24	635	22	7	3	0	1	0	2	0	0	0	0
1900	648	5	623	15	1	3	1	0	0	0	0	0	0	0
2000	499	4	471	16	2	1	3	2	0	0	0	0	0	0
2100	418	6	394	12	4	1	0	1	0	0	0	0	0	0
2200	269	5	250	11	2	1	0	0	0	0	0	0	0	0
2300	234	1	223	8	0	0	0	1	0	1	0	0	0	0
Total	10121	197	8793	740	139	115	47	55	0	21	1	0	0	13
	100.00%	1.95%	86.88%	7.31%	1.37%	1.14%	0.46%	0.54%	0.00%	0.21%	0.01%	0.00%	0.00%	0.13%

Classification Report

Job # 864_013_MM_ATR 2
Area Somerville, MA
Location Bow Street NB, between Warren Avenue & Walnut Street
Direction Northbound
Saturday, March 5, 2022

BOSTON
TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	168	1	159	5	3	0	0	0	0	0	0	0	0	0
0100	106	1	96	6	2	0	0	0	0	1	0	0	0	0
0200	78	0	70	8	0	0	0	0	0	0	0	0	0	0
0300	34	1	32	1	0	0	0	0	0	0	0	0	0	0
0400	20	0	20	0	0	0	0	0	0	0	0	0	0	0
0500	69	0	50	11	2	4	1	0	0	1	0	0	0	0
0600	117	1	95	10	3	4	2	1	0	1	0	0	0	0
0700	230	2	187	29	7	2	1	0	0	2	0	0	0	0
0800	356	4	312	31	3	3	3	0	0	0	0	0	0	0
0900	489	9	424	43	6	2	2	1	0	0	0	0	0	2
1000	582	8	522	34	5	6	3	2	0	0	0	0	0	2
1100	606	24	541	21	4	5	5	3	0	2	0	0	0	1
1200	675	15	608	21	10	6	2	8	0	0	0	0	0	5
1300	648	21	573	26	15	6	2	4	0	0	0	0	0	1
1400	598	15	543	26	8	4	1	0	0	0	0	0	0	1
1500	621	7	574	21	9	3	1	5	0	1	0	0	0	0
1600	689	18	640	20	0	3	3	1	0	1	0	0	0	3
1700	665	18	600	28	8	2	0	4	0	0	0	0	0	5
1800	572	7	532	19	9	0	3	0	0	1	0	0	0	1
1900	575	16	540	15	1	0	0	0	0	2	0	0	0	1
2000	481	5	454	18	2	1	0	1	0	0	0	0	0	0
2100	385	5	361	16	1	1	1	0	0	0	0	0	0	0
2200	316	1	298	14	1	1	0	1	0	0	0	0	0	0
2300	255	4	239	10	1	0	0	0	0	0	0	0	0	1
Total	9335	183	8470	433	100	53	30	31	0	12	0	0	0	23
	100.00%	1.96%	90.73%	4.64%	1.07%	0.57%	0.32%	0.33%	0.00%	0.13%	0.00%	0.00%	0.00%	0.25%

Speed Report

Job 864_013_MM_ATR 1
 Area Somerville, MA
 Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
 Dir Eastbound
 Thursday, March 3, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	51	0	0	2	3	18	19	9	0	0	0	0	0	0	0	0	0
0100	25	0	0	0	0	8	10	6	1	0	0	0	0	0	0	0	0
0200	16	0	0	0	3	3	7	3	0	0	0	0	0	0	0	0	0
0300	13	0	0	0	1	6	4	2	0	0	0	0	0	0	0	0	0
0400	33	0	0	0	2	7	10	11	2	1	0	0	0	0	0	0	0
0500	77	0	0	1	5	18	33	16	4	0	0	0	0	0	0	0	0
0600	220	0	1	8	25	82	80	22	1	1	0	0	0	0	0	0	0
0700	448	0	6	18	115	206	95	8	0	0	0	0	0	0	0	0	0
0800	627	2	31	95	215	212	64	7	1	0	0	0	0	0	0	0	0
0900	494	0	21	72	158	172	62	6	3	0	0	0	0	0	0	0	0
1000	484	0	14	52	166	180	64	5	3	0	0	0	0	0	0	0	0
1100	483	0	11	46	202	181	39	3	1	0	0	0	0	0	0	0	0
1200	504	0	34	133	211	106	19	1	0	0	0	0	0	0	0	0	0
1300	495	1	29	111	191	125	33	3	2	0	0	0	0	0	0	0	0
1400	496	4	60	150	178	89	15	0	0	0	0	0	0	0	0	0	0
1500	514	0	12	48	211	191	46	5	1	0	0	0	0	0	0	0	0
1600	477	0	3	28	141	225	76	4	0	0	0	0	0	0	0	0	0
1700	524	0	2	26	167	263	61	4	1	0	0	0	0	0	0	0	0
1800	453	0	8	20	170	199	52	4	0	0	0	0	0	0	0	0	0
1900	416	1	10	28	144	184	44	4	1	0	0	0	0	0	0	0	0
2000	307	0	14	26	74	138	48	6	1	0	0	0	0	0	0	0	0
2100	257	0	2	7	68	120	52	8	0	0	0	0	0	0	0	0	0
2200	182	0	1	2	24	89	60	5	1	0	0	0	0	0	0	0	0
2300	114	0	0	2	13	46	45	7	1	0	0	0	0	0	0	0	0
Total	7710	8	259	875	2487	2868	1038	149	24	2	0	0	0	0	0	0	0

100.00% 0.10% 3.36% 11.35% 32.26% 37.20% 13.46% 1.93% 0.31% 0.03% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 42.3 mph, Minimum = 3.6 mph, Mean = 20.1 mph
 85% Speed = 25.05 mph, 95% Speed = 27.91 mph, Median = 20.30 mph
 10 mph Pace = 16 - 26, Number in Pace = 5209 (70.42%)
 Variance = 25.37, Standard Deviation = 5.04 mph

Speed Report

Job 864_013_MM_ATR 1
 Area Somerville, MA
 Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
 Dir Eastbound
 Friday, March 4, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	77	0	0	4	8	28	25	11	1	0	0	0	0	0	0	0	0
0100	39	0	1	0	4	12	17	4	1	0	0	0	0	0	0	0	0
0200	14	0	0	0	2	2	6	4	0	0	0	0	0	0	0	0	0
0300	15	0	0	0	1	5	4	4	1	0	0	0	0	0	0	0	0
0400	28	0	0	0	1	2	13	11	1	0	0	0	0	0	0	0	0
0500	89	0	0	2	6	22	38	20	1	0	0	0	0	0	0	0	0
0600	191	0	3	2	22	68	77	17	2	0	0	0	0	0	0	0	0
0700	455	0	1	29	125	211	74	13	2	0	0	0	0	0	0	0	0
0800	584	0	7	117	241	166	47	6	0	0	0	0	0	0	0	0	0
0900	509	1	9	49	155	233	55	6	1	0	0	0	0	0	0	0	0
1000	427	0	9	75	161	152	29	1	0	0	0	0	0	0	0	0	0
1100	569	3	12	93	265	165	28	3	0	0	0	0	0	0	0	0	0
1200	465	1	14	64	189	163	29	5	0	0	0	0	0	0	0	0	0
1300	606	0	47	263	193	97	6	0	0	0	0	0	0	0	0	0	0
1400	542	5	31	98	210	155	41	1	1	0	0	0	0	0	0	0	0
1500	481	0	13	75	187	153	47	6	0	0	0	0	0	0	0	0	0
1600	580	0	8	59	179	271	55	8	0	0	0	0	0	0	0	0	0
1700	564	2	24	92	194	203	45	3	1	0	0	0	0	0	0	0	0
1800	434	0	17	81	196	119	20	1	0	0	0	0	0	0	0	0	0
1900	487	0	27	85	221	129	22	2	1	0	0	0	0	0	0	0	0
2000	394	1	19	65	171	119	18	1	0	0	0	0	0	0	0	0	0
2100	290	3	8	47	130	85	16	0	1	0	0	0	0	0	0	0	0
2200	204	1	10	12	47	98	31	5	0	0	0	0	0	0	0	0	0
2300	176	0	4	17	55	79	21	0	0	0	0	0	0	0	0	0	0
Total	8220	17	264	1329	2963	2737	764	132	14	0	0	0	0	0	0	0	0

100.00% 0.21% 3.21% 16.17% 36.05% 33.30% 9.29% 1.61% 0.17% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 38.2 mph, Minimum = 3.3 mph, Mean = 19.2 mph
 85% Speed = 24.10 mph, 95% Speed = 27.35 mph, Median = 19.35 mph
 10 mph Pace = 14 - 24, Number in Pace = 5747 (69.91%)
 Variance = 24.96, Standard Deviation = 5.00 mph

Speed Report

Job 864_013_MM_ATR 1
 Area Somerville, MA
 Location Somerville Avenue EB, between Hawkins Street & Bow Market Way
 Dir Eastbound
 Saturday, March 5, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	149	0	6	17	44	58	21	3	0	0	0	0	0	0	0	0	0
0100	113	0	2	5	19	49	29	8	1	0	0	0	0	0	0	0	0
0200	58	0	1	0	4	26	21	6	0	0	0	0	0	0	0	0	0
0300	24	0	0	0	2	9	11	2	0	0	0	0	0	0	0	0	0
0400	25	0	0	0	1	7	13	2	1	1	0	0	0	0	0	0	0
0500	39	0	1	2	5	10	16	5	0	0	0	0	0	0	0	0	0
0600	106	0	1	2	9	40	43	9	2	0	0	0	0	0	0	0	0
0700	172	0	0	1	12	84	62	13	0	0	0	0	0	0	0	0	0
0800	315	0	4	11	63	183	49	4	1	0	0	0	0	0	0	0	0
0900	423	0	13	49	176	157	21	6	1	0	0	0	0	0	0	0	0
1000	473	2	32	105	189	125	15	5	0	0	0	0	0	0	0	0	0
1100	561	3	20	88	250	171	27	1	1	0	0	0	0	0	0	0	0
1200	432	2	34	112	159	112	12	1	0	0	0	0	0	0	0	0	0
1300	502	1	24	104	250	117	5	1	0	0	0	0	0	0	0	0	0
1400	516	3	30	143	235	89	15	1	0	0	0	0	0	0	0	0	0
1500	534	1	17	143	255	100	16	2	0	0	0	0	0	0	0	0	0
1600	568	5	37	121	278	108	17	1	1	0	0	0	0	0	0	0	0
1700	465	2	25	70	234	121	12	1	0	0	0	0	0	0	0	0	0
1800	433	5	20	97	195	104	12	0	0	0	0	0	0	0	0	0	0
1900	383	3	13	88	179	87	11	1	0	1	0	0	0	0	0	0	0
2000	269	0	10	49	114	84	11	0	1	0	0	0	0	0	0	0	0
2100	261	0	8	32	112	95	11	3	0	0	0	0	0	0	0	0	0
2200	230	2	12	26	80	84	24	2	0	0	0	0	0	0	0	0	0
2300	156	0	5	9	37	89	14	2	0	0	0	0	0	0	0	0	0
Total	7207	29	315	1274	2902	2109	488	79	9	2	0	0	0	0	0	0	0

100.00% 0.40% 4.37% 17.68% 40.27% 29.26% 6.77% 1.10% 0.12% 0.03% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 41.9 mph, Minimum = 2.9 mph, Mean = 18.4 mph
 85% Speed = 23.26 mph, 95% Speed = 26.34 mph, Median = 18.62 mph
 10 mph Pace = 14 - 24, Number in Pace = 5154 (71.51%)
 Variance = 23.99, Standard Deviation = 4.90 mph

Speed Report

Job 864_013_MM_ATR 2
 Area Somerville, MA
 Location Bow Street NB, between Warren Avenue & Walnut Street
 Dir Northbound
 Thursday, March 3, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)																	
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80		
0000	74	0	3	12	8	30	17	4	0	0	0	0	0	0	0	0	0	0	0
0100	35	0	0	2	2	15	12	4	0	0	0	0	0	0	0	0	0	0	0
0200	21	0	0	1	2	11	5	2	0	0	0	0	0	0	0	0	0	0	0
0300	26	0	1	4	3	6	8	4	0	0	0	0	0	0	0	0	0	0	0
0400	32	0	2	0	7	5	13	5	0	0	0	0	0	0	0	0	0	0	0
0500	103	0	1	12	13	40	28	9	0	0	0	0	0	0	0	0	0	0	0
0600	200	1	9	27	45	67	48	3	0	0	0	0	0	0	0	0	0	0	0
0700	410	1	26	129	126	98	27	3	0	0	0	0	0	0	0	0	0	0	0
0800	539	3	48	189	180	104	15	0	0	0	0	0	0	0	0	0	0	0	0
0900	448	1	55	163	142	82	5	0	0	0	0	0	0	0	0	0	0	0	0
1000	454	6	55	160	181	48	4	0	0	0	0	0	0	0	0	0	0	0	0
1100	532	2	92	190	182	59	5	1	1	0	0	0	0	0	0	0	0	0	0
1200	584	21	145	200	174	43	1	0	0	0	0	0	0	0	0	0	0	0	0
1300	538	8	136	202	145	39	7	1	0	0	0	0	0	0	0	0	0	0	0
1400	684	26	197	274	142	40	5	0	0	0	0	0	0	0	0	0	0	0	0
1500	735	9	171	307	177	67	4	0	0	0	0	0	0	0	0	0	0	0	0
1600	750	2	91	276	292	79	7	3	0	0	0	0	0	0	0	0	0	0	0
1700	797	5	120	324	252	86	10	0	0	0	0	0	0	0	0	0	0	0	0
1800	726	3	97	253	283	83	6	0	1	0	0	0	0	0	0	0	0	0	0
1900	537	13	103	177	170	64	9	1	0	0	0	0	0	0	0	0	0	0	0
2000	429	0	31	120	142	116	19	0	1	0	0	0	0	0	0	0	0	0	0
2100	326	1	18	67	125	103	11	1	0	0	0	0	0	0	0	0	0	0	0
2200	236	0	8	36	61	107	22	1	1	0	0	0	0	0	0	0	0	0	0
2300	130	0	3	15	31	45	31	4	1	0	0	0	0	0	0	0	0	0	0
Total	9346	102	1412	3140	2885	1437	319	46	5	0	0	0	0	0	0	0	0	0	0

100.00% 1.09% 15.11% 33.60% 30.87% 15.38% 3.41% 0.49% 0.05% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 40.0 mph, Minimum = 2.2 mph, Mean = 15.4 mph
 85% Speed = 20.92 mph, 95% Speed = 24.33 mph, Median = 15.04 mph
 10 mph Pace = 9 - 19, Number in Pace = 6049 (64.72%)
 Variance = 27.56, Standard Deviation = 5.25 mph

Speed Report

Job 864_013_MM_ATR 2
 Area Somerville, MA
 Location Bow Street NB, between Warren Avenue & Walnut Street
 Dir Northbound
 Friday, March 4, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	90	0	1	8	12	41	27	1	0	0	0	0	0	0	0	0	0
0100	44	0	0	2	8	21	12	1	0	0	0	0	0	0	0	0	0
0200	23	0	0	1	4	8	9	1	0	0	0	0	0	0	0	0	0
0300	20	0	0	1	4	6	6	2	1	0	0	0	0	0	0	0	0
0400	35	0	1	1	4	11	12	5	1	0	0	0	0	0	0	0	0
0500	94	0	3	7	12	27	31	12	2	0	0	0	0	0	0	0	0
0600	203	0	8	28	25	75	52	12	3	0	0	0	0	0	0	0	0
0700	408	0	29	128	117	98	33	2	0	1	0	0	0	0	0	0	0
0800	589	5	92	228	185	66	13	0	0	0	0	0	0	0	0	0	0
0900	502	0	61	182	150	99	10	0	0	0	0	0	0	0	0	0	0
1000	527	9	127	155	171	56	9	0	0	0	0	0	0	0	0	0	0
1100	603	5	137	213	197	46	4	1	0	0	0	0	0	0	0	0	0
1200	657	19	194	265	137	39	3	0	0	0	0	0	0	0	0	0	0
1300	628	45	173	191	163	53	3	0	0	0	0	0	0	0	0	0	0
1400	614	10	193	237	135	37	2	0	0	0	0	0	0	0	0	0	0
1500	752	9	179	293	211	53	7	0	0	0	0	0	0	0	0	0	0
1600	789	6	141	345	232	54	11	0	0	0	0	0	0	0	0	0	0
1700	781	10	221	315	196	37	2	0	0	0	0	0	0	0	0	0	0
1800	694	22	190	260	171	48	3	0	0	0	0	0	0	0	0	0	0
1900	648	4	131	243	172	84	11	3	0	0	0	0	0	0	0	0	0
2000	499	10	68	156	188	70	7	0	0	0	0	0	0	0	0	0	0
2100	418	3	51	132	156	71	5	0	0	0	0	0	0	0	0	0	0
2200	269	3	22	57	87	87	11	2	0	0	0	0	0	0	0	0	0
2300	234	0	10	31	60	99	29	4	1	0	0	0	0	0	0	0	0
Total	10121	160	2032	3479	2797	1286	312	46	8	1	0	0	0	0	0	0	0

100.00% 1.58% 20.08% 34.37% 27.64% 12.71% 3.08% 0.45% 0.08% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 41.5 mph, Minimum = 2.2 mph, Mean = 14.6 mph
 85% Speed = 20.34 mph, 95% Speed = 24.05 mph, Median = 14.15 mph
 10 mph Pace = 9 - 19, Number in Pace = 6486 (64.08%)
 Variance = 28.95, Standard Deviation = 5.38 mph

Speed Report

Job 864_013_MM_ATR 2
 Area Somerville, MA
 Location Bow Street NB, between Warren Avenue & Walnut Street
 Dir Northbound
 Saturday, March 5, 2022

BOSTON
TRAFFIC DATA
 PO BOX 1723, Framingham, MA 01701
 Office: 978-746-1259
 DataRequest@BostonTrafficData.com
 www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	168	2	6	26	30	72	25	6	0	1	0	0	0	0	0	0	0
0100	106	0	3	8	13	48	29	5	0	0	0	0	0	0	0	0	0
0200	78	0	0	4	5	29	31	8	1	0	0	0	0	0	0	0	0
0300	34	0	1	2	3	12	11	4	1	0	0	0	0	0	0	0	0
0400	20	0	0	0	4	4	10	2	0	0	0	0	0	0	0	0	0
0500	69	0	0	8	11	23	23	4	0	0	0	0	0	0	0	0	0
0600	117	0	3	20	26	38	28	2	0	0	0	0	0	0	0	0	0
0700	230	0	8	38	70	71	35	8	0	0	0	0	0	0	0	0	0
0800	356	3	38	106	127	65	15	2	0	0	0	0	0	0	0	0	0
0900	489	9	113	175	144	46	2	0	0	0	0	0	0	0	0	0	0
1000	582	19	199	205	115	42	2	0	0	0	0	0	0	0	0	0	0
1100	606	35	245	189	104	30	2	1	0	0	0	0	0	0	0	0	0
1200	675	37	280	231	112	12	3	0	0	0	0	0	0	0	0	0	0
1300	648	46	295	214	81	12	0	0	0	0	0	0	0	0	0	0	0
1400	598	31	228	219	99	17	4	0	0	0	0	0	0	0	0	0	0
1500	621	16	234	219	115	32	4	1	0	0	0	0	0	0	0	0	0
1600	689	40	283	238	109	18	1	0	0	0	0	0	0	0	0	0	0
1700	665	10	168	256	163	67	1	0	0	0	0	0	0	0	0	0	0
1800	572	20	156	214	139	38	5	0	0	0	0	0	0	0	0	0	0
1900	575	7	131	200	172	57	8	0	0	0	0	0	0	0	0	0	0
2000	481	2	60	186	164	63	5	1	0	0	0	0	0	0	0	0	0
2100	385	0	33	127	142	75	7	1	0	0	0	0	0	0	0	0	0
2200	316	1	12	60	109	110	24	0	0	0	0	0	0	0	0	0	0
2300	255	0	9	55	65	94	27	2	3	0	0	0	0	0	0	0	0
Total	9335	278	2505	3000	2122	1075	302	47	5	1	0	0	0	0	0	0	0

100.00% 2.98% 26.83% 32.14% 22.73% 11.52% 3.24% 0.50% 0.05% 0.01% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00%

Maximum = 41.2 mph, Minimum = 1.6 mph, Mean = 13.8 mph
 85% Speed = 20.11 mph, 95% Speed = 24.10 mph, Median = 13.14 mph
 10 mph Pace = 6 - 16, Number in Pace = 5762 (61.72%)
 Variance = 33.11, Standard Deviation = 5.75 mph

APPENDIX B

Traffic Projection Model

TRAFFIC PROJECTION MODEL

Weekday Morning Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Dir.	Turn	2022 Counted Volumes	Seasonal Adjustment	Balancing Volumes	2022 Existing Volumes	New Vehicle Trips PERCENT ENTER	New Vehicle Trips ENTER	New Vehicle Trips PERCENT EXIT	New Vehicle Trips EXIT	New Vehicle Trips TOTAL	2022 Build Volumes	Background Growth 5 yrs (at 0.25% per year)	2027 Design Year Build Volumes
Somerville Avenue/Bow Street/ Webster Avenue at Washington Street/ Somerville Avenue	EB	L	50	2	0	52	5%	0			0	52	1	53
		T	196	6		202					0	202	3	205
		R	43	1		44					0	44	1	45
	WB	L	44	1		45					0	45	1	46
		T	221	7		228	5%	0			0	228	3	231
		R	186	6	2	194	20%	0			0	194	2	196
	NB	L	8	0		8	5%	0			0	8	0	8
		T	138	4	1	143	10%	0			0	143	2	145
		R	27	1		28					0	28	0	28
	SB	L	201	6	4	211			25%	0	0	211	2	213
		T	284	9	6	299			15%	0	0	299	4	303
		R	50	2	1	53			15%	0	0	53	1	54
Bow Street at Warren Avenue	WB	T	365	11		376	35%	0			0	376	5	381
		R	13	0		13					0	13	0	13
	NB	L	157	5		162			45%	0	0	162	2	164
		T	46	1		47					0	47	1	48
Somerville Avenue at Warren Avenue	SB	R	64	2		66					0	66	1	67
	EB	L	203	6		209			45%	0	0	209	3	212
		T	547	16		563			55%	0	0	563	7	570
Somerville Avenue at Hawkins Street	EB	T	680	20		700	80%	1			1	701	9	710
	NB	R	70	2		72	20%	0			0	72	1	73

TRAFFIC PROJECTION MODEL

Weekday Afternoon Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Dir.	Turn	2022 Counted Volumes	Seasonal Adjustment	Balancing Volumes	2022 Existing Volumes	New Vehicle Trips PERCENT ENTER	New Vehicle Trips ENTER	New Vehicle Trips PERCENT EXIT	New Vehicle Trips EXIT	New Vehicle Trips TOTAL	2022 Build Volumes	Background Growth 5 yrs (at 0.25% per year)	2027 Design Year Build Volumes
Somerville Avenue/Bow Street/ Webster Avenue at Washington Street/ Somerville Avenue	EB	L	75	2	1	78	5%	0			0	78	1	79
		T	214	6		220					0	220	3	223
		R	34	1		35					0	35	0	35
		L	25	1		26					0	26	0	26
	WB	T	211	6		217	5%	0			0	217	3	220
		R	232	7	5	244	20%	2			2	246	3	249
	NB	L	22	1		23	5%	0			0	23	0	23
		T	284	9	6	299	10%	1			1	300	4	304
		R	13	0		13					0	13	0	13
		L	160	5		165			25%	2	2	167	2	169
	SB	T	195	6		201			15%	1	1	202	3	205
		R	21	1		22			15%	1	1	23	0	23
Bow Street at Warren Avenue	WB	T	582	17		599	35%	3			3	602	8	610
		R	21	1		22					0	22	0	22
	NB	L	179	5		184			45%	4	4	188	2	190
		T	49	1		50					0	50	1	51
	SB	R	57	2		59					0	59	1	60
Somerville Avenue at Warren Avenue	EB	L	228	6		234			45%	4	4	238	3	241
		T	374	12	2	388			55%	4	4	392	5	397
Somerville Avenue at Hawkins Street	EB	T	530	16	2	548	80%	6			6	554	7	561
		NB	72	2	0	74	20%	2			2	76	1	77

TRAFFIC PROJECTION MODEL

Saturday Midday Peak Hour
 Liberty Cannabis
 Somerville, MA

Intersection	Dir.	Turn	2022 Counted Volumes	Seasonal Adjustment	Balancing Volumes	2022 Existing Volumes	New Vehicle Trips PERCENT ENTER	New Vehicle Trips ENTER	New Vehicle Trips PERCENT EXIT	New Vehicle Trips EXIT	New Vehicle Trips TOTAL	2022 Build Volumes	Background Growth 5 yrs (at 0.25% per year)	2027 Design Year Build Volumes
Somerville Avenue/Bow Street/ Webster Avenue at Washington Street/ Somerville Avenue	EB	L	62	2		64	5%	0			0	64	1	65
		T	203	6		209					0	209	3	212
		R	15	0		15					0	15	0	15
	WB	L	27	1		28					0	28	0	28
		T	158	5		163	5%	0			0	163	2	165
		R	263	8		271	20%	2			2	273	3	276
	NB	L	24	1		25	5%	0			0	25	0	25
		T	193	6		199	10%	1			1	200	2	202
		R	21	1		22					0	22	0	22
	SB	L	237	7		244			25%	2	2	246	3	249
		T	196	6		202			15%	1	1	203	3	206
		R	59	2		61			15%	1	1	62	1	63
Bow Street at Warren Avenue	WB	T	483	14	5	502	35%	3			3	505	6	511
		R	31	1	0	32					0	32	0	32
	NB	L	191	6		197			45%	3	3	200	2	202
		T	41	1		42					0	42	1	43
Somerville Avenue at Warren Avenue	SB	R	97	3		100					0	100	1	101
Somerville Avenue at Warren Avenue	EB	L	232	7		239			45%	3	3	242	3	245
		T	480	14	13	507			55%	4	4	511	7	518
Somerville Avenue at Hawkins Street	EB	T	670	20	12	702	80%	7			7	709	9	718
	NB	R	42	1	1	44	20%	2			2	46	1	47

APPENDIX C

Crash Data

CRASH ANALYSIS

Liberty Cannabis Somerville, MA

	Somerville Ave/Bow St/ Webster Ave at Washington St/ Somerville Ave	Somerville Ave/Bow St at Warren Ave	Somerville Ave at Hawkins St	Somerville Ave at Site Driveway
Year				
2015	0	0	0	0
2016	0	0	0	0
2017	4	3	0	0
2018	4	6	0	0
2019	0	5	2	0
Type				
Angle	1	4	1	0
Rear-end	0	5	0	0
Sideswipe	3	2	1	0
Head-on	1	0	0	0
Pedestrian	2	0	0	0
Bicycle	0	0	0	0
Single Vehicle	1	2	0	0
Unknown	0	1	0	0
Severity				
Property Damage	5	9	2	0
Personal Injury	1	2	0	0
Fatality	0	0	0	0
Unknown	2	3	0	0
Weather				
Clear	6	8	2	0
Cloudy	0	2	0	0
Rain	2	3	0	0
Snow	0	0	0	0
Sleet	0	1	0	0
Road Surface				
Dry	6	10	1	0
Wet	2	4	0	0
Ice	0	0	0	0
Snow	0	0	0	0
Slush	0	0	1	0
Time				
7:00 AM to 9:00 AM	1	1	2	0
9:00 AM to 4:00 PM	4	5	0	0
4:00 PM to 6:00 PM	1	2	0	0
6:00 PM to 7:00 AM	2	6	0	0
Total	8	14	2	0
Crash Rate	0.22	0.48	0.11	0.00
State Average	0.78	0.78	0.57	0.57
District 4 Average	0.73	0.73	0.57	0.57

Source: MassDOT

APPENDIX D

Journey-to-Work Data

JOURNEY-TO-WORK DATA

Liberty Cannabis

Somerville, MA

#	Location of Residence of	Number of	Percent	Assigned Route(s)	
	Somerville Workers				
1	Somerville	7,391	48.8%	Bow St/Somerville Ave to West	Washington St to West
2	Boston	2,236	14.8%	Bow St/Somerville Ave to West	Somerville Ave to East
3	Medford	1,358	9.0%	Bow St/Somerville Ave to West	Somerville Ave to East
4	Cambridge	988	6.5%	Washington St to West	Webster Ave to South
5	Malden	857	5.7%	Bow St/Somerville Ave to West	Somerville Ave to East
6	Everett	827	5.5%	Bow St/Somerville Ave to West	Somerville Ave to East
7	Arlington	427	2.8%	Bow St/Somerville Ave to West	
8	Waltham	391	2.6%	Washington St to West	Webster Ave to South
9	Revere	343	2.3%	Bow St/Somerville Ave to West	Somerville Ave to East
10	Billerica	318	2.1%	Bow St/Somerville Ave to West	Somerville Ave to East
Total		15,136	100.0%		

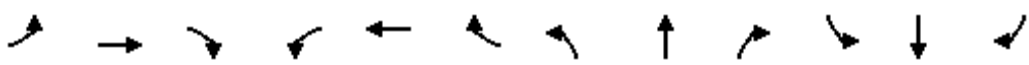
Trip Distribution	% Of Total	Trips
	Workers	Assigned
Washington St	14.3%	15%
Webster Ave	15.6%	15%
Somerville Ave to East	26.8%	25%
Bow St/Somerville to West	43.2%	45%
Total	100.0%	100%

APPENDIX E

2022 Existing Capacity/Level-of-Service Analysis

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Weekday Morning Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗	↖	↗	↗		↕		↖	↗	
Traffic Volume (vph)	52	202	44	45	228	194	8	143	28	211	299	53
Future Volume (vph)	52	202	44	45	228	194	8	143	28	211	299	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1755	1482	1583	1727	1495	0	1765	0	1703	1760	0
Flt Permitted		0.708		0.388				0.998		0.950		
Satd. Flow (perm)	0	1246	1284	612	1727	1495	0	1765	0	1703	1760	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	20		36	36					28			45
Confl. Bikes (#/hr)									2			28
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.77	0.77	0.77	0.86	0.86	0.86
Heavy Vehicles (%)	4%	8%	9%	14%	10%	8%	0%	4%	0%	6%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	285	49	48	245	209	0	232	0	245	410	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.78	0.13	0.27	0.48	0.48		0.56		0.50	0.81	
Control Delay		74.0	47.9	53.7	56.1	57.5		65.5		57.4	72.8	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		74.0	47.9	53.7	56.1	57.5		65.5		57.4	72.8	
LOS		E	D	D	E	E		E		E	E	
Approach Delay		70.1			56.4			65.5			67.1	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		310	43	44	240	206		239		243	453	
Queue Length 95th (ft)		432	80	88	335	297		280		321	561	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Morning Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		366	378	180	508	431		415		491	508	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.78	0.13	0.27	0.48	0.48		0.56		0.50	0.81	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 64.3

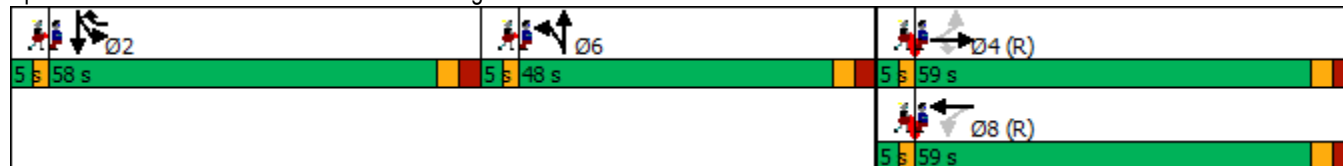
Intersection LOS: E

Intersection Capacity Utilization 98.7%

ICU Level of Service F

Analysis Period (min) 15
















Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave



Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				



Liberty Cannabis
2: Warren Ave & Bow Street

Weekday Morning Peak Hour
2022 Existing

																	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Lane Configurations																	
Traffic Volume (veh/h)	0	0	0	0	376	13	162	47	0	0	0	66					
Future Volume (Veh/h)	0	0	0	0	376	13	162	47	0	0	0	66					
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	0.76	0.76	0.76					
Hourly flow rate (vph)	0	0	0	0	409	14	176	51	0	0	0	87					
Pedestrians												54					
Lane Width (ft)												12.0					
Walking Speed (ft/s)												3.5					
Percent Blockage												5					
Right turn flare (veh)																	
Median type	None			None													
Median storage (veh)																	
Upstream signal (ft)	50																
pX, platoon unblocked	0.92						0.92	0.92				0.92	0.92	0.92			
vC, conflicting volume	477				0			503	477	0	496	470	470				
vC1, stage 1 conf vol																	
vC2, stage 2 conf vol																	
vCu, unblocked vol	389				0			417	389	0	409	381	381				
tC, single (s)	4.1				4.1			*5.5	*5.5	6.2	7.1	6.5	6.2				
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				100			65	90	100	100	100	85				
cM capacity (veh/h)	1021				1623			497	534	1085	430	482	585				
Direction, Lane #	WB 1	NB 1	SB 1														
Volume Total	423	227	87														
Volume Left	0	176	0														
Volume Right	14	0	87														
cSH	1700	505	585														
Volume to Capacity	0.25	0.45	0.15														
Queue Length 95th (ft)	0	57	13														
Control Delay (s)	0.0	17.8	12.2														
Lane LOS			C	B													
Approach Delay (s)	0.0	17.8	12.2														
Approach LOS			C	B													
Intersection Summary																	
Average Delay				6.9													
Intersection Capacity Utilization				46.2%	ICU Level of Service				A								
Analysis Period (min)				15													
* User Entered Value																	







Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2022 Existing

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	389	0	0	0	
Future Volume (vph)	0	0	389	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	423	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.30				
Control Delay			4.1				
Queue Delay			0.0				
Total Delay			4.1				
LOS			A				
Approach Delay			4.1				
Approach LOS			A				
Queue Length 50th (ft)			54				
Queue Length 95th (ft)			92				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2022 Existing

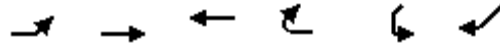
							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio	0.30						
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.30							
Intersection Signal Delay: 4.1				Intersection LOS: A			
Intersection Capacity Utilization 24.2%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 3: Bow Street & Pedestrian Crossing

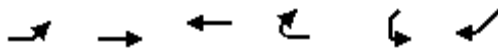


Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Morning Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	209	563	0	0	0	0	
Future Volume (vph)	209	563	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3453	0	0	0	0	
Flt Permitted		0.987					
Satd. Flow (perm)	0	3453	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		103					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	4%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	858	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		41.8					
Actuated g/C Ratio		0.62					
v/c Ratio		0.40					
Control Delay		9.7					
Queue Delay		0.0					
Total Delay		9.7					
LOS		A					
Approach Delay		9.7					
Approach LOS		A					
Queue Length 50th (ft)		110					
Queue Length 95th (ft)		152					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2303					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.37						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 67.9							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.40							
Intersection Signal Delay: 9.7				Intersection LOS: A			
Intersection Capacity Utilization 25.8%				ICU Level of Service A			
Analysis Period (min) 15							





















Splits and Phases: 4: Somerville Ave & Warren Ave



	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	700	0	0	0	0	72
Future Volume (Veh/h)	700	0	0	0	0	72
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.73	0.73
Hourly flow rate (vph)	753	0	0	0	0	99
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			753		753	376
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			753		753	376
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cM capacity (veh/h)			853		346	618
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	376	376	99			
Volume Left	0	0	0			
Volume Right	0	0	99			
cSH	1700	1700	618			
Volume to Capacity	0.22	0.22	0.16			
Queue Length 95th (ft)	0	0	14			
Control Delay (s)	0.0	0.0	11.9			
Lane LOS			B			
Approach Delay (s)	0.0		11.9			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			30.5%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Weekday Afternoon Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	220	35	26	217	244	23	299	13	165	201	22
Future Volume (vph)	78	220	35	26	217	244	23	299	13	165	201	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1803	1615	1612	1863	1568	0	1849	0	1770	1774	0
Flt Permitted		0.646		0.346				0.997		0.950		
Satd. Flow (perm)	0	1157	1405	560	1863	1568	0	1849	0	1770	1774	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	41		35	35					60			74
Confl. Bikes (#/hr)									26			8
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	0%	12%	2%	3%	0%	1%	0%	2%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	37	28	231	260	0	356	0	172	232	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.92	0.09	0.17	0.42	0.58		0.82		0.34	0.45	
Control Delay		93.6	47.0	50.7	54.1	60.6		81.7		52.7	55.8	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		93.6	47.0	50.7	54.1	60.6		81.7		52.7	55.8	
LOS		F	D	D	D	E		F		D	E	
Approach Delay		88.7			57.1			81.7			54.5	
Approach LOS		F			E			F			D	
Queue Length 50th (ft)		362	32	25	222	264		403		161	226	
Queue Length 95th (ft)		#562	66	57	311	369		#562		236	318	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Afternoon Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		340	413	164	548	452		432		511	512	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.92	0.09	0.17	0.42	0.58		0.82		0.34	0.45	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 68.6

Intersection LOS: E

Intersection Capacity Utilization 98.1%

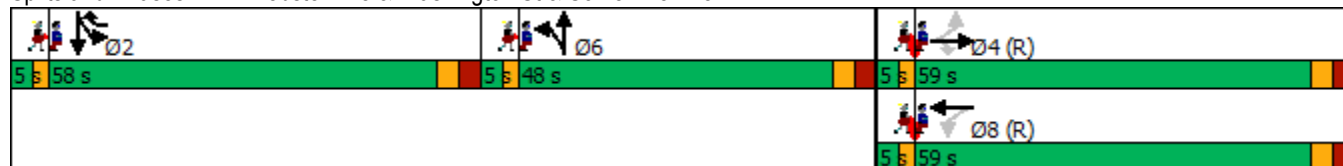
ICU Level of Service F

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave


















Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Liberty Cannabis
2: Warren Ave & Bow Street



Weekday Afternoon Peak Hour

2022 Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	599	22	184	50	0	0	0	59
Future Volume (Veh/h)	0	0	0	0	599	22	184	50	0	0	0	59
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	0.74	0.74	0.74	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	0	651	24	249	68	0	0	0	79
Pedestrians												77
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)	50											
pX, platoon unblocked	0.84						0.84	0.84				0.84
vC, conflicting volume	752	0					742	752	0	774	740	740
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	610	0					598	610	0	636	596	596
tC, single (s)	4.1	4.1					*5.5	*5.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2	2.2					3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	100	100					27	82	100	100	100	79
cM capacity (veh/h)	755	1623					343	380	1085	248	325	385
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total	675	317	79									
Volume Left	0	249	0									
Volume Right	24	0	79									
cSH	1700	350	385									
Volume to Capacity	0.40	0.90	0.21									
Queue Length 95th (ft)	0	225	19									
Control Delay (s)	0.0	62.0	16.7									
Lane LOS		F	C									
Approach Delay (s)	0.0	62.0	16.7									
Approach LOS		F	C									
Intersection Summary												
Average Delay	19.6											
Intersection Capacity Utilization	59.5%			ICU Level of Service				B				
Analysis Period (min)	15											
* User Entered Value												

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Afternoon Peak Hour
2022 Existing

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	621	0	0	0	
Future Volume (vph)	0	0	621	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	675	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.47				
Control Delay			5.5				
Queue Delay			0.0				
Total Delay			5.5				
LOS			A				
Approach Delay			5.5				
Approach LOS			A				
Queue Length 50th (ft)			105				
Queue Length 95th (ft)			178				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Afternoon Peak Hour
2022 Existing



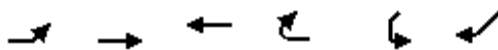
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio	0.47						
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.47							
Intersection Signal Delay: 5.5				Intersection LOS: A			
Intersection Capacity Utilization 36.0%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 3: Bow Street & Pedestrian Crossing



Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Afternoon Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	234	388	0	0	0	0	
Future Volume (vph)	234	388	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3501	0	0	0	0	
Flt Permitted		0.982					
Satd. Flow (perm)	0	3501	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		243					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	723	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		37.8					
Actuated g/C Ratio		0.69					
v/c Ratio		0.29					
Control Delay		6.2					
Queue Delay		0.0					
Total Delay		6.2					
LOS		A					
Approach Delay		6.2					
Approach LOS		A					
Queue Length 50th (ft)		63					
Queue Length 95th (ft)		90					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2722					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.27						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 54.9							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.29							
Intersection Signal Delay: 6.2				Intersection LOS: A			
Intersection Capacity Utilization 21.7%				ICU Level of Service A			
Analysis Period (min) 15							





















Splits and Phases: 4: Somerville Ave & Warren Ave



	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	548	0	0	0	0	74
Future Volume (Veh/h)	548	0	0	0	0	74
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.82	0.82
Hourly flow rate (vph)	652	0	0	0	0	90
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			652		652	326
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			652		652	326
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	87
cM capacity (veh/h)			930		401	673
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	326	326	90			
Volume Left	0	0	0			
Volume Right	0	0	90			
cSH	1700	1700	673			
Volume to Capacity	0.19	0.19	0.13			
Queue Length 95th (ft)	0	0	12			
Control Delay (s)	0.0	0.0	11.2			
Lane LOS			B			
Approach Delay (s)	0.0		11.2			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			26.4%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Saturday Midday Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	209	15	28	163	271	25	199	22	244	202	61
Future Volume (vph)	64	209	15	28	163	271	25	199	22	244	202	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1821	1615	1736	1827	1568	0	1804	0	1752	1596	0
Flt Permitted		0.771		0.336				0.995		0.950		
Satd. Flow (perm)	0	1349	1339	577	1827	1568	0	1804	0	1752	1596	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	100		48	48					83			195
Confl. Bikes (#/hr)									16			31
Peak Hour Factor	0.85	0.85	0.85	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91
Heavy Vehicles (%)	0%	4%	0%	4%	4%	3%	0%	0%	5%	3%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	18	30	173	288	0	267	0	268	289	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.81	0.05	0.18	0.32	0.64		0.63		0.53	0.63	
Control Delay		75.5	46.1	50.9	51.6	63.3		69.0		58.3	62.7	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		75.5	46.1	50.9	51.6	63.3		69.0		58.3	62.7	
LOS		E	D	D	D	E		E		E	E	
Approach Delay		74.0			58.4			69.0			60.6	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		354	15	27	161	299		284		268	299	
Queue Length 95th (ft)		453	36	59	236	413		392		369	413	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Saturday Midday Peak Hour
2022 Existing

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		397	394	169	537	452		423		506	461	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.81	0.05	0.18	0.32	0.64		0.63		0.53	0.63	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 64.0

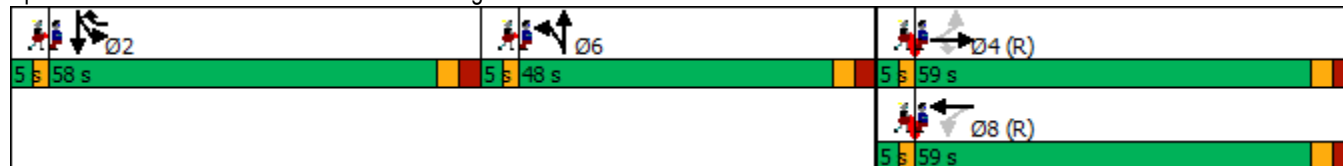
Intersection LOS: E

Intersection Capacity Utilization 95.2%

ICU Level of Service F

Analysis Period (min) 15
















Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave



Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				



Liberty Cannabis
2: Warren Ave & Bow Street

Saturday Midday Peak Hour
2022 Existing

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	502	32	197	42	0	0	0	100
Future Volume (Veh/h)	0	0	0	0	502	32	197	42	0	0	0	100
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.84	0.84	0.84
Hourly flow rate (vph)	0	0	0	0	534	34	210	45	0	0	0	119
Pedestrians												212
Lane Width (ft)												12.0
Walking Speed (ft/s)												3.5
Percent Blockage												20
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)	50											
pX, platoon unblocked	0.85							0.85	0.85	0.85	0.85	0.85
vC, conflicting volume	780	0			670			780	0	786	763	763
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	653	0			523			653	0	659	633	633
tC, single (s)	4.1	4.1			*5.5			*5.5	6.2	7.1	6.5	6.2
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	100			22			86	100	100	100	64
cM capacity (veh/h)	633	1623			270			317	1085	193	269	328
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total	568	255	119									
Volume Left	0	210	0									
Volume Right	34	0	119									
cSH	1700	277	328									
Volume to Capacity	0.33	0.92	0.36									
Queue Length 95th (ft)	0	212	40									
Control Delay (s)	0.0	75.6	22.1									
Lane LOS		F	C									
Approach Delay (s)	0.0	75.6	22.1									
Approach LOS		F	C									
Intersection Summary												
Average Delay	23.3											
Intersection Capacity Utilization	58.1%			ICU Level of Service			B					
Analysis Period (min)	15											
* User Entered Value												

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Saturday Midday Peak Hour
2022 Existing

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	534	0	0	0	
Future Volume (vph)	0	0	534	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1863	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1863	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.94	0.94	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	568	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			40.0				
Actuated g/C Ratio			0.67				
v/c Ratio			0.46				
Control Delay			6.3				
Queue Delay			0.0				
Total Delay			6.3				
LOS			A				
Approach Delay			6.3				
Approach LOS			A				
Queue Length 50th (ft)			80				
Queue Length 95th (ft)			132				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1242				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				
Reduced v/c Ratio			0.46				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 60

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 31.4%

ICU Level of Service A

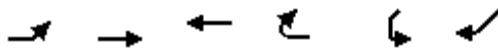
Analysis Period (min) 15

Splits and Phases: 3: Bow Street & Pedestrian Crossing

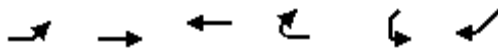


Liberty Cannabis
4: Somerville Ave & Warren Ave

Saturday Midday Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	239	507	0	0	0	0	
Future Volume (vph)	239	507	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3528	0	0	0	0	
Flt Permitted		0.984					
Satd. Flow (perm)	0	3528	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		151					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	811	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		39.9					
Actuated g/C Ratio		0.60					
v/c Ratio		0.37					
Control Delay		9.0					
Queue Delay		0.0					
Total Delay		9.0					
LOS		A					
Approach Delay		9.0					
Approach LOS		A					
Queue Length 50th (ft)		92					
Queue Length 95th (ft)		132					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2398					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.34						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 66.4							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.37							
Intersection Signal Delay: 9.0				Intersection LOS: A			
Intersection Capacity Utilization 25.1%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 4: Somerville Ave & Warren Ave























	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	702	0	0	0	0	44
Future Volume (Veh/h)	702	0	0	0	0	44
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.81	0.81
Hourly flow rate (vph)	755	0	0	0	0	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			755		755	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			755		755	378
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			851		345	626
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	378	378	54			
Volume Left	0	0	0			
Volume Right	0	0	54			
cSH	1700	1700	626			
Volume to Capacity	0.22	0.22	0.09			
Queue Length 95th (ft)	0	0	7			
Control Delay (s)	0.0	0.0	11.3			
Lane LOS			B			
Approach Delay (s)	0.0		11.3			
Approach LOS			B			
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			29.4%	ICU Level of Service		A
Analysis Period (min)			15			

APPENDIX F

2022 Build Capacity/Level-of-Service Analysis

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Weekday Morning Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	202	44	45	228	194	8	143	28	211	299	53
Future Volume (vph)	52	202	44	45	228	194	8	143	28	211	299	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1755	1482	1583	1727	1495	0	1765	0	1703	1760	0
Flt Permitted		0.708		0.388				0.998		0.950		
Satd. Flow (perm)	0	1246	1284	612	1727	1495	0	1765	0	1703	1760	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	20		36	36					28			45
Confl. Bikes (#/hr)									2			28
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.77	0.77	0.77	0.86	0.86	0.86
Heavy Vehicles (%)	4%	8%	9%	14%	10%	8%	0%	4%	0%	6%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	285	49	48	245	209	0	232	0	245	410	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.78	0.13	0.27	0.48	0.48		0.56		0.50	0.81	
Control Delay		74.0	47.9	53.7	56.1	57.5		65.5		57.4	72.8	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		74.0	47.9	53.7	56.1	57.5		65.5		57.4	72.8	
LOS		E	D	D	E	E		E		E	E	
Approach Delay		70.1			56.4			65.5			67.1	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		310	43	44	240	206		239		243	453	
Queue Length 95th (ft)		432	80	88	335	297		280		321	561	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Morning Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		366	378	180	508	431		415		491	508	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.78	0.13	0.27	0.48	0.48		0.56		0.50	0.81	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 64.3

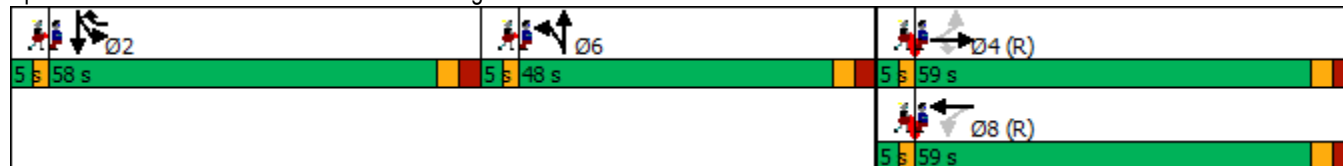
Intersection LOS: E

Intersection Capacity Utilization 98.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave


















Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Liberty Cannabis
2: Warren Ave & Bow Street

Weekday Morning Peak Hour

2022 Build

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	0	376	13	162	47	0	0	0	66	
Future Volume (Veh/h)	0	0	0	0	376	13	162	47	0	0	0	66	
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	0.76	0.76	0.76	
Hourly flow rate (vph)	0	0	0	0	409	14	176	51	0	0	0	87	
Pedestrians												54	
Lane Width (ft)												12.0	
Walking Speed (ft/s)												3.5	
Percent Blockage												5	
Right turn flare (veh)													
Median type	None			None									
Median storage (veh)													
Upstream signal (ft)	50												
pX, platoon unblocked	0.92						0.92	0.92			0.92	0.92	0.92
vC, conflicting volume	477	0					503	477	0	496	470	470	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	389	0					417	389	0	409	381	381	
tC, single (s)	4.1	4.1					*5.5	*5.5	6.2	7.1	6.5	6.2	
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	100					65	90	100	100	100	85	
cM capacity (veh/h)	1021	1623					497	534	1085	430	482	585	
Direction, Lane #	WB 1	NB 1	SB 1										
Volume Total	423	227	87										
Volume Left	0	176	0										
Volume Right	14	0	87										
cSH	1700	505	585										
Volume to Capacity	0.25	0.45	0.15										
Queue Length 95th (ft)	0	57	13										
Control Delay (s)	0.0	17.8	12.2										
Lane LOS			C	B									
Approach Delay (s)	0.0	17.8	12.2										
Approach LOS			C	B									
Intersection Summary													
Average Delay				6.9									
Intersection Capacity Utilization	46.2%			ICU Level of Service				A					
Analysis Period (min)	15												
* User Entered Value													

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2022 Build

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations			↑				
Traffic Volume (vph)	0	0	389	0	0	0	
Future Volume (vph)	0	0	389	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	423	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.30				
Control Delay			4.1				
Queue Delay			0.0				
Total Delay			4.1				
LOS			A				
Approach Delay			4.1				
Approach LOS			A				
Queue Length 50th (ft)			54				
Queue Length 95th (ft)			92				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2022 Build



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio			0.30				
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.30							
Intersection Signal Delay: 4.1				Intersection LOS: A			
Intersection Capacity Utilization 24.2%				ICU Level of Service A			
Analysis Period (min) 15							

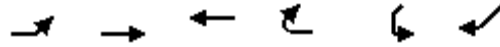
Splits and Phases: 3: Bow Street & Pedestrian Crossing



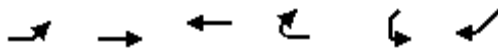
Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Morning Peak Hour

2022 Build



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	209	563	0	0	0	0	
Future Volume (vph)	209	563	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3453	0	0	0	0	
Flt Permitted		0.987					
Satd. Flow (perm)	0	3453	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		103					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	4%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	858	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		41.8					
Actuated g/C Ratio		0.62					
v/c Ratio		0.40					
Control Delay		9.7					
Queue Delay		0.0					
Total Delay		9.7					
LOS		A					
Approach Delay		9.7					
Approach LOS		A					
Queue Length 50th (ft)		110					
Queue Length 95th (ft)		152					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2303					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.37						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 67.9							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.40							
Intersection Signal Delay: 9.7				Intersection LOS: A			
Intersection Capacity Utilization 25.8%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 4: Somerville Ave & Warren Ave























	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	701	0	0	0	0	72
Future Volume (Veh/h)	701	0	0	0	0	72
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.73	0.73
Hourly flow rate (vph)	754	0	0	0	0	99
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			754		754	377
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			754		754	377
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cM capacity (veh/h)			852		345	618
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	377	377	99			
Volume Left	0	0	0			
Volume Right	0	0	99			
cSH	1700	1700	618			
Volume to Capacity	0.22	0.22	0.16			
Queue Length 95th (ft)	0	0	14			
Control Delay (s)	0.0	0.0	11.9			
Lane LOS			B			
Approach Delay (s)	0.0		11.9			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			30.5%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Afternoon Peak Hour













2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	220	35	26	217	246	23	300	13	167	202	23
Future Volume (vph)	78	220	35	26	217	246	23	300	13	167	202	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1803	1615	1612	1863	1568	0	1849	0	1770	1772	0
Flt Permitted		0.646		0.346				0.997		0.950		
Satd. Flow (perm)	0	1157	1405	560	1863	1568	0	1849	0	1770	1772	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	41		35	35					60			74
Confl. Bikes (#/hr)									26			8
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	0%	12%	2%	3%	0%	1%	0%	2%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	37	28	231	262	0	357	0	174	234	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.92	0.09	0.17	0.42	0.58		0.83		0.34	0.46	
Control Delay		93.6	47.0	50.7	54.1	60.7		82.0		52.8	56.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		93.6	47.0	50.7	54.1	60.7		82.0		52.8	56.0	
LOS		F	D	D	D	E		F		D	E	
Approach Delay		88.7			57.2			82.0			54.6	
Approach LOS		F			E			F			D	
Queue Length 50th (ft)		362	32	25	222	266		405		164	228	
Queue Length 95th (ft)		#562	66	57	311	372		#562		240	321	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Afternoon Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		340	413	164	548	452		432		511	511	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.92	0.09	0.17	0.42	0.58		0.83		0.34	0.46	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 68.7

Intersection LOS: E

Intersection Capacity Utilization 98.1%

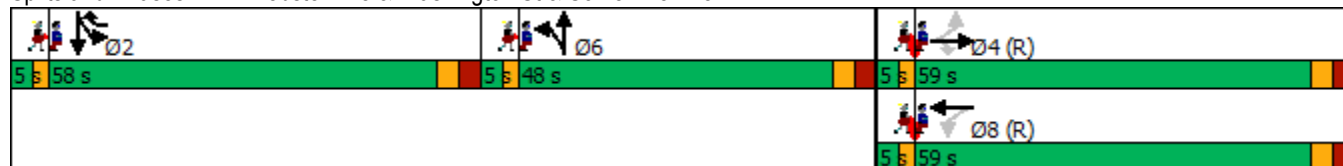
ICU Level of Service F

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave


















Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				

Liberty Cannabis
2: Warren Ave & Bow Street

Weekday Afternoon Peak Hour

2022 Build

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	602	22	188	50	0	0	0	59
Future Volume (Veh/h)	0	0	0	0	602	22	188	50	0	0	0	59
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	0.74	0.74	0.74	0.75	0.75	0.75
Hourly flow rate (vph)	0	0	0	0	654	24	254	68	0	0	0	79
Pedestrians												77
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)	50											
pX, platoon unblocked	0.84						0.84	0.84				0.84
vC, conflicting volume	755	0					745	755	0	777	743	743
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	612	0					601	612	0	639	598	598
tC, single (s)	4.1	4.1					*5.5	*5.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2	2.2					3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	100	100					26	82	100	100	100	79
cM capacity (veh/h)	752	1623					341	379	1085	247	323	383
Direction, Lane #	WB 1	NB 1	SB 1									
Volume Total	678	322	79									
Volume Left	0	254	0									
Volume Right	24	0	79									
cSH	1700	349	383									
Volume to Capacity	0.40	0.92	0.21									
Queue Length 95th (ft)	0	236	19									
Control Delay (s)	0.0	65.9	16.8									
Lane LOS		F	C									
Approach Delay (s)	0.0	65.9	16.8									
Approach LOS		F	C									
Intersection Summary												
Average Delay	20.9											
Intersection Capacity Utilization	59.9%			ICU Level of Service			B					
Analysis Period (min)	15											
* User Entered Value												

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Afternoon Peak Hour
2022 Build

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	624	0	0	0	
Future Volume (vph)	0	0	624	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	678	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.47				
Control Delay			5.6				
Queue Delay			0.0				
Total Delay			5.6				
LOS			A				
Approach Delay			5.6				
Approach LOS			A				
Queue Length 50th (ft)			106				
Queue Length 95th (ft)			180				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio	0.47						
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.47							
Intersection Signal Delay: 5.6				Intersection LOS: A			
Intersection Capacity Utilization 36.2%				ICU Level of Service A			
Analysis Period (min) 15							

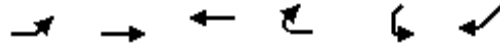
Splits and Phases: 3: Bow Street & Pedestrian Crossing



Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Afternoon Peak Hour

2022 Build



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	238	392	0	0	0	0	
Future Volume (vph)	238	392	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3498	0	0	0	0	
Flt Permitted		0.981					
Satd. Flow (perm)	0	3498	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		247					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	733	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		37.9					
Actuated g/C Ratio		0.69					
v/c Ratio		0.29					
Control Delay		6.2					
Queue Delay		0.0					
Total Delay		6.2					
LOS		A					
Approach Delay		6.2					
Approach LOS		A					
Queue Length 50th (ft)		64					
Queue Length 95th (ft)		91					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2719					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.27						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 55							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.29							
Intersection Signal Delay: 6.2				Intersection LOS: A			
Intersection Capacity Utilization 21.9%				ICU Level of Service A			
Analysis Period (min) 15							





















Splits and Phases: 4: Somerville Ave & Warren Ave



	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	554	0	0	0	0	76
Future Volume (Veh/h)	554	0	0	0	0	76
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.82	0.82
Hourly flow rate (vph)	660	0	0	0	0	93
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			660		660	330
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			660		660	330
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	86
cM capacity (veh/h)			924		396	669
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	330	330	93			
Volume Left	0	0	0			
Volume Right	0	0	93			
cSH	1700	1700	669			
Volume to Capacity	0.19	0.19	0.14			
Queue Length 95th (ft)	0	0	12			
Control Delay (s)	0.0	0.0	11.3			
Lane LOS			B			
Approach Delay (s)	0.0		11.3			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			26.7%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Saturday Midday Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	209	15	28	163	273	25	200	22	246	203	62
Future Volume (vph)	64	209	15	28	163	273	25	200	22	246	203	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1821	1615	1736	1827	1568	0	1804	0	1752	1594	0
Flt Permitted		0.771		0.336				0.995		0.950		
Satd. Flow (perm)	0	1349	1339	577	1827	1568	0	1804	0	1752	1594	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	100		48	48					83			195
Confl. Bikes (#/hr)									16			31
Peak Hour Factor	0.85	0.85	0.85	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91
Heavy Vehicles (%)	0%	4%	0%	4%	4%	3%	0%	0%	5%	3%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	321	18	30	173	290	0	268	0	270	291	0
Turn Type	Perm	NA	Perm	Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		4			8	2	6	6		2	2	
Permitted Phases	4		4	8								
Detector Phase	4	4	4	8	8	2	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	34.0	34.0	34.0	34.0	34.0	33.0	31.0	31.0		33.0	33.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	58.0	48.0	48.0		58.0	58.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%	32.2%	26.7%	26.7%		32.2%	32.2%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	
Lead/Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag	Lag		Lag	Lag	
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	52.0		42.0		52.0	52.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.29		0.23		0.29	0.29	
v/c Ratio		0.81	0.05	0.18	0.32	0.64		0.63		0.53	0.63	
Control Delay		75.5	46.1	50.9	51.6	63.5		69.1		58.4	63.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		75.5	46.1	50.9	51.6	63.5		69.1		58.4	63.0	
LOS		E	D	D	D	E		E		E	E	
Approach Delay		74.0			58.5			69.1			60.8	
Approach LOS		E			E			E			E	
Queue Length 50th (ft)		354	15	27	161	302		285		270	302	
Queue Length 95th (ft)		453	36	59	236	416		393		373	414	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø1	Ø3	Ø5	Ø7
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	3	5	7
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	3.0	3.0	3.0	3.0
Minimum Split (s)	5.0	5.0	5.0	5.0
Total Split (s)	5.0	5.0	5.0	5.0
Total Split (%)	3%	3%	3%	3%
Yellow Time (s)	2.0	2.0	2.0	2.0
All-Red Time (s)	0.0	0.0	0.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max
Act Effect Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Saturday Midday Peak Hour
2022 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		397	394	169	537	452		423		506	460	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.81	0.05	0.18	0.32	0.64		0.63		0.53	0.63	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 64.1

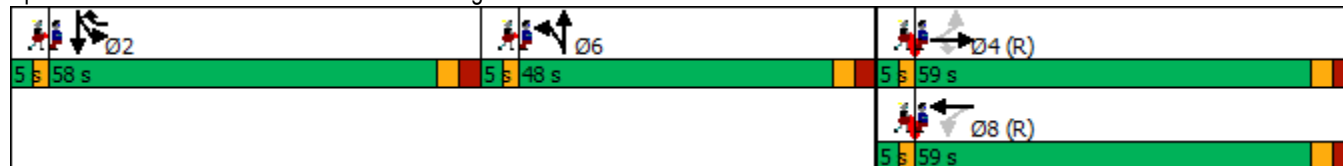
Intersection LOS: E

Intersection Capacity Utilization 95.2%

ICU Level of Service F

Analysis Period (min) 15














Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave



Lane Group	Ø1	Ø3	Ø5	Ø7
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				
Intersection Summary				



Liberty Cannabis
2: Warren Ave & Bow Street

Saturday Midday Peak Hour
2022 Build

																	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Lane Configurations																	
Traffic Volume (veh/h)	0	0	0	0	505	32	200	42	0	0	0	100					
Future Volume (Veh/h)	0	0	0	0	505	32	200	42	0	0	0	100					
Sign Control	Free			Free			Stop			Stop							
Grade	0%			0%			0%			0%							
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.84	0.84	0.84					
Hourly flow rate (vph)	0	0	0	0	537	34	213	45	0	0	0	119					
Pedestrians												212					
Lane Width (ft)												12.0					
Walking Speed (ft/s)												3.5					
Percent Blockage												20					
Right turn flare (veh)																	
Median type	None			None													
Median storage (veh)																	
Upstream signal (ft)	50																
pX, platoon unblocked	0.85						0.85	0.85			0.85	0.85	0.85				
vC, conflicting volume	783				0			673	783	0	788	766	766				
vC1, stage 1 conf vol																	
vC2, stage 2 conf vol																	
vCu, unblocked vol	655				0			526	655	0	662	635	635				
tC, single (s)	4.1				4.1			*5.5	*5.5	6.2	7.1	6.5	6.2				
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				100			21	86	100	100	100	64				
cM capacity (veh/h)	631				1623			268	315	1085	192	268	326				
Direction, Lane #	WB 1	NB 1	SB 1														
Volume Total	571	258	119														
Volume Left	0	213	0														
Volume Right	34	0	119														
cSH	1700	275	326														
Volume to Capacity	0.34	0.94	0.36														
Queue Length 95th (ft)	0	220	40														
Control Delay (s)	0.0	79.5	22.2														
Lane LOS			F	C													
Approach Delay (s)	0.0	79.5	22.2														
Approach LOS			F	C													
Intersection Summary																	
Average Delay				24.4													
Intersection Capacity Utilization				58.5%	ICU Level of Service				B								
Analysis Period (min)				15													
* User Entered Value																	

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Saturday Midday Peak Hour
2022 Build

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	537	0	0	0	
Future Volume (vph)	0	0	537	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1863	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1863	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.94	0.94	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	571	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			40.0				
Actuated g/C Ratio			0.67				
v/c Ratio			0.46				
Control Delay			6.3				
Queue Delay			0.0				
Total Delay			6.3				
LOS			A				
Approach Delay			6.3				
Approach LOS			A				
Queue Length 50th (ft)			80				
Queue Length 95th (ft)			133				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1242				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				
Reduced v/c Ratio			0.46				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 60

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 31.6%

ICU Level of Service A

Analysis Period (min) 15

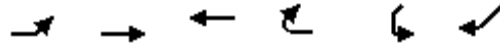
Splits and Phases: 3: Bow Street & Pedestrian Crossing



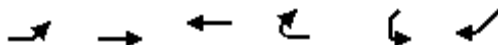
Liberty Cannabis
4: Somerville Ave & Warren Ave

Saturday Middy Peak Hour

2022 Build



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	242	511	0	0	0	0	
Future Volume (vph)	242	511	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3528	0	0	0	0	
Flt Permitted		0.984					
Satd. Flow (perm)	0	3528	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		152					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	818	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		37.6					
Actuated g/C Ratio		0.59					
v/c Ratio		0.38					
Control Delay		9.4					
Queue Delay		0.0					
Total Delay		9.4					
LOS		A					
Approach Delay		9.4					
Approach LOS		A					
Queue Length 50th (ft)		93					
Queue Length 95th (ft)		135					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2445					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.33						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 64							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.38							
Intersection Signal Delay: 9.4				Intersection LOS: A			
Intersection Capacity Utilization 25.3%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 4: Somerville Ave & Warren Ave























	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	709	0	0	0	0	46
Future Volume (Veh/h)	709	0	0	0	0	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.81	0.81
Hourly flow rate (vph)	762	0	0	0	0	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			762		762	381
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			762		762	381
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			846		341	623
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	381	381	57			
Volume Left	0	0	0			
Volume Right	0	0	57			
cSH	1700	1700	623			
Volume to Capacity	0.22	0.22	0.09			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.0	11.4			
Lane LOS			B			
Approach Delay (s)	0.0		11.4			
Approach LOS			B			
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			29.6%	ICU Level of Service		A
Analysis Period (min)			15			

APPENDIX G

2027 Design Year Build Capacity/Level-of-Service Analysis

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Weekday Morning Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	205	45	46	231	196	8	145	28	213	303	54
Future Volume (vph)	53	205	45	46	231	196	8	145	28	213	303	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1755	1482	1583	1727	1495	0	1769	0	1703	1776	0
Flt Permitted		0.676		0.368				0.998		0.950		
Satd. Flow (perm)	0	1193	1360	592	1727	1401	0	1769	0	1703	1776	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								4				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	20		36	36		48			28			45
Confl. Bikes (#/hr)									2			28
Peak Hour Factor	0.89	0.89	0.89	0.93	0.93	0.93	0.77	0.77	0.77	0.86	0.86	0.86
Heavy Vehicles (%)	4%	8%	9%	14%	10%	8%	0%	4%	0%	6%	2%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	51	49	248	211	0	234	0	248	415	0
Turn Type	Perm	NA	Perm	Perm	NA	custom	Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4		4	8		2 8						
Detector Phase	4	4	4	8	8	2 8	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Total Split (s)	57.0	57.0	57.0	57.0	57.0		36.0	36.0		53.0	53.0	
Total Split (%)	31.7%	31.7%	31.7%	31.7%	31.7%		20.0%	20.0%		29.4%	29.4%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		Max	Max		Max	Max	
Act Effect Green (s)		51.0	51.0	51.0	51.0	98.0		30.0		47.0	47.0	
Actuated g/C Ratio		0.28	0.28	0.28	0.28	0.54		0.17		0.26	0.26	
v/c Ratio		0.86	0.13	0.29	0.51	0.28		0.79		0.56	0.90	
Control Delay		84.7	49.3	56.3	58.3	12.1		89.3		63.2	86.5	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		84.7	49.3	56.3	58.3	12.1		89.3		63.2	86.5	
LOS		F	D	E	E	B		F		E	F	
Approach Delay		79.4			38.9			89.3			77.8	
Approach LOS		E			D			F			E	
Queue Length 50th (ft)		327	45	46	247	62		265		256	478	
Queue Length 95th (ft)		#489	85	91	346	90		310		338	#621	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	9.0
Minimum Split (s)	34.0
Total Split (s)	34.0
Total Split (%)	19%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Morning Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		338	385	167	489	762		298		444	463	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.86	0.13	0.29	0.51	0.28		0.79		0.56	0.90	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 68.4

Intersection LOS: E

Intersection Capacity Utilization 75.8%

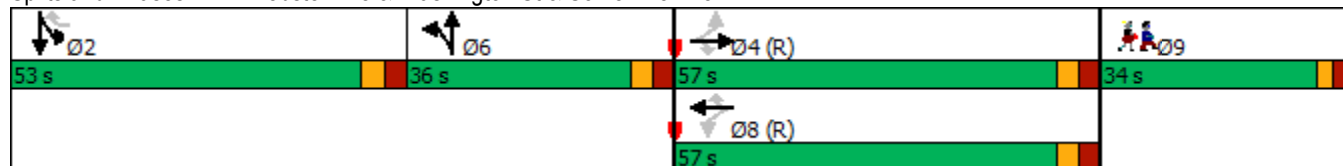
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave


















Lane Group	Ø9
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Liberty Cannabis
2: Warren Ave & Bow Street

Weekday Morning Peak Hour

2027 Build

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	0	0	0	0	381	13	164	48	0	0	0	67	
Future Volume (Veh/h)	0	0	0	0	381	13	164	48	0	0	0	67	
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	0.76	0.76	0.76	
Hourly flow rate (vph)	0	0	0	0	414	14	178	52	0	0	0	88	
Pedestrians												54	
Lane Width (ft)												12.0	
Walking Speed (ft/s)												3.5	
Percent Blockage												5	
Right turn flare (veh)													
Median type	None			None									
Median storage (veh)													
Upstream signal (ft)	50												
pX, platoon unblocked	0.92						0.92	0.92			0.92	0.92	0.92
vC, conflicting volume	482	0					509	482	0	501	475	475	
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	393	0					422	393	0	413	385	385	
tC, single (s)	4.1	4.1					*5.5	*5.5	6.2	7.1	6.5	6.2	
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	100					64	90	100	100	100	85	
cM capacity (veh/h)	1017	1623					492	532	1085	426	479	582	
Direction, Lane #	WB 1	NB 1	SB 1										
Volume Total	428	230	88										
Volume Left	0	178	0										
Volume Right	14	0	88										
cSH	1700	501	582										
Volume to Capacity	0.25	0.46	0.15										
Queue Length 95th (ft)	0	60	13										
Control Delay (s)	0.0	18.2	12.3										
Lane LOS			C	B									
Approach Delay (s)	0.0	18.2	12.3										
Approach LOS			C	B									
Intersection Summary													
Average Delay				7.0									
Intersection Capacity Utilization	46.7%			ICU Level of Service				A					
Analysis Period (min)	15												
* User Entered Value													







Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2027 Build

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations			↑				
Traffic Volume (vph)	0	0	394	0	0	0	
Future Volume (vph)	0	0	394	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	428	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.30				
Control Delay			4.1				
Queue Delay			0.0				
Total Delay			4.1				
LOS			A				
Approach Delay			4.1				
Approach LOS			A				
Queue Length 50th (ft)			55				
Queue Length 95th (ft)			93				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Morning Peak Hour
2027 Build

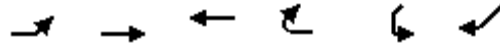
							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio	0.30						
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.30							
Intersection Signal Delay: 4.1				Intersection LOS: A			
Intersection Capacity Utilization 24.2%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 3: Bow Street & Pedestrian Crossing



Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Morning Peak Hour
2027 Build



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	212	570	0	0	0	0	
Future Volume (vph)	212	570	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3453	0	0	0	0	
Flt Permitted		0.987					
Satd. Flow (perm)	0	3453	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		104					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.90	0.90	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	1%	4%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	869	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		42.2					
Actuated g/C Ratio		0.62					
v/c Ratio		0.40					
Control Delay		9.7					
Queue Delay		0.0					
Total Delay		9.7					
LOS		A					
Approach Delay		9.7					
Approach LOS		A					
Queue Length 50th (ft)		112					
Queue Length 95th (ft)		154					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2296					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.38						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 68.3							
Natural Cycle: 55							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.40							
Intersection Signal Delay: 9.7				Intersection LOS: A			
Intersection Capacity Utilization 26.1%				ICU Level of Service A			
Analysis Period (min) 15							





















Splits and Phases: 4: Somerville Ave & Warren Ave



	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	710	0	0	0	0	73
Future Volume (Veh/h)	710	0	0	0	0	73
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.73	0.73
Hourly flow rate (vph)	763	0	0	0	0	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			763		763	382
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			763		763	382
tC, single (s)			4.1		6.8	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cM capacity (veh/h)			845		341	614
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	382	382	100			
Volume Left	0	0	0			
Volume Right	0	0	100			
cSH	1700	1700	614			
Volume to Capacity	0.22	0.22	0.16			
Queue Length 95th (ft)	0	0	14			
Control Delay (s)	0.0	0.0	12.0			
Lane LOS			B			
Approach Delay (s)	0.0		12.0			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			30.8%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Weekday Afternoon Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	223	35	26	220	249	23	304	13	169	205	23
Future Volume (vph)	79	223	35	26	220	249	23	304	13	169	205	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1803	1615	1612	1863	1568	0	1854	0	1770	1776	0
Flt Permitted		0.677		0.370				0.997		0.950		
Satd. Flow (perm)	0	1224	1497	610	1863	1378	0	1854	0	1770	1776	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	41		35	35		101			60			74
Confl. Bikes (#/hr)									26			8
Peak Hour Factor	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	0%	12%	2%	3%	0%	1%	0%	2%	3%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	318	37	28	234	265	0	361	0	176	238	0
Turn Type	Perm	NA	Perm	Perm	NA	custom	Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4		4	8		2 8						
Detector Phase	4	4	4	8	8	2 8	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Total Split (s)	64.0	64.0	64.0	64.0	64.0		46.0	46.0		36.0	36.0	
Total Split (%)	35.6%	35.6%	35.6%	35.6%	35.6%		25.6%	25.6%		20.0%	20.0%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		Max	Max		Max	Max	
Act Effect Green (s)		58.0	58.0	58.0	58.0	88.0		40.0		30.0	30.0	
Actuated g/C Ratio		0.32	0.32	0.32	0.32	0.49		0.22		0.17	0.17	
v/c Ratio		0.81	0.08	0.14	0.39	0.39		0.88		0.60	0.80	
Control Delay		72.7	43.1	46.0	49.7	16.8		89.3		78.7	92.5	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		72.7	43.1	46.0	49.7	16.8		89.3		78.7	92.5	
LOS		E	D	D	D	B		F		E	F	
Approach Delay		69.6			32.9			89.3			86.6	
Approach LOS		E			C			F			F	
Queue Length 50th (ft)		346	31	24	216	105		416		195	275	
Queue Length 95th (ft)		#506	63	54	302	148		#598		287	#411	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	9.0
Minimum Split (s)	34.0
Total Split (s)	34.0
Total Split (%)	19%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Weekday Afternoon Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		394	482	196	600	673		412		295	296	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.81	0.08	0.14	0.39	0.39		0.88		0.60	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 66.5

Intersection LOS: E

Intersection Capacity Utilization 78.6%






ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.
















Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave

 Ø2	 Ø6	 Ø4 (R)	 Ø9
36 s	46 s	64 s	34 s
		 Ø8 (R)	
		64 s	

Lane Group	Ø9
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Liberty Cannabis
2: Warren Ave & Bow Street

Weekday Afternoon Peak Hour
2027 Build

																	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Lane Configurations																	
Traffic Volume (veh/h)	0	0	0	0	610	22	190	51	0	0	0	60					
Future Volume (Veh/h)	0	0	0	0	610	22	190	51	0	0	0	60					
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	0.74	0.74	0.74	0.75	0.75	0.75					
Hourly flow rate (vph)	0	0	0	0	663	24	257	69	0	0	0	80					
Pedestrians												77					
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)	50																
pX, platoon unblocked	0.84						0.84	0.84				0.84					
vC, conflicting volume	764				0			755	764	0	786	752					
vC1, stage 1 conf vol																	
vC2, stage 2 conf vol																	
vCu, unblocked vol	619				0			609	619	0	646	605					
tC, single (s)	4.1				4.1			*5.5	*5.5	6.2	7.1	6.5					
tC, 2 stage (s)																	
tF (s)	2.2				2.2			3.5	4.0	3.3	3.5	4.0					
p0 queue free %	100				100			23	82	100	100	79					
cM capacity (veh/h)	744				1623			335	374	1085	242	319					
	378																
Direction, Lane #	WB 1	NB 1	SB 1														
Volume Total	687	326	80														
Volume Left	0	257	0														
Volume Right	24	0	80														
cSH	1700	342	378														
Volume to Capacity	0.40	0.95	0.21														
Queue Length 95th (ft)	0	252	20														
Control Delay (s)	0.0	72.8	17.0														
Lane LOS			F	C													
Approach Delay (s)	0.0	72.8	17.0														
Approach LOS			F	C													
Intersection Summary																	
Average Delay				23.0													
Intersection Capacity Utilization				60.5%	ICU Level of Service				B								
Analysis Period (min)				15													
* User Entered Value																	







Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Afternoon Peak Hour
2027 Build

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations			↑				
Traffic Volume (vph)	0	0	632	0	0	0	
Future Volume (vph)	0	0	632	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1792	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1792	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	2%	6%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	687	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			42.9				
Actuated g/C Ratio			0.80				
v/c Ratio			0.48				
Control Delay			5.6				
Queue Delay			0.0				
Total Delay			5.6				
LOS			A				
Approach Delay			5.6				
Approach LOS			A				
Queue Length 50th (ft)			109				
Queue Length 95th (ft)			184				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1433				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Weekday Afternoon Peak Hour
2027 Build

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Reduced v/c Ratio	0.48						
Intersection Summary							
Area Type:	Other						
Cycle Length: 45							
Actuated Cycle Length: 53.6							
Natural Cycle: 45							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.48							
Intersection Signal Delay: 5.6				Intersection LOS: A			
Intersection Capacity Utilization 36.6%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 3: Bow Street & Pedestrian Crossing

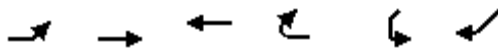


Liberty Cannabis
4: Somerville Ave & Warren Ave

Weekday Afternoon Peak Hour
2027 Build



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	241	397	0	0	0	0	
Future Volume (vph)	241	397	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3498	0	0	0	0	
Flt Permitted		0.981					
Satd. Flow (perm)	0	3498	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		245					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.86	0.86	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	742	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		38.6					
Actuated g/C Ratio		0.69					
v/c Ratio		0.30					
Control Delay		6.2					
Queue Delay		0.0					
Total Delay		6.2					
LOS		A					
Approach Delay		6.2					
Approach LOS		A					
Queue Length 50th (ft)		65					
Queue Length 95th (ft)		93					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2704					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.27						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 55.7							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.30							
Intersection Signal Delay: 6.2				Intersection LOS: A			
Intersection Capacity Utilization 22.1%				ICU Level of Service A			
Analysis Period (min) 15							

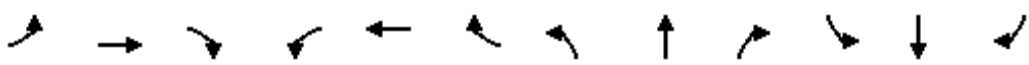
Splits and Phases: 4: Somerville Ave & Warren Ave



	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↗
Traffic Volume (veh/h)	561	0	0	0	0	77
Future Volume (Veh/h)	561	0	0	0	0	77
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.84	0.84	0.92	0.92	0.82	0.82
Hourly flow rate (vph)	668	0	0	0	0	94
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			668		668	334
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			668		668	334
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	86
cM capacity (veh/h)			918		391	665
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	334	334	94			
Volume Left	0	0	0			
Volume Right	0	0	94			
cSH	1700	1700	665			
Volume to Capacity	0.20	0.20	0.14			
Queue Length 95th (ft)	0	0	12			
Control Delay (s)	0.0	0.0	11.3			
Lane LOS			B			
Approach Delay (s)	0.0		11.3			
Approach LOS			B			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			26.9%	ICU Level of Service		A
Analysis Period (min)			15			

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave













Saturday Midday Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗		↕		↖	↗	
Traffic Volume (vph)	65	212	15	28	165	276	25	202	22	249	206	63
Future Volume (vph)	65	212	15	28	165	276	25	202	22	249	206	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		130	0		0	0		0
Storage Lanes	0		1	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1821	1615	1736	1827	1568	0	1818	0	1752	1628	0
Flt Permitted		0.763		0.330				0.995		0.950		
Satd. Flow (perm)	0	1366	1454	578	1827	1264	0	1818	0	1752	1628	0
Right Turn on Red			No			No			Yes			No
Satd. Flow (RTOR)								2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		580			678			611			159	
Travel Time (s)		13.2			15.4			13.9			3.6	
Confl. Peds. (#/hr)	100		48	48		183			83			195
Confl. Bikes (#/hr)									16			31
Peak Hour Factor	0.85	0.85	0.85	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91
Heavy Vehicles (%)	0%	4%	0%	4%	4%	3%	0%	0%	5%	3%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	325	18	30	176	294	0	271	0	274	295	0
Turn Type	Perm	NA	Perm	Perm	NA	custom	Split	NA		Split	NA	
Protected Phases		4			8		6	6		2	2	
Permitted Phases	4		4	8		2 8						
Detector Phase	4	4	4	8	8	2 8	6	6		2	2	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		16.0	16.0		16.0	16.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0		41.0	41.0		46.0	46.0	
Total Split (%)	32.8%	32.8%	32.8%	32.8%	32.8%		22.8%	22.8%		25.6%	25.6%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0	6.0	6.0	6.0			6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		Max	Max		Max	Max	
Act Effect Green (s)		53.0	53.0	53.0	53.0	93.0		35.0		40.0	40.0	
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.52		0.19		0.22	0.22	
v/c Ratio		0.81	0.04	0.18	0.33	0.45		0.76		0.70	0.82	
Control Delay		75.3	45.9	50.8	51.7	16.3		83.0		75.6	84.9	
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	
Total Delay		75.3	45.9	50.8	51.7	16.3		83.0		75.6	84.9	
LOS		E	D	D	D	B		F		E	F	
Approach Delay		73.8			30.8			83.0			80.4	
Approach LOS		E			C			F			F	
Queue Length 50th (ft)		358	15	27	164	109		305		302	335	
Queue Length 95th (ft)		457	36	59	240	154		421		416	#484	
Internal Link Dist (ft)		500			598			531			79	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	9.0
Minimum Split (s)	34.0
Total Split (s)	34.0
Total Split (%)	19%
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Max
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	

Liberty Cannabis
1: Webster Ave & Washington St & Somerville Ave

Saturday Midday Peak Hour
2027 Build

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)				100		130						
Base Capacity (vph)		402	428	170	537	653		355		389	361	
Starvation Cap Reductn		0	0	0	0	0		0		0	0	
Spillback Cap Reductn		0	0	0	0	0		0		0	0	
Storage Cap Reductn		0	0	0	0	0		0		0	0	
Reduced v/c Ratio		0.81	0.04	0.18	0.33	0.45		0.76		0.70	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 180

Actuated Cycle Length: 180

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 64.8

Intersection LOS: E

Intersection Capacity Utilization 73.7%

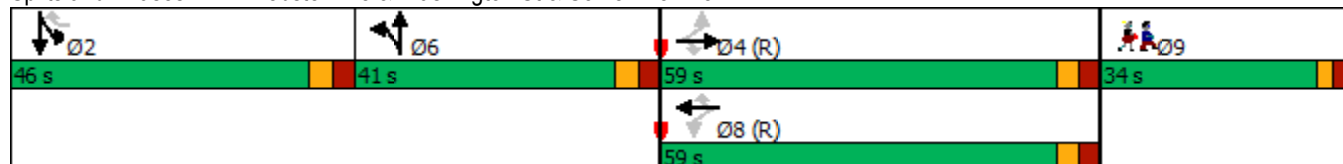
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.
















Splits and Phases: 1: Webster Ave & Washington St & Somerville Ave



Lane Group	Ø9
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Liberty Cannabis
2: Warren Ave & Bow Street

Saturday Midday Peak Hour
2027 Build

																	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR					
Lane Configurations																	
Traffic Volume (veh/h)	0	0	0	0	511	32	202	43	0	0	0	101					
Future Volume (Veh/h)	0	0	0	0	511	32	202	43	0	0	0	101					
Sign Control	Free			Free			Stop			Stop							
Grade	0%			0%			0%			0%							
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.94	0.94	0.94	0.84	0.84	0.84					
Hourly flow rate (vph)	0	0	0	0	544	34	215	46	0	0	0	120					
Pedestrians												212					
Lane Width (ft)												12.0					
Walking Speed (ft/s)												3.5					
Percent Blockage												20					
Right turn flare (veh)																	
Median type	None			None													
Median storage (veh)																	
Upstream signal (ft)	50																
pX, platoon unblocked	0.85						0.85	0.85			0.85	0.85	0.85				
vC, conflicting volume	790				0			681	790	0	796	773	773				
vC1, stage 1 conf vol																	
vC2, stage 2 conf vol																	
vCu, unblocked vol	661				0			532	661	0	668	641	641				
tC, single (s)	4.1				4.1			*5.5	*5.5	6.2	7.1	6.5	6.2				
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				100			18	85	100	100	100	63				
cM capacity (veh/h)	626				1623			263	313	1085	189	265	323				
Direction, Lane #	WB 1	NB 1	SB 1														
Volume Total	578	261	120														
Volume Left	0	215	0														
Volume Right	34	0	120														
cSH	1700	270	323														
Volume to Capacity	0.34	0.97	0.37														
Queue Length 95th (ft)	0	233	42														
Control Delay (s)	0.0	87.2	22.6														
Lane LOS			F	C													
Approach Delay (s)	0.0	87.2	22.6														
Approach LOS			F	C													
Intersection Summary																	
Average Delay				26.6													
Intersection Capacity Utilization				59.0%	ICU Level of Service				B								
Analysis Period (min)				15													
* User Entered Value																	

Liberty Cannabis
3: Bow Street & Pedestrian Crossing

Saturday Midday Peak Hour
2027 Build

							
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Ø2
Lane Configurations							
Traffic Volume (vph)	0	0	543	0	0	0	
Future Volume (vph)	0	0	543	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	1863	0	0	0	
Flt Permitted							
Satd. Flow (perm)	0	0	1863	0	0	0	
Right Turn on Red		No		No			
Satd. Flow (RTOR)							
Link Speed (mph)	30		30			30	
Link Distance (ft)	184		50			50	
Travel Time (s)	4.2		1.1			1.1	
Peak Hour Factor	0.92	0.92	0.94	0.94	0.92	0.92	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	0	578	0	0	0	
Turn Type			NA				
Protected Phases			1			2	
Permitted Phases							
Detector Phase			1				
Switch Phase							
Minimum Initial (s)			25.0			10.0	
Minimum Split (s)			29.0			16.0	
Total Split (s)			29.0			16.0	
Total Split (%)			64.4%			36%	
Yellow Time (s)			3.0			2.0	
All-Red Time (s)			1.0			1.0	
Lost Time Adjust (s)			0.0				
Total Lost Time (s)			4.0				
Lead/Lag			Lead			Lag	
Lead-Lag Optimize?							
Recall Mode			Min			None	
Act Effect Green (s)			40.0				
Actuated g/C Ratio			0.67				
v/c Ratio			0.47				
Control Delay			6.3				
Queue Delay			0.0				
Total Delay			6.3				
LOS			A				
Approach Delay			6.3				
Approach LOS			A				
Queue Length 50th (ft)			82				
Queue Length 95th (ft)			136				
Internal Link Dist (ft)	104		1			1	
Turn Bay Length (ft)							
Base Capacity (vph)			1242				
Starvation Cap Reductn			0				
Spillback Cap Reductn			0				
Storage Cap Reductn			0				
Reduced v/c Ratio			0.47				

Intersection Summary

Area Type: Other

Cycle Length: 45

Actuated Cycle Length: 60

Natural Cycle: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 6.3

Intersection LOS: A

Intersection Capacity Utilization 31.9%

ICU Level of Service A

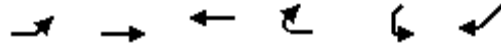
Analysis Period (min) 15

Splits and Phases: 3: Bow Street & Pedestrian Crossing

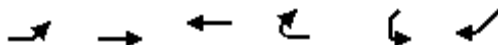


Liberty Cannabis
4: Somerville Ave & Warren Ave

Saturday Middy Peak Hour
2027 Build









Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Lane Configurations		↕↕					
Traffic Volume (vph)	245	518	0	0	0	0	
Future Volume (vph)	245	518	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	3528	0	0	0	0	
Flt Permitted		0.984					
Satd. Flow (perm)	0	3528	0	0	0	0	
Right Turn on Red	Yes			Yes		Yes	
Satd. Flow (RTOR)		152					
Link Speed (mph)		30	30		30		
Link Distance (ft)		240	98		71		
Travel Time (s)		5.5	2.2		1.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	0%	1%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	829	0	0	0	0	
Turn Type	Split	NA					
Protected Phases	1	1					2
Permitted Phases							
Detector Phase	1	1					
Switch Phase							
Minimum Initial (s)	10.0	10.0					5.0
Minimum Split (s)	15.0	15.0					32.0
Total Split (s)	48.0	48.0					32.0
Total Split (%)	60.0%	60.0%					40%
Yellow Time (s)	3.0	3.0					2.0
All-Red Time (s)	2.0	2.0					1.0
Lost Time Adjust (s)		0.0					
Total Lost Time (s)		5.0					
Lead/Lag	Lead	Lead					Lag
Lead-Lag Optimize?							
Recall Mode	Min	Min					None
Act Effct Green (s)		37.8					
Actuated g/C Ratio		0.59					
v/c Ratio		0.39					
Control Delay		9.4					
Queue Delay		0.0					
Total Delay		9.4					
LOS		A					
Approach Delay		9.4					
Approach LOS		A					
Queue Length 50th (ft)		95					
Queue Length 95th (ft)		137					
Internal Link Dist (ft)		160	18		1		
Turn Bay Length (ft)							
Base Capacity (vph)		2440					
Starvation Cap Reductn		0					
Spillback Cap Reductn		0					
Storage Cap Reductn		0					



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø2
Reduced v/c Ratio	0.34						
Intersection Summary							
Area Type:	Other						
Cycle Length: 80							
Actuated Cycle Length: 64.2							
Natural Cycle: 50							
Control Type: Actuated-Uncoordinated							
Maximum v/c Ratio: 0.39							
Intersection Signal Delay: 9.4				Intersection LOS: A			
Intersection Capacity Utilization 25.6%				ICU Level of Service A			
Analysis Period (min) 15							

Splits and Phases: 4: Somerville Ave & Warren Ave



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Traffic Volume (veh/h)	718	0	0	0	0	47
Future Volume (Veh/h)	718	0	0	0	0	47
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.92	0.92	0.81	0.81
Hourly flow rate (vph)	772	0	0	0	0	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				240		
pX, platoon unblocked						
vC, conflicting volume			772		772	386
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			772		772	386
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			839		336	618
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	386	386	58			
Volume Left	0	0	0			
Volume Right	0	0	58			
cSH	1700	1700	618			
Volume to Capacity	0.23	0.23	0.09			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.0	11.4			
Lane LOS			B			
Approach Delay (s)	0.0		11.4			
Approach LOS			B			
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			29.8%	ICU Level of Service		A
Analysis Period (min)			15			

APPENDIX H

Capacity/Level-of-Service Analysis Summary

CAPACITY ANALYSIS SUMMARY

Weekday Morning Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing			2022 Build			2027 Build		
			LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Somerville Avenue at Bow Street/Webster Avenue and Washington Street	EB	LT	E	74.0	0.78	E	74.0	0.78	F	84.7	0.86
		R	D	47.9	0.13	D	47.9	0.13	D	49.3	0.13
	WB	L	D	53.7	0.27	D	53.7	0.27	E	56.3	0.29
		T	E	56.1	0.48	E	56.1	0.48	E	58.3	0.51
		R	E	57.5	0.48	E	57.5	0.48	B	12.1	0.28
	NB	LTR	E	65.5	0.56	E	65.5	0.56	F	89.3	0.79
	SB	L	E	57.4	0.50	E	57.4	0.50	E	63.2	0.56
		TR	E	72.8	0.81	E	72.8	0.81	F	86.5	0.90
	<i>Overall</i>		<i>E</i>	<i>64.3</i>	<i>0.99</i>	<i>E</i>	<i>64.3</i>	<i>0.99</i>	<i>E</i>	<i>68.4</i>	<i>0.76</i>
Bow Street at Warren Avenue	WB	TR	A	4.1	0.30	A	4.1	0.30	A	4.1	0.30
	NB	LT	C	17.8	0.45	C	17.8	0.45	C	18.2	0.46
	SB	R	B	12.2	0.15	B	12.2	0.15	B	12.3	0.15
Somerville Avenue at Warren Avenue	EB	LT	A	9.7	0.40	A	9.7	0.40	A	9.7	0.40
Somerville Avenue at Hawkins Street	EB	T	A	0.0	0.22	A	0.0	0.22	A	0.0	0.22
	NB	R	B	11.9	0.16	B	11.9	0.16	B	12.0	0.16

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

QUEUE SUMMARY

Weekday Morning Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing		2022 Build		2027 Build	
			50th Queue ¹	95th Queue ²	50th Queue	95th Queue	50th Queue	95th Queue
Somerville Avenue at	EB	LT	310	432	310	432	327	489
Bow Street/Webster Avenue and		R	43	80	43	80	45	85
Washington Street	WB	L	44	88	44	88	46	91
		T	240	335	240	335	247	346
		R	206	297	206	297	62	90
	NB	LTR	239	280	239	280	265	310
	SB	L	243	321	243	321	256	338
		TR	453	561	453	561	478	621
Bow Street at	WB	TR	54	92	54	92	55	93
Warren Avenue	NB	LT	n/a	57	n/a	57	n/a	60
	SB	R	n/a	13	n/a	13	n/a	13
Somerville Avenue at	EB	LT	110	152	110	152	112	154
Warren Avenue								
Somerville Avenue at	EB	T	n/a	0	n/a	0	n/a	0
Hawkins Street	NB	R	n/a	14	n/a	14	n/a	14

1 50th percentile queue, in feet

2 95th percentile queue, in feet

n/a Not applicable

CAPACITY ANALYSIS SUMMARY

Weekday Afternoon Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing			2022 Build			2027 Build		
			LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Somerville Avenue at Bow Street/Webster Avenue and Washington Street	EB	LT	F	93.6	0.92	F	93.6	0.92	E	72.7	0.81
		R	D	47.0	0.09	D	47.0	0.09	D	43.1	0.08
	WB	L	D	50.7	0.17	D	50.7	0.17	D	46.0	0.14
		T	D	54.1	0.42	D	54.1	0.42	D	49.7	0.39
		R	E	60.6	0.58	E	60.7	0.58	B	16.8	0.39
	NB	LTR	F	81.7	0.82	F	82.0	0.83	F	89.3	0.88
	SB	L	D	52.7	0.34	D	52.8	0.34	E	78.7	0.60
		TR	E	55.8	0.45	E	56.0	0.46	F	92.5	0.80
	<i>Overall</i>		<i>E</i>	<i>68.6</i>	<i>0.98</i>	<i>E</i>	<i>68.7</i>	<i>0.98</i>	<i>E</i>	<i>66.5</i>	<i>0.79</i>
Bow Street at Warren Avenue	WB	TR	A	5.5	0.47	A	5.6	0.47	A	5.6	0.48
	NB	LT	F	62.0	0.90	F	65.9	0.92	F	72.8	0.95
	SB	R	C	16.7	0.21	C	16.8	0.21	C	17.0	0.21
Somerville Avenue at Warren Avenue	EB	LT	A	6.2	0.29	A	6.2	0.29	A	6.2	0.30
Somerville Avenue at Hawkins Street	EB	T	A	0.0	0.19	A	0.0	0.19	A	0.0	0.20
	NB	R	B	11.2	0.13	B	11.3	0.14	B	11.3	0.14

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

QUEUE SUMMARY

Weekday Afternoon Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing		2022 Build		2027 Build	
			50th Queue ¹	95th Queue ²	50th Queue	95th Queue	50th Queue	95th Queue
Somerville Avenue at	EB	LT	362	562	362	562	346	506
Bow Street/Webster Avenue and		R	32	66	32	66	31	63
Washington Street	WB	L	25	57	25	57	24	54
		T	222	311	222	311	216	302
		R	264	369	266	372	105	148
	NB	LTR	403	562	405	562	416	598
	SB	L	161	236	164	240	195	287
		TR	226	318	228	321	275	411
Bow Street at	WB	TR	105	178	106	180	109	184
Warren Avenue	NB	LT	n/a	225	n/a	236	n/a	252
	SB	R	n/a	19	n/a	19	n/a	20
Somerville Avenue at	EB	LT	63	90	64	91	65	93
Warren Avenue								
Somerville Avenue at	EB	T	n/a	0	n/a	0	n/a	0
Hawkins Street	NB	R	n/a	12	n/a	12	n/a	12

1 50th percentile queue, in feet

2 95th percentile queue, in feet

n/a Not applicable

CAPACITY ANALYSIS SUMMARY

Saturday Midday Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing			2022 Build			2027 Build		
			LOS ¹	Delay ²	V/C ³	LOS	Delay	V/C	LOS	Delay	V/C
Somerville Avenue at Bow Street/Webster Avenue and Washington Street	EB	LT	E	75.5	0.81	E	75.5	0.81	E	75.3	0.81
		R	D	46.1	0.05	D	46.1	0.05	D	45.9	0.04
	WB	L	D	50.9	0.18	D	50.9	0.18	D	50.8	0.18
		T	D	51.6	0.32	D	51.6	0.32	D	51.7	0.33
		R	E	63.3	0.64	E	63.5	0.64	B	16.3	0.45
	NB	LTR	E	69.0	0.63	E	69.1	0.63	F	83.0	0.76
	SB	L	E	58.3	0.53	E	58.4	0.53	E	75.6	0.70
		TR	E	62.7	0.63	E	63.0	0.63	F	84.9	0.82
	<i>Overall</i>		<i>E</i>	<i>64.0</i>	<i>0.95</i>	<i>E</i>	<i>64.1</i>	<i>0.95</i>	<i>E</i>	<i>64.8</i>	<i>0.74</i>
Bow Street at Warren Avenue	WB	TR	A	6.3	0.46	A	6.3	0.46	A	6.3	0.47
	NB	LT	F	75.6	0.92	F	79.5	0.94	F	87.2	0.97
	SB	R	C	22.1	0.36	C	22.2	0.36	C	22.6	0.37
Somerville Avenue at Warren Avenue	EB	LT	A	9.0	0.37	A	9.4	0.38	A	9.4	0.39
Somerville Avenue at Hawkins Street	EB	T	A	0.0	0.22	A	0.0	0.22	A	0.0	0.23
	NB	R	B	11.3	0.09	B	11.4	0.09	B	11.4	0.09

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

QUEUE SUMMARY

Saturday Midday Peak Hour

Liberty Cannabis

Somerville, MA

Intersection	Movement		2022 Existing		2022 Build		2027 Build	
			50th Queue ¹	95th Queue ²	50th Queue	95th Queue	50th Queue	95th Queue
Somerville Avenue at	EB	LT	354	453	354	453	358	457
Bow Street/Webster Avenue and		R	15	36	15	36	15	36
Washington Street	WB	L	27	59	27	59	27	59
		T	161	236	161	236	164	240
		R	299	413	302	416	109	154
	NB	LTR	284	392	285	393	305	421
	SB	L	268	369	270	373	302	416
		TR	299	413	302	414	335	484
Bow Street at	WB	TR	80	132	80	133	82	136
Warren Avenue	NB	LT	n/a	212	n/a	220	n/a	233
	SB	R	n/a	40	n/a	40	n/a	42
Somerville Avenue at	EB	LT	92	132	93	135	95	137
Warren Avenue								
Somerville Avenue at	EB	T	n/a	0	n/a	0	n/a	0
Hawkins Street	NB	R	n/a	7	n/a	8	n/a	8

1 50th percentile queue, in feet

2 95th percentile queue, in feet

n/a Not applicable