35 McGrath Highway

Address: 35 McGrath Highway, Somerville, MA 02143
Submitted by: 35 McGrath Highway Realty Trust



Owner:
35 McGrath Highway Realty Trust

Attorney:
McDermott Quilty & Miller LLP

Owners Representative:
T|D|G
THE DENUNZIO GROUP

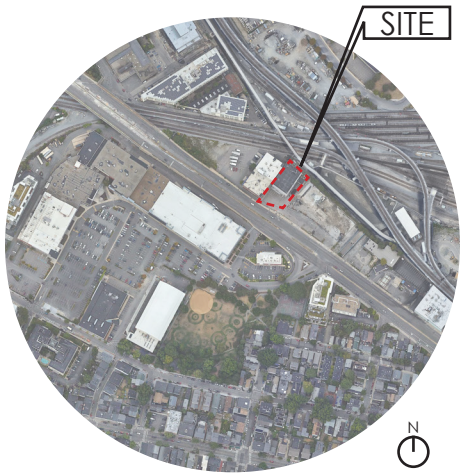
Architecture:
Stantec

MEP/FP Engineering:
Cosentini
A TETRA TECH COMPANY

Structural Engineering:
odeh engineers

Landscape/Civil:
BOHLER

Traffic:
HOWARD STEIN HUDSON



LOCUS MAP
NOT TO SCALE

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CITY OF SOMERVILLE, MASSACHUSETTS
MAYOR'S OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT
KATJANA BALLANTYNE
MAYOR

TOM GALLIGANI
EXECUTIVE DIRECTOR

July 13, 2023

Paul R. Lohness Trustee
35 McGrath Highway Realty
Trust 75 Cambridge Parkway,
Suite 100
Cambridge, MA 02142

Dear Mr. Lohness,

This letter is the Final Decision of the Director of Mobility for the Mobility Management Plan ('MMP') submitted by 35 McGrath Highway Realty Trust (the 'Applicant') for 35 McGrath Highway as required by §11.4 Mobility Management of the Somerville Zoning Ordinance (SZO) for a Development Review Application. The decision is an **Approval with Conditions**. This letter details the conditions necessary for the successful implementation of your plan.

Background & Applicability

The Applicant proposes to construct one building of approximately 135,000 square feet containing laboratory/life science uses and a below ground garage containing approximately 103 vehicle parking spaces. The Applicant notes that the parking garage will be operated as commercial parking, which is supported by the Mobility Division. Accessory parking, including on-site and off-site, is not allowed in the HR zoning district. The City is committed to ensuring that new parking creation is a shared resource available to the public, inclusive of tenant employees. The project proposes to construct 27 long-term bicycle parking spaces and 7 short-term bicycle parking spaces.

The project is bounded by Massachusetts Route 28 to the south, Massachusetts Bay Transportation Authority (MBTA) tracks to the north, a self-storage facility to the west, and an active construction site to the east. The parcel directly east of project has been permitted by the Planning Board for redevelopment, including the construction of a 268-space parking garage which is also required to be operated as commercial parking.

The project is approximately 0.4 miles from the Lechmere MBTA Green Line station. Three existing MBTA bus routes (80, 87, 88) have stops within 0.25 miles of the project, and an additional bus route (69) has stops within 0.5 miles. A Bluebikes station on Gore Street at Lambert Street is less than 0.25

miles from the project, and a Bluebikes station by Lechmere station is less than 0.5 miles away.

The proposed building will meet the fifty thousand (50,000) square feet commercial space threshold to trigger MMP requirements of the property owner. Due to the size of the building, one or more future tenants may trigger the requirements of individual employers with more than 50 employees. **The property owner shall require qualifying future tenants to provide required mobility management programs and services through lease agreements.**

For any future tenant that does not meet the fifty (50) employee threshold to trigger individual MMP requirements, the property owner is primarily responsible for implementation of the required mobility management programs and services. **Annual reporting will be necessary to verify the cumulative employee count each year and implementation of programs & services required of the property owner and/or tenants.**

Any conditions or obligations contained within this MMP relating to property not owned by, or in the control of, the Applicant are conditioned on the Applicant receiving authorization from the property owner to carry out any conditions or obligations. The Applicant will not be bound by any condition or obligation contained in this MMP for which the Applicant is unable to receive said authorization.

Mobility Division Analysis

Somerville Zoning Ordinance Compliance

The Mobility Division recommends you address the following for your Transportation Access Plan (TAP) to be considered compliant with the SZO. An SZO-compliant TAP is a required component of a complete Site Plan Approval application. Improvements are subject to review and approval of those agencies with jurisdiction.

- The grade, cross slope, and clear width of the walkway of a sidewalk must be maintained between the driveway apron and the abutting driveway. The appearance of the walkway (i.e. scoring pattern or paving material) must indicate that, although a vehicle may cross, the area traversed by a vehicle remains part of the sidewalk.

Draft Transportation Access Plan

The Mobility Division strongly recommends you address the following in your TAP prior to submitting your Site Plan Approval application, subject to review and approval of those agencies with jurisdiction.

- Maintain the bike lane across the driveway at sidewalk level, with no lateral shift toward the roadway. Place driveway apron in the street buffer space between the bike lane and the roadway.
- Reduce in driveway curb radii to no more than what is proposed for the 1 and 15 McGrath Highway driveways on Exhibit A.2 of the Transportation Access Plan submitted 2/10/23.
- Reduce in the width of the driveway and curb cut. Remove the centerline of the driveway and allow larger vehicles to enter the opposing lane.
- Retain the westbound bus stop in front of 15 McGrath Highway project.

Mobility Management Plan

A key component of the projected vehicle trips and subsequent traffic analysis hinges on the mode share, and automobile mode share can be heavily influenced by available parking. Controlling and managing parking supply throughout the city remains a critical element in reaching SomerVision mode share goals to control the percentage of trips made by vehicles at 37.5% or less by 2030 and at 25% or less by 2040. National and local research has demonstrated that excessive motor vehicle parking in new development reduces transit ridership and undermines public investment in transit infrastructure.

Strong Transportation Demand Management (TDM) measures, transit amenities and connections, and additional supportive infrastructure to encourage the use of non-vehicle transportation modes are integral components of Mobility Management planning for this site.

While the proposed parking ratio complies with the SZO, the City strongly encourages minimizing or eliminating vehicle parking to help achieve the City's ambitious mode shift and greenhouse gas reduction goals. Extensive studies have determined a relationship between parking and automobile mode share. Given the parking proposed, the Mobility Division recommends various mitigation measures to help achieve mandatory mode share performance measures.

Further, MassDOT is undertaking a resurfacing project of McGrath Highway in the vicinity of the project. In addition to bus stop improvements and new buffered bike lanes, this section of McGrath Highway is planned to undergo a road diet and be reduced from three vehicle thru-lanes in each direction to two vehicle thru-lanes in each direction. Therefore, the existing roadway infrastructure is not intended to accommodate significant increases in vehicle demand and every effort to minimize auto trips and to spread trip demand should be considered. The Mobility Division is committed to working with the Applicant to build and operate a building that promotes and encourages decarbonizing our transportation system and compliments the future right-sized McGrath Highway.

Plan Commitments

Programs and Services Required by Somerville Zoning Ordinance

The following section details the baseline Mobility Management programs and services that are required by the Somerville Zoning Ordinance ('SZO') for all applicants submitting a Mobility Management Plan.

In relation to the mode share commitment requirement for all mobility management plans **the Applicant must make the following mode share commitment:**

- To control the percentage of trips made by automobile at fifty percent (50%) or less and to implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.

In relation to the programs and services required for commercial property owners of buildings with fifty thousand (50,000) square feet or more of commercial space and for multi-tenant buildings where the tenants, in combination, have fifty (50) or more employees, **the Applicant must make the following commitments to provide for their tenants:**

- To provide an on-site transportation coordinator and to identify the workspace location or office and contact information for the on-site transportation coordinator prior to occupancy of the building.
- To post and distribute mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.
- To host an annual mobility management education meeting for tenants and their employees.
- To un-bundle the rental or lease of parking spaces from the rental or lease of floor space.
- To provide preferential carpool and vanpool parking, with spaces located nearest to building entrances within the parking garage as a convenience to commuters and to promote ridesharing.

In relation to the programs and services required for commercial property owners of buildings with fifty thousand (50,000) square feet or more of commercial space and for multi-tenant buildings where the tenants, in combination, have fifty (50) or more employees, the **Applicant has committed to require their tenants, in all commercial lease agreements for all future tenants of any size, to:**

- To provide their employees with Qualified Transportation Fringe benefits per current U.S. Internal Revenue Code.
- To provide their employees with a guaranteed ride home service.

In relation to the programs and services required for commercial uses with 50 or more employees, the **Applicant must commit to require, in all commercial lease agreements for all future tenants with 50 or more employees:**

- To submit their own Mobility Management Plan and provide for their employees all programs and services required by the Somerville Zoning Ordinance of employers with 50 or more employees.
- To provide their own on-site transportation coordinator and to identify the workspace location or office and contact information for the on-site transportation coordinator prior to occupancy of the building.
- To both post and distribute mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.
- To provide their employees with Qualified Transportation Fringe benefits per current U.S. Internal Revenue Code.
- To become a participating MassRIDES employer partner worksite this registered for MassRIDES Emergency Ride Home (ERH) program or provide a similar guaranteed ride home service.
- To host an annual mobility management education meeting for their employees.

In relation to the programs and services required for property owners of commercial parking facilities, the **Applicant must commit to the following programs and services for the operation of their commercial parking facility:**

- To offer preferential carpool and vanpool parking within the parking garage and spaces near office building entrances within the parking garage as a convenience to commuters and to promote ridesharing.
- To post mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.

Additional Applicant Commitments

In addition to the above, the Applicant has committed to the following additional programs & services:

- To bring all abutting sidewalk and pedestrian ramps to the City of Somerville standards in accordance with NACTO guidelines, including: the reconstruction and widening of sidewalks where needed; the installation of new, accessible ramps; improvements to street lighting where necessary; planting of street trees; and providing bicycle storage racks surrounding the Project Site.
- A bicycle share station or bicycles on-site.
- Space(s) reserved in the garage for a car sharing service such as Zipcar (at least two spaces, pending demand for car-sharing service).
- Clear wayfinding to bicycle parking.
- A bicycle repair station.
- Showers and changing facilities with lockers.
- Joining the existing Charles River TMA or participating in any newly formed TMAs.
- Promoting the hiring of local residents for employment opportunities associated with the Project and its tenants. To the extent practicable, the Project will implement a program to advertise employment opportunities and seek qualified candidates that live within walking or bicycling distance from the Project.
- Making reasonable efforts to control the initial vehicle mode share to 37% or less, consistent with that of Census Tract 3515.
- Making reasonable efforts to reduce vehicle mode share to 25% by 2040.The Applicant will offer and/or require building tenants to subsidize:
- A portion of monthly MBTA transit passes as an employee benefit.
- Monthly Bluebikes memberships as an employee benefit.

The Applicant will provide the following parking management tools/restrictions on parking spaces:

- No more than 5% of parking as reserved vehicle spaces to be subject to a 200% market rate price premium.
- At least 5% of parking as signed, designated, and reserved spaces for carpool and/or vanpool with locations in preferential areas.
- At least 25% of parking with Level 2 Electric Vehicle (EV) Chargers (or current technology) when the garage opens with the remaining spaces being EV ready.

The Applicant may also explore, without obligation, implementing the following parking management tools:

- Applying demand-responsive pricing where rates change based on parking availability.
- Parking pricing at market rates at minimum, hourly, daily, overnight, and monthly options.
- Offering parking at a daily or monthly rate rather than yearly.

The Applicant may consider, without obligation:

- Flexible work hours as an employee benefit.
- Encouraging employees to work from home or an off-site location (telecommuting).
- Carpool matching services administered though Bay State Commute (Agile) formerly NuRide.
- Offering or encouraging building tenants to subsidize carsharing memberships, such as with Zipcar.
- Concierge service.
- Transit pass sales.

Approval Conditions

- **CONDITION #1:** The Applicant's initial vehicle mode share commitment will be 37% so that it is consistent with, and no more vehicle dependent than, the existing commuting characteristics in Census Tract 3515. The Applicant will implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.

- **CONDITION #2:** In order to meet the City's SomerVision 2040 goals, the Applicant shall make reasonable efforts to control the percentage of trips made by automobile at 25% or fewer by 2040. The Applicant will implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.

- **CONDITION #3:** The Applicant shall submit posted and distributed mobility management information to the Director of Mobility for review and approval. In addition to local transit maps and schedules, mobility management information must include the locations of nearby car- sharing stations, Bluebikes stations, and the availability of carpool/vanpool opportunities. After approval by the Director of Mobility and prior to the issuance of any Certificate of Occupancy for the building, mobility management information must be posted in building lobbies, on the project website, and on related media.

- **CONDITION #4:** The Applicant (or their designated parking facility operator) will operate the parking garage as a Commercial Parking Facility use and will offer, at minimum, hourly, daily (weekday and weekend), overnight, and monthly parking rental options at local market rates to general public, inclusive of tenant employees, 24 hours per day, 7 days per week, and 365 days per year. Tenant employees must pay market rate directly for parking and must be made aware of different parking pass options at the point of sale and through the distribution of mobility management information. Tenants may not lease parking spaces or passes on behalf of their employees, but tenant leases may include the allocation of a set

number of unreserved monthly parking passes which may be purchased by tenant employees directly from the Applicant (or their designated parking facility operator) on a first come first serve basis. The property owner must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement.

- **CONDITION #5:** The Applicant (or their designated parking facility operator) must manage the Commercial Parking Facility so that the required parking pass options remain generally available to the public, inclusive of tenant employees. Any reserved parking spaces are subject to a 200% market rate price premium as well as the overall space limits set forth in Condition #7. Applicant will submit details on all parking rates offered in the commercial parking facility as well as detailed historical parking occupancy and passholder sales data with annual reporting so that the utilization of the garage may be evaluated. Applicant may adopt operational measures to meet existing passholder obligations but shall always seek to maximize utilization of parking spaces and shall ensure that an allocation of spaces remains available for daily and hourly parking. This condition shall also apply to all parking spaces reserved for use by neighboring property owners, tenants, or users.

- **CONDITION #6:** In any lease agreement with all future tenants of any number of employees, the Applicant shall require the tenant to unbundle, and charge the market rate for, any employee parking spaces by charging their employees the full market rate of such spaces. Standard lease agreement language for unbundled and market rate parking must be approved by the Director prior to the issuance of any Certificate of Occupancy for tenant space. To verify ongoing conformance, the property owner must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement.

- **CONDITION #7:** The Applicant will limit the number of reserved spaces in commercial parking facility to no more than 5% of the total spaces, rounded to the nearest whole number.

- **CONDITION #8:** A least three (3) parking spaces must be made available in the parking garage for car share vehicles at no cost to a car share service provider. Spaces may be brought online at the discretion of the car share service provider. Notification of available spaces to car share service providers must be documented prior to the issuance of any Certificate of Occupancy and in annual reporting.

- **CONDITION #9:** At least 5% of vehicle parking spaces in the Project garage, rounded to the nearest whole number, must be signed, designated, and reserved for carpools and/or vanpools and be located in preferential locations close to building entrances. Additional spaces must be provided as demand warrants.

- **CONDITION #10:** At least 25% of the vehicle parking spaces, rounded to the nearest whole number, must be equipped with Level 2 Chargers when the garage opens for occupancy. The remainder of the parking spaces must be EV Ready spaces. EV Ready spaces must be equipped with Level 2 chargers as demand warrants. Documentation of EV readiness must be submitted to the Mobility Division prior to the issuance of any building permit for the

site, including provisions for raceway to each parking space, adequate space in the electrical panel, and space for additional transformer capacity to accommodate the future installations.

- **CONDITION #11:** In any lease agreement with all future tenants of any number of employees, the Applicant shall require tenant(s) to subsidize MBTA transit passes for employees by at least 90% of the pass cost, up to the federal maximum Qualified Transportation Fringe benefits per current U.S. Internal Revenue Code ($300 per month in 2023), subject to annual increases. Standard lease agreement language for subsidized MBTA transit passes must be approved by the Director prior to their execution in lease agreements. To verify ongoing conformance, the property owner or property manager must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement. Applicant may choose to provide these subsidies themselves directly to site employees and must provide these subsidies directly for employees of any tenant that does not comply with this condition.

- **CONDITION #12:** In any lease agreement with all future tenants of any number of employees, the Applicant shall require tenant(s) to enroll in the Bluebikes Bike Share Corporate Partner Program (or equivalent) and subsidize annual Bluebikes memberships for employees at the Gold subsidy level or higher (100% subsidy), subject to rate increases. Standard lease agreement language for subsidized Bluebikes annual passes must be approved by the Director prior to their execution in lease agreements. To verify ongoing conformance, the property owner or property manager must provide either a copy of executed lease agreements or an affidavit signed by the property owner and tenant(s) verifying that this language was included and agreed to in the lease or other agreement. Applicant may choose to provide these subsidies themselves directly to site employees and must provide these subsidies directly for employees of any tenant that does not comply with this condition.

- **CONDITION #13:** Provision of on-site real time transit information is required, consisting of two (2) connected TransitScreen displays (or equivalent service), one in the building lobby and one by the elevators on the ground floor. Details on the locations of all real time transit information screens will be submitted to the Director for approval prior to the issuance of any Certificate of Occupancy for the site.

- **CONDITION #14:** The Applicant will provide a payment of $25,000 to the City of Somerville for bus stop improvements in the vicinity of the project. Payment must be made before the issuance of any building permit for the site.

- **CONDITION #15:** A least one (1) bicycle repair facility must be provided for tenant employees in a convenient location such as the bike storage room and must be maintained in a state of good repair. Locker rooms with shower facilities must be provided for tenant employees and can be provided in a single space for all building users, in spaces for each tenant, or in multiple spaces shared amongst tenants. Locker room and shower capacity must meet expected employee demand. All bicycle parking must comply with SZO Requirements.

- **CONDITION #16:** The Applicant will sponsor, fund the purchase of, and identify an on-site and off-street location for, a city owned 19-dock Bluebikes bike share station to be located on the Applicant's property or a city approved location on the adjacent public sidewalk. Unless otherwise approved by the Director, the location must be identified prior to the issuance of any building permit for the site. Station must be installed and operational prior to issuance of any Certificate of Occupancy for the site. If the Director determines that an appropriate site cannot be found on or adjacent to the development site, the sponsorship payment must be made prior to issuance of any Certificate of Occupancy for the site and the City may place the sponsored station at another location at their sole direction. The Applicant will not be responsible for the long-term maintenance, power requirements for any Bluebikes stations not located on the Applicant's property.

- **CONDITION #17:** For the purpose of reducing daily peak-hour vehicle trips, the Applicant shall, to the extent practicable, work with lessees, the City of Somerville's Economic Development Division, and the community to develop strategies to advertise employment opportunities and seek qualified candidates that live within Somerville. The Applicant shall provide annual reports of data on the compliance with this condition, including but not limited to employee's daily trip place of origin data (i.e. home city/town), and other relevant information as required by the Director of Mobility.

- **CONDITION #18:** The property owner must have a signed contractual agreement to become a dues paying member of an existing or newly established Transportation Management Agency (TMA). Proof of membership must be submitted to the Director of Mobility prior to the issuance of the any Certificate of Occupancy for the site or within six months of the start of TMA operations, whichever occurs later.

Additional Recommendations

If the TDM conditions described in this letter fail to achieve the stated mode share goals, the Mobility Division will recommend implementing one or more of the following TDM measures to achieve that goal:

- Reduce the number of available parking spaces to support the mode share commitment.
- Install more long term and short-term bicycle parking spaces.
- Offer regular peak-hour employee shuttle service to the Lechmere, Assembly Square, and Sullivan Square MBTA stations.
- Increase the price of parking spaces.
- Offer more parking spaces for car share vehicles.
- Provide on-site amenities to reduce day-time trips by automobile.

Monitoring and Reporting

The property owner has committed to Annual Reporting to track, assess, and report on the implementation of the Mobility Management program as required by the Director's submittal requirements, which include:

- An annual statistically valid travel survey of employees and residents
- Biennial (every other year) counts of motor vehicles entering & exiting the parking facility

- Annual reporting of vehicle and bicycle parking utilization
- An annual update on the implementation of Mobility Management programs & services

All monitoring must be conducted at the same time each year, as determined by the Certificate of Occupancy for the building. If the Certificate of Occupancy for a building is issued between September 1 and February 29, the monitoring shall take place during the months of September or October and be reported to the Mobility Division no later than November 30. If the Certificate of Occupancy for a building is issued between March 1 and August 31, monitoring shall take place during the months of April or May and be reported to the Mobility Division no later than June 30. This will ensure that the monitoring captures a realistic assessment of the performance of the project, while giving time to compile the results and report them to the City.

It is important to note that while approved Mobility Management Plans are transferable by and among private parties, this transfer is contingent upon the new owner agreeing to continue to operate in accordance with the previously approved Mobility Management plan, as conditioned. Should the property owner elect to transfer some portion or all of the development subject to this Mobility Management Plan, commitment to the previously approved Mobility Management Plan is required by the new property owner.

I look forward to working with you in the future as you implement this plan. If you have any questions, please feel free to contact me at (617) 625-6600 or brawson@somervillema.gov.

Sincerely,

Brad Rawson
Director of
Mobility
Mayor's Office of Strategic Planning & Community Development
City of Somerville, Massachusetts

I certify that I have read and agree to implement the Mobility Management Plan in the form approved by the Director of Mobility. I understand that failure to implement the approved plan may result in enforcement actions taken by the City of Somerville.

Agreed and accepted,

PR Lohnes

Paul R. Lohness Trustee
35 McGrath Highway Realty Trust

SOMERVILLE MASSACHUSETTS

35 McGrath Highway
Mobiliy Management Plan

Prepared for
The DeNunzio Group

Submitted to
City of Somerville

Prepared by
Howard Stein Hudson

February 2023
Revised August 2024

HOWARD STEIN HUDSON
Engineers + Planners

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Project Information

This Mobility Management Plan (MMP) has been prepared by ***Howard Stein Hudson (HSH)*** in accordance with the City of Somerville's Office of Strategic Planning & Community Development (OSPCD) MMP Submission Requirements. A MMP is required as the building will contain more than 50,000 square feet (sf) or more than 50 employees. The Project will also submit a Transportation Impact Study (TIS) and Transportation Access Plan (TAP) as part of the development review process.

Contact Information

The Project development site address and contact information are as follows:

SITE ADDRESS

35 McGrath Highway
Somerville, MA 02143

OWNER

The DeNunzio Group, LLC
305 Cambridge Street
Cambridge, MA 02141

CONTACT

Ken McClure, Vice President of Development New England
ken@thedenunziogroup.com

Project Description

The redevelopment at 35 McGrath Highway (the Project and/or Site) is located at the southern edge of the Inner Belt neighborhood in Somerville, Massachusetts. The Project is bounded by Massachusetts Route 28 to the south, Massachusetts Bay Transportation Authority (MBTA) tracks to the north, a self-storage facility to the west, and a retail store and parking lot to the east. The Project will consist of demolishing the existing building and parking lot to construct an approximately 135,000 gross square-foot (gsf) building containing laboratory/life science uses and an underground garage containing approximately 84 parking spaces.

Parking Plan

The City of Somerville Zoning Ordinance stipulates the requirements for motor vehicle and bicycle parking for new developments. Parking will be designed in accordance with the Somerville Zoning Ordinance Article 11 (Parking & Mobility) as well as requirements specific to the land use district to minimize parking supply and encourage alternative modes of transportation. Motor vehicle parking must be unbundled from any dwelling units or non-residential floor space that will be rented or leased. Parking shall be carefully considered to meet the future supply needs of the development while balancing supply's effect on demand to encourage alternative modes of transportation.

VEHICLE PARKING

The Zoning Ordinance specifies a development is subject to parking maximums if a site is located within the transit area walkshed, and parking minimums if a site is located outside of the transit area walksheds. Per the City's Transit Area Map, dated August 16, 2019. The Project Site is located within a half-mile walkshed of the MBTA Lechmere Station and East Somerville Station on the Green Line Medford Branch. For the proposed buildings within the High-Rise District, the vehicle parking maximums are as follows:

- Research and Development or Laboratory: one (1) space per 1,000 sf (135 spaces)

VEHICLE PARKING SUPPLY

The Project proposes approximately 84 parking spaces in an underground garage on-site to serve the building's land use. As a public garage, the garage for the Project will be commercially operated and open to transient parking. The proposed parking results in an average ratio of 0.62 spaces per 1,000 sf for the development. This parking rate is less than the City's parking maximum for the Site.

BICYCLE PARKING

The City of Somerville's Zoning Ordinance stipulates the requirements for short- and long-term bicycle parking at new developments. Bicycle parking design and layout should reference the Zoning Ordinance, as well as the City of Somerville's *Bicycle Parking Guide*, and the Association of Pedestrian and Bicycle Professionals (APBP's) *Bicycle Parking Guidelines*. The Zoning Ordinance specifies short-term parking to be used by visitors of the Project in need of temporary parking. The bicycle parking minimums for the Project are as follows:

- **Research and Development or Laboratory:**
  - Short-term: one (1) space per 20,000 sf (7 spaces)
  - Long-term: one (1) space per 5,000 sf (27 spaces)

The minimum short-term bicycle parking spaces will be met with four racks (8 spaces) and the minimum long-term bicycle parking will be met with 17 covered/secured racks (34 spaces) provided

for the Project. Outdoor bicycle racks in proximity to the Site's primary entrance will be provided for short-term bicycle parking. Indoor, long-term bicycle parking will be available for buildings users in a bicycle room on the ground floor that will have direct access adjacent to the main building entrance. Short-term bicycle parking will be provided with standard hoop bicycle racks.

Local Transportation Services

TRANSIT SERVICE

The Project Site is located near the Green Line Extension and many public transportation options. The MBTA operates three bus routes within a quarter-mile from the Project (#80, #87, and #88) and one additional bus route within a half-mile (#69). The MBTA recently completed the Green Line extension project which added the Union Square branch and the Medford branch. The Union Square branch was opened March 2022 and the Medford branch opened December 2022. New stops on the Green Line Medford branch which are within a half mile of the Project include the new East Somerville Station and the relocated Lechmere Station. This new service will provide expanded access to transit for the Somerville, Cambridge, and Medford areas. The existing nearby transit services are shown in **Figure 1** and a summary of their service destinations, peak hour frequency, and total ridership is provided in **Table 1**.

Table 1. Transit Service Summary

Bus/Rail Service	Route Description	Peak Hour Headway (min.)		Ridership[1]		
		Weekday	Weekend	Weekday	Saturday	Sunday
Rail Service						
Green Line – D Branch	Riverside – Union Square	6-12	6-12	N/A[2]	N/A[2]	N/A[2]
Green Line – E Branch	Heath Street – Medford/Tufts	6-12	6-12	N/A[2]	N/A[2]	N/A[2]
Bus Routes						
69	Harvard Square – Lechmere	10-20	20-40	1,537	946	551
80	Arlington Center – Lechmere	20-35	30-60	1,007	635	344
87	Clarendon Hill or Arlington Center – Lechmere	16-20	30-40	3,732	2,905	1,625
88	Clarendon Hill – Lechmere	16-20	20-40	2,972	1,160	768

1. Ridership is based on fall 2021 boarding data from the MBTA using automatic passenger counters (APC).
2. Ridership data is not available currently as these are new services.

Figure 1. ***Public Transportation***



TRANSIT STOPS

The closest bus stops serving the bus routes that are within one-half-mile from the Project (10-minute walk) are summarized in **Table 2**.

Table 2. Bus Stops serving Routes within ½-mile from the Project

Stop Location/Route	Distance from Site		Routes	
	Feet	Walk-time (minutes)	ID	Direction
McGrath Hwy at Twin City Plaza	100	1	80, 87, 88	NB
McGrath Hwy at Twin City Plaza	632	3	80, 87, 88	SB
McGrath Hwy at Poplar St	1877	7	80, 87, 88	NB
McGrath Hwy at Medford St	2286	9	80, 87, 88	SB
Cambridge St at Third St	1997	7	69	WB
Cambridge St at Sciarappa St	1515	7	69	WB
Cambridge St at Sciarappa St	1560	7	69	EB
Cambridge St at Sixth St	1682	8	69	WB
Cambridge St at Sixth St	1677	8	69	EB
Cambridge St at Lambert St	2312	10	69	WB
Cambridge St at Max Ave	2394	11	69	EB
Lechmere	2500	13	69, 80, 87, 88	All

BICYCLE NETWORK

Currently, bicycle facilities are not provided immediately adjacent the Site; however, several of the streets at the outer extents near the half mile mark do provide buffered bicycle lanes, striped bicycle lanes, and share-the-road arrows (sharrows). McGrath Highway in front of the Site will have buffered bicycle lanes by the time of Project occupancy. Construction of these facilities is expected soon as part of a Massachusetts Department of Transportation (MassDOT) lead resurfacing project.

McGrath Highway/Monsignor O'Brien Highway (Route 28): Bicycle facilities are provided for a portion of McGrath Highway roughly a quarter-mile southeast of the Project Site. A segment with a protected cycle track is provided between North First Street to Third Street in the northwest direction and between Third Street and Gore Street in the southeast direction. These facilities then transition into a sharrow heading northwest. Further to the south a protected cycle track is provided on both sides of the road between Charlestown Avenue and East Street/Cambridge Street.

Cambridge Street: Within the study area, painted bicycle lanes line the entirety of Cambridge Street between East Street to the east and Oak Street to the west, totaling roughly one mile.

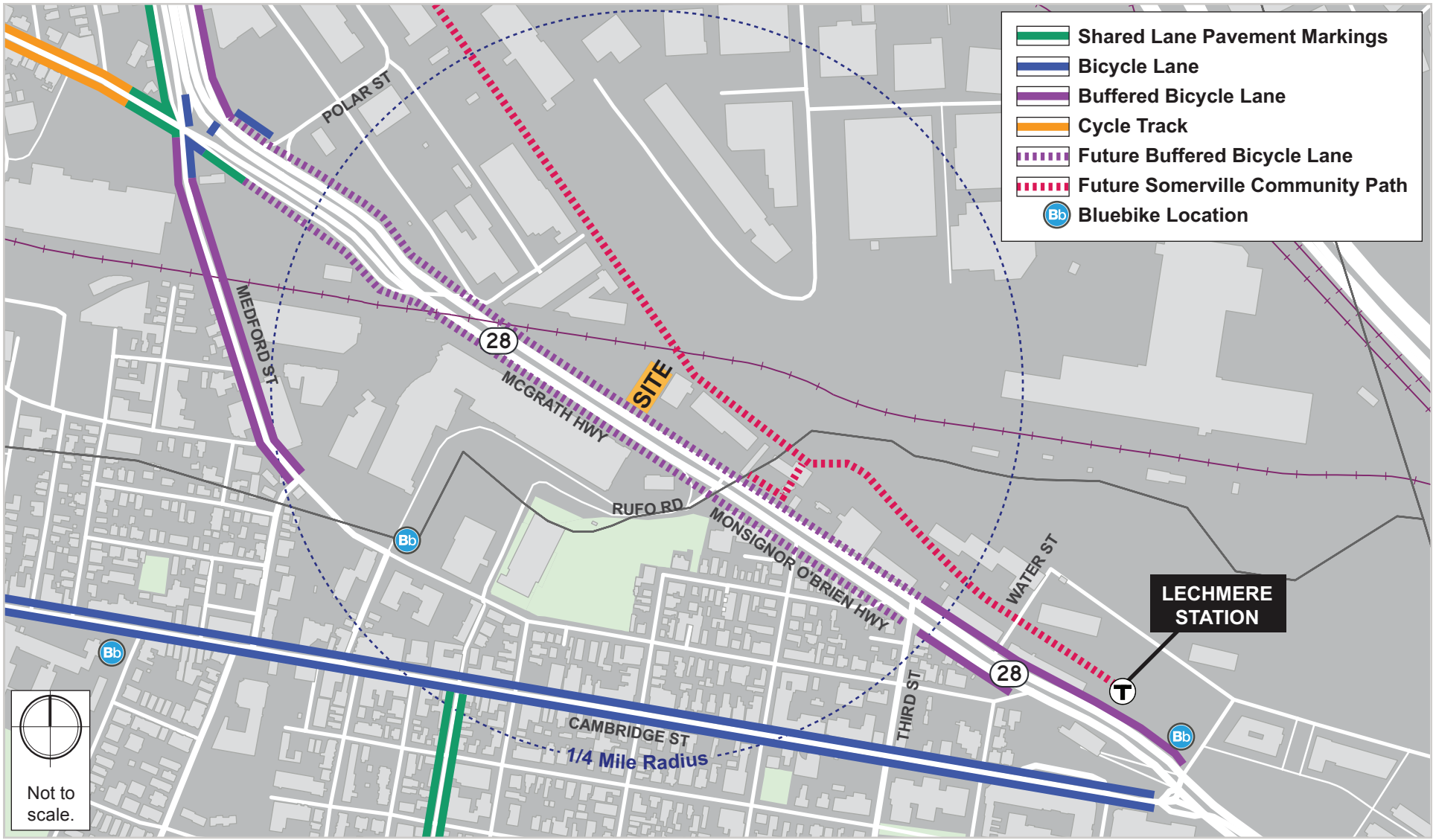
Medford Street: Painted bicycle lanes are provided along all of Medford Street, from its intersection with McGrath Highway to the point it becomes Gore Street.

Somerville Avenue: Cycle racks are provided on Somerville Avenue between Mansfield Street to the east and Stone Avenue to the west on both sides of the road. To the west of the intersection with Stone Avenue, the existing bicycle facilities include bicycle lanes going through the intersection of Somerville Avenue with Washington Street and Webster Avenue.

BLUEBIKES

Bluebikes is the area's largest bicycle sharing service, operating throughout the metro-Boston area including Arlington, Boston, Brookline, Cambridge, Chelsea, Everett, Revere, Somerville, and Watertown. The entire system consists of more than 4,000 shared bicycles at more than 400 stations. Somerville has 32 stations as of December 2022. The closest Bluebikes station to the Site is at the intersection of Gore Street and Lambert Street which is within a quarter-mile (5-minute walk). Additionally, a bicycle share station is provided on Monsignor O' Brien Highway at Cambridge Crossing between East Street and First Street and three other stations lie within a half-mile (10-minute walk) of the Project. Existing bicycle facilities and Bluebikes stations in the study area are shown in **Figure 2**.

Figure 2. ***Existing Bicycle Facilities***



PEDESTRIAN NETWORK

Pedestrian facilities along the nearby roadways within the study area are described below. All roadways within the study area have sidewalks on both sides of the road, except for Poplar Street. The sidewalks adjacent to the Project Site are generally in good condition.

McGrath Highway/Monsignor O' Brien Highway: On McGrath Highway, sidewalks range from roughly 6- to 10-feet-wide within a half-mile of the Project. To the northwest, sidewalks are in fair condition. Southeast of the Project Site, towards Lechmere station, the sidewalks are wider and in excellent condition.

Medford Street/Gore Street: Sidewalks on Medford/Gore Street are roughly 7- to 12-feet-wide. The sidewalks are in good condition. On Gore Street, south of the Project Site, lies commercial land uses and a city park west of 5th Street. The city park provides a connection between Gore Street and the Project with several walking paths.

Cambridge Street: On Cambridge Street between Lambert Street and the intersection with McGrath Highway, sidewalks are roughly 8-feet-wide and in good condition. All roads between Cambridge Street and Gore Street have sidewalks on both sides of the street as well, and they are in good condition.

Intersections: Crosswalks and wheelchair ramps are generally provided across all study area intersections approaches. However, at the intersection directly southeast of the Project Site, crosswalks are faded. Crosswalks are provided across McGrath Highway at Rufo Road on the west side of the intersection and across Rufo Road with signal equipment, push buttons, and wheelchair ramps. The next closest pedestrian crossing across McGrath Highway to the west of Rufo Road is at Medford Street and Somerville Avenue and to the east the next pedestrian crossing is at Third Street.

Project Transportation Characteristics

LAND USE AND TRIP GENERATION RATES

To estimate the number of trips expected to be generated by the proposed Project, data published by the Institute of Transportation Engineers (ITE) in the Trip Generation Manual[1] were used. ITE provides trip rates to estimate the total number of unadjusted vehicular trips associated with a project. In an urban setting well-served by transit, adjustments are necessary to account for other

[1] Trip Generation Manual, 11th Edition; Institute of Transportation Engineers; Washington, D.C.; 2017.

travel mode shares such as walking, bicycling, and transit. For this Project, the following Land Use Codes (LUCs) were used for the proposed development:

- ***Land Use Code 760 – Research and Development Center.*** This LUC is a facility or group of facilities devoted almost exclusively to research and development activities. The range of specific types of businesses contained in this land use category varies significantly. Research and development centers may contain offices and light fabrication areas. Calculations of the number of trips use ITE's average rate per 1,000 square feet.

The Site is currently occupied by a telecommunications service provider. Trips generated by the existing land use are expected to be minimal; therefore, to remain conservative, they were not considered in the net new forecasted trips for the proposed development. Count data collected at the existing Site driveway was reviewed and indicated existing vehicle activity at eight trips (six entering, two exiting) during the a.m. peak hour and two trips (one entering, one exiting) during the p.m. peak hour. The trip rates used for the proposed LUC are summarized in **Table 3**.

Table 3. ITE Trip Generation Rates

LUC	Time Period	ITE Average Rate	Directional Distribution	
			Entering	Exiting
Research & Development (LUC 760)	Daily	11.08 per 1,000 sf	50%	50%
	a.m. Peak Hour	1.03 per 1,000 sf	82%	18%
	p.m. Peak Hour	0.98 per 1,000 sf	16%	84%

MODE SPLIT

AVERAGE VEHICLE OCCUPANCY

The ITE rates for the different land uses were applied to the respective land use facility size to determine unadjusted vehicle trips. Those trips were then adjusted to person trips using a vehicle occupancy rate. The national average vehicle occupancy rates published by the Federal Highway Administration (FHWA)[2] are 1.18 people per vehicle for home to work trips. Based on Census data, the average occupancy rate for the Project area census tract was determined to be the same as the national average, 1.18 people per vehicle for home to work trips. These values were applied to the unadjusted vehicle trips to determine the total number of person trips.

[2] Summary of Travel Trends: 2017 National Household Travel Survey; FHWA; Washington, D.C.; July 2018.

MODE SPLIT

Mode splits were determined using U.S. Census journey-to-work data for the census tract that the Project falls within Census Tract 3515. Based on the census tract where the Project is located, the mode splits from the existing census data are shown in **Table 4** and an assumed future taxi/Transportation Network Company (TNC) share of 2% were used to distribute the project-generated trips. These mode splits are expected to serve as a conservative auto estimate as it is likely that with the new Green Line Stations, more users in this area will choose to use transit in the future. The Project aims to enhance the non-car mode shares for the area through Transportation Demand Management (TDM) elements to help reach the Citywide 2040 goal of 75% non-auto share.

Table 4. Existing Mode Share

Mode Type	Overall Mode Split	Mode Split (for Trip Generation)
Non-Vehicle Modes		
Public Transportation	20%	25%
Walking	13%	17%
Biking	8%	10%
Vehicle Modes		
Personal Vehicle	37%	46%
Taxi	0%	2%
Other (Work from Home)	22%	--

**Based on U.S. Census 2021: ACS 5-Year Estimates for Means of Transportation to Work for census tract 3515.*

PROJECT-GENERATED TRIPS BY MODE

The identified mode shares were then applied to the person trips to develop project-generated trips by mode. Person trips for the vehicular modes were then converted back to vehicle trips using the vehicle occupancy rates. **Table 5** summarizes the trips by transit, walk, bicycle, and vehicle users for the proposed development. A detailed trip generation table is provided in **Appendix A.**

Table 5. Project-generated Trips by Mode

Time Period	Direction	Person Trips			Vehicle Trips	
		Transit	Walk	Bike	Personal Car	Taxi/TNCs
Daily	In	221	150	88	353	14
	Out	221	150	88	353	14
	Total	442	300	176	706	28
a.m. Peak Hour	In	34	23	13	54	1
	Out	8	5	3	12	1
	Total	42	28	16	66	2
p.m. Peak Hour	In	6	4	3	10	1
	Out	33	22	13	53	1
	Total	39	26	16	63	2

Trip Distribution

The trips generated by the Site are expected to be work-based trips. The trip distribution for employee trips to the Site were based on Census Data for this area using journey to work data. Vehicle trip distributions are shown in **Figure 3**.

SITE CIRCULATION

The Project Site will be accessed from the McGrath Highway curb cut to an existing jughandle. The existing jughandle along the south side of the Site, parallel to McGrath Highway, will serve as the access point for all vehicular movements including access to the Project's underground garage and loading and service operations. McGrath Highway is generally a divided roadway adjacent to the Site; however, the traffic signal at McGrath Highway/Rufo Road/15 McGrath Highway along with the proposed signal at 35 McGrath Highway will provide full access to and from McGrath Highway northbound and southbound. The main entrance to the building will be provided on the south side of the building; additional entrances will be provided on the east and west sides of the building. The Site plan is shown in **Figure 4**.

Figure 3. ***Vehicle Trip Distribution***

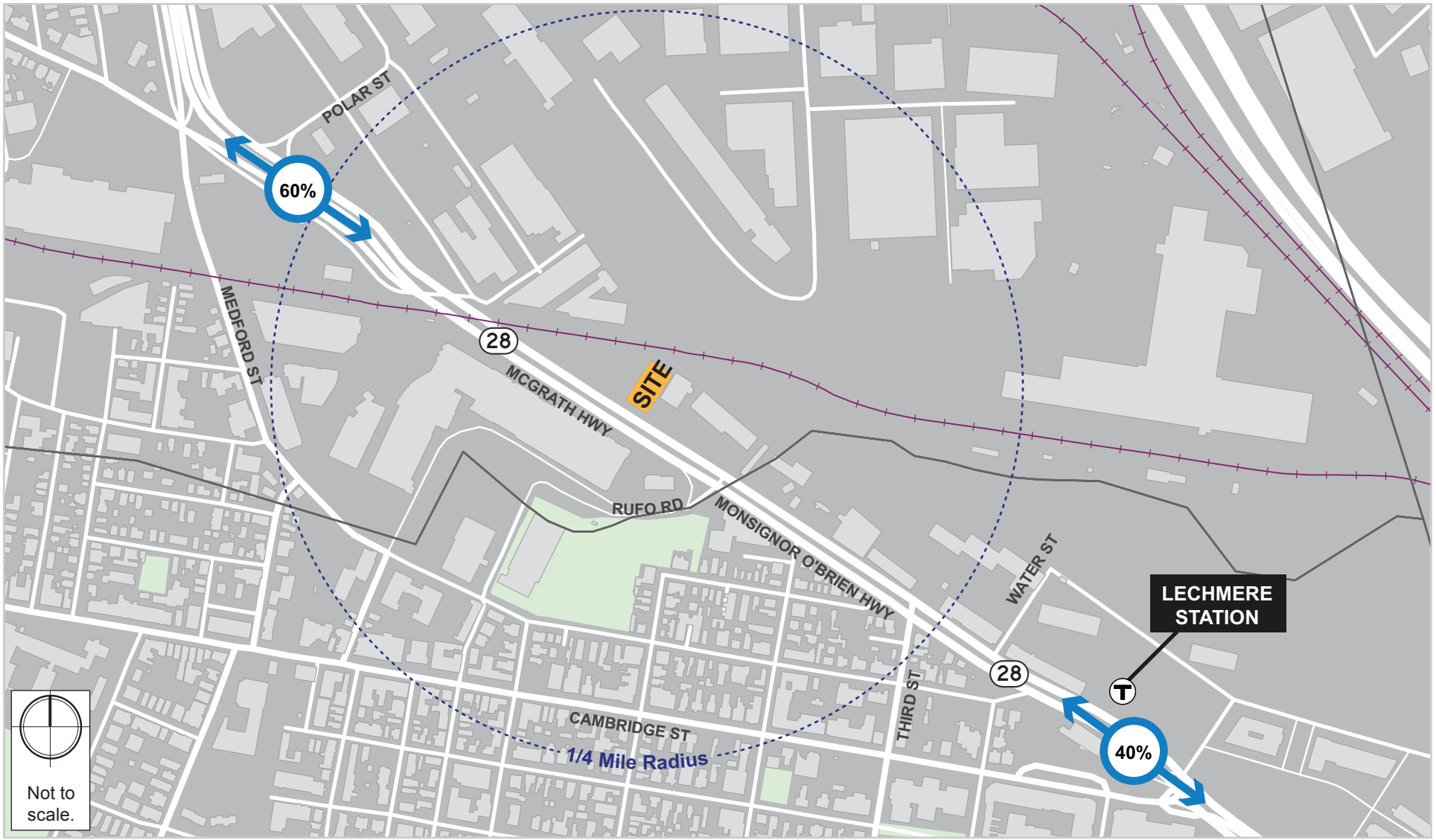
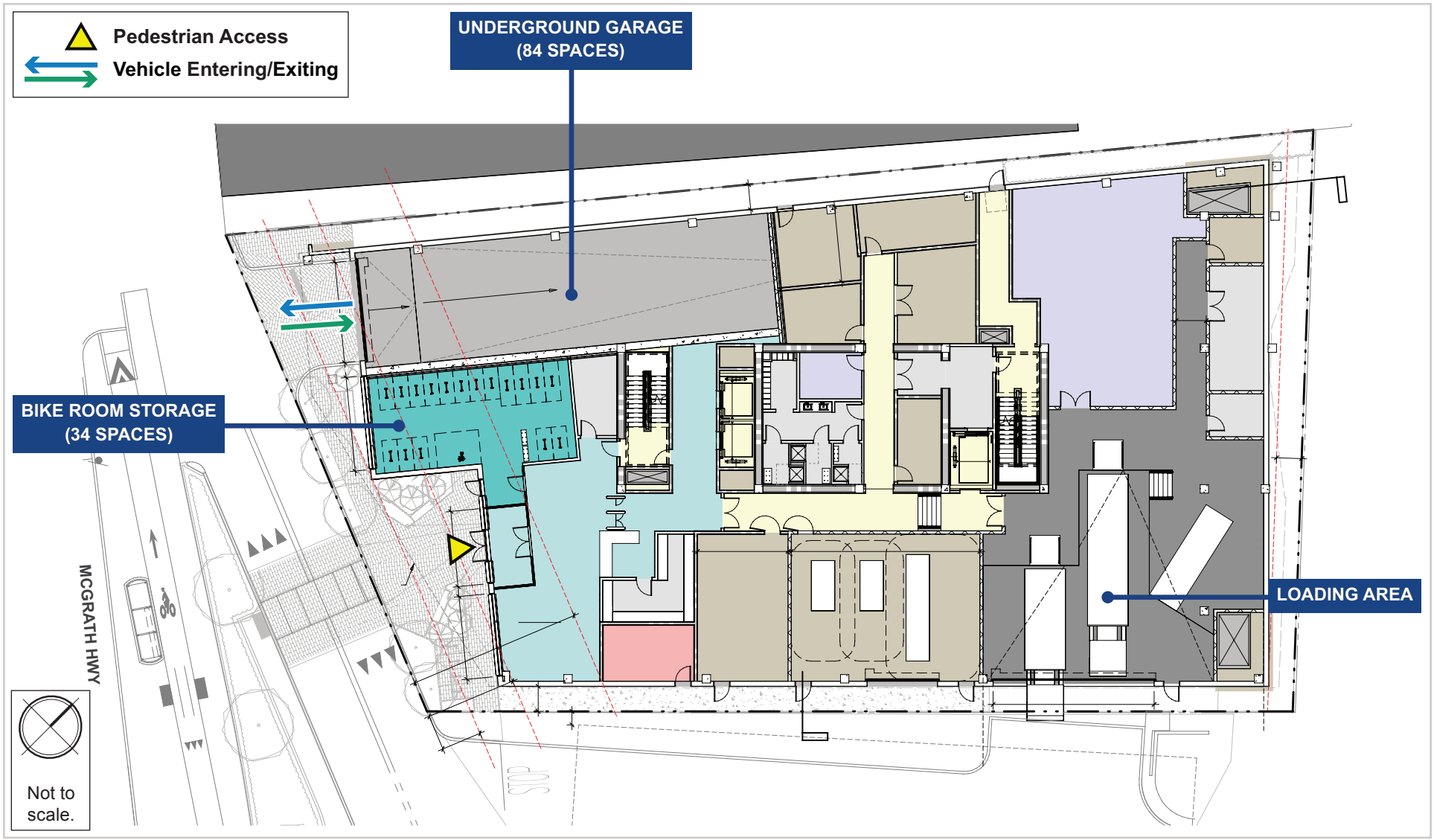


Figure 4. ***Site Plan***



LOADING/SERVICE OPERATIONS

Loading and service operations such as deliveries, trash pickup, and recycling will occur in the designated loading area in the northeast corner of the building. Vehicles will enter and exit the Site from the alley shared with 15 McGrath Highway and back into the loading bays. The loading area is planned for two loading bays and a trash bay.

Mobility Management Commitments

The Proponent will work with the City of Somerville to create a Project that provides safe access for vehicle trips, improves the pedestrian environment, and encourages transit and bicycle use at the Project Site. The MMP is required for the Project because the building will contain more than 50,000 sf of commercial floor area development as well as have 50 or more employees. Per the City of Somerville Zoning Ordinance, commercial property owners must provide the following for their tenants:

- An on-site transportation coordinator;
- Annual mobility management educational meeting for tenants and their employees;
- Posted information on alternative modes of transportation;
- Distributed information on alternative modes of transportation;
- Unbundled parking;
- Preferential parking for carpool/vanpool (at least 5% of parking spaces);
- Qualified transportation fringe benefits;
- A guaranteed ride home program; and
- An annual mobility educational meeting.

The Proponent must also require future tenants to provide the following to their employees through lease agreements:

- A guaranteed ride home program; and
- Qualified transportation fringe benefits.

The Proponent will also bring all abutting sidewalks and pedestrian ramps to the City of Somerville standards in accordance with the National Association of City Transportation Officials (NACTO) design guidelines. This will include the reconstruction and widening of sidewalks where needed; the installation of new, accessible ramps; improvements to street lighting where necessary; planting of street trees; and providing bicycle storage racks surrounding the Project Site, where appropriate.

The Proponent is committed to implementing MMP measures to minimize automobile usage and Project-related traffic impacts. The Proponent is prepared to take advantage of good transit access in marketing the Project to future tenants and work with them to implement the MMP measures to

encourage the use of non-vehicular modes of travel. More detailed descriptions of the proposed and required MMP measures for the Project are presented below. All tenants over 50,000 sf will also be required to submit Mobility Management Plans.

FINANCIAL INCENTIVES

The Proponent will partake in ***qualified transportation fringe benefits*** which are pre-tax benefits offered to employers and employees based on the use of certain commute methods. This can be in the form of subsidized passes or pre-tax payroll deductions to be used for transit or car-pool commuting costs. By providing incentives for car-pool, transit, or walking and biking commute decisions, single occupancy vehicle commuting may become more costly by comparison with parking and car ownership costs, thereby making drive-alone commuting less desirable. The Proponent will offer and/or require building tenants to subsidize:

- A portion of monthly MBTA transit passes as an employee benefit; and
- Monthly Bluebikes memberships as an employee benefit.

SHARED VEHICLE SERVICES

The Proponent may also explore offering or encouraging the building tenants to subsidize car-sharing memberships, such as with Zipcar. The Proponent will offer a ***guaranteed ride home program*** for commercial tenants and employees. This would be available to those that commute through means other than drive alone that need a ride in the event of an emergency, illness, unscheduled overtime, or bicycle damage. The Proponent will offer ***preferential parking*** to employees that commute via ***carpool or vanpool***. This may be parking that is closer to the door/elevator or in any other way considered a premium/preferred space. The Proponent will also provide:

- A bicycle share station or bicycles on-site; and
- Space(s) reserved in the garage for a car sharing service such as Zipcar (at least two spaces, pending demand for car-sharing service).

EMPLOYMENT PROGRAMS

In additional to various subsidized memberships mentioned previously, to further reduce vehicle trips going to the Site or to reduce peak hour trips, the Proponent may consider:

- Flexible work hours as an employee benefit;
- Encouraging employees to work from home or an off-site location (telecommuting); and/or
- Carpool matching services administered though Bay State Commute (Agile) formerly NuRide.

MARKETING AND EDUCATION

The Proponent will designate a ***transportation coordinator*** to oversee transportation issues, including parking, service/loading, and deliveries, as well as to raise awareness of public transportation, bicycling, and walking opportunities. The coordinator will also be a point of contact between the development and the City of Somerville. If necessary, the coordinator may join and participate in a local Transportation Management Association (TMA) on behalf of the tenants, employees, and property owners.

The Proponent will ***distribute information*** on travel alternatives to tenants and employees through orientation packets. This may include information on public transportation routes/schedules as well as nearby stations/stops, maps of bicycle routes, and facilities available on-site for carpoolers, vanpoolers, bicyclists, and pedestrians. New commercial tenant leases may contain language to encourage tenants to promote public transportation. Information may also be distributed in the form of an annual newsletter or bulletin summarizing travel options.

The Proponent will ***post information*** to a public bulletin board/electronic display/kiosk with similar information to that distributed to all tenants and employees as noted above.

The Proponent will host ***an annual mobility educational meeting*** to encourage alternative commute options. This may include events such as bicycle commute training or updating tenants and employees on recent changes occurring with public transportation or even new mobility options.

PARKING MANAGEMENT

The Project is proposing approximately 84 parking spaces for future users of the Site. Providing less parking will encourage users to use other available modes of transportation. The Proponent will provide ***unbundled parking*** with all rental, lease, or purchase agreements of building space so that parking is used as an optional amenity instead of a required/allocated benefit. The Proponent will provide the following parking management tools/restrictions on parking spaces:

- Provide no more than 5% of parking as reserved vehicle spaces to be subject to a 200% market rate price premium;
- Provide at least 5% of parking as signed, designated, and reserved spaces for carpool and/or vanpool with locations in preferential areas; and
- Provide at least 25% of parking with Level 2 Electric Vehicle (EV) Chargers (or current technology) when the garage opens with the remaining spaces being EV ready.

The Proponent may also explore implementing the following parking management tools to incentivize people to make the decision to drive alone less frequently:

- Applying demand-responsive pricing where rates change based on parking availability;
- Parking pricing at market rates at minimum, hourly, daily, overnight, and monthly options; and
- Offering parking at a daily or monthly rate rather than yearly.

ON-SITE SERVICES

The Project will have the following services available on-site:

- Secure/covered bicycle storage spaces at no cost to tenants/employees;
- Clear wayfinding to bicycle parking;
- External bicycle racks for visitors to the Site located near the building entrances;
- A transportation coordinator;
- A guaranteed ride home program;
- Posted information on alternative modes of transportation;
- A bicycle repair station; and
- Showers and changing facilities with lockers.

The Proponent may explore implementing additional on-site services such as:

- Concierge service; and/or
- Transit pass sales.

TRANSPORTATION MANAGEMENT ASSOCIATIONS (TMAS)

Currently, the closet existing TMA/Mobility Management Association (MMA) that is active within the Project area is the Charles River TMA. This TMA covers the Cambridgeport, Kendall Square, and East Cambridge areas. As the Project is just north of the Cambridge/Somerville boarder, the Proponent is committed to either joining the existing Charles River TMA or participating in any newly formed TMAs.

LOCAL RESIDENCY

The Proponent is committed to promoting the hiring of local residents for employment opportunities associated with the Project and its tenants. Local hiring is important in terms of supporting overall Somerville and community goals, as well as for transportation demand management benefits. To the extent practicable, the Project will implement a program to advertise employment opportunities and seek qualified candidates that live within walking or bicycling distance from the Project.

MODE SHARE GOALS

The Proponent is committed to helping the city reach its Somervision 2040 mobility goals. The Proponent will make reasonable efforts to control the initial vehicle mode share to 37% or less, so that it is no more vehicle dependent than the existing Census Tract 3515. As the Project works to

implement various TDM measures over the years, the Proponent will make reasonable efforts to reduce vehicle mode share to 25% by 2040.

Monitoring and Annual Reporting

The City of Somerville Zoning Ordinance requires MMPs to be updated annually. These updates require the property owner to collect various data to monitor the level of automobile use and to understand the travel patterns generated by the Project. This report gives a sense of where the development is at meeting the goals set out in the MMP and adjusting, if needed. The report must include, but is not limited to, the following:

- ***Annual Travel Survey:*** All tenants and/or the transportation coordinator will put together a travel survey to gather commuting information from employees. The survey may inquire about: mode choice, travel time, travel distance, where people live to determine origin-destination pairs, reasons for selecting a mode, frequency of mode usage, and on-site mobility amenities used.
- ***Annual Parking Utilization:*** The report will summarize annual parking utilization and operations of the on-site parking garage. The parking utilization may include both vehicle and bicycle parking use. This information could indicate if additional measures are needed to discourage driving, or it may demonstrate the success of existing mobility management measures.
- ***Automobile Counts:*** Every two years, the building will conduct driveway counts of vehicle trips entering and existing the on-site parking. This data can summarize vehicle activity throughout the day, especially during peak hours.
- ***Status Update:*** The formal report will summarize the existing conditions of parking and employee travel behaviors, as well as present a performance review on the success of the existing MMP programs and services. Each MMP will identify future goals and areas of improvement to work on based on the previous year's performance and trends over time.

The property owner will make reasonable efforts to control the percentage of trips made by automobile at 50% or less and to implement additional mobility management programs and services if the annual reporting identifies a shortfall in meeting this goal.

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Appendix A

Detailed Trip Generation

35 McGrath Highway

Trip Generation Assessment

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10-Jan-2023

XXX Means Columns U, X, and AA do not sum to Column R; hard code adjustements are needed

XX HARD CODED TO BALANCE (Manually change formatting)

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate[1]	Unadjusted Person-Trips	Primary Person-Trips	Transit Share[3]	Transit Person-Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Auto Share[3]	Auto Person-Trips	% Taxi/ TNC[4]	Taxi/TNC Person-Trips	Assumed Local Auto Occupancy Rate for Taxis[6]	Private Auto Person-Trips	Pass-By Person Trips	Primary Auto-Person Trips	Assumed Local Auto Occupancy Rate[5]	Taxi/TNC Auto Trips	Pass-By Auto-Trips	Primary Non-Taxi Auto Trips	Primary AutoTrips
Daily Peak Hour																									
Research & Development Center[12]	135	Total		11.080	1,496	1.18	**1,766**	**1,766**	25%	**442**	27%	**476**	48%	**848**	2%	16	1.18	832	0	832	1.18	**28**	**0**	**706**	**734**
	KSF	In	50%	5.540	748	1.18	**883**	**883**	25%	**221**	27%	**238**	48%	**424**	2%	8	1.18	416	0	416	1.18	**14**	**0**	**353**	**367**
		Out	50%	5.540	748	1.18	**883**	**883**	25%	**221**	27%	**238**	48%	**424**	2%	8	1.18	416	0	416	1.18	**14**	**0**	**353**	**367**
Total		Total			**1,496**		**1,766**	**1,766**		**442**		**476**		**848**								**28**	**0**		**734**
		In			**748**		**883**	**883**		**221**		**238**		**424**								**14**	**0**		**367**
		Out			**748**		**883**	**883**		**221**		**238**		**424**								**14**	**0**		**367**
AM Peak Hour																									
Research & Development Center[12]	135	Total		1.030	139	1.18	**165**	**165**		**42**		**44**		**79**	2%	1	1.18	78	0	78	1.18	**2**	**0**	**66**	**68**
	KSF	In	82%	0.845	114	1.18	**135**	**135**	25%	**34**	27%	**36**	48%	**65**	2%	1	1.18	64	0	64	1.18	**1**	**0**	**54**	**55**
		Out	18%	0.185	25	1.18	**30**	**30**	25%	**8**	27%	**8**	48%	**14**	2%	0	1.18	14	0	14	1.18	**1**	**0**	**12**	**13**
Total		Total			**139**		**165**	**165**		**42**		**44**		**79**								**2**	**0**		**68**
		In			**114**		**135**	**135**		**34**		**36**		**65**								**1**	**0**		**55**
		Out			**25**		**30**	**30**		**8**		**8**		**14**								**1**	**0**		**13**
PM Peak Hour																									
Research & Development Center[12]	135	Total		0.980	132	1.18	**156**	**156**		**39**		**42**		**75**	2%	1	1.18	74	0	74	1.18	**2**	**0**	**63**	**65**
	KSF	In	16%	0.157	21	1.18	**25**	**25**	25%	**6**	27%	**7**	48%	**12**	2%	0	1.18	12	0	12	1.18	**1**	**0**	**10**	**11**
		Out	84%	0.823	111	1.18	**131**	**131**	25%	**33**	27%	**35**	48%	**63**	2%	1	1.18	62	0	62	1.18	**1**	**0**	**53**	**54**
Total		Total			**132**		**156**	**156**		**39**		**42**		**75**								**2**	**0**		**65**
		In			**21**		**25**	**25**		**6**		**7**		**12**								**1**	**0**		**11**
		Out			**111**		**131**	**131**		**33**		**35**		**63**								**1**	**0**		**54**

1. 2017 National vehicle occupancy rates - 1.18:home to work; 1.82: family/personal business; 1.82: shopping; 2.1 social/recreational
2. Based on ITE Trip Generation Handbook, 3rd Edition method
3. Mode shares based on peak-hour BTD Data for Area 1
4. Assumed Taxi/TNC Percentage
5. Local vehicle occupancy rates based on 2017 National vehicle occupancy rates
6. For taxi cabs, 1.2 passengers per cab. (2.2 minus 1 driver equals 1.2)
7. ITE Trip Generation Manual, 11th Edition, LUC 220 (Multifamily Housing Low-Rise (1-2 floors), average rate
8. ITE Trip Generation Manual, 11th Edition, LUC 221 (Multifamily Housing Mid-Rise (3-10 floors)), average rate
9. ITE Trip Generation Manual, 11th Edition, LUC 222 (Multifamily Housing High-Rise (11+ Floors)), average rate
10. ITE Trip Generation Manual, 11th Edition, LUC 310 (Hotel), average rate
11. ITE Trip Generation Manual, 11th Edition, LUC 710 (General Office Building), average rate
12. ITE Trip Generation Manual, 11th Edition, LUC 760 (Research & Development Center), average rate
13. ITE Trip Generation Manual, 11th Edition, LUC 820 (Shopping Center), average rate
14. ITE Trip Generation Manual, 11th Edition, LUC 850 (Supermarket), average rate
15. ITE Trip Generation Manual, 11th Edition, LUC 931 (Quality Restaurant), average rate
16. ITE Trip Generation Manual, 11th Edition, LUC 932 (High-Turnover (Sit-Down) Restaurant), average rate



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MOBILITY DIVISION DOCUMENTS

TRANSPORTATION ACCESS PLAN

SOMERVILLE MASSACHUSETTS

35 McGrath Highway
Transportation Access Plan

Prepared for
The DeNunzio Group

Submitted to
City of Somerville

Prepared by
Howard Stein Hudson

August 2023
Revised August 2024

HOWARD STEIN HUDSON
Engineers + Planners

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Appendix F – Vehicle Movement Plan

Project Summary

Howard Stein Hudson (HSH) has prepared the Draft Transportation Access Plan (TAP) with Draft Site Plans and the following narrative for the 35 McGrath Highway redevelopment (the Project or Site) on behalf of the DeNunzio Group (the Proponent). The Project is located at the southern edge of the Inner Belt neighborhood in Somerville, Massachusetts. The Project consists of the demolition of the existing building and the construction of a new nine-story laboratory/life science research building consisting of approximately 135,000 square feet (sf). The Project will provide approximately 84 parking spaces in an underground garage as well as 34 covered, secure bicycle parking spaces in a bicycle storage room at ground level and four outdoor bicycle racks for eight bicycles. The Project development site address is:

35 McGrath Highway, Somerville, MA
(Existing Lot: 114-B-5)

Site Access and Plans

The Project is bounded by Massachusetts Route 28 (McGrath Highway) to the south, Massachusetts Bay Transportation Authority (MBTA) tracks to the north, a self-storage facility to the west, and a retail store and parking lot to the east. The Project Site will be accessed from the McGrath Highway curb cut to an existing jughandle. The existing jughandle along the south side of the Site, parallel to McGrath Highway, will serve as the access point for all vehicular movements including access to the Project's underground garage as well as loading and service operations. McGrath Highway is generally a divided roadway adjacent to the site; however, the traffic signal at McGrath Highway/Rufo Road/15 McGrath Highway provides full access to and from McGrath Highway northbound and southbound. The main entrance to the building will be provided on the south side; additional entrances will be provided on the east and west sides of the building.

Illustrative Site Plan

The Illustrative Site Plan shown in Exhibit A.1 (**Appendix A**) depicts the general ground level floor plan and site landscape plan. The lobby will be located on the ground floor, as well as a bicycle room, building operations, and loading/service uses. Laboratory/life science research space will be located on the eight upper floors. A bicycle room on the ground floor will provide covered, secure bicycle parking for 34 bicycles.

Transportation Elements Plan

The Transportation Elements Plan is shown in Exhibit A.2 (**Appendix B**). This plan identifies existing transportation elements to remain in grey, items to be removed in red, and proposed transportation elements in blue. This image also shows several improvements as proposed by others in purple. These changes are expected to be existing at the time that the Project starts construction, therefore they are shown for context, however all ongoing work is contingent and subject to changes based on Massachusetts Department of Transportation (MassDOT) review and approvals.

The Site frontage on McGrath Highway has an existing MBTA bus stop serving the #80, #87, and #88 buses. The Proponent will commit to improving the accessibility and comfort of the MBTA bus stop in front of the Project Site in coordination with the City and MBTA. Improvements as proposed include shifting the floating MBTA bus stop from the near side to the far side of the newly proposed signalized intersection at the site driveway. The new bus stop will be ADA-compliant and consistent with MBTA Bus Stop Design Guidelines. The Project will coordinate with the City, MassDOT, and the MBTA on final placement of the bus stop.

Exhibit A.2 shows that the existing jughandle curb cut is proposed to shift west and be widened to about 30 feet. A new signalized intersection is proposed at the site driveway along with a short eastbound left-turn pocket lane for improved Site access. The driveway shift aims to break up the McGrath Highway into pedestrian scale blocks. By relocating the intersection with McGrath Highway, pedestrian accommodation and spacing between the existing and new signalized intersections is maximized.

Proposed signage will include updated bus stop signs as well as any relevant signage for the new left-turn lane. Proposed street furniture, street trees, and streetlights are included along the jughandle adjacent to the site. Other transportation elements are further discussed in subsequent sections.

McGrath Highway immediately in front of the Site will have buffered bicycle lanes soon as part of a MassDOT-led McGrath Resurfacing project. The Project proposes to extend sidewalk-level protected bike lanes along the Site frontage in the westbound direction as well as propose a curb bump out and raise the bicycle facilities for a short section in the eastbound direction to develop pedestrian accommodations across McGrath Highway.

Pedestrian Access Plan

The main pedestrian access point to the Project will be provided on the south side of the building with one additional side entrance as shown on Exhibit A.3 (**Appendix C**). The primary entrance leads directly to the building lobby area and the secondary access point on the west side is also internally connected to the lobby. The west access point leads to an emergency egress staircase.

The Project proposes a crosswalk from the primary entrance across the jughandle access driveway and additional new crosswalks at the new signalized intersection. The crosswalk across the jughandle approach to McGrath Highway will be proposed as a raised crossing for pedestrians and bicycles. Existing sidewalk widths at the west end of the Site connecting to the McGrath Highway bridge are six feet wide. Sidewalks are proposed to be widened where feasible to maximize public realm in the cross-section throughout the rest of the proposed design.

Bicycle Parking Plan

Bicycle parking design and layout references and complies with the Somerville Zoning Ordinance[1], as well as the City of Somerville's *Bicycle Parking Guide* and the Association of Pedestrian and Bicycle Professionals' (APBP's) *Bicycle Parking Guidelines*. Bicycle parking, short- and long-term, will be provided at no cost or fee to users of the Project.

This Project will provide at least the minimum short- and long-term bicycle parking spaces for the proposed land uses and size of the Project. As shown in Exhibit A.4, (**Appendix D**), the proposed bicycle parking will consist of four outdoor bicycle racks to accommodate short-term parking for eight bicycles. Short-term bicycle parking will be provided on outdoor bicycle racks located near the building's primary entrance. The Project will construct 34 secure, covered bicycle parking spaces that will be available for employees in a bicycle room located on the ground floor.

Bicycle parking will be secured via key-fob access or similar and protected by security/monitoring. The bicycle storage room will be located on the ground floor. Cyclists are likely to access the bicycle storage room via a door with direct access to the exterior from McGrath Highway, however they will also have internal connections through the building lobby.

A bicycle repair facility will be provided for tenant employees in the bicycle storage room. Locker rooms with shower facilities will be provided for tenant employees on the ground level in proximity to the bicycle room.

[1] Somerville Zoning Ordinance; Strategic Planning & Community Development; Somerville, MA; Updated Dec. 9, 2021.

Motor Vehicle Parking Plan

The Project will provide approximately 84 parking spaces in an underground garage on three levels (see Exhibit A.5. in **Appendix E**). Parking spaces will typically be 8.5 feet wide and 18 feet long. The drive aisles range from 20-24 feet wide. Approximately 5% of spaces will be ADA-accessible and marked accordingly. Stairway and elevator access will be provided from the garage levels to the lobby. The parking space dimensions in the garage exceed the minimums outlined in the Somerville Zoning Ordinance.

The Project proposes to sign, designate, and reserve 25% of vehicle parking spaces as electric vehicle (EV) charging spaces per LEED platinum requirements. The remaining 75% of garage vehicle parking spaces will be EV Ready spaces. EV Ready spaces will be equipped with Level 2 chargers (or then current technology) as demand warrants.

Carpool/Vanpool and carshare spaces will be signed, designated, and reserved for carpool/vanpool and located in preferential locations (final locations to be determined) close to building entrances.

Vehicle Movement Plan

Loading and service operations such as deliveries, trash pickup, and recycling will occur in the designated loading area in the northeast corner of the building. Vehicles will enter and exit the Site from the alley shared with 15 McGrath Highway and back into the loading bays. The loading area is planned for two loading bays and a trash bay. The loading doorway will be approximately 32-feet-wide and accommodate a smaller SU-30 truck and up to an SU-40 truck. The larger loading bay will be shared with an angled trash bay with operations coordinated at off-set times. Garbage trucks will access the compactor in the trash bay from the easement shared with 15 McGrath Highway as well.

All vehicle movements exiting the loading area will be forward-out, with a right-turn to McGrath Highway northbound or a left-turn at the new McGrath Highway/Jughandle signal headed towards McGrath Highway southbound. As shown in Exhibit A.6 (**Appendix F**), the largest vehicle expected to use the 35 McGrath Highway loading area is an SU-40 truck. The loading bay will also provide access to an elevated loading dock, a freight elevator, and a service corridor for distribution of deliveries within the building. The largest truck expected to exit at the new McGrath Highway/Jughandle signal will be WB-40 coming from 15 McGrath Highway.

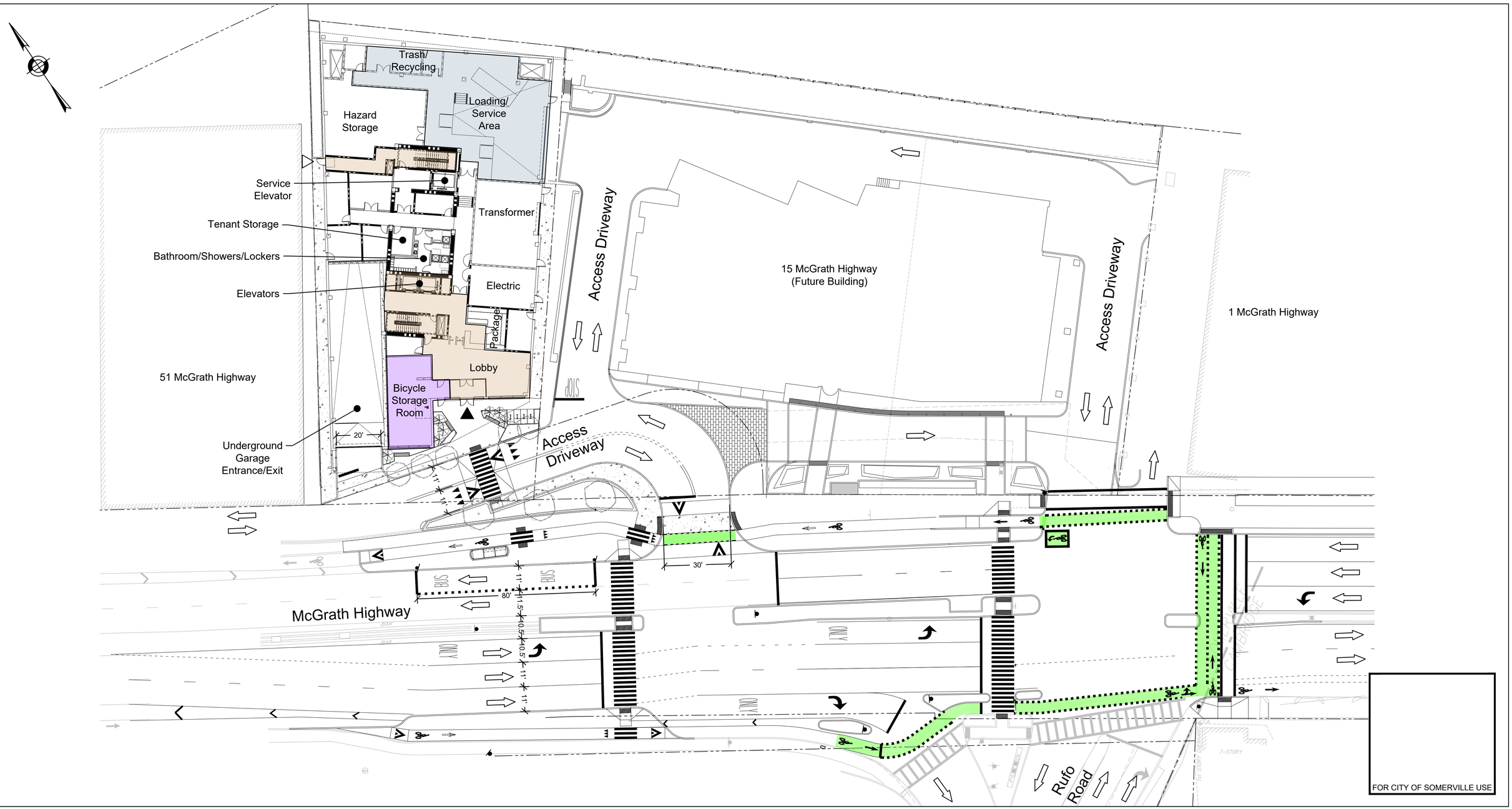
Passenger car movements to and from the garage shall be accommodated from McGrath Highway via the easement. The proposed garage will have two-way circulation throughout the three levels of below-grade parking.

HOWARD STEIN HUDSON

Engineers + Planners

Appendix A

Illustrative Site Plan



0 10 20 40 80 FEET

NOT FOR CONSTRUCTION

- Travel Lane
- Primary Access
- Secondary Access
- Property Line
- Common Area
- Loading/Trash Area
- Long-Term Bicycle Parking

THIS PLAN DEPICTS IN SCHEMATIC FORM, THE ELEMENTS OF ONGOING PROJECTS IN THE AREA INCLUDING THE MCGRATH RESURFACING PROJECT AND MITIGATION WORK FOR NEARBY DEVELOPMENTS. FOR THE PURPOSES OF SIMPLIFYING THE INFORMATION, PROPOSED WORK FROM THE MCGRATH RESURFACING PROJECT HAS BEEN SHOWN AS EXISTING. IN AREAS WHERE NEARBY MITIGATION HAS PROPOSED TO UPDATE MARKINGS AND/OR CURBS FROM THE MCGRATH RESURFACING WORK, THE NEW MITIGATION HAS INSTEAD BEEN SHOWN. ANY MARKINGS OR CURBS SHOWN AS REMOVED ON THIS SHEET ARE PROPOSED FOR 35 MCGRATH IMPROVEMENTS AND EXPECTED TO BE EXISTING AT THE TIME OF IMPLEMENTATION. DESIGN ITEMS WITHIN SHLO ARE CONTINGENT AND SUBJECT TO CHANGE BASED ON MASSDOT REVIEW AND APPROVAL.

COORDINATION OF DESIGN FILES WITH THE ADJACENT SITE AT 15 MCGRATH AND BETWEEN ON-SITE DESIGNERS IS ONGOING. ANY AREAS SHOWING CONFLICT IN THIS DRAFT TAP WILL BE UPDATED PRIOR TO THE FINAL TAP SUBMISSION.

Notes

1. Existing Lot No. 114-B-5

FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

ILLUSTRATIVE SITE PLAN

EXHIBIT A.1

HOWARD STEIN HUDSON
11 Beacon Street, Suite 1010
Boston, MA 02108
www.hshassoc.com

Date: August 2024

Scale: 1" = 20'-0"

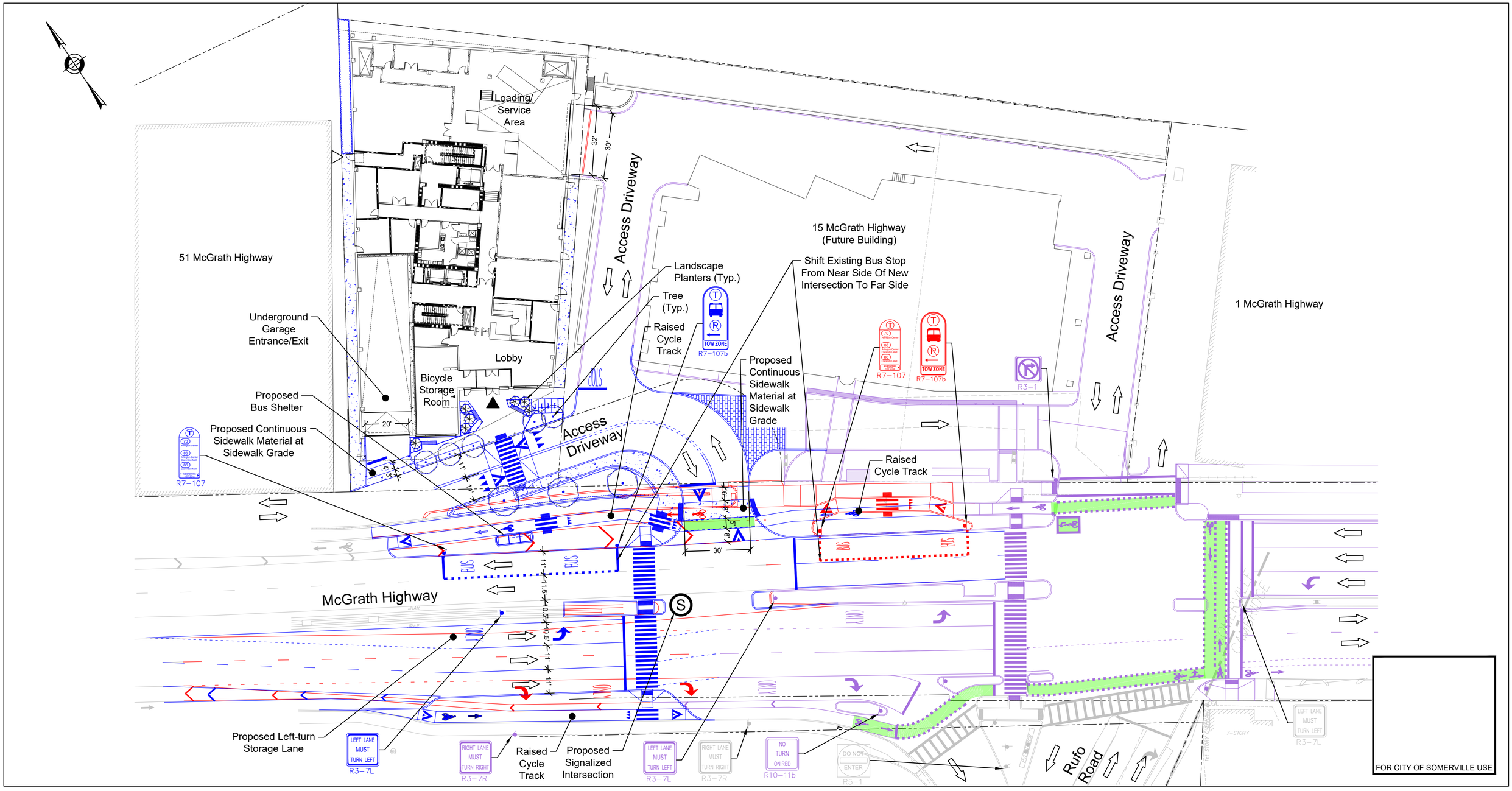
SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE

HOWARD STEIN HUDSON

Engineers + Planners

Appendix B

Transportation Elements Plan



0 10 20 40 80 FEET

NOT FOR CONSTRUCTION

- Travel Lane
- Primary Access
- Secondary Access
- Property Line
- Existing Elements to be Removed
- Existing Elements to Remain
- Proposed Elements
- Proposed Elements By Others

THIS PLAN DEPICTS IN SCHEMATIC FORM, THE ELEMENTS OF ONGOING PROJECTS IN THE AREA INCLUDING THE MCGRATH RESURFACING PROJECT AND MITIGATION WORK FOR NEARBY DEVELOPMENTS. FOR THE PURPOSES OF SIMPLIFYING THE INFORMATION, PROPOSED WORK FROM THE MCGRATH RESURFACING PROJECT HAS BEEN SHOWN AS EXISTING. IN AREAS WHERE NEARBY MITIGATION HAS PROPOSED TO UPDATE MARKINGS AND/OR CURBS FROM THE MCGRATH RESURFACING WORK, THE NEW MITIGATION HAS INSTEAD BEEN SHOWN. ANY MARKINGS OR CURBS SHOWN AS REMOVED ON THIS SHEET ARE PROPOSED FOR 35 MCGRATH IMPROVEMENTS AND EXPECTED TO BE EXISTING AT THE TIME OF IMPLEMENTATION. DESIGN ITEMS WITHIN SHLO ARE CONTINGENT AND SUBJECT TO CHANGE BASED ON MASSDOT REVIEW AND APPROVAL.

COORDINATION OF DESIGN FILES WITH THE ADJACENT SITE AT 15 MCGRATH AND BETWEEN ON–SITE DESIGNERS IS ONGOING. ANY AREAS SHOWING CONFLICT IN THIS DRAFT TAP WILL BE UPDATED PRIOR TO THE FINAL TAP SUBMISSION.

Notes

1. Existing Lot No. 114-B-5

FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

TRANSPORTATION ELEMENTS PLAN

EXHIBIT A.2

HOWARD STEIN HUDSON
11 Beacon Street, Suite 1010
Boston, MA 02108
www.hshassoc.com

Date: August 2024

Scale: 1" = 20'-0"

SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE

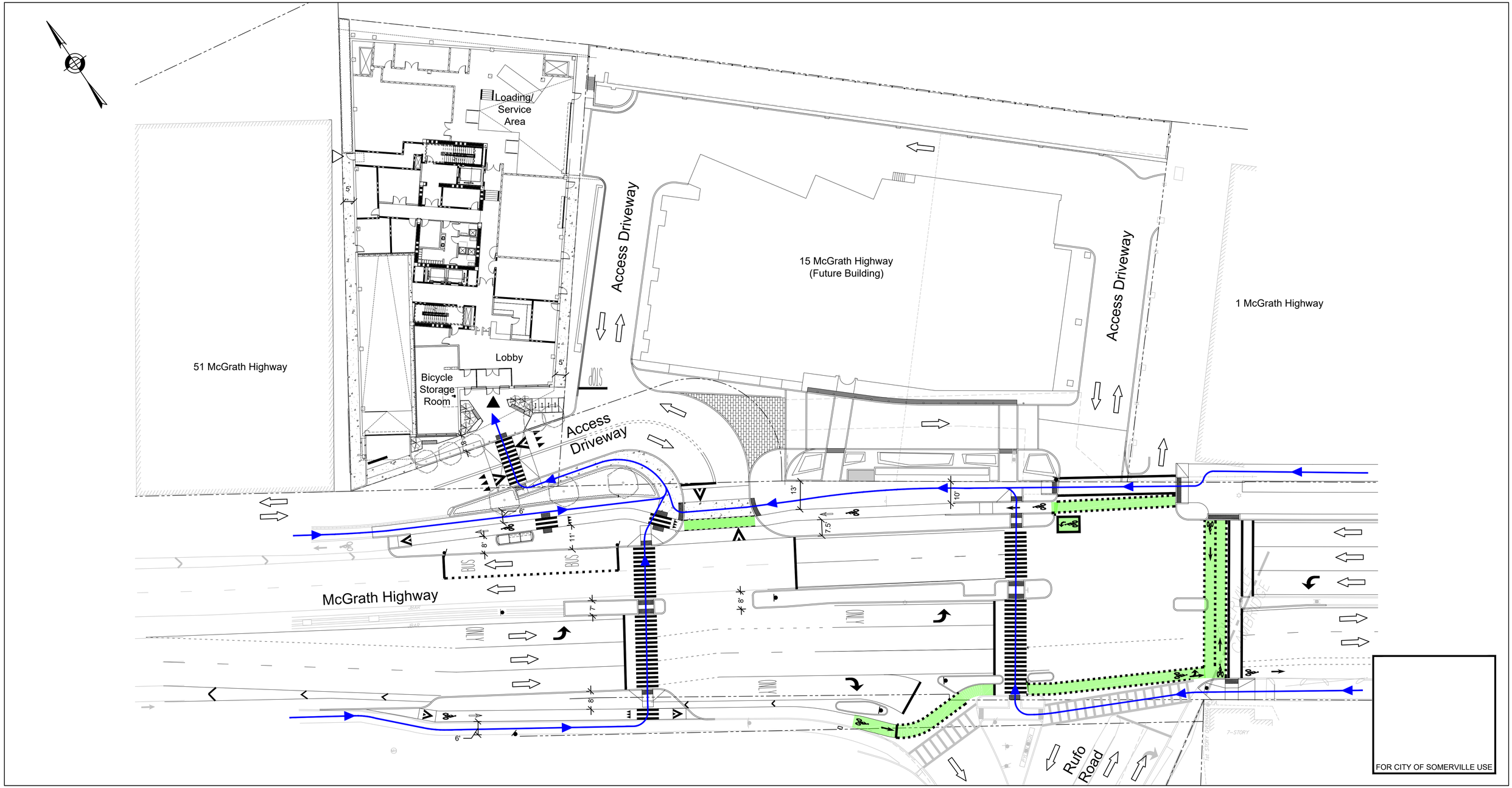
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HOWARD STEIN HUDSON

Engineers + Planners

Appendix C

Pedestrian Access Plan



0 10 20 40 80 FEET

NOT FOR CONSTRUCTION

- Travel Lane
- Pedestrian Path of Travel
- Primary Access
- Secondary Access
- Property Line

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Notes

1. Existing Lot No. 114-B-5

FINAL DESIGN PER

RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

PEDESTRIAN ACCESS PLAN

EXHIBIT A.3

HOWARD STEIN HUDSON
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Date: August 2024

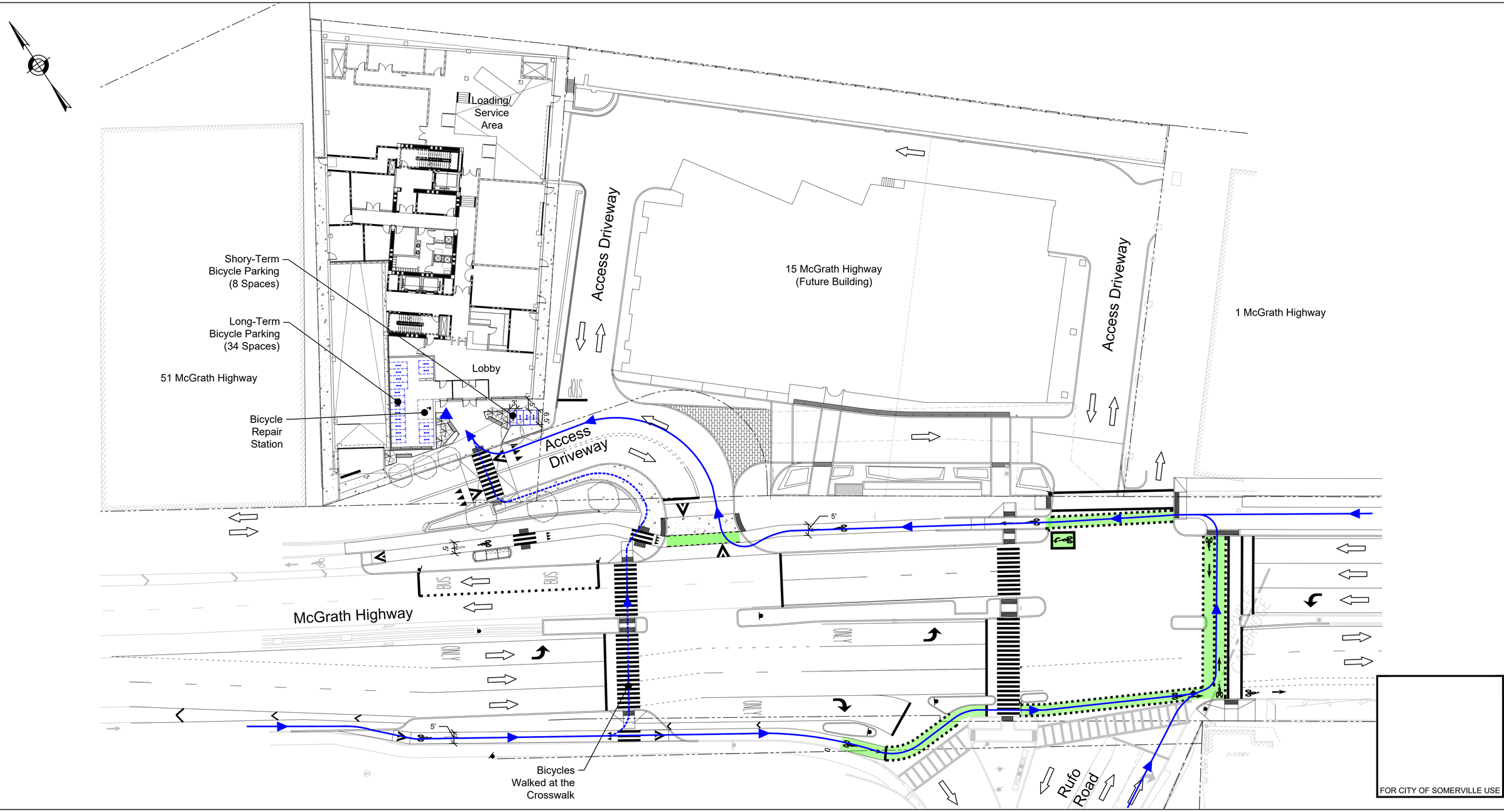
Scale: 1" = 20'-0"

HOWARD STEIN HUDSON

Engineers + Planners

Appendix D

Bicycle Parking Plan



0 10 20 40 80 FEET

NOT FOR CONSTRUCTION

Travel Lane

Bicycle Path of Travel

Proposed Bike Rack

Bicycle Storage Point of Access

Property Line

Bicycle Parking Zoning Requirements			Total Bicycle Parking Provided	
	Short-term/Visitor	*Long-term*	*Short-term/Visitor*	*Long-term*
Lab/R&D:	1 per 20,000 sf (7)	1 per 5,000 sf (27)	8 spaces	34 spaces

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FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

BICYCLE PARKING PLAN

EXHIBIT A.4.1

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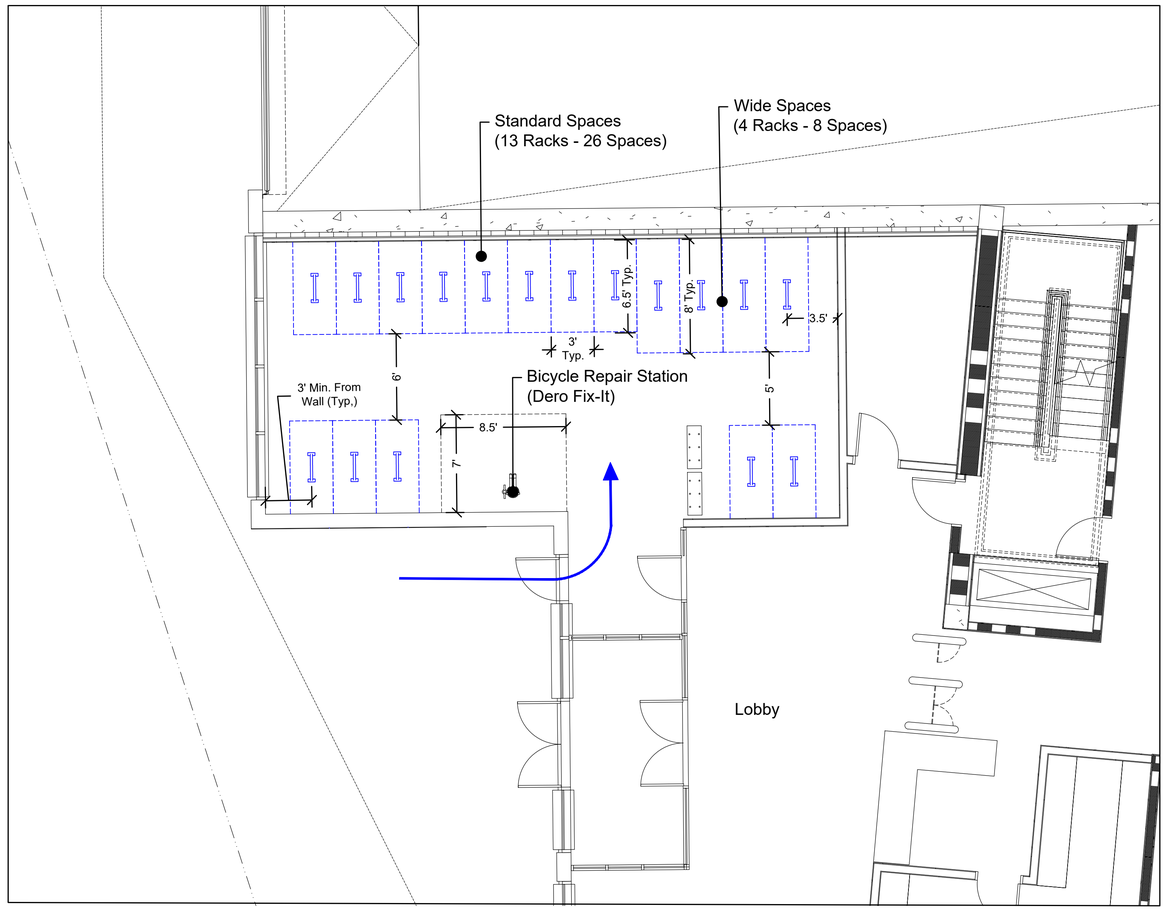
Date: August 2024

Scale: 1" = 20'-0"

SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE

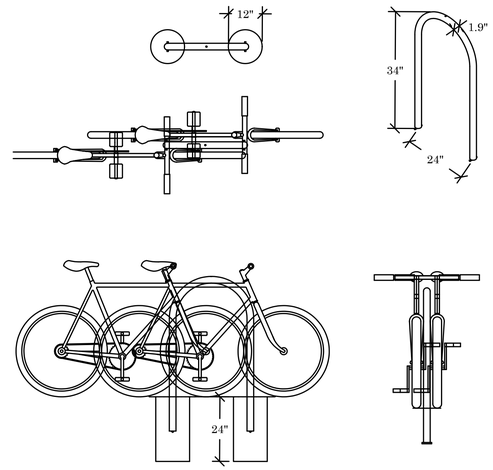
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Bicycle Parking on Ground Level



Hoop Rack Details

Not to Scale



©2018 Dero

Notes

1. Bicycle racks shall be the *Dero Hoop Rack* or equivalent for each of the standard (indoor/outdoor) and extra wide spaces.
2. Each rack has a capacity of 2 bikes.
3. Racks materials shall be 1.5" schedule 40 pipe (1.9" OD).
4. Rack finish shall be the powder coat. The powder coat finish assures a high level of adhesion and durability by following these steps: (a) Sandblast, (b) Epoxy primer electrostatically applied, (c) final thick TGIC polyester powder coat.
5. Racks shall be in-ground mounted embedded into concrete base.

FOR CITY OF SOMERVILLE USE

NOT FOR CONSTRUCTION

0 10 20 40 80 FEET

Travel Lane

Bicycle Path of Travel

Bicycle Storage Point of Access

Property Line

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Notes

1. Existing Lot No. 114-B-5

FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

BICYCLE PARKING PLAN

EXHIBIT A.4.2

HOWARD STEIN HUDSON
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Boston, MA 02108
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Date: August 2024

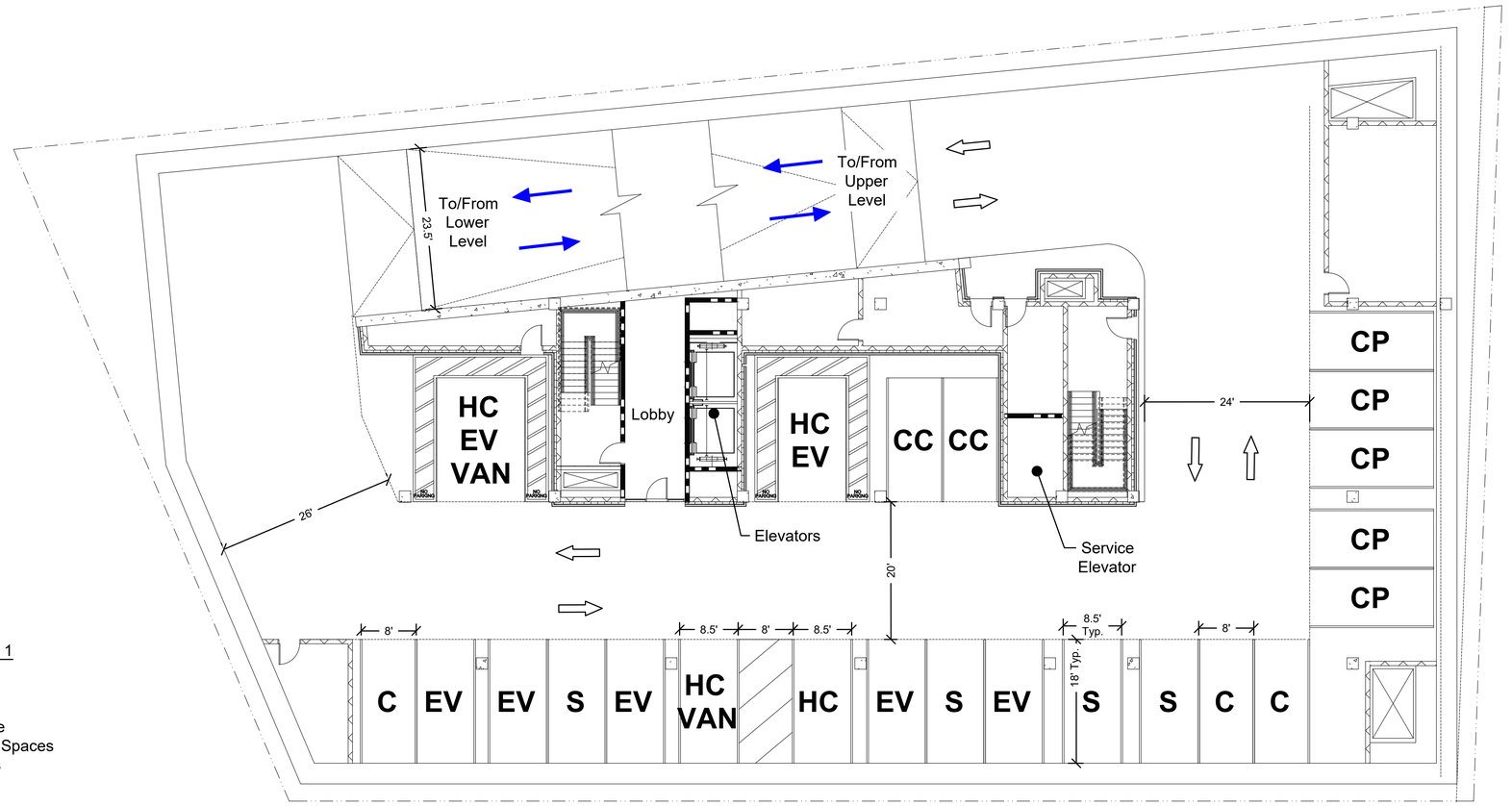
Scale: 1" = 5'-0"

HOWARD STEIN HUDSON

Engineers + Planners

Appendix E

Motor Vehicle Parking Plan



PARKING LEVEL 1

23 Total Spaces

4 Handicap Space
7 Electric Vehicle Spaces
5 Carpool Spaces

FOR CITY OF SOMERVILLE USE

NOT FOR CONSTRUCTION

0 5 10 20 40 FEET

Flow of Travel
Vehicle Access
Property Line

C = Compact Parking Space
S = Standard Parking Space
HC = Handicap Space
EV = Electric Vehicle Space
CP = Carpool Space
CC = Compact Car Share Space

COORDINATION OF DESIGN FILES WITH THE ADJACENT SITE AT 15 MCGRATH AND BETWEEN ON-SITE DESIGNERS IS ONGOING. ANY AREAS SHOWING CONFLICT IN THIS DRAFT TAP WILL BE UPDATED PRIOR TO THE FINAL TAP SUBMISSION.

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CIVIL
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REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

MOTOR VEHICLE PARKING PLAN

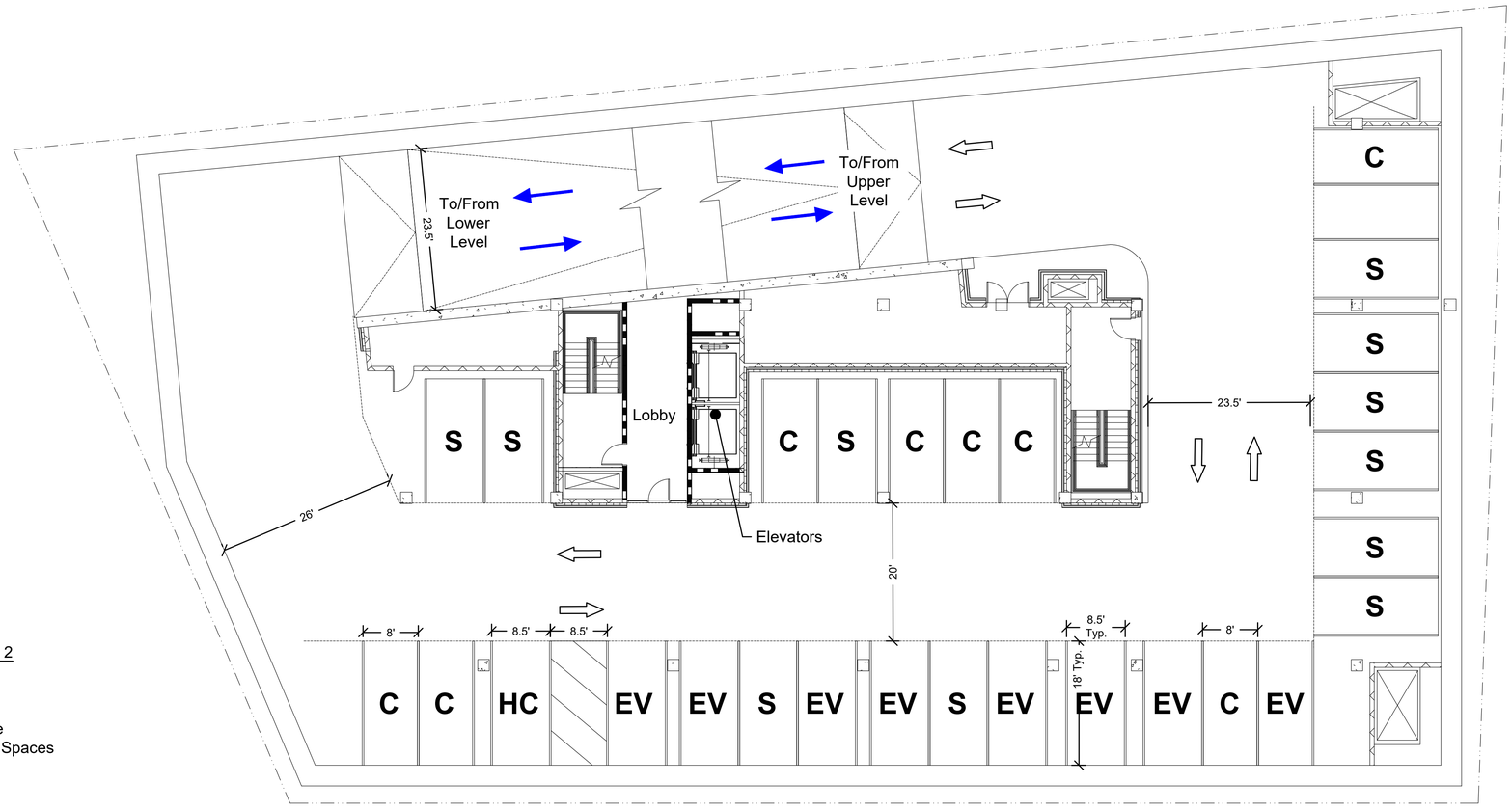
EXHIBIT A.5.1

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Date: August 2024

Scale: 1" = 10'-0"

SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE



PARKING LEVEL 2

29 Total Spaces

1 Handicap Space
8 Electric Vehicle Spaces

FOR CITY OF SOMERVILLE USE

NOT FOR CONSTRUCTION

0 5 10 20 40 FEET

Flow of Travel
Vehicle Access
Property Line

C = Compact Parking Space
S = Standard Parking Space
HC = Handicap Space
EV = Electric Vehicle Space
CP = Carpool Space
CC = Compact Car Share Space

COORDINATION OF DESIGN FILES WITH THE ADJACENT SITE AT 15 MCGRATH AND BETWEEN ON-SITE DESIGNERS IS ONGOING. ANY AREAS SHOWING CONFLICT IN THIS DRAFT TAP WILL BE UPDATED PRIOR TO THE FINAL TAP SUBMISSION.

Notes
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FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

MOTOR VEHICLE PARKING PLAN

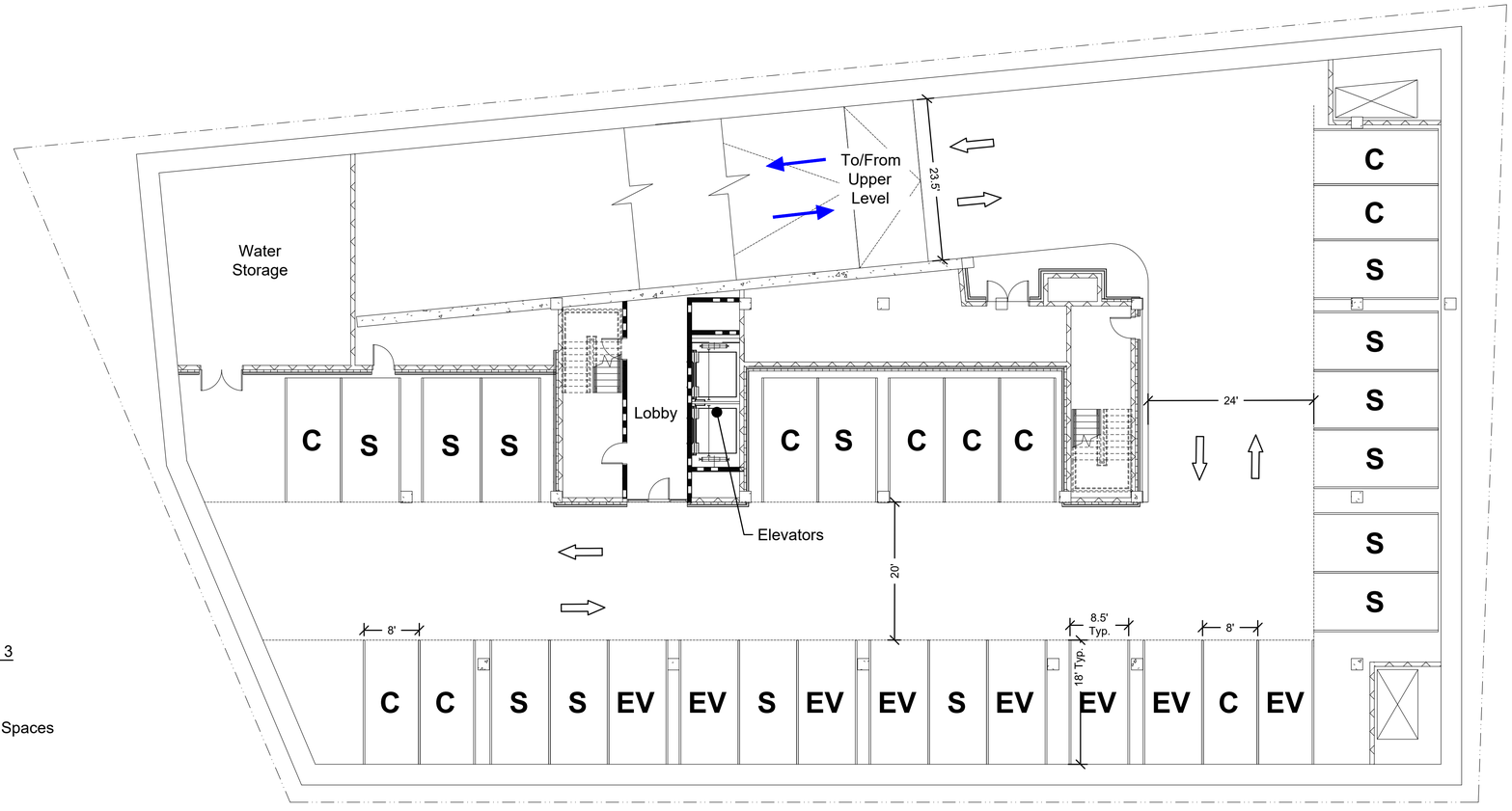
EXHIBIT A.5.2

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Scale: 1" = 10'-0"

SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE



PARKING LEVEL 3

32 Total Spaces

8 Electric Vehicle Spaces

FOR CITY OF SOMERVILLE USE

NOT FOR CONSTRUCTION

0 5 10 20 40 FEET

Flow of Travel

Vehicle Access

Property Line

C = Compact Parking Space
S = Standard Parking Space
HC = Handicap Space
EV = Electric Vehicle Space
CP = Carpool Space
CC = Compact Car Share Space

COORDINATION OF DESIGN FILES WITH THE ADJACENT SITE AT 15 MCGRATH AND BETWEEN ON-SITE DESIGNERS IS ONGOING. ANY AREAS SHOWING CONFLICT IN THIS DRAFT TAP WILL BE UPDATED PRIOR TO THE FINAL TAP SUBMISSION.

Notes
1. Existing Lot No. 114-B-5

FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

MOTOR VEHICLE PARKING PLAN

EXHIBIT A.5.3

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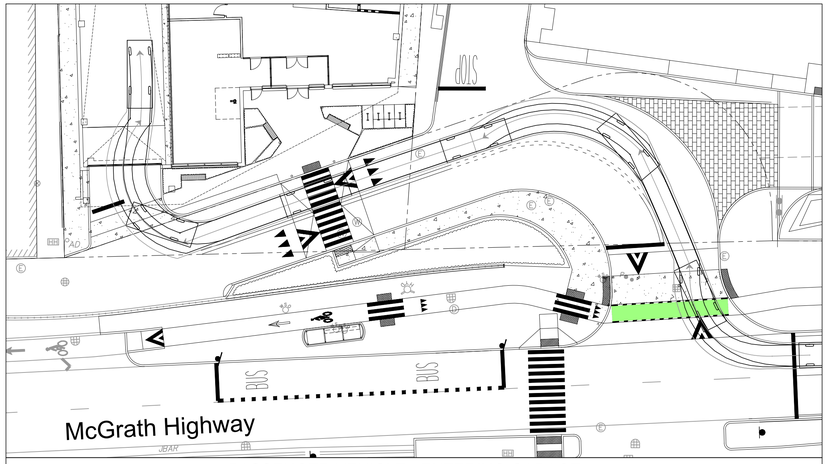
SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE

HOWARD STEIN HUDSON

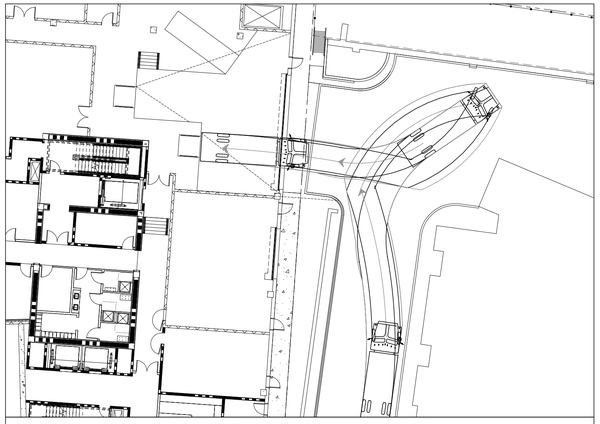
Engineers + Planners

Appendix F

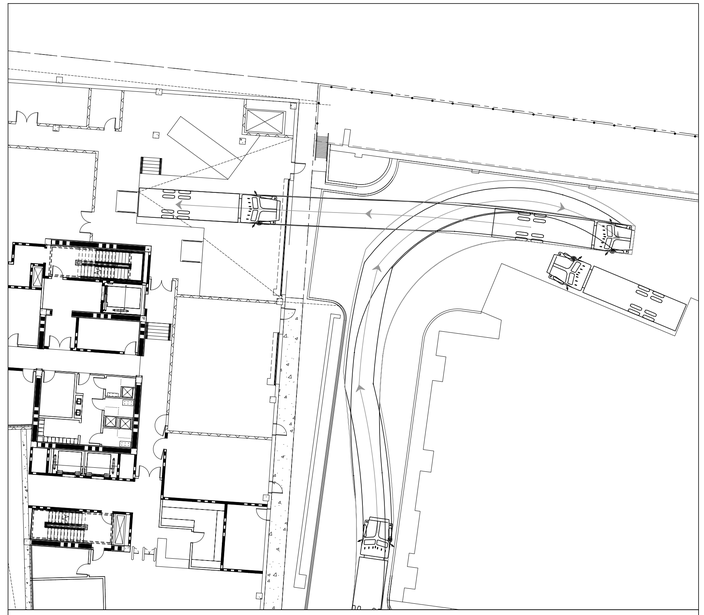
Vehicle Movement Plan



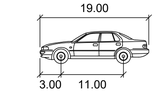
PASSENGER VEHICLE - ENTERING GARAGE



SU-30 - ENTERING LOADING BAY

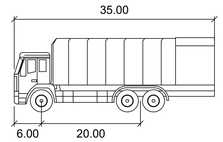


SU40 - ENTERING LOADING BAY



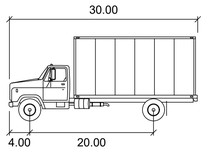
AASHTO 2018 PASSENGER

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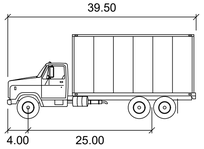
Heavy Garbage feet

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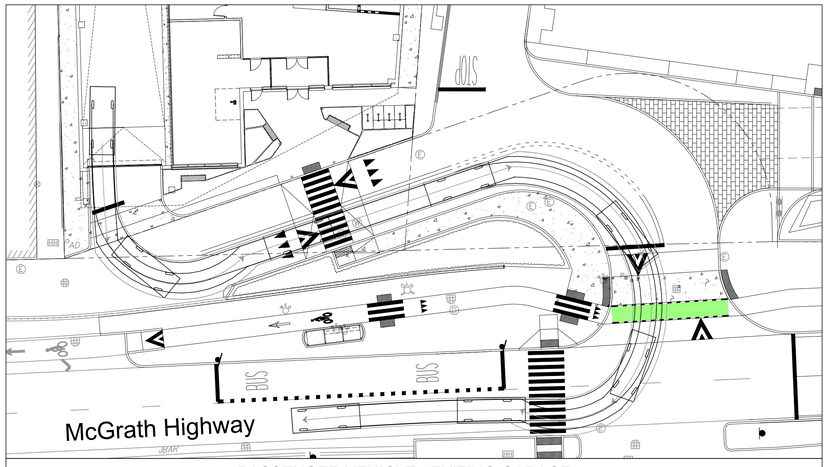
SU-30 Feet

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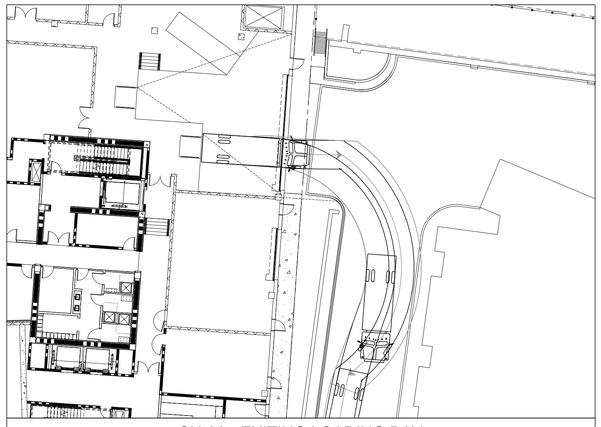


SU-40 feet

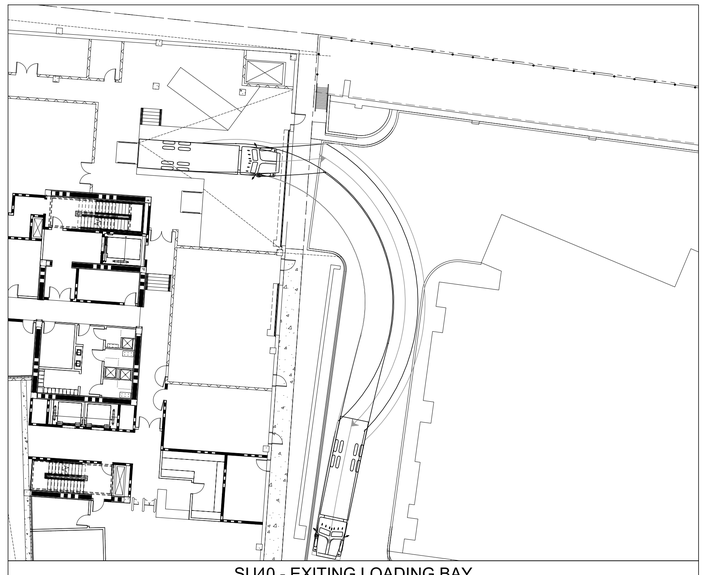
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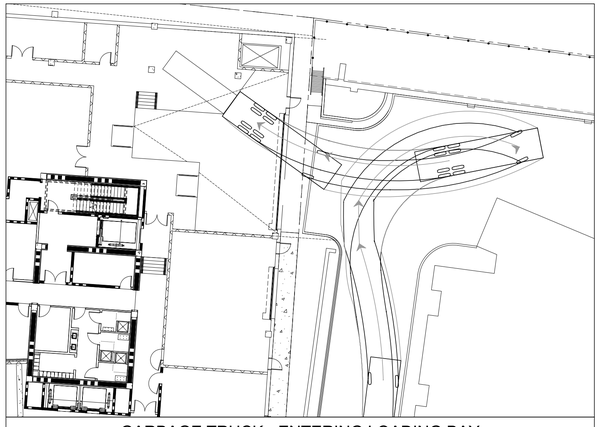
PASSENGER VEHICLE - EXITING GARAGE



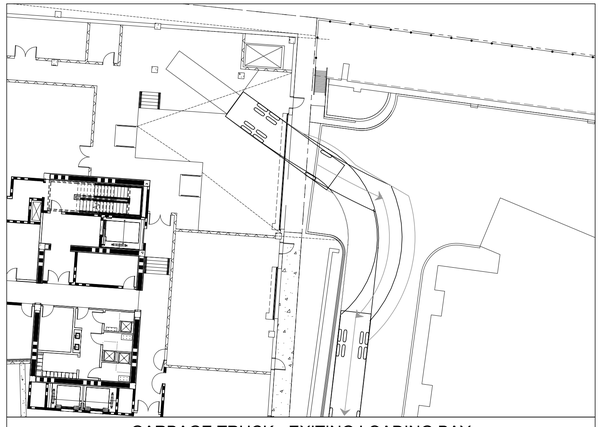
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SU40 - EXITING LOADING BAY



GARBAGE TRUCK - ENTERING LOADING BAY



GARBAGE TRUCK - EXITING LOADING BAY

0 10 20 40 80 FEET

1" = 20'-0"

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Revised On: August 5, 2024

FOR CITY OF SOMERVILLE USE

FINAL DESIGN PER

COMMONWEALTH OF MASSACHUSETTS RICHARD E. LATINI CIVIL No. 41033 REGISTERED PROFESSIONAL ENGINEER

TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

VEHICLE MOVEMENT PLAN

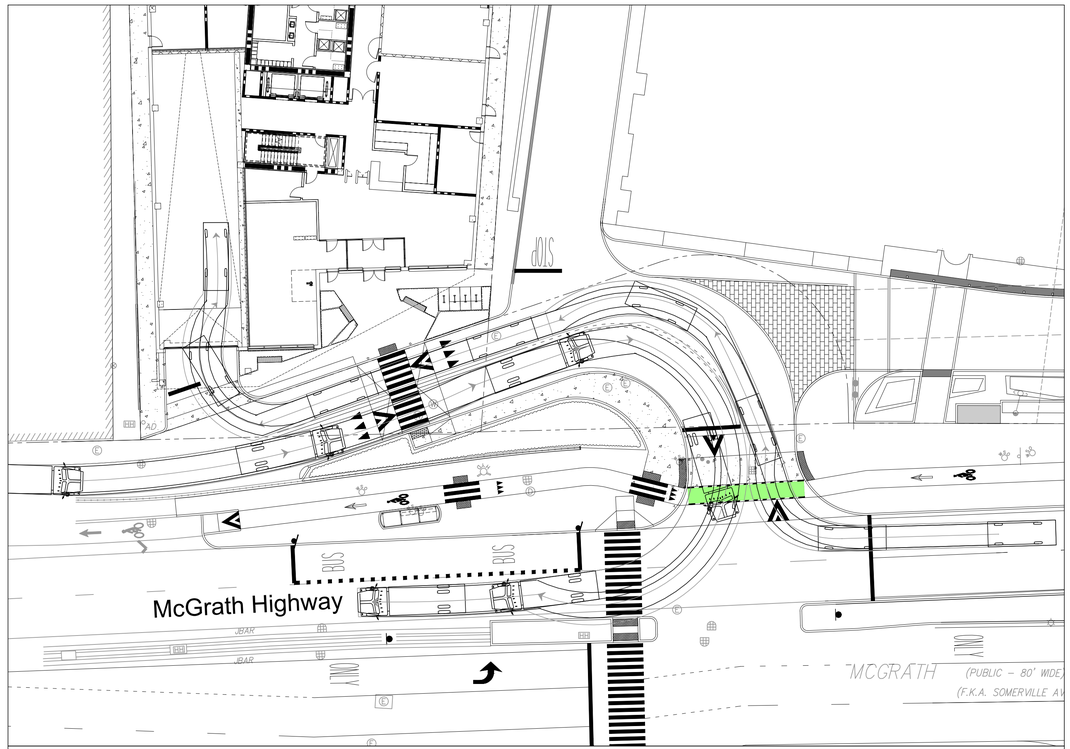
EXHIBIT A.6.1

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11 Beacon Street, Suite 1010
Boston, MA 02108
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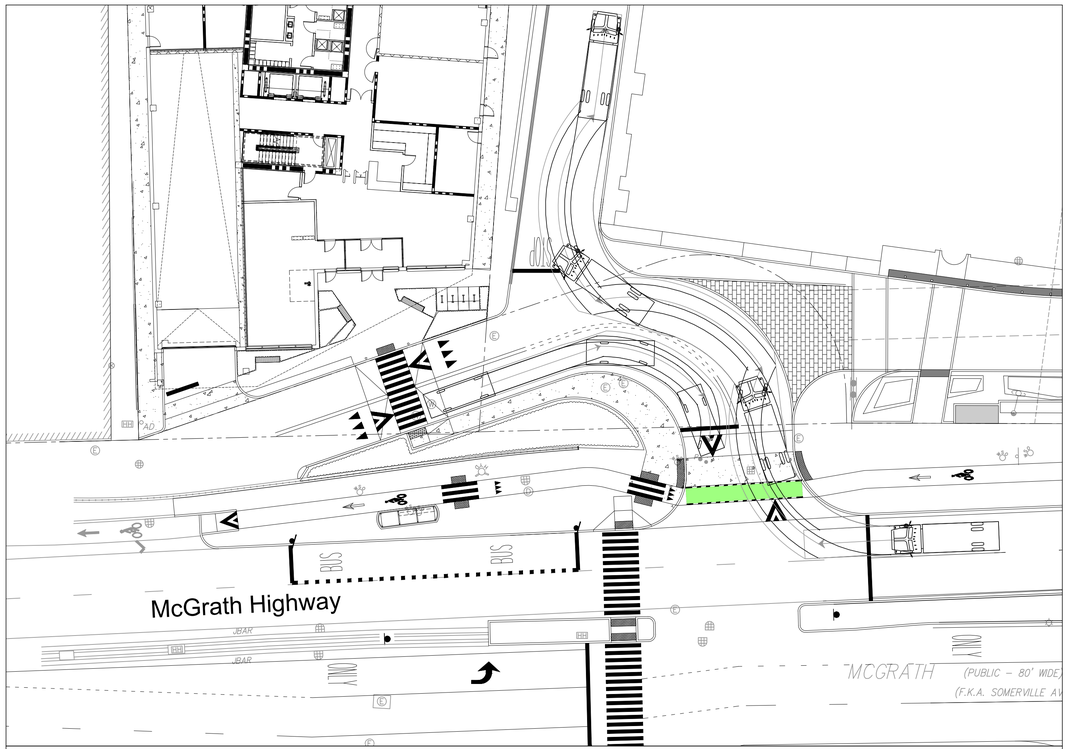
Date: August 2024

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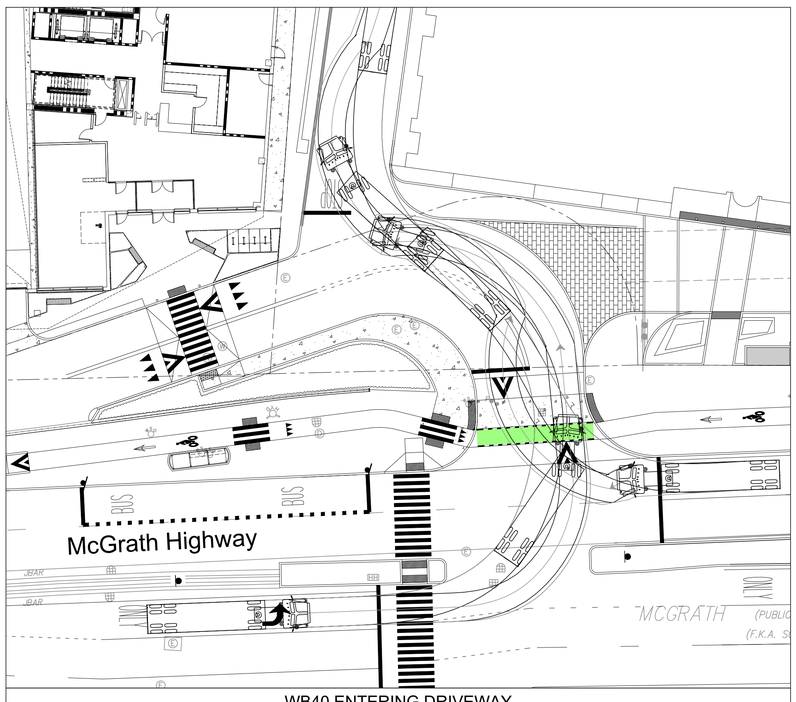
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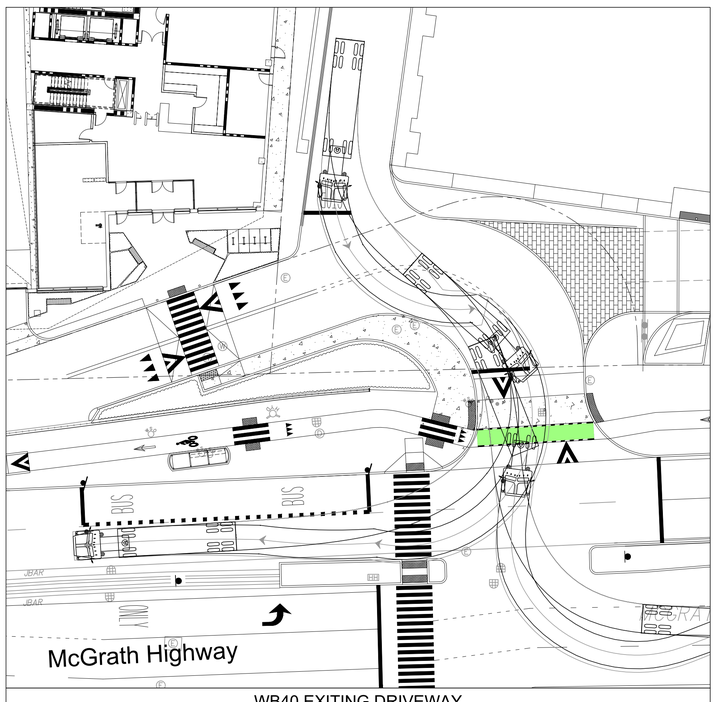
PASSENGER CAR ENTERING WITH SU30 EXITING



SU30 ENTERING WITH PASSENGER CAR EXITING



WB40 ENTERING DRIVEWAY

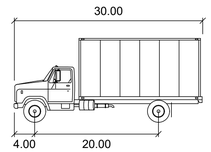


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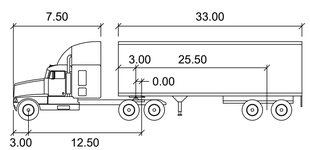
AASHTO 2018 PASSENGER

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Track	: 6.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.6



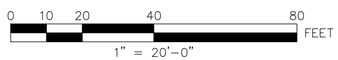
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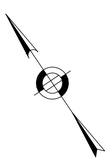
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Steering Angle	: 31.80



WB-40 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.00
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Tractor Track	: 8.00	Articulating Angle	: 70.00
Trailer Track	: 8.00		

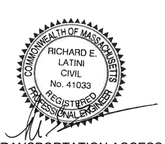




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FOR CITY OF SOMERVILLE USE

FINAL DESIGN PER



TRANSPORTATION ACCESS PLAN

35 MCGRATH HIGHWAY

VEHICLE MOVEMENT PLAN

EXHIBIT A.6.2

HOWARD STEIN HUDSON
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Date: August 2024

Scale: 1" = 20'-0"

SITE PLAN IS SUBJECT TO REVISIONS BY CITY OF SOMERVILLE



HOWARD STEIN HUDSON

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Boston, Massachusetts 02108
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MOBILITY DIVISION DOCUMENTS

TRANSPORTATION IMPACT STUDY

CAMBRIDGE/SOMERVILLE MASSACHUSETTS

35 McGrath Highway
Transportation Impact Study

Prepared for
35 McGrath Highway Realty Trust

Submitted to
City of Somerville

Prepared by
Howard Stein Hudson

June 2023

HOWARD STEIN HUDSON
Engineers + Planners

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Introduction

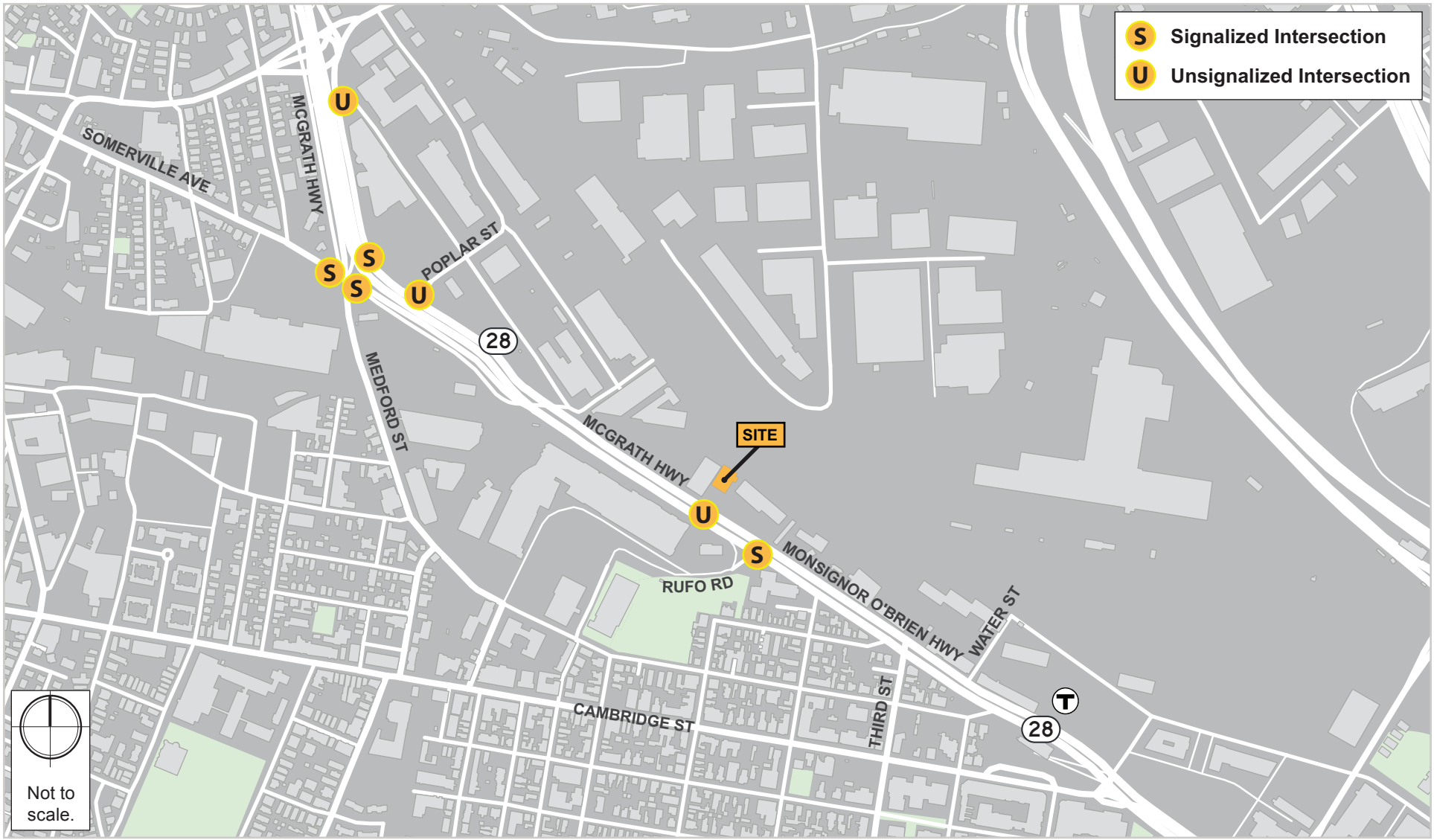
Howard Stein Hudson (HSH) has prepared this Transportation Impact Study (TIS) as part of the City of Somerville development review process to evaluate the transportation impacts of the proposed 35 McGrath Highway redevelopment (the Project or Site) in Somerville, Massachusetts. The study conforms with the TIS scoping letter that was submitted to the City of Somerville Mobility Division and approved on February 22, 2023. The Project is located at the southern edge of the Inner Belt neighborhood in Somerville, Massachusetts. The Project is bounded by Massachusetts Route 28 to the south, Massachusetts Bay Transportation Authority (MBTA) commuter rail tracks to the north, a self-storage facility to the west, and a retail store and parking lot to the east. The Project will consist of demolishing the existing building and parking lot to construct an approximately 145,000 gross-square-foot (gsf) building containing laboratory/life science uses and an underground garage containing approximately 103 parking spaces.

Study Area

Based on coordination with the City of Somerville, the study area (shown in **Figure 1**) consists of two signalized and three unsignalized intersections:

- McGrath Highway/Rufo Road (signalized);
- McGrath Highway/Somerville Avenue/Medford Street (signalized);
- McGrath Highway/Jughandle (Site Driveway) (unsignalized);
- McGrath Highway/Poplar Street (unsignalized); and
- McGrath Highway/Linwood Street (unsignalized).

Figure 1. ***Study Area Intersections***



Methodology

The TIS contains the following components:

- The ***Existing (2023) Condition*** includes an inventory of the existing transportation conditions such as traffic characteristics, parking, curb usage, transit, pedestrian circulation, bicycle facilities, loading, and site conditions. Existing counts for vehicles, bicycles, and pedestrians were collected at the study area intersections. The traffic data collection effort and observations form the basis for the vehicle, pedestrian, and bicycle analyses, and MBTA ridership data serves as the basis for the transit analysis.
- The Build and Future conditions evaluate potential transportation impacts associated with the Project and other developments.
  - The ***Build (2023) Condition*** summarizes any transportation changes that occur because of the construction of the Project. This section evaluates potential impacts to the transportation network, proposed parking, and includes Site circulation and project-generated trips by mode.
  - The ***Build (2023) Mitigated Condition*** forecasts any changes that are expected because of roadway modifications, and pedestrian, bicycle, and transit improvements proposed by the Project. This section will introduce the newly proposed signalized intersection with pedestrian and bicycle improvements at the site driveway which is expected to operate in conjunction with the existing Rufo Road/15 McGrath Highway intersection.
  - The ***Future (2030) Condition*** evaluates the long-term impacts for the year 2030, three years after the anticipated completion and occupancy of the building which is estimated for early 2026. The Future (2030) Condition section includes background projects and/or roadway improvements in the area.
  - The ***Future (2030) Mitigated Condition*** is a scenario that was added to present a comprehensive overview of operations at the newly proposed signalized intersection at the site driveway after several projects in this area have made changes to the road network. This scenario was added to compare the Build Mitigated Condition to reflect other area improvements that sequentially are expected to happen before the Project completes any mitigation.
- The final sections of the transportation study identify any transportation mitigation and Transportation Demand Management (TDM) measures that the Project plans to implement to minimize automobile usage and promote alternative modes of travel.

Existing Conditions

This section describes the existing study area network including vehicle, pedestrian, and bicycle conditions. Additional information within this section encompasses intersection traffic operations; peak hour vehicle, pedestrian, and bicycle volumes; existing public transportation infrastructure; and a summary of the most recent crash data available at the study area intersections.

Roadway Descriptions

McGrath Highway/Monsignor O'Brien Highway (Route 28) is classified as an urban principal arterial under Massachusetts Department of Transportation (MassDOT) jurisdiction. McGrath Highway generally runs north-south between Mystic Avenue and I-93 to the north and Rufo Road to the south. The section between Somerville Avenue up to Rufo Road is more generally aligned east-west; however, for simplicity, it will be referred to in the north-south orientation in this study. Monsignor O'Brien Highway runs between Rufo Road to the north and Edwin H. Land Boulevard to the south. McGrath Highway/Monsignor Highway is generally a two-way road with three lanes in each direction. A concrete median with approximately five feet of width is provided separating traffic in each direction. On-street parking is not provided. Sidewalks are provided on both sides of the road. The McGrath Highway southbound direction approaching Rufo Road has a speed limit of 35 miles per hour (mph) and the northbound direction has a speed limit of 30 mph.

Under the existing condition, limited bicycle facilities are provided on McGrath Highway north of Poplar Street or on Monsignor Highway south of Third Street. As part of the MassDOT McGrath Reconstruction Project (Project File 608482), reallocation of pavement will reduce the number of travel lanes down to two lanes in each direction and implement buffered bicycle lanes in both directions of McGrath Highway. This new lane use condition will be discussed further and reflected in the analysis later in the study.

Rufo Road is classified as a local road under private jurisdiction. It generally runs east-west, but it serves as the eastern end of the roadway that encircles Twin City Plaza. Rufo Road is a two-way, two-lane roadway of approximately 400 feet between the Plaza and McGrath Highway. Sidewalks are provided on the south side of the road connecting to Gold Star Mothers Park and are generally in good condition. On-street parking is restricted on both sides of the road.

Medford Street is classified as an urban collector under City of Somerville jurisdiction. It runs east-west between McGrath Highway to the east and Somerville Avenue to the west. It is a two-way street with one lane in each direction. Painted bicycle lanes are provided along all of Medford Street,

from its intersection with McGrath Highway/Somerville Avenue to the point it becomes Gore Street. On-street parking is not provided. Sidewalks are provided on both sides of the street.

Somerville Avenue is classified by MassDOT as an urban principal arterial under City of Somerville jurisdiction. It generally runs east-west between Massachusetts Avenue to the west and Medford Street to the east. It is generally a two-way, two-lane road with turn-lane pockets at select intersections. At the eastern limits, Somerville Avenue becomes Somerville Avenue Extension until Linwood Street. Somerville Avenue Extension provides access onto Route 28 heading southeast. Cycle tracks are provided in both directions from Union Square to Medford Street. West of Union Square to Porter Square, protected bicycle lanes are provided in both directions along Somerville Avenue. Sidewalks are provided on both sides of the road and are generally in excellent condition as they were recently re-constructed.

Poplar Street is classified as a local road under City of Somerville jurisdiction. It is a two-way, one-lane road that runs east-west between Chestnut Street/Joy Street to the east and McGrath Highway to the west. It is approximately 550 feet in length. Sidewalks are provided on both sides of the street with discontinuities along large driveways. Sidewalks are generally in poor condition. On-street parking is not provided.

Linwood Street is classified as a local road under City of Somerville jurisdiction. It is a two-way, one-lane road that runs north-south between McGrath Highway to the north and Fitchburg Street to the south. Sidewalks are generally provided on both sides of the street with some discontinuities at driveways and loading areas. Sidewalks are generally in poor condition. On-street parking is provided on both sides of the street between Poplar Street and McGrath Highway. On-street parking is also provided near the intersection with Fitchburg Street.

Intersection Descriptions

McGrath Highway/Monsignor O'Brien Highway/Rufo Road/15 McGrath Highway is a signalized, four-legged intersection with five approaches. The McGrath Highway southbound approach consists of a shared left-turn/through lane, two exclusive through lanes, and one channelized right-turn with approximately 220 feet of storage length. The Monsignor O'Brien Highway northbound approach consists of one exclusive left-turn lane, two exclusive through lanes, and a shared through/right-turn lane. The Rufo Road eastbound approach consists of a shared left-turn/through lane and one exclusive right-turn lane. The 15 McGrath Highway driveway westbound approach consists of a shared left-turn/through/right-turn lane. A second driveway for 1 McGrath Highway on the westbound approach also consists of a shared left-turn/through/right-turn lane and is incorporated into the signal operations. Crosswalks, curb ramps, and pedestrian signals are

provided across the Rufo Road eastbound and McGrath Highway southbound approaches. The two driveway approaches consist of driveway curb cuts along a continuous sidewalk. Sidewalks are provided along all legs of the intersection, except for the northwest side of Rufo Road within Twin City Plaza. Parking is prohibited along all legs of the intersection. An MBTA bus stop is located on the far-side of McGrath Highway in the northbound direction.

Somerville Avenue/Medford Street/McGrath Highway is a signalized, five-legged intersection with four approaches and operates as a clustered intersection under a single traffic control signal system. The McGrath Highway (Route 128) northbound surface-level approach is two through lanes and a right-turn lane to a ramp to access Washington Street eastbound and westbound. A bicycle lane is provided with access to the ramp to Washington Street. The McGrath Highway southbound surface-level approach consists of a left-turn pocket, a through lane, and a shared through/right-turn lane. A through bicycle lane is marked in the through/right-turn lane. The Medford Street northeast-bound approach consists of a left-turn lane, a pocket for through vehicles to access McGrath Highway northbound, and a shared through/right-turn lane. The Somerville Avenue southeast-bound approach consists of a through lane and a right-turn lane. The Somerville Avenue southeast-bound approaches are marked with sharrows and have a two-stage left-turn box to access Washington Street. Curb ramps, crosswalks, and pedestrian signal equipment are provided across all approaches. On-street parking is prohibited along all approaches. An MBTA bus stop is located on the far-side of the Somerville Avenue Extension southeast-bound approach.

McGrath Highway/Jughandle (Site Driveway) is an unsignalized, three-legged intersection with three approaches. The Jughandle westbound approach consists of a shared left-turn/right-turn lane. The McGrath Highway southbound approach consists of two through lanes, a shared left-turn/through lane, and a dedicated right-turn lane for the McGrath Highway/Rufo Road intersection downstream. The McGrath Highway northbound approach consists of two through lanes and a shared through/right-turn lane. Crosswalks and curb ramps are not provided. A sidewalk is provided along both sides of McGrath Highway. Parking is prohibited along all legs of the intersection. MBTA bus stops are located on the near-side of McGrath Highway in the northbound direction and on the near-side of McGrath Highway in the southbound direction adjacent to Twin City Plaza.

McGrath Highway/Poplar Street is an unsignalized, three-legged intersection with two approaches. The Poplar Street westbound approach consists of a single channelized right turn lane. The McGrath Highway northbound approach consists of two through lanes and one shared through/right-turn lane. Crosswalks and curb ramps are not provided. On-street parking is prohibited near the intersection. An MBTA bus stop is located on the far-side of the McGrath Highway northbound approach.

McGrath Highway/Linwood Street is a signalized, three-legged intersection with three approaches. The westbound Linwood Street approach consists of a shared through/right-turn lane. The eastbound approach of McGrath Highway southbound jughandle below the overpass consists of a shared left-turn/through lane and a buffered bicycle lane. The eastbound and westbound approaches are both signalized and additionally have existing stop-signs. The signalized northbound McGrath Highway approach consists of a shared left-turn/through/right-turn lane and a through bicycle lane. A sidewalk, crosswalk, and curb ramps are provided across the Linwood Street westbound approach. Pedestrian signal equipment is not provided across the Linwood Street approach. On-street parking is prohibited along all approaches.

Existing Traffic Volumes

Existing conditions are typically established though a data collection effort completed in accordance with City of Somerville TIS guidelines. This section summarizes the traffic count data collected on the study area roadways and at the study area intersections along with any adjustment factors.

AUTOMATIC TRAFFIC RECORDER (ATR) COUNTS

An automatic traffic recorder (ATR) is a device that continuously records the number, speed, and class of vehicles on a roadway for a given period. ATR counts were conducted for a 72-hour period from Thursday, October 6, 2022, through Saturday, October 8, 2022 on:

- McGrath Highway east of Rufo Road.

Three additional ATRs were conducted for a 72-hour period from Thursday, April 27, 2023 through Saturday, April 29, 2023 on:

- McGrath Highway between Rufo Road and the Jughandle;
- McGrath Highway at Squires Bridge; and
- Medford Street between South Street and Warren Street.

Table 1 summarizes existing traffic data including Average Daily Traffic (ADT), Peak-Hour Percentage (K-factor), heady vehicle percentage, and the approximate 85th percentile vehicular speeds. The typical weekday data is represented by data collected on Thursday, October 6, 2022, and Thursday, April 27, 2023. Average daily traffic variations are shown in **Figure 2** through **Figure 5** and speed data showing those traveling faster than the posted speed limits are shown in **Figure 6** through **Figure 13.** Complete ATR and traffic count data is included in **Appendix A**.

Table 1. Weekday ATR Summary – Thursday

Location	Direction	ADT (1)	K% (2)	Directional Distribution	HV% (3)	85th %ile Speed (mph)
McGrath Highway – East of Rufo Road	Eastbound	10,800	10.1%	45.3%	4.5%	30 mph
	Westbound	13,000	6.5%	54.7%	5.0%	32 mph
	Total	**23,800**	**7.9%**	**100%**	-	-
McGrath Highway at Squires Bridge	Eastbound	14,900	7.0%	52.8	4.9%	40 mph
	Westbound	13,300	11.0%	47.2	3.5%	32 mph
	Total	**28,200**	**8.7%**	**100%**	-	-
McGrath Highway – Between Rufo Road and 35 McGrath Driveway	Eastbound	9,700	6.9%	42.2%	7.3%	30 mph
	Westbound	13,200	11.1%	57.8%	5.4%	33 mph
	Total	**23,000**	**9.0%**	**100%**	-	-
Medford Street – Between South Street and Warren Street	Northbound	5,600	10.5%	58.9%	1.4%	20 mph
	Southbound	3,900	6.3%	41.1%	2.3%	23 mph
	Total	**9,500**	**8.7%**	**100%**	-	-

(1) ADT = Average Daily Traffic
(2) K% = Proportion of annual average daily traffic occurring in an hour
(3) HV% = Number of heavy vehicles, as a percent of total vehicles

Figure 2. ***McGrath Highway, East of Rufo Road - Average Weekday Traffic Variation***

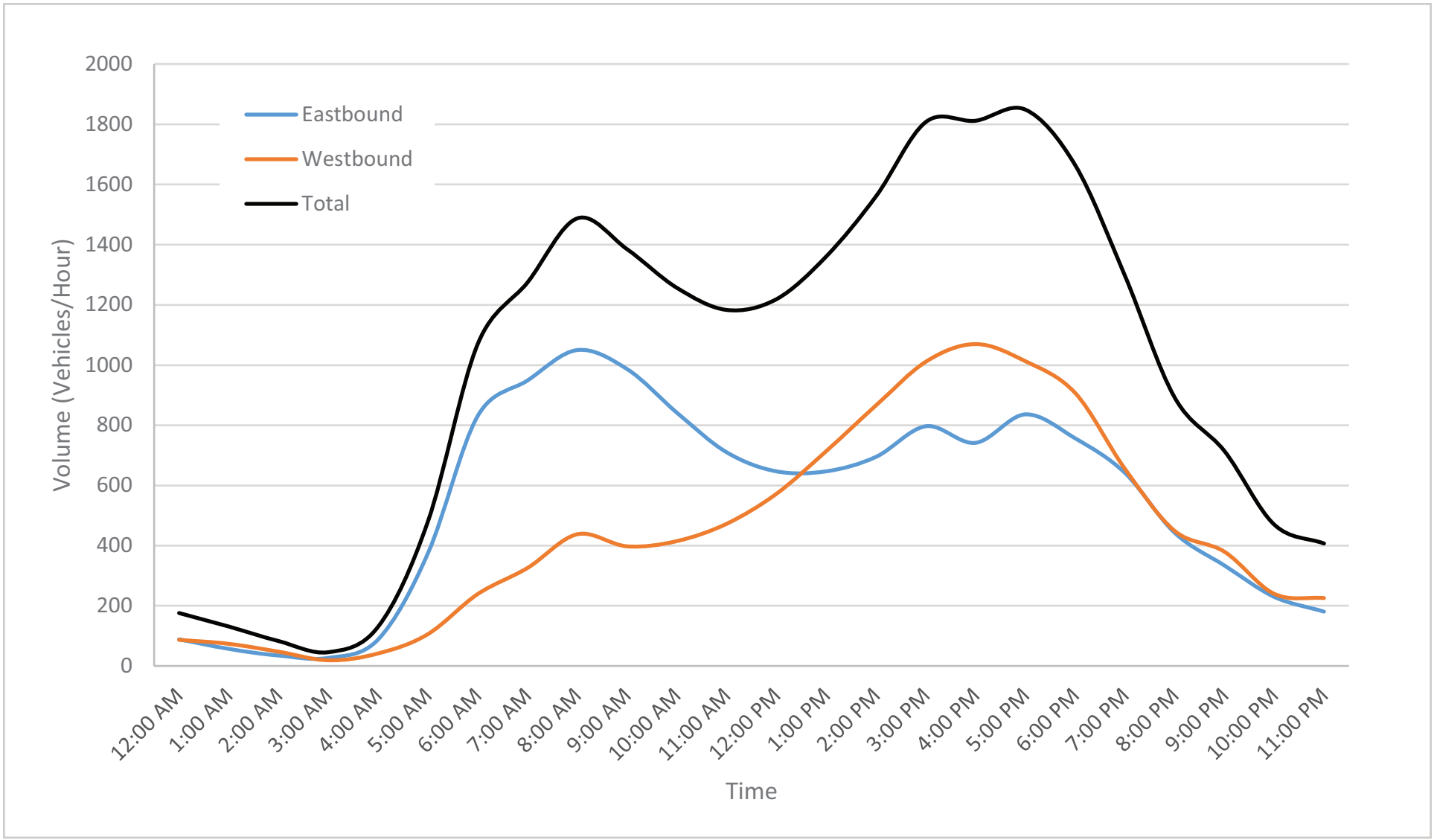


Figure 3. ***McGrath Highway at Squires Bridge - Average Weekday Traffic Variation***

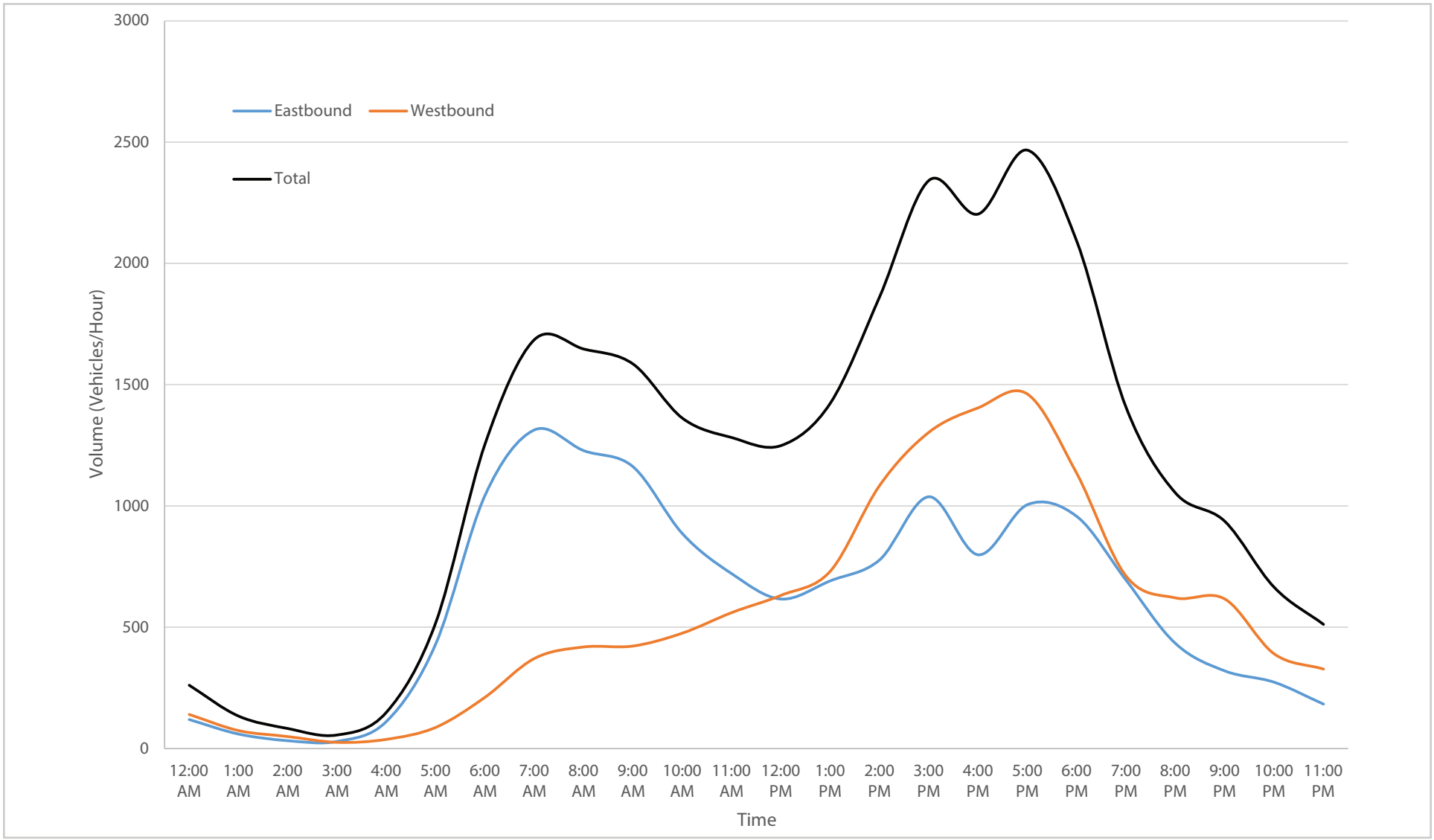


Figure 4. ***McGrath Highway, between Rufo Road and Jughandle - Average Weekday Traffic Variation***

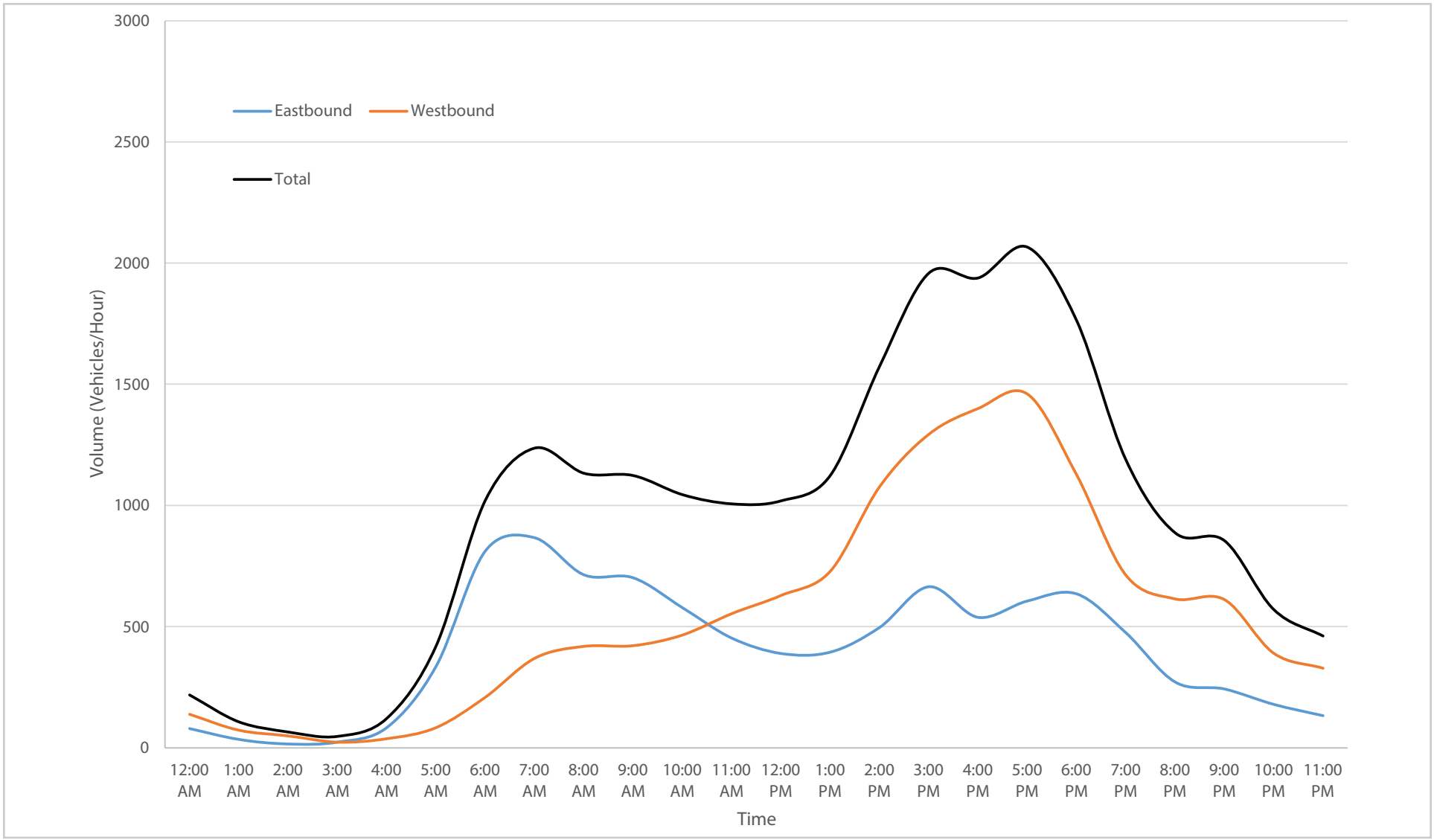


Figure 5. ***Medford Street, between South Street and Warren Street - Average Weekday Traffic Variation***

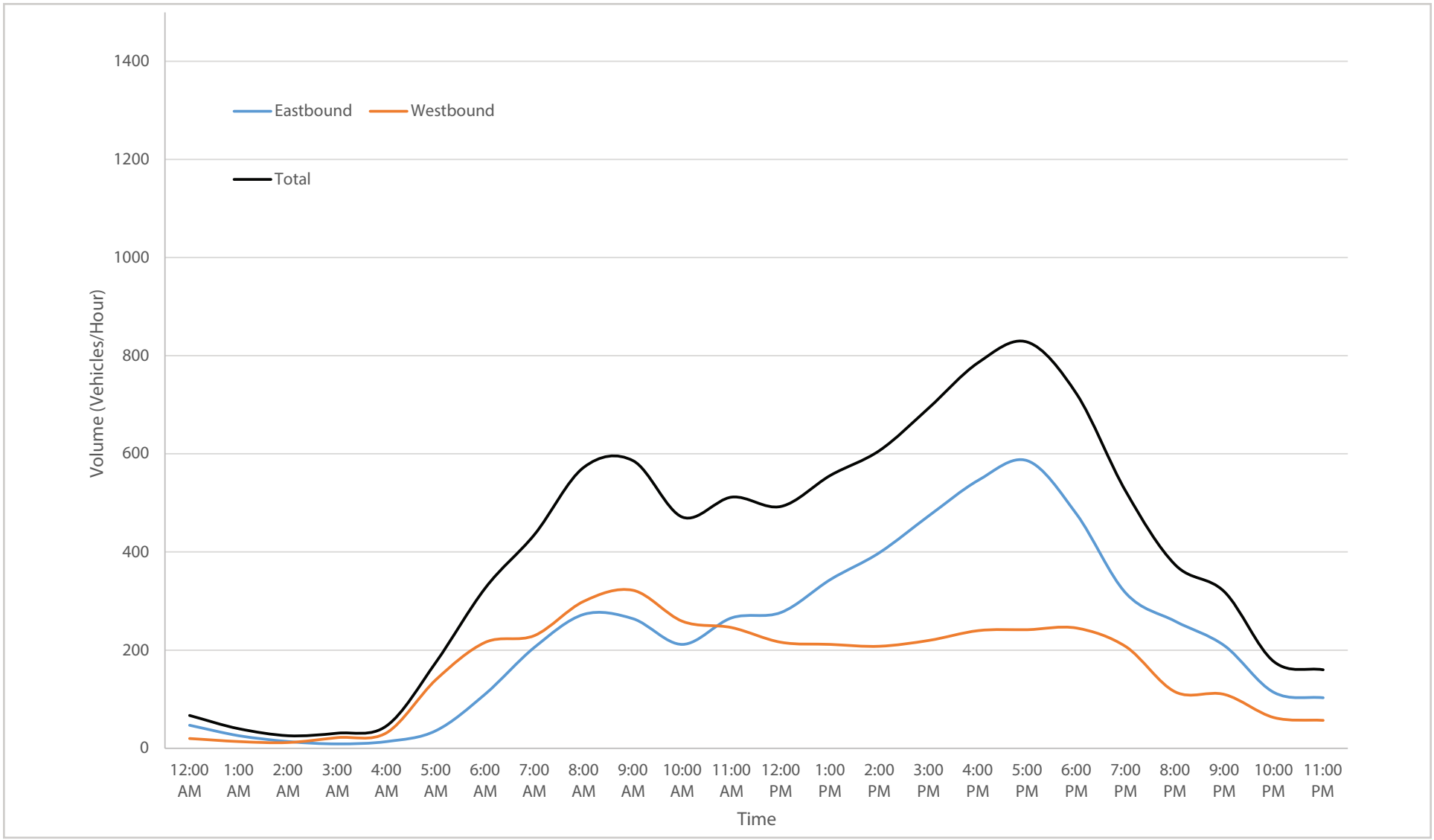


Figure 6. ***McGrath Highway Eastbound, East of Rufo Road - Average Weekday Speed Variation***

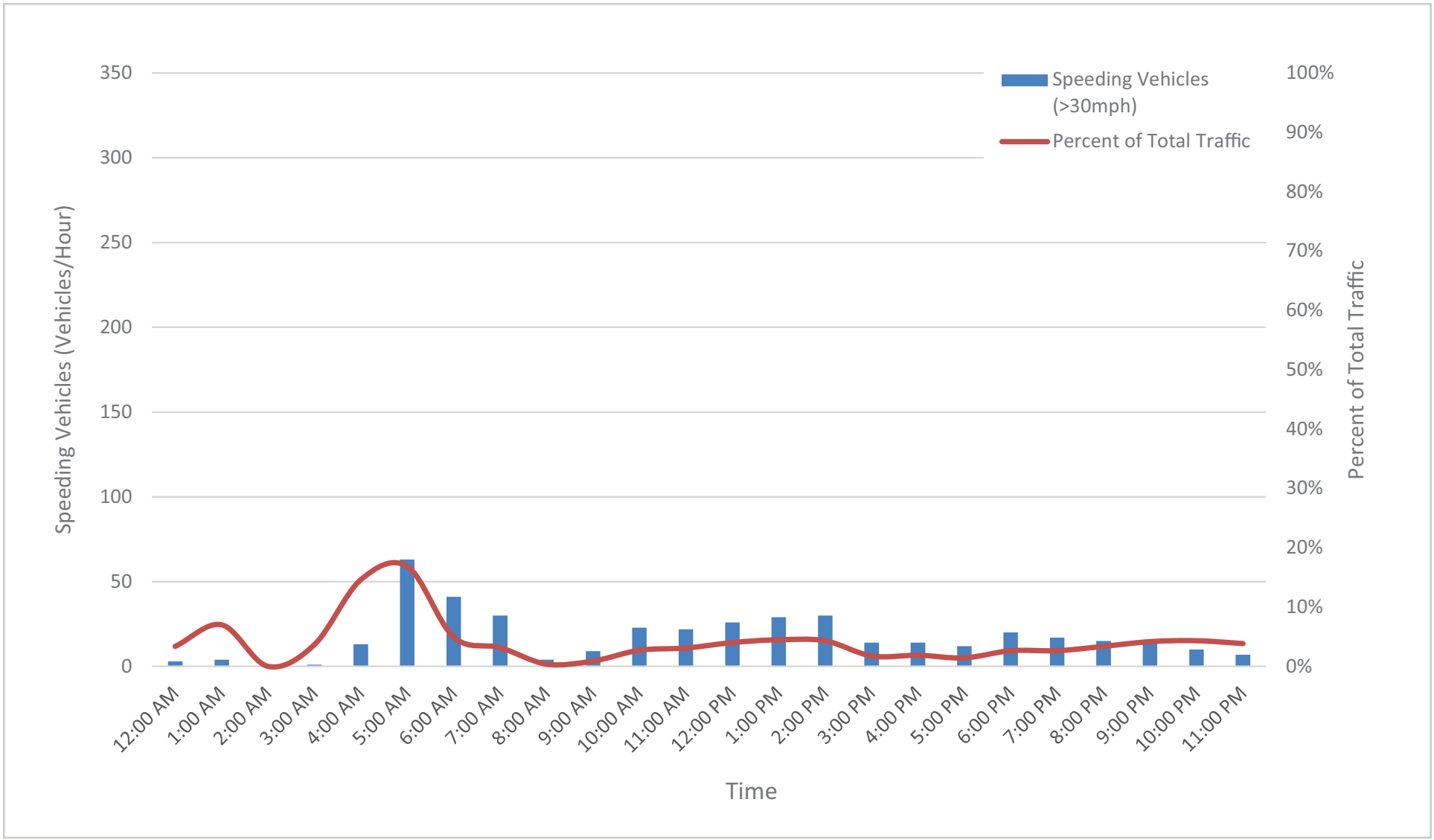


Figure 7. ***McGrath Highway Westbound, East of Rufo Road - Average Weekday Speed Variation***

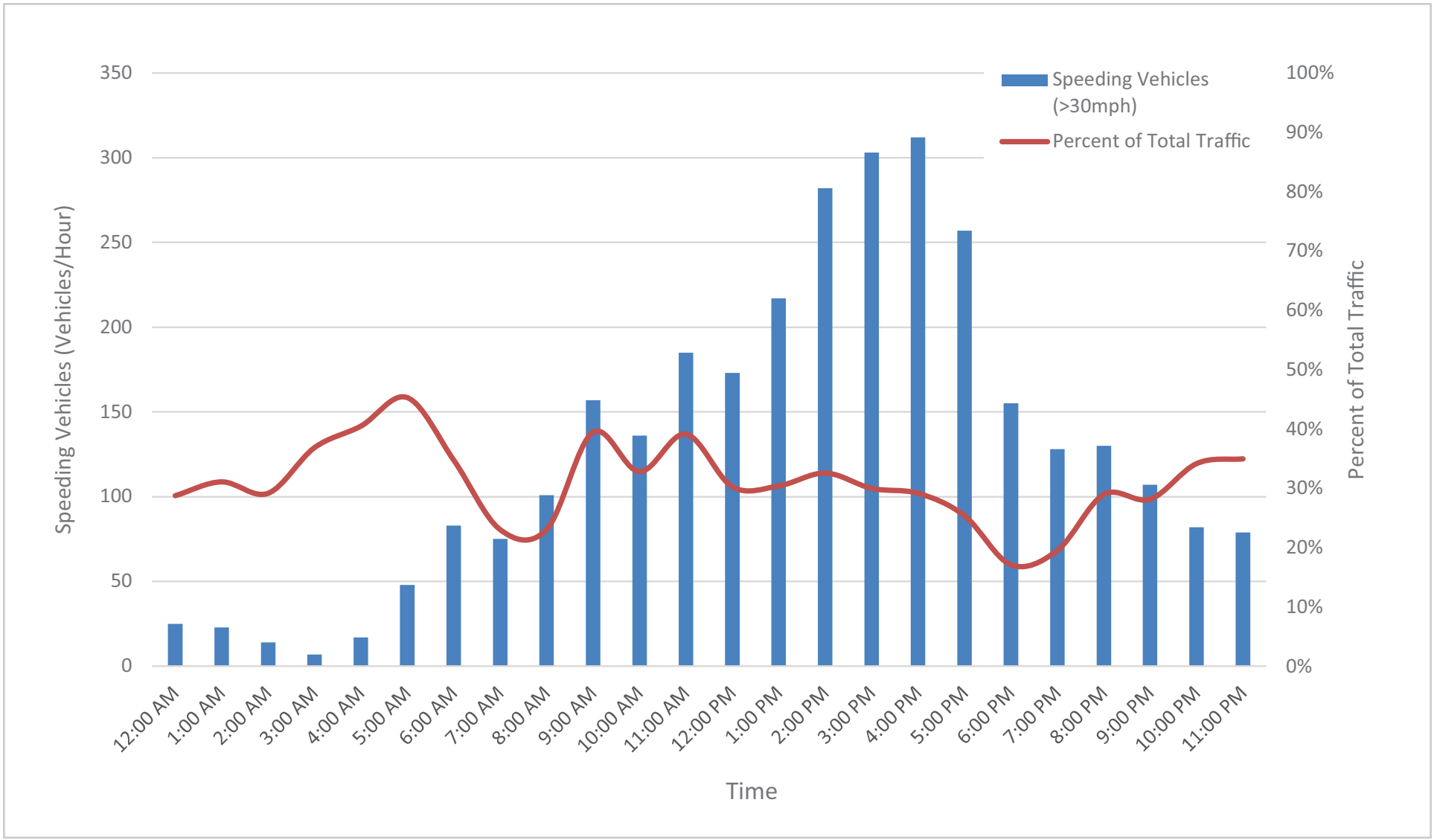


Figure 8. ***McGrath Highway Eastbound, at Squires Bridge - Average Weekday Speed Variation***

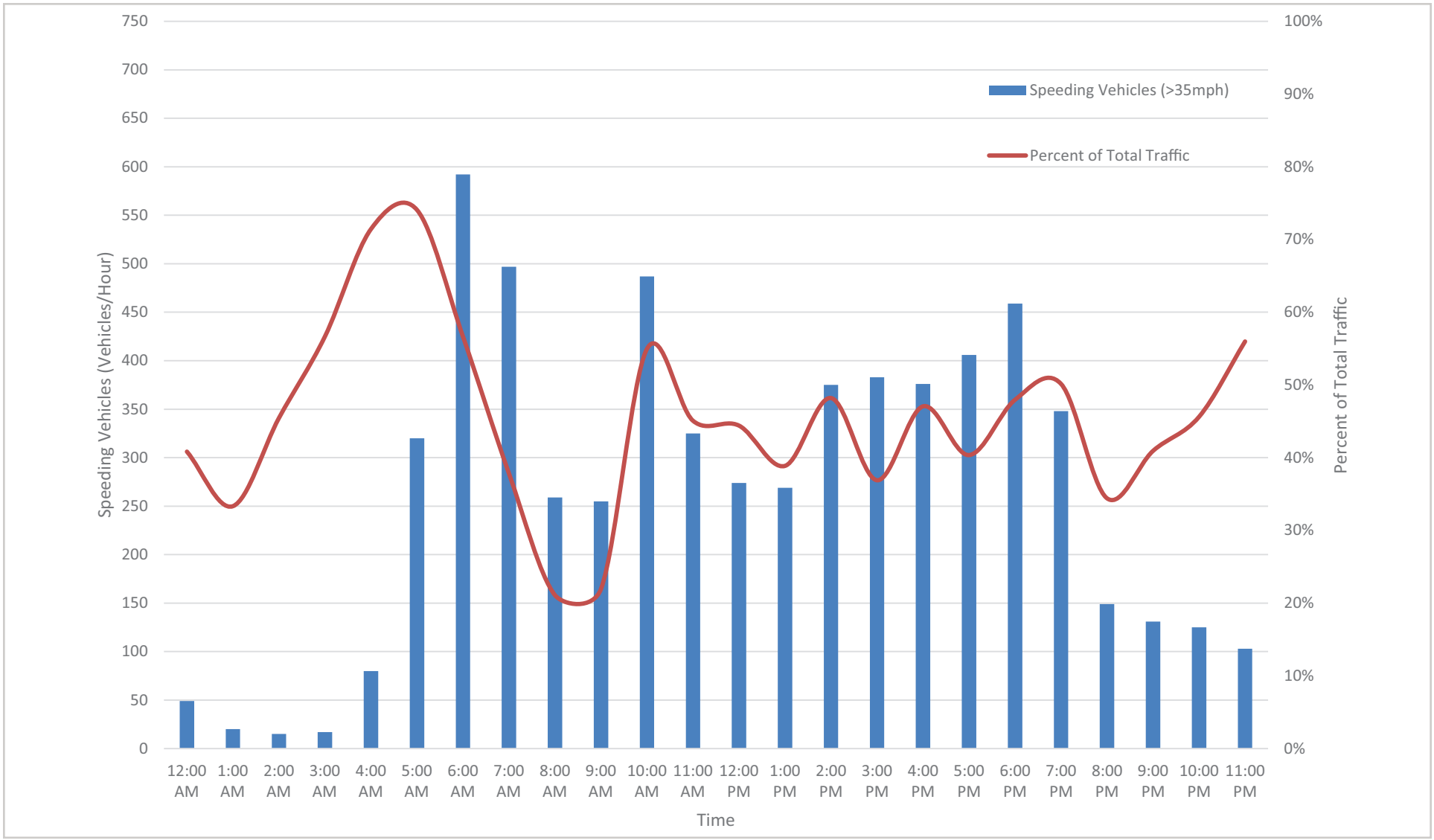


Figure 9. ***McGrath Highway Westbound, at Squires Bridge - Average Weekday Speed Variation***

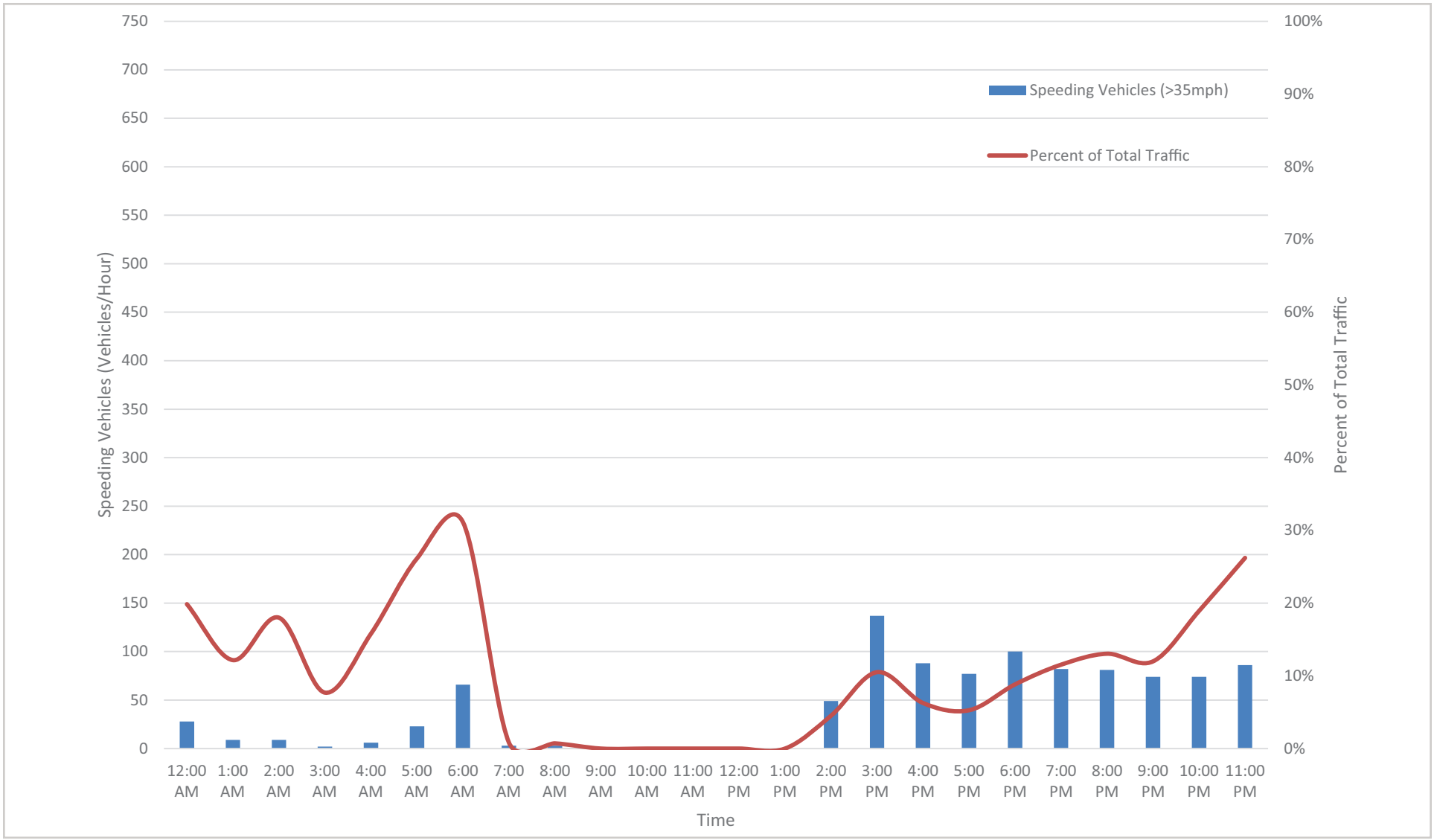


Figure 10. ***McGrath Highway Eastbound, between Rufo Road and Jughandle - Average Weekday Speed Variation***

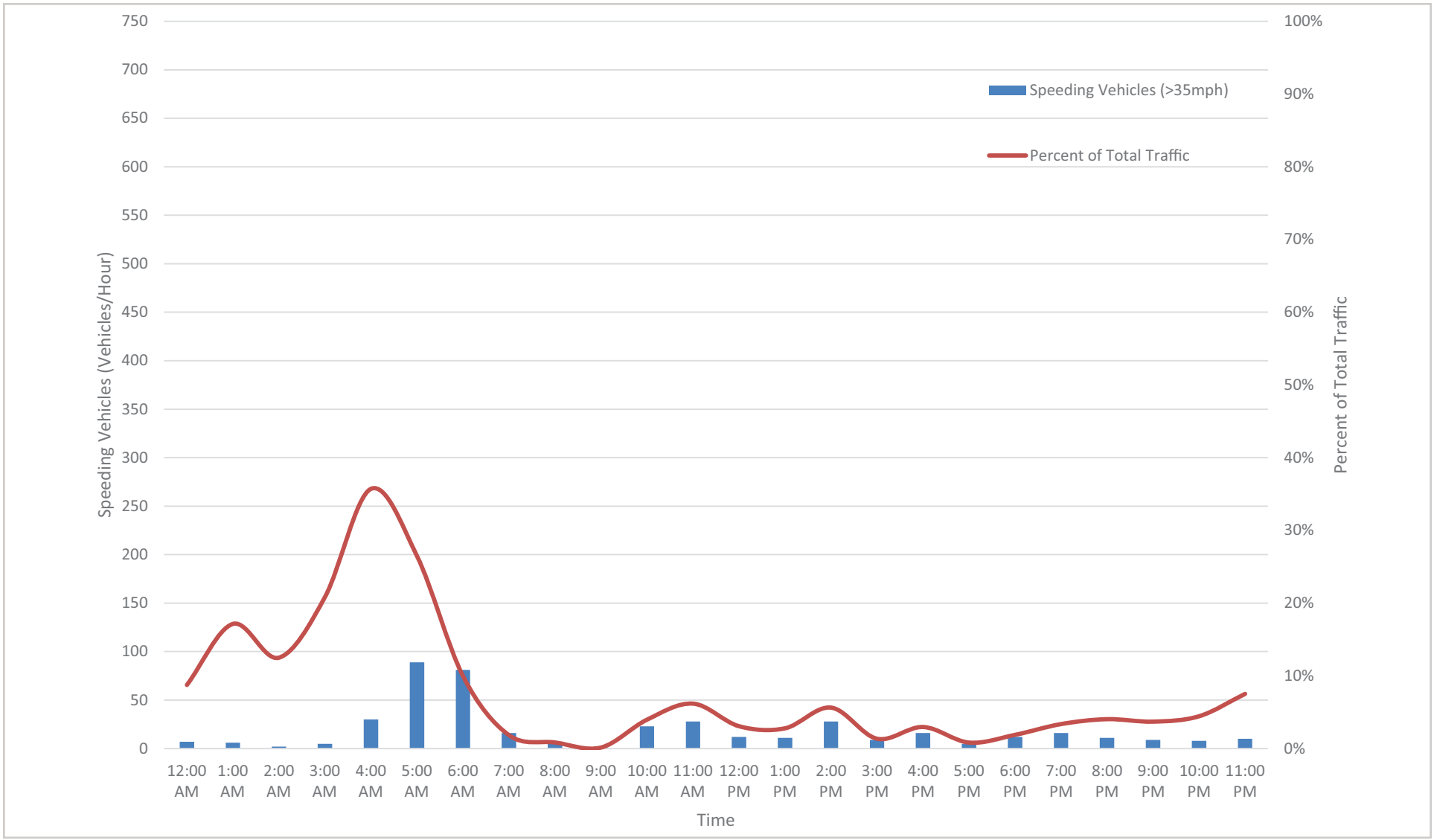


Figure 11. ***McGrath Highway Westbound, between Rufo Road and Jughandle - Average Weekday Speed Variation***

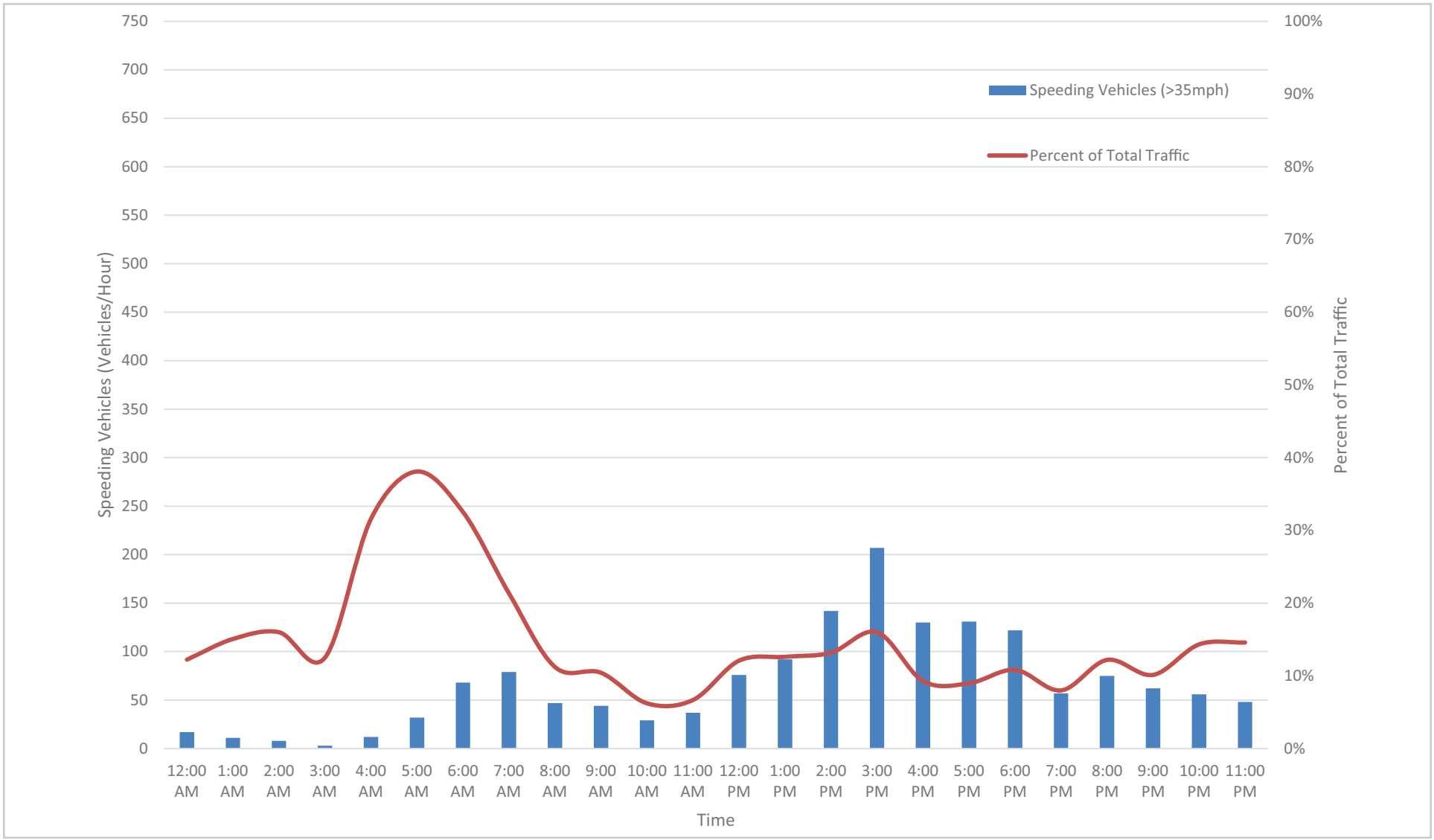


Figure 12. ***Medford Street Northbound, between South Street and Warren Street - Average Weekday Speed Variation***

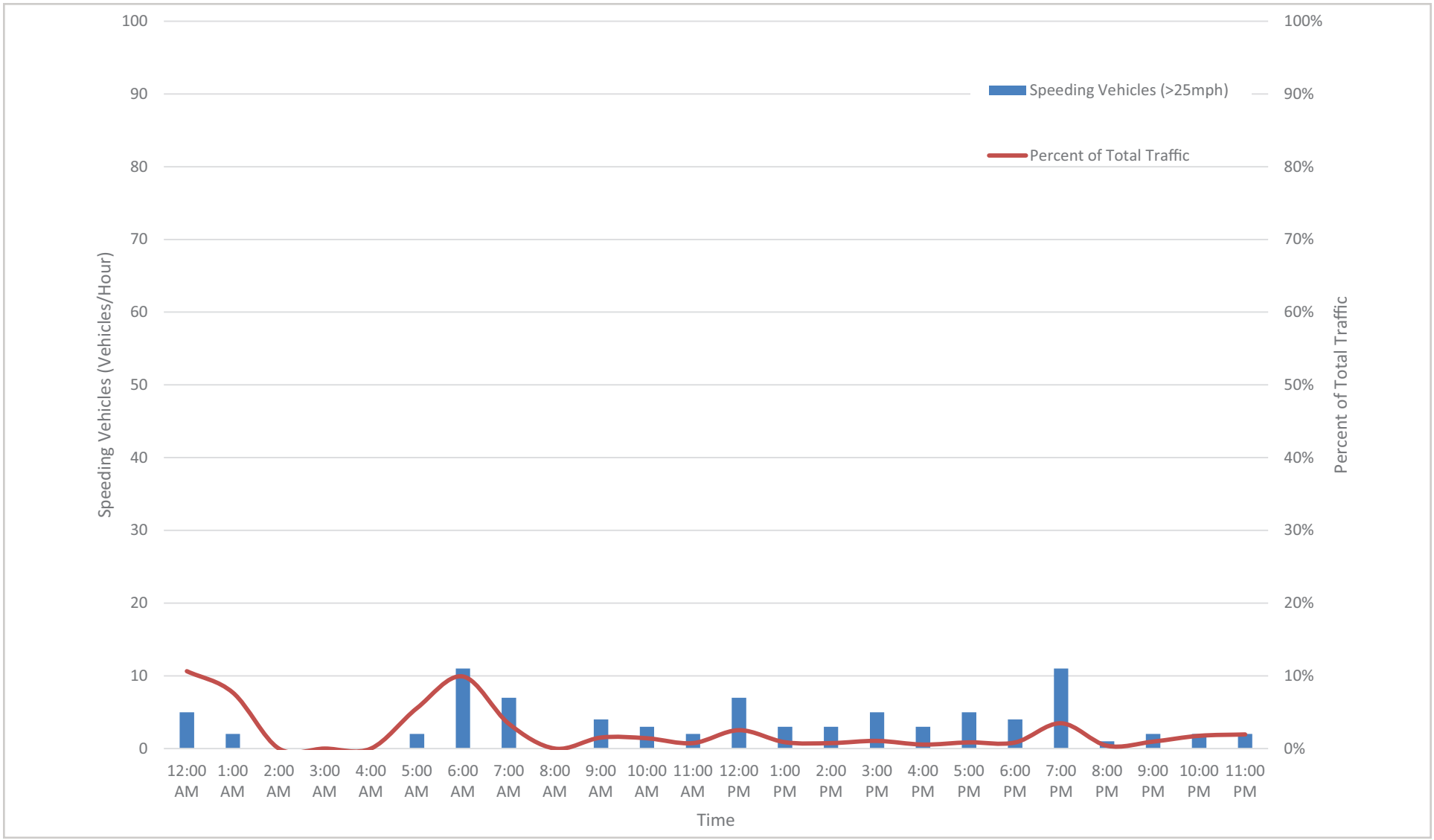
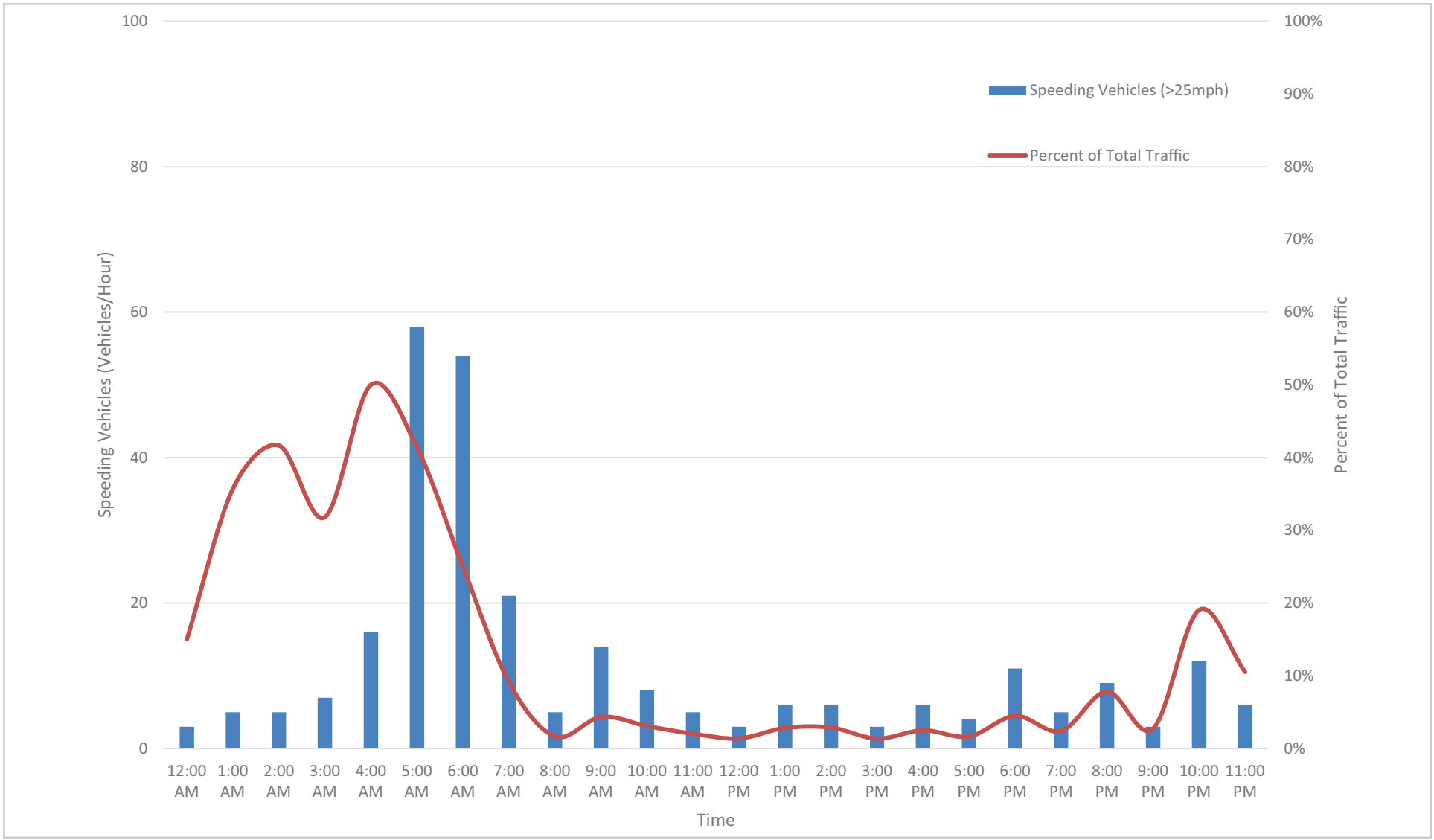


Figure 13. ***Medford Street Southbound, between South Street and Warren Street - Average Weekday Speed Variation***



TURNING MOVEMENT COUNT (TMC) DATA

Turning Movement Counts (TMCs) were recorded from 6:00 a.m. – 8:00 p.m. on Thursday, October 6, 2022, and from 10:00 a.m. – 2:00 p.m. on Saturday, April 29, 2023, at all study area intersections. The TMCs include vehicle, bicycle, and pedestrian counts at the study area intersections. The results of the counts indicate that the morning weekday peak hour occurs between 8:15 – 9:15 a.m., the evening weekday peak hour is between 4:45 – 5:45 p.m, and the Saturday midday peak is between 12:45 – 1:45 p.m. Ongoing construction at the Somerville Avenue/Medford Street/McGrath Highway intersection resulted in restrictions in access to McGrath Highway northbound during the 2022 count collection period. Data available from Thursday, April 28, 2022, was supplemented for the weekday peak periods at this location. Complete traffic count data is provided in **Appendix A**.

SEASONAL ADJUSTMENTS

To account for variation in traffic volumes throughout the year, data provided by MassDOT were reviewed. The MassDOT 2019 Weekday Seasonal Factors were used to determine the need for seasonal adjustments to the October and April data. The seasonal adjustment factors for October were 0.93 for urban principal arterials (U3) and 0.94 for urban minor arterials, collectors, and local roads (U4-U7). The seasonal adjustment factors for April were 0.94 for urban principal arterials (U3) and 0.92 for urban minor arterials, collectors, and local roads (U4-U7). A factor below 1.0 indicates that traffic volumes in October and April are generally higher than during an average month of the year. To provide a more conservative estimate, existing counts were not seasonally adjusted. Existing Condition vehicle volumes during the weekday a.m., weekday p.m., and Saturday midday peak hours are shown in **Figure 14** through **Figure 16.**

Figure 14. ***Existing (2023) Condition Vehicle Volumes, Weekday a.m. Peak Hour***

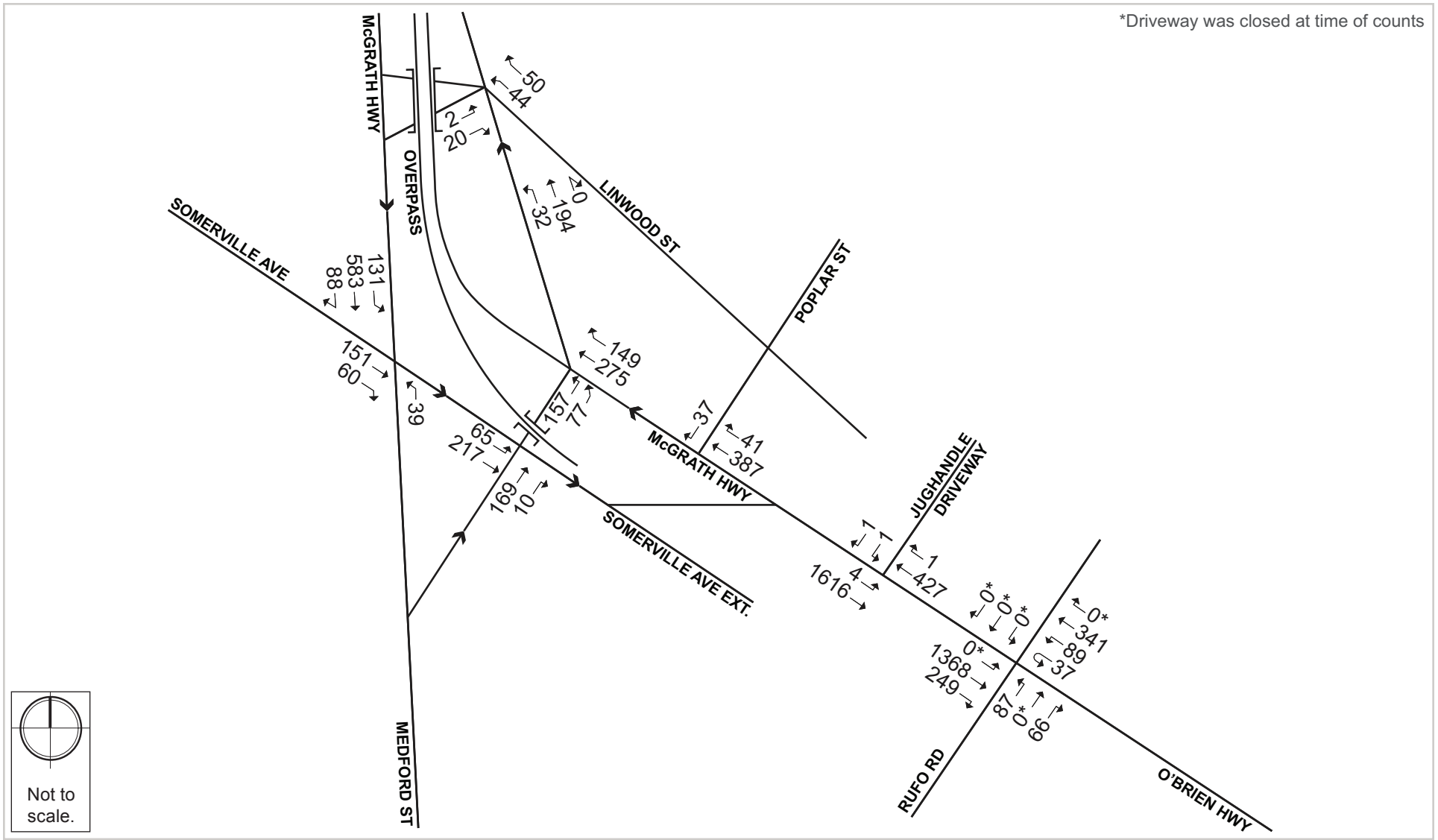


Figure 15. ***Existing (2023) Condition Vehicle Volumes, Weekday p.m. Peak Hour***

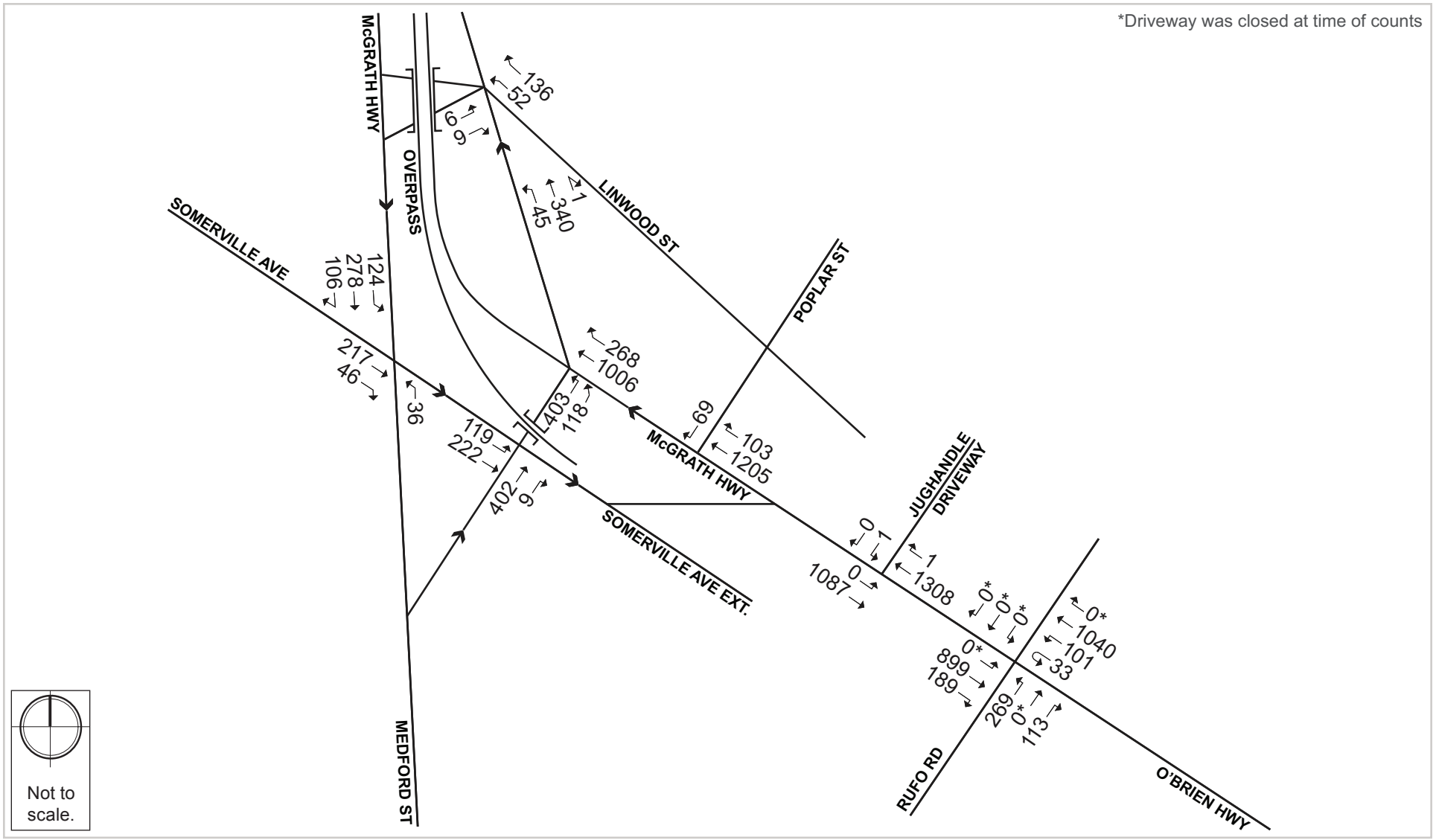
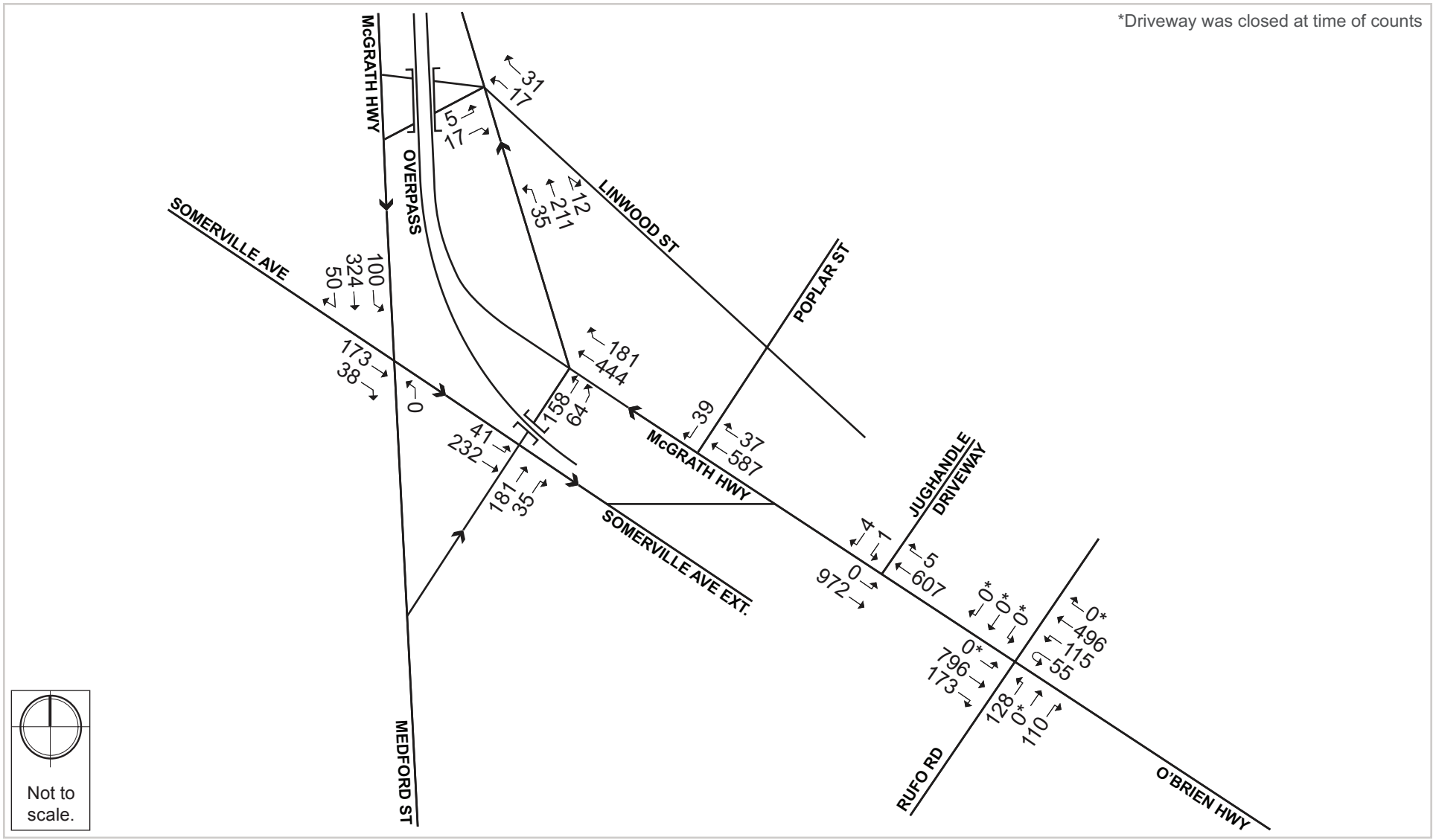


Figure 16. ***Existing (2023) Condition Vehicle Volumes, Saturday Midday Peak Hour***



Existing Public Transportation

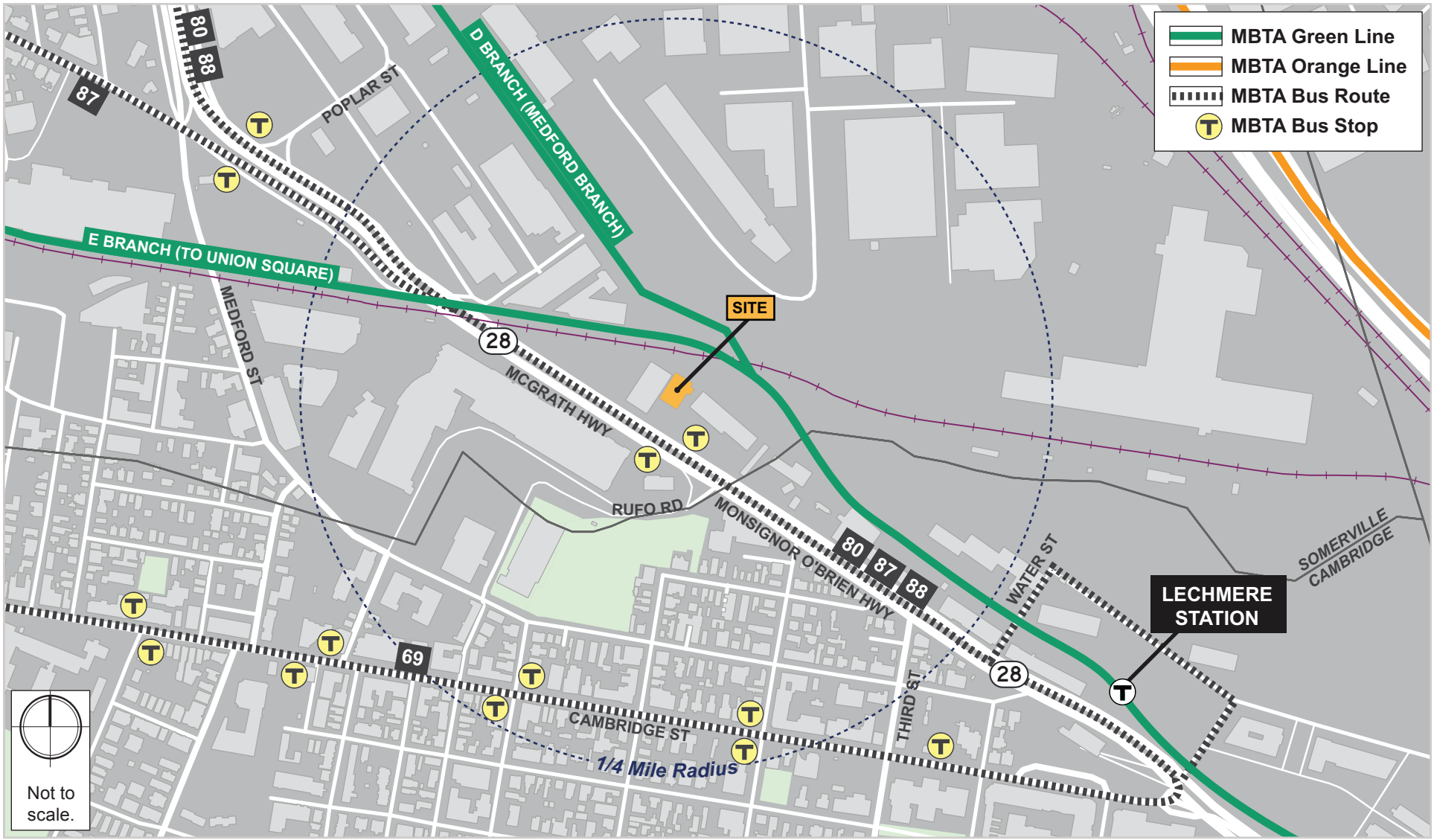
The Project Site is located near the recently completed Green Line Extension and many public transportation alternatives. The MBTA operates three bus routes that are accessible via bus stops immediately in front of the Project (#80, #87, and #88) and one additional bus route within a half-mile (#69). The MBTA recently completed the Green Line Extension project which added service to Somerville via the Union Square branch and the Medford branch. The Union Square branch opened March 2022 and the Medford branch opened December 2022. New stops on the Green Line within a half mile of the Project include the new East Somerville Station and the relocated Lechmere Station. These stations and service provide expanded access to transit for the Somerville, Cambridge, and Medford areas. The existing nearby transit services are shown in **Figure 17** and a summary of their service destinations, peak hour frequency, and total ridership is provided in **Table 2**.

Table 2. Transit Service Summary

Bus/Rail Service	Route Description	Peak Hour Headway[1] (min.)		Ridership[2]		
		Weekday	Weekend	Weekday	Saturday	Sunday
Rail Service						
Green Line – D Branch	Riverside – Union Square	6-12	6-12	N/A[3]		
Green Line – E Branch	Heath Street – Medford/Tufts	6-12	6-12	N/A[3]		
Bus Routes						
69	Harvard Square – Lechmere	10-20	20-40	1,537	946	551
80	Arlington Center – Lechmere	20-35	30-60	1,007	635	344
87	Clarendon Hill or Arlington Center – Lechmere	16-20	30-40	3,732	2,905	1,625
88	Clarendon Hill – Lechmere	16-20	20-40	2,972	1,160	768

1. Headways are based on the MBTA System Map (2022).
2. Bus ridership is based on fall 2021 boarding data from the MBTA using automatic passenger counters (APC).
3. Green Line ridership data is not available currently as these are new services.

Figure 17. ***Public Transportation***



TRANSIT STOPS

The closest bus stops serving the bus routes that are within one-half-mile from the Project (10-minute walk) are summarized in **Table 3**.

Table 3. Transit Stops serving Routes within ½-mile from the Project

Stop Location/Route	Distance from Site		Routes	
	Feet	Walk-time (minutes)	ID	Direction
Rail Service				
Lechmere	2500	13	Green Line, 69, 80, 87, 88	All
East Somerville	2800	11	Green Line	NB/SB
Bus Routes				
McGrath Hwy at Twin City Plaza	100	1	80, 87, 88	NB
McGrath Hwy at Twin City Plaza	632	3	80, 87, 88	SB
McGrath Hwy at Poplar St	1877	7	80, 87, 88	NB
McGrath Hwy at Medford St	2286	9	80, 87, 88	SB
Cambridge St at Third St	1997	7	69	WB
Cambridge St at Sciarappa St	1515	7	69	WB
Cambridge St at Sciarappa St	1560	7	69	EB
Cambridge St at Sixth St	1682	8	69	WB
Cambridge St at Sixth St	1677	8	69	EB
Cambridge St at Lambert St	2312	10	69	WB
Cambridge St at Max Ave	2394	11	69	EB

Existing Pedestrian Conditions

The roadways within the study area include McGrath Highway, Rufo Road, Linwood Street, Poplar Street, Medford Street, and Somerville Avenue. All roadways within the study area have sidewalks on both sides of the road, except for Poplar Street. The sidewalks adjacent to the Project Site are generally in fair to good condition. Existing Pedestrian Level of Traffic Stress (PLTS) is provided in the Transportation Impact Analysis section.

McGrath Highway/Monsignor O' Brien Highway: On McGrath Highway, sidewalks range from roughly 6- to 10-feet-wide within a half-mile of the Project. To the northwest, sidewalks are in fair condition. From the intersection with Third Street to the intersection with Gore Street, the

sidewalks are generally 8- to 9-feet-wide and in excellent condition. Between the intersection with Water Street and the intersection with N First Street, sidewalks are roughly 10-feet-wide and in excellent condition. On the southbound side of the street, sidewalks are under construction but will likely see a higher LTS after construction is complete.

Medford Street/Gore Street: Sidewalks on Medford Street and Gore Street are roughly 7- to 12-feet-wide. The sidewalks are in good condition. On Gore Street, south of the Project Site, commercial land uses and Gold Star Mothers Park are provided west of 5th Street. The city park provides a connection between Gore Street and the Project with several walking paths.

Rufo Road: Sidewalks on Rufo Road are roughly 6- to 8-feet-wide and are located on the south side of the street. Sidewalks are in good condition and provide connection to the walking paths in the Gold Star Mothers Park.

Linwood Street: On Linwood Street, sidewalks are roughly 6-feet-wide and are in fair to poor condition. Sidewalks are discontinuous at large driveways.

Poplar Street: On Poplar Street, sidewalks are roughly 6-feet-wide and are in fair to poor condition. Sidewalks are discontinuous at large driveways.

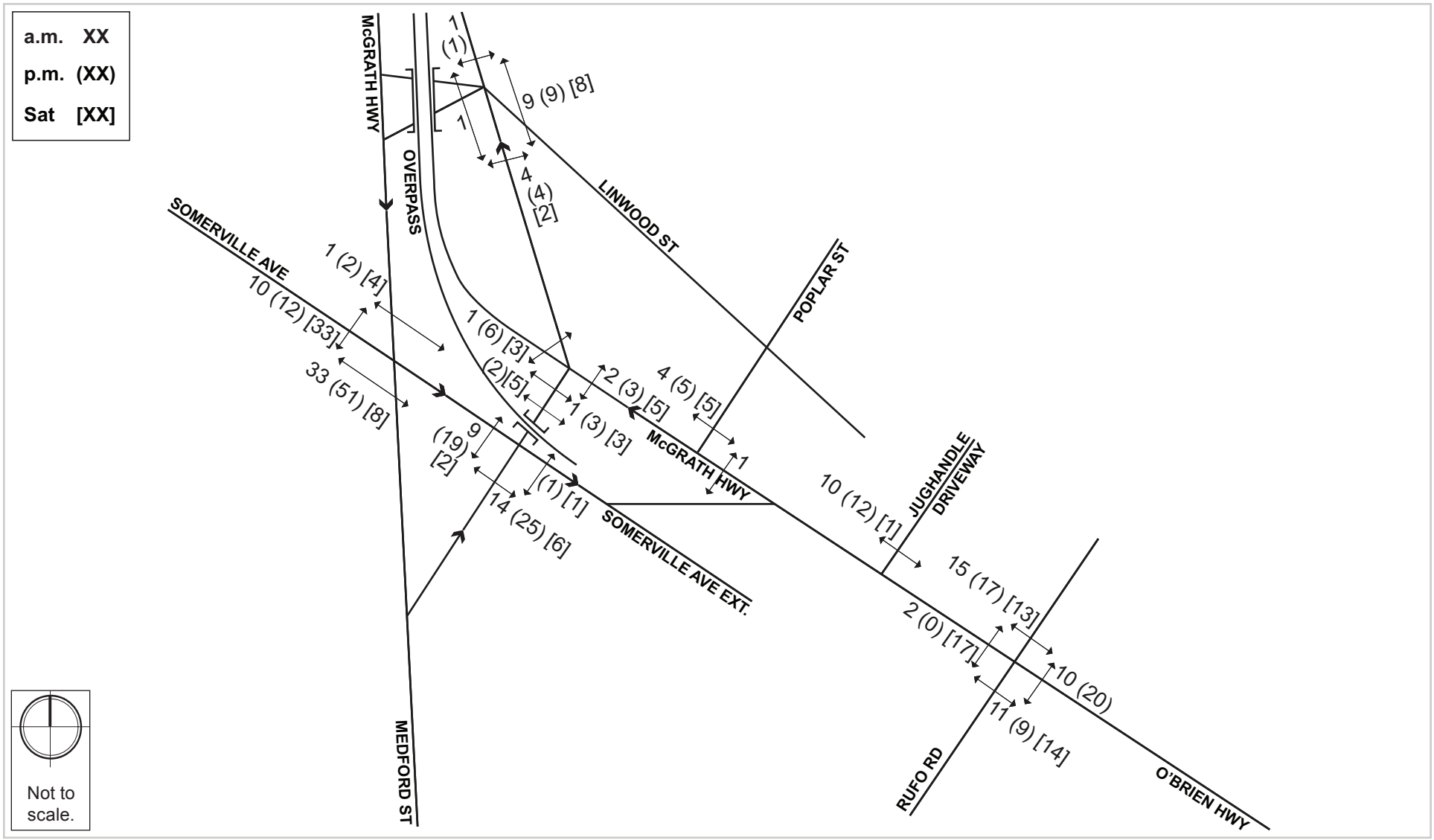
Somerville Avenue. East of Union Square, the sidewalks on the north side of the road range between 7- to 12-feet-wide; the sidewalks on the south side of the road range between 5- to 12-feet-wide. Sidewalks were recently reconstructed as part of the Somerville Avenue Utility and Streetscape Improvements Project.

Intersections: Crosswalks and wheelchair ramps are not consistently provided at all study area intersection approaches as discussed in the intersection descriptions earlier in this report. At the intersection directly southeast of the Site, crosswalks are provided across McGrath Highway at Rufo Road on the west side of the intersection and across Rufo Road with signal equipment and wheelchair ramps; however, crosswalks are faded. The next closest pedestrian crossing across McGrath Highway to the west of Rufo Road is at Medford Street and Somerville Avenue and to the east the next pedestrian crossing is at Third Street. Sidewalks are generally in good condition at intersections and are roughly 6- to 10-feet-wide.

PEDESTRIAN COUNT DATA

To determine the amount of pedestrian activity within the study area, pedestrian counts were conducted as part of the TMC data at the study area intersections. The weekday a.m. and p.m. peak hour pedestrian volumes are shown in **Figure 18**. Pedestrian volumes are generally low in the immediate area of the site.

Figure 18. ***Existing (2023) Condition Pedestrian Volumes, Weekday a.m. and p.m. and Saturday Midday Peak Hours***



Existing Bicycle Conditions

As a key mode of transportation in the Somerville community, bicycling and the facilities around the City of Somerville range in quality and safety. An evaluation of the existing Bicycle Level of Traffic Stress (BLTS) methodology gives a level of stress classification for roadway segments and intersections based on a set of measurable characteristics or observations. The detailed bicycle network analysis uses the BLTS and is provided in the Transportation Impact Analysis section. Currently, bicycle facilities are not provided immediately adjacent to the Site; however, several streets within a half mile do provide buffered bicycle lanes, striped bicycle lanes, and share-the-road arrows (sharrows). Buffered bicycle lanes are expected to be implemented in front of the Site along McGrath Highway by the time of Project occupancy. Construction of these facilities is included within the MassDOT-led Resurfacing project.

McGrath Highway/Monsignor O'Brien Highway (Route 28): Bicycle facilities are provided for a portion of McGrath Highway roughly a quarter-mile southeast of the Site. A segment with a protected cycle track is provided between North First Street to Third Street in the northwest direction and between Third Street and Gore Street in the southeast direction. These facilities then transition into a sharrow heading northwest. Further to the south, a protected cycle track is provided on both sides of the road between Charlestown Avenue and East Street/Cambridge Street.

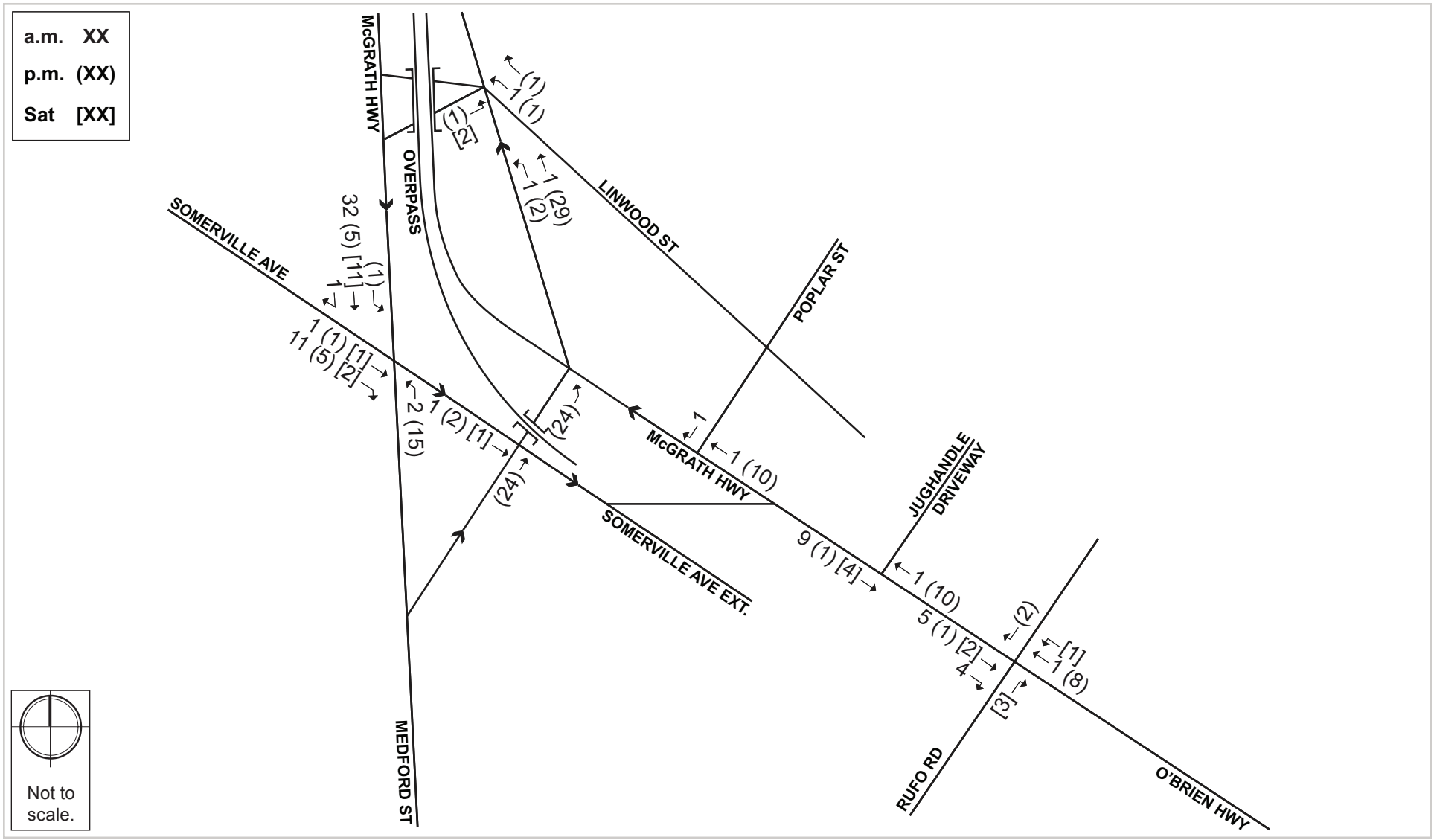
Medford Street: Painted bicycle lanes are provided along the length of Medford Street, from its intersection with McGrath Highway to the point it becomes Gore Street.

Somerville Avenue: Cycle racks are provided on Somerville Avenue between Mansfield Street to the east and Stone Avenue to the west on both sides of the road. To the west of the intersection with Stone Avenue, the existing bicycle facilities include bicycle lanes going through the intersection of Somerville Avenue with Washington Street and Webster Avenue.

BICYCLE COUNT DATA

To determine the amount of bicycle activity within the study area, bicycle turning movements were also conducted as part of the TMC data at the study area intersections. The weekday a.m. and p.m. peak hour bicycle volumes are shown in **Figure 19**. Bicycle activity is relatively low in the immediate area of the Site. Cycling activity was found to be slightly busier around the Somerville Avenue and Medford Street area.

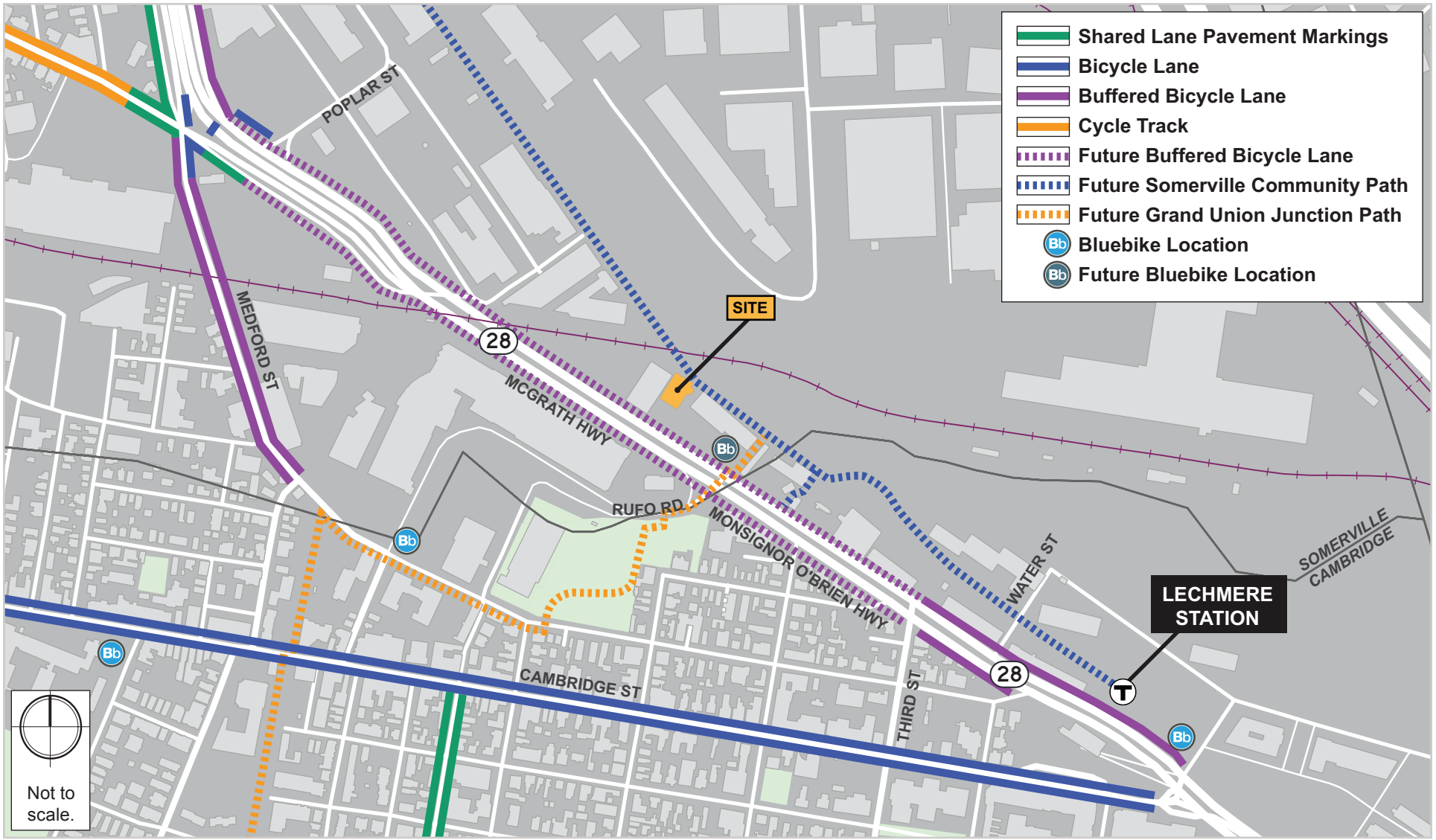
Figure 19. ***Existing (2023) Condition Bicycle Volumes, Weekday a.m. and p.m. and Saturday Midday Peak Hours***



BICYCLE SHARE

Bluebikes is the area's largest bicycle sharing service, operating throughout the metro-Boston area including Arlington, Boston, Brookline, Cambridge, Chelsea, Everett, Revere, Somerville, and Watertown. The entire system consists of more than 4,000 shared bicycles at more than 400 stations. Somerville has 36 stations as of March 2023. The closest Bluebikes station to the Site is at the intersection of Gore Street and Lambert Street which is within a quarter-mile (5-minute walk). Additionally, a bicycle share station is provided on Monsignor O' Brien Highway at Cambridge Crossing between East Street and First Street and three other stations lie within a half-mile (10-minute walk) of the Project. Another bicycle share station will be added with the completion of the 15 McGrath project. Existing and planned bicycle facilities and Bluebikes stations in the study area are shown in **Figure 20**.

Figure 20. ***Bicycle Facilities Map***



Vehicle Crash Analysis

HSH compiled motor vehicle crash data from the MassDOT Crash Records for the most recent five-year period for which complete data are available (2016-2020). Crash rates are determined based on the number of crashes per million vehicles entering an intersection. **Table 4** summarizes the crash data at the study area intersections. The detailed crash data and crash rate worksheets are provided in **Appendix B**.

Table 4. Motor Vehicle Crash Data Summary

Scenario		McGrath Hwy/ Rufo Rd	McGrath Hwy/Jug handle	McGrath Hwy/ Poplar St	McGrath Hwy/ Linwood St	Medford St/ Somerville Ave/ McGrath Hwy
TOTAL		**10**	**3**	**1**	**2**	**19**
Year	2016	1	0	0	1	8
	2017	1	2	1	0	7
	2018	3	1	0	0	3
	2019	3	0	0	0	0
	2020	2	0	0	1	1
Severity	Property Damage Only	10	2	0	1	9
	Non-fatal Injury	0	0	1	1	7
	Not Reported	0	1	0	0	3
Type	Single Vehicle Crash	1	1	0	0	2
	Angle	5	0	1	1	7
	Rear-End	3	1	0	1	7
	Sideswipe, same direction	1	1	0	0	2
	Sideswipe, opposite direction	0	0	0	0	1
Road Surface	Dry	9	0	0	2	17
	Wet	1	2	1	0	2
	Ice/Snow/Slush	0	1	0	0	0
Light	Daylight	6	2	1	1	12
	Dawn	0	1	0	0	0
	Dusk	1	0	0	0	0
	Dark – Lighted Roadway	3	0	0	1	7
Bicycle/Pedestrian Crash		1	0	0	0	5
Crash Rate*		**0.16**	**0.05**	**0.03**	**0.16**	**0.35**
District 4 Average Crash Rate*		**0.73**	**0.57**	**0.57**	**0.57**	**0.73**

Source: MassDOT, Impact Crash Data Portal.
**Crashes per million vehicles entering the intersection.*

As shown in **Table 4**, data indicates a low number of crashes at the study area intersections. All intersections crash rates are below the MassDOT District 4 average. The highest study area crash rate was the McGrath Highway/Medford Street/Somerville Avenue intersection cluster, with 19 crashes. Additionally, 10 crashes were reported at McGrath Highway/Rufo Road. Six pedestrian and bicycle crashes occurred over the five-year study period at this location. Five cyclist crashes were recorded at McGrath Highway/Medford Street/Somerville Avenue, and a pedestrian collision was reported at the McGrath Highway/Rufo Road. None of these collisions were fatal, but three of the cyclist collisions resulted in injury. Among reported crashes, none were fatal. A total of 11 injuries were reported across 35 crashes. At McGrath Highway/Rufo Road, there were 10 crashes with no reported injuries. Angle and rear-end crashes were the most common crash types throughout the study area. The ongoing planned improvements in the area, including the McGrath Resurfacing project, and planned private development mitigation are expected to provide additional safety improvements to the corridor for all users, but especially for cyclists with the new protected facilities.

Build and Future Conditions

The Build and Future analysis conditions consist of the following scenarios:

- **Build (2023) Condition** represents the Existing Condition with the addition of Project-generated vehicle trips. This scenario evaluates the effect the Project trips on the roadway network as it exists today.
  - **Build (2023) Mitigated Condition** represents the Build (2023) Condition with the addition of any off-site mitigation proposed by the Project. This scenario is intended to isolate planned improvements proposed by the Project to reflect mitigation of Project-generated trips.
- **Future (2030) Condition** represents the Build (2023) Condition with the addition of trips from other development projects as well as any network or design improvements proposed by other developments or parties through the future year.
  - **Future (2030) Mitigated Condition** represents the Future (2030) Condition with the addition of any off-site mitigation proposed by the Project, in addition to improvements proposed by other developments and area projects. This scenario is intended to present a comprehensive overview of future forecasted operations after the culmination of changes to the infrastructure network.

Build (2023) Condition

The Project will consist of demolishing the existing building and parking lot to construct an approximately 145,000 gsf building containing laboratory/life science uses and an underground garage containing approximately 103 parking spaces. The Project will provide 34 indoor bicycle parking spaces for employees and eight (8) outdoor bicycle parking spaces for visitors and short-term use.

PARKING

VEHICLE PARKING

Vehicle parking supply and demand was evaluated using both the Institute of Transportation Engineers (ITE) *Parking Generation Manual* as well as parking regulations within the local Zoning Ordinance. Vehicle parking for new developments shall be designed in accordance with the Somerville Zoning Ordinance (Article 11: Parking & Mobility) based on the land use district in which the Project falls within. The Zoning Ordinance specifies a development is subject to parking maximums if a site is located within the transit area walkshed, and parking minimums if a site is located outside of the transit area walksheds. The Project Site is located within a half-mile walkshed of the relocated MBTA Lechmere Station and the now open East Somerville Station on the Green Line Medford Branch. For proposed buildings within a High-Rise District, the vehicle parking maximums are as follows:

- Research and Development or Laboratory: one (1) space per 1,000 sf (up to 145 spaces)

The Project proposes approximately 103 parking spaces in an underground garage on-site to serve the building land uses. As a public garage, the garage for the Project will be commercially operated and open to transient parking. The proposed parking results in a parking ratio of 0.71 spaces per 1,000 sf for the development.

BICYCLE PARKING

The City of Somerville Zoning Ordinance establishes the minimum requirements for short- and long-term bicycle parking to be provided by new developments at no cost or fee to users of the Project. The Somerville Zoning Ordinance specifies short-term parking to be used by visitors or customers of the Project in need of temporary parking. For the overall Project and the proposed land uses, the bicycle parking minimums are:

- Research and Development or Laboratory:
  - Short-term: 1 space per 20,000 sf (8 spaces minimum)
  - Long-term: 1 space per 5,000 sf (29 spaces minimum)

The Project proposes eight short-term bicycle parking spaces and 34 covered, secured, long-term bicycle parking spaces. Outdoor bicycle racks in proximity to the Site entrance points will be provided for short-term bicycle parking. The Project will provide four outdoor bicycle racks using standard hoop racks. Indoor, long-term bicycle parking will be available for buildings users in a secure and monitored bicycle storage room located on the ground floor right off the primary lobby entrance. The City of Somerville's *Bicycle Parking Guide* and the Association of Pedestrian and Bicycle Professionals' (APBP's) *Bicycle Parking Guidelines* will be referenced for guidance on bicycle parking design and layout. The bicycle storage room will also include a bicycle repair station. Shower facilities and lockers will also be provided for employees on the ground floor to promote and encourage bicycle use.

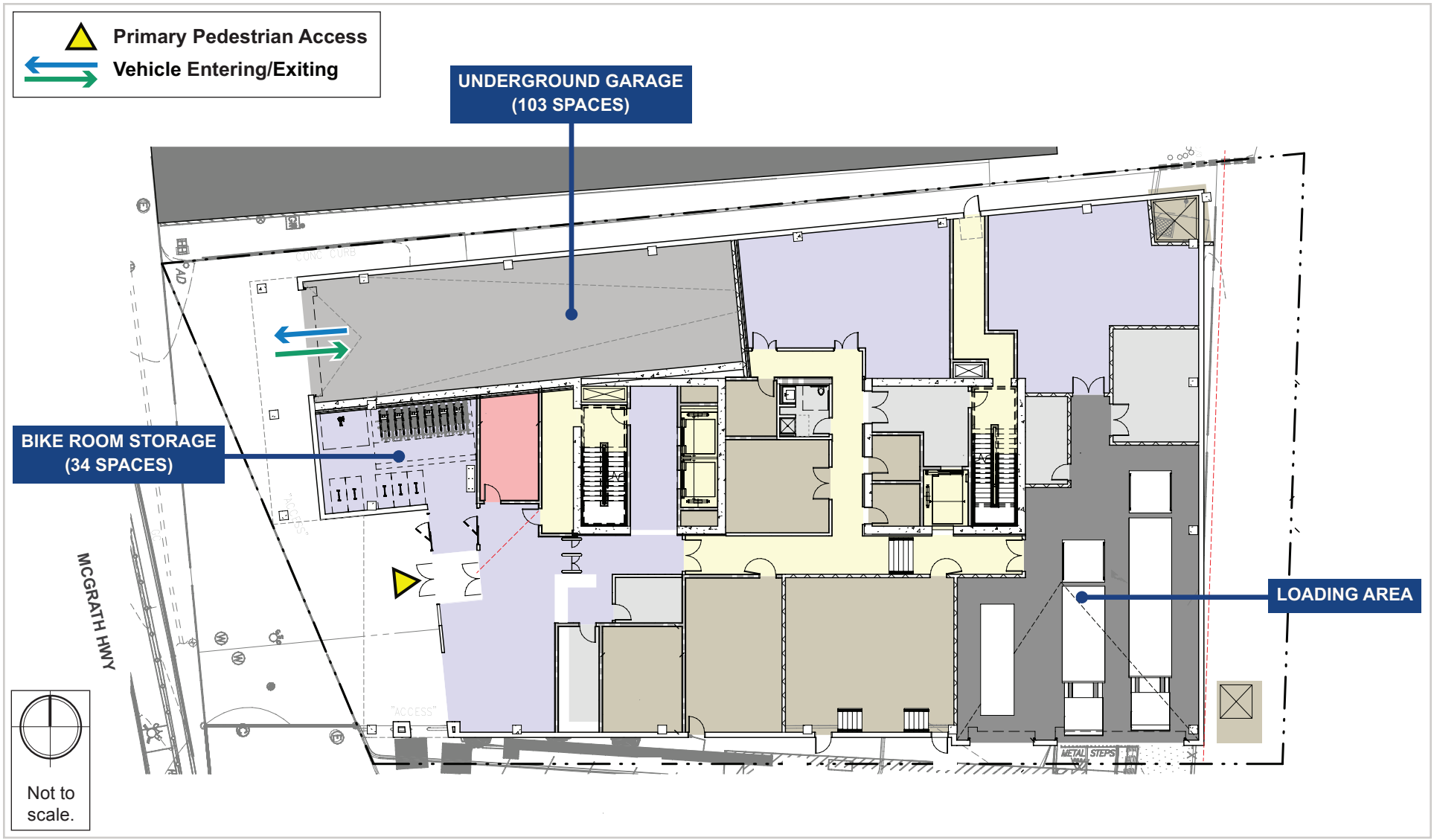
SITE ACCESS AND CIRCULATION

The Project Site will be accessed from the McGrath Highway curb cut to an existing jughandle. The existing jughandle along the south side of the Site, parallel to McGrath Highway, will serve as the access point for all vehicular movements including access to the Project's underground garage and loading and service area. McGrath Highway is generally a divided roadway adjacent to the Site; however, the traffic signal at McGrath Highway/Rufo Road/15 McGrath Highway along with the proposed signal at 35 McGrath Highway will provide full access to and from McGrath Highway northbound and southbound. The main entrance to the building will be provided on the south side of the building; additional entrances will be provided on the east and west sides of the building. The Site plan is shown in **Figure 21**.

LOADING/SERVICES

Loading and service operations such as deliveries, trash pickup, and recycling will occur in the designated loading area in the northeast corner of the building. Vehicles will enter and exit the Site from the alley shared with 15 McGrath Highway and back into the loading bays. The loading area is planned for two loading bays and a trash bay.

Figure 21. ***Site Plan***



TRIP GENERATION

Determining the trip generation for the Project is a multi-step process that produces an estimate of vehicle, transit, walk, and bicycle trips associated with a proposed development and a specific land use program. To estimate the number of trips expected to be generated by the proposed Project, data published by the ITE in the *Trip Generation Manual*[1] were used. ITE provides trip rates to estimate the total number of unadjusted vehicular trips associated with a project. In an urban setting well-served by transit, adjustments are necessary to account for other travel mode shares such as walking, bicycling, and transit.

TRIP RATES

For this Project, the following Land Use Codes (LUCs) were used for the proposed development:

- ***Land Use Code 760 – Research and Development Center.*** This LUC is a facility or group of facilities devoted almost exclusively to research and development activities. The range of specific types of businesses contained in this land use category varies significantly. Research and development centers may contain offices and light fabrication areas. Calculations of the number of trips use ITE's average rate per 1,000 square feet.

The Site is currently occupied by a telecommunications service provider. Trips generated by the existing land use are expected to be minimal; therefore, to remain a conservative analysis, existing trips were not considered in the net new forecasted trips for the proposed development. Count data collected at the existing Jughandle was reviewed and indicated existing vehicle activity at eight trips (six entering, two exiting) during the a.m. peak hour and two trips (one entering, one exiting) during the p.m. peak hour. The trip rates used for the proposed LUC are summarized in **Table 5.**

Table 5. ITE Trip Generation Rates

LUC	Time Period	ITE Average Rate	Directional Distribution	
			Entering	Exiting
Research & Development (LUC 760)	Weekday Daily	11.08 per 1,000 sf	50%	50%
	a.m. Peak Hour	1.03 per 1,000 sf	82%	18%
	p.m. Peak Hour	0.98 per 1,000 sf	16%	84%
	Saturday Daily	1.91 per 1,000 sf	50%	50%
	Saturday Peak Hour	0.24 per 1,000 sf	54%[1]	46%[1]

[1] *Saturday peak hour direction distribution not available for LUC 760; based on LUC 710*

[1] Trip Generation Manual, 10th Edition; Institute of Transportation Engineers; Washington, D.C.; 2017.

AVERAGE VEHICLE OCCUPANCY

The ITE rate for the Project land use was applied to determine unadjusted vehicle trips. Those trips were then adjusted to person trips by applying a vehicle occupancy rate (VOR). The national average VORs published by the Federal Highway Administration (FHWA)[2] are 1.18 people per vehicle for home to work trips. Based on census data, the average occupancy rate for the Project area census tract was determined to be the same as the national average, 1.18 people per vehicle for home to work trips. These values were applied to the unadjusted vehicle trips to determine the total number of person trips.

MODE SHARE

A mode share is the percentage of trips at a site using various modes of transportation such as vehicle, transit, walking, or biking. The Project mode share was determined using the 2020 American Community Survey (ACS) Means of Transportation to Work (data table B08006) for Census Tract 3515. Based on the census tract where the Project is located, the mode splits from the existing census data are shown in **Table 6** and an assumed future taxi/transportation network company (TNC) share of 2% were used to distribute the project-generated trips. These mode splits are expected to serve as a conservative auto estimate as it is likely that with the new Green Line Stations, more users in this area will choose to use transit in the future. The Project aims to enhance the non-auto mode shares for the area through bicycle and pedestrian investments, and TDM elements to help reach the Citywide 2040 goal of 75% non-auto share.

Table 6. Existing Mode Share

Mode Type	Mode Split (for Trip Generation)
Non-Vehicle Modes	
Public Transportation	25%
Walking	17%
Biking	10%
Vehicle Modes	
Personal Vehicle	46%
Taxi	2%

**Based on U.S. Census 2021: ACS 5-Year Estimates for Means of Transportation to Work for census tract 3515.*

[2] Summary of Travel Trends: 2017 National Household Travel Survey; FHWA; Washington, D.C.; July 2018.

PROJECT-GENERATED TRIPS BY MODE

Based on current Project mode shares, the person trips were distributed by mode. Person trips for the vehicular modes were then converted back to vehicle trips using the average vehicle occupancy rate. **Table 7** summarizes the trips by transit, walk, bicycle, and automobile trips for the overall development. The full trip generation calculation sheets are included in **Appendix C**.

Table 7. Project-Generated Trips by Mode

Time Period	Direction	Person Trips			Vehicle Trips	
		Transit	Walk	Bike	Personal Car	Taxi/TNCs
Weekday Daily	In	237	161	95	378	9
	Out	237	161	95	378	9
	Total	474	322	190	756	18
a.m. Peak Hour	In	36	25	14	58	1
	Out	8	6	3	13	0
	Total	44	31	17	71	1
p.m. Peak Hour	In	7	4	3	11	0
	Out	35	24	14	56	1
	Total	42	28	17	67	1
Saturday Daily	In	41	28	16	64	2
	Out	41	28	16	64	2
	Total	82	56	32	128	4
Saturday Peak Hour	In	9	6	3	14	0
	Out	2	1	1	3	0
	Total	11	7	4	17	0

TRUCK TRIP GENERATION

To estimate the number of truck trips expected to be generated by the proposed Project, data published by the ITE was used. ITE does not have data on truck trip rates for LUC 760 – Research and Development (R&D)/Lab; however, LUC 710 – General Office is typically used to estimate life R&D/Lab as it is the most similar land use. The available trips rates are shown in **Table 8.** For the proposed Project, the forecasted truck trips are shown in **Table 9.** Weekday truck trips are expected to amount to one trip in and out during peak hours and Saturday truck trips are expected to be negligible due to the limitation of data for that time period.

Table 8. ITE Truck Trips Generation Rate

LUC	Time Period	ITE Average Rate	Directional Distribution	
			Entering	Exiting
General Office (LUC 710)[1]	Weekday Daily	0.10 per 1,000 sf	50%	50%
	a.m. Peak Hour	0.01 per 1,000 sf	50%	50%
	p.m. Peak Hour	0.01 per 1,000 sf	50%	50%
	Saturday	N/A	--	--

[1] *Truck trips generation rates are not available for LUC 760; based on LUC 710 for weekday daily and weekday peak hours. Saturday is not available for LUC 760 or LUC 710.*

Table 9. Project-Generated Truck Trips

Time Period	Direction	Truck Trips
Weekday Daily	In	7
	Out	7
	Total	14
a.m. Peak Hour	In	1
	Out	1
	Total	2
p.m. Peak Hour	In	1
	Out	1
	Total	2
Saturday	In	N/A
	Out	N/A
	Total	N/A

VEHICLE TRIP DISTRIBUTION

The vehicle trip distribution identifies the various travel routes for vehicles entering and exiting the Site. The trips generated by the Site are expected to be work-based trips. Trip distribution patterns for the Project were based on census journey to work (JTW) zip code data. The vehicle trip distribution is shown in **Figure 22**.

Figure 22. ***Vehicle Trip Distribution***



TRANSIT TRIP DISTRIBUTION

The study assigned all Project-generated transit trips according to a transit network consistent with the future MBTA bus network redesign. As mentioned in the Future Conditions section, MBTA has proposed the continued service of bus routes #69, #87, and the Green Line. The transit trip distribution was developed based on journey-to-work data from the U.S. Census Bureau ACS Data. Origin-destination pairs were evaluated for the most recent year of data to identify populations of those that work within the zip code that the Project falls within. Trips were assigned to available transit services in the future. The transit trip distribution is shown in **Table 10**.

Table 10. Transit Trip Distribution

MBTA Route	Direction	Alighting	Boarding
#69	Inbound	3%	--
	Outbound	--	3%
#87	Inbound	13%	--
	Outbound	--	13%
Green Line	Northbound	63%	21%
	Southbound	21%	63%

PROJECT-GENERATED TRANSIT TRIPS

The Project's expected daily transit trips, detailed in **Table 7**, were distributed based on the ITE Trip Generation Manual's Hourly Distribution charts based on LUC 710 (Office) hourly distribution data; no specific hourly distribution data is provided by ITE for LUC 760 (R&D). The transit trips were then distributed to the available MBTA transit services adjacent to the Project using the distribution in **Table 10**. Project-generated transit trips are summarized in **Appendix D** with the transit capacity analysis summarized in the Transportation Impact Analysis section.

BUILD (2023) CONDITION VEHICLE VOLUMES

The Project-generated vehicle trips were distributed throughout the study area based on the vehicle trip distribution. The project-generated trips for the weekday a.m. and p.m. peak hours and the Saturday midday peak hour are shown in **Figure 23** through **Figure 25**, respectively. The trip assignments were added to the Existing (2023) Condition vehicle traffic volumes to develop the Build (2023) Condition vehicle traffic volumes. The Build (2023) Condition weekday a.m. and p.m. peak hour traffic volumes, as well as the Saturday midday peak hour traffic volumes, are shown in **Figure 26** through **Figure 28**, respectively.

Figure 23. ***Project-generated Vehicle Volumes, Weekday a.m. Peak Hour***

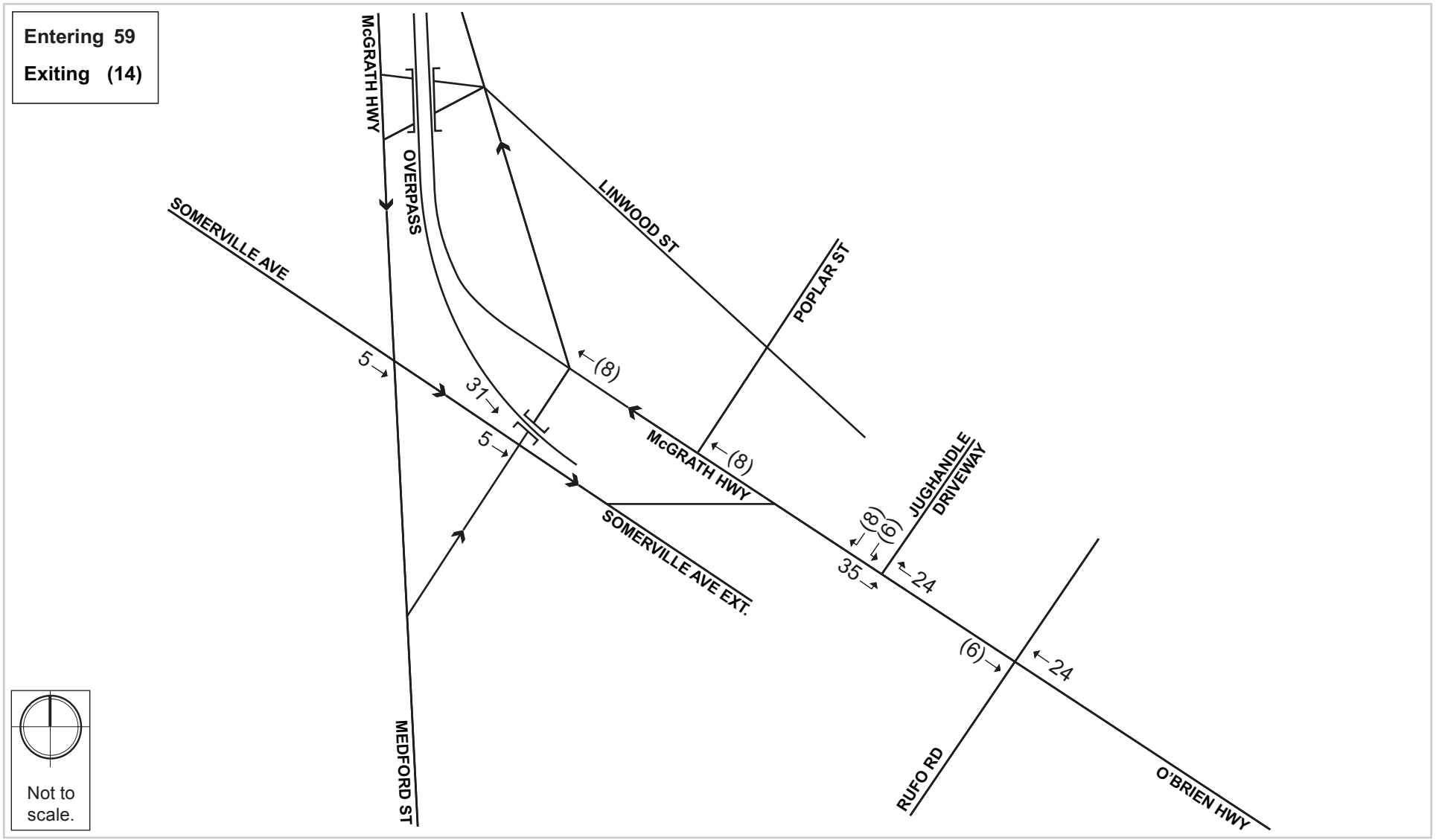


Figure 24. ***Project-generated Vehicle Volumes, Weekday p.m. Peak Hour***

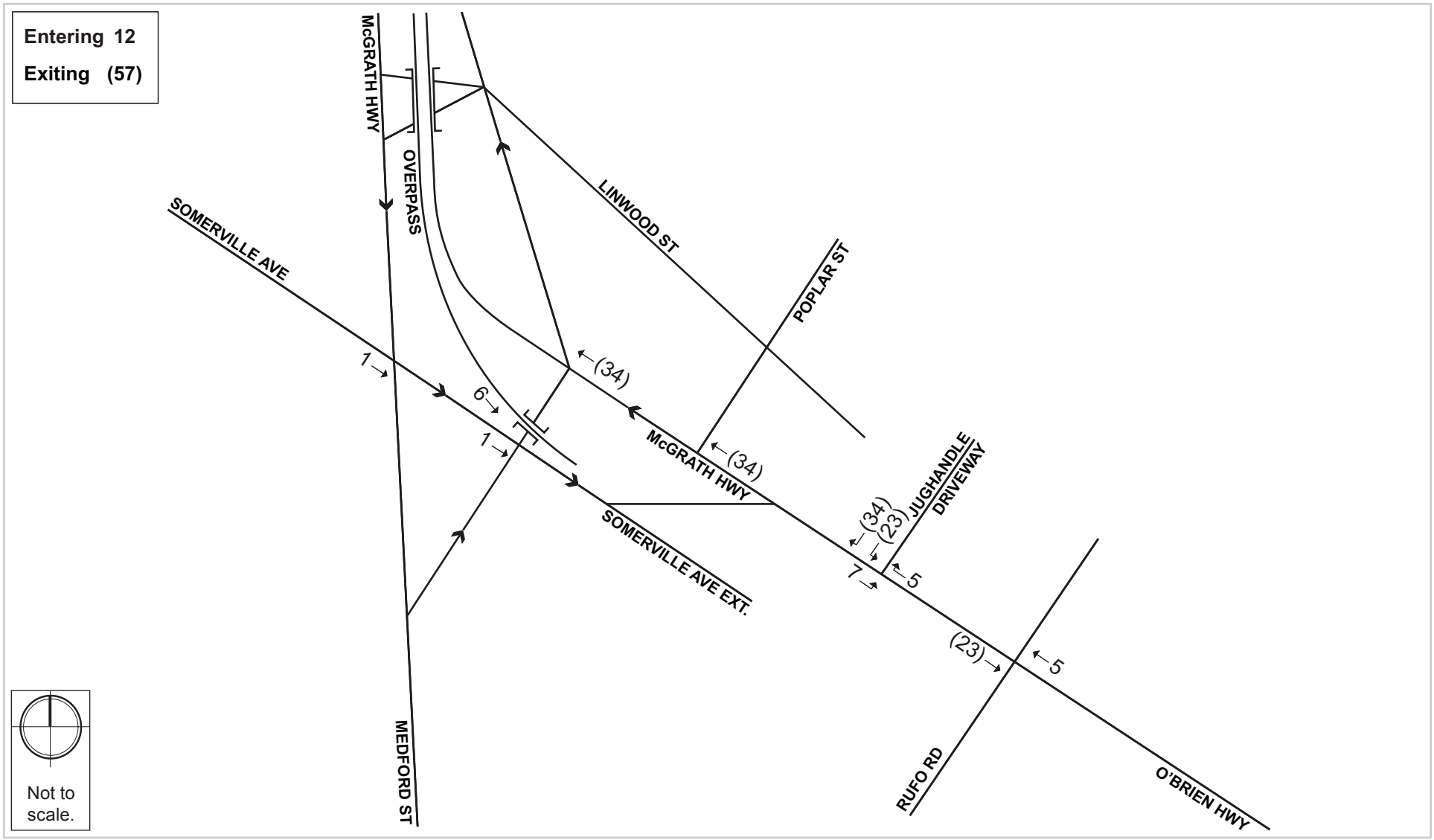


Figure 25. ***Project-generated Vehicle Volumes, Saturday Midday Peak Hour***

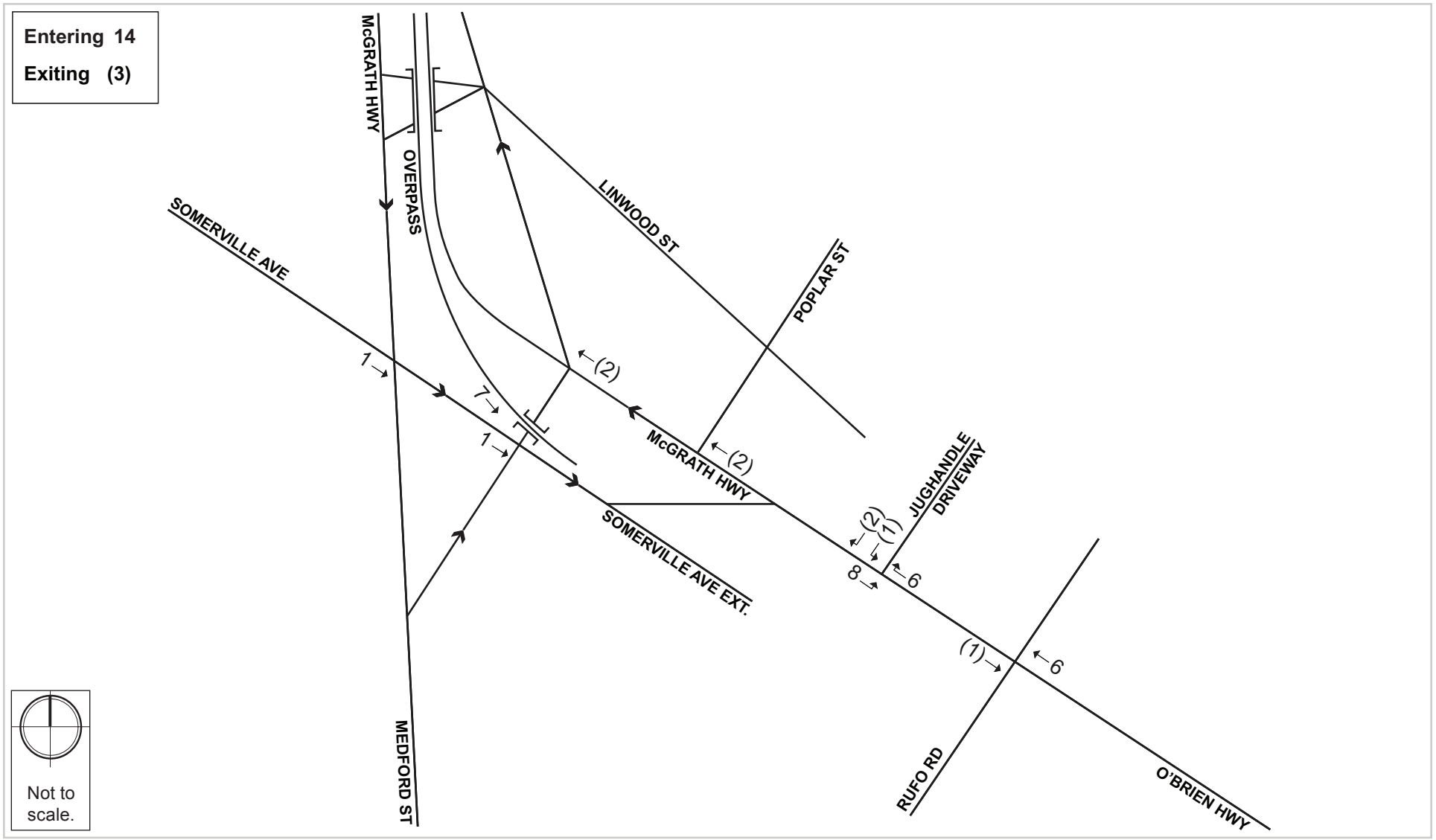


Figure 26. ***Build (2023) Condition Vehicle Volumes, Weekday a.m. Peak Hour***

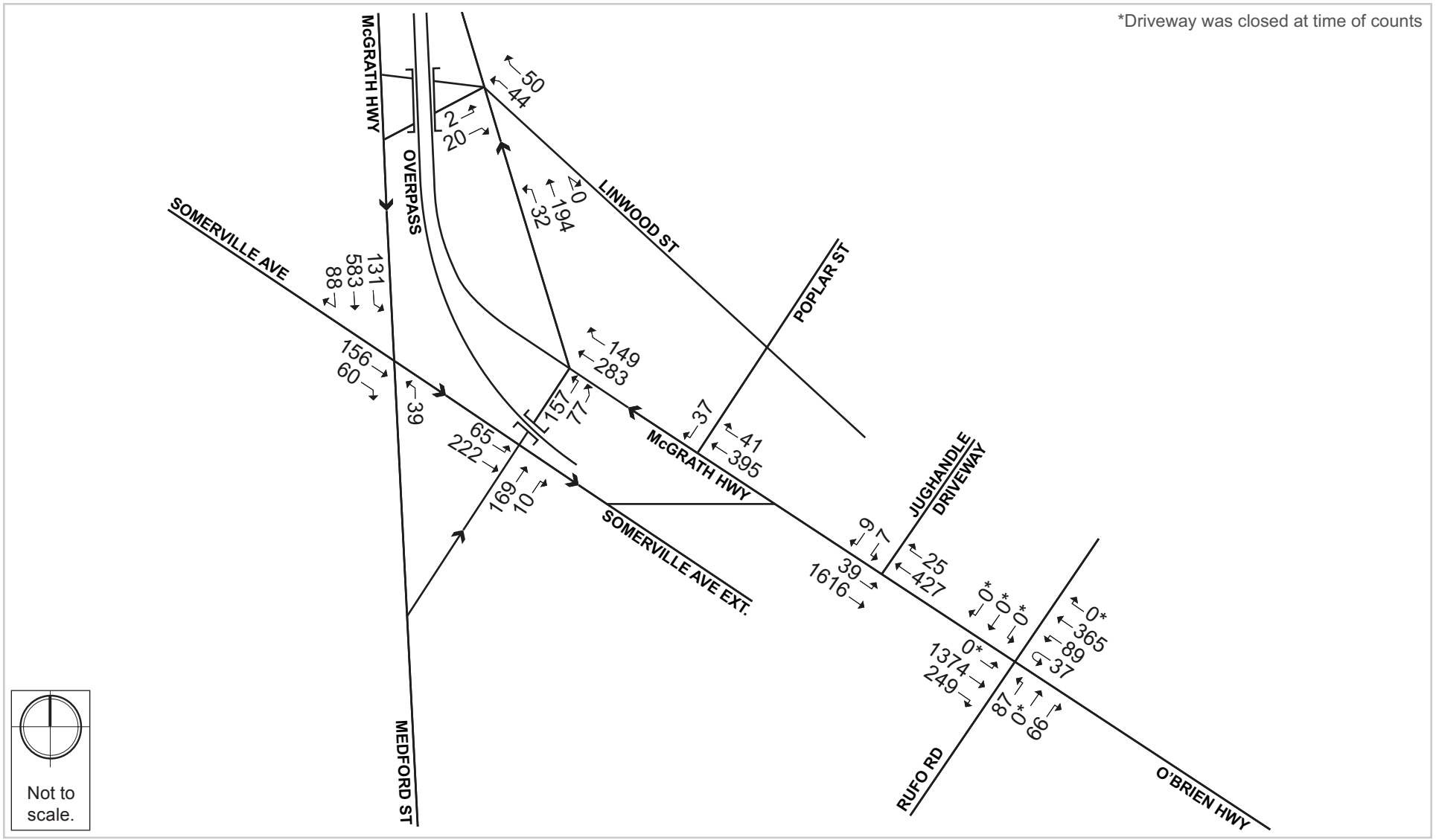


Figure 27. ***Build (2023) Condition Vehicle Volumes, Weekday p.m. Peak Hour***

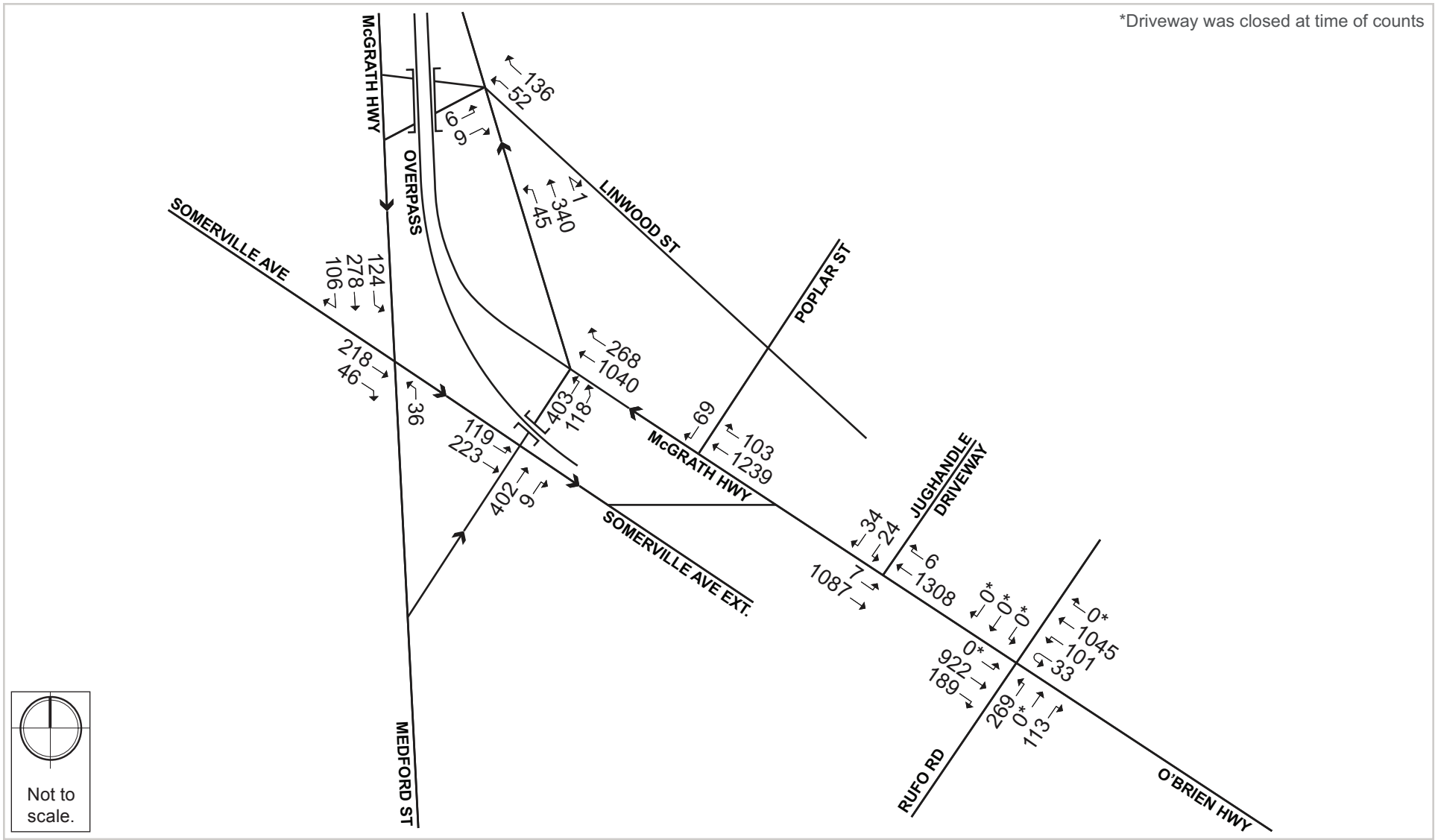
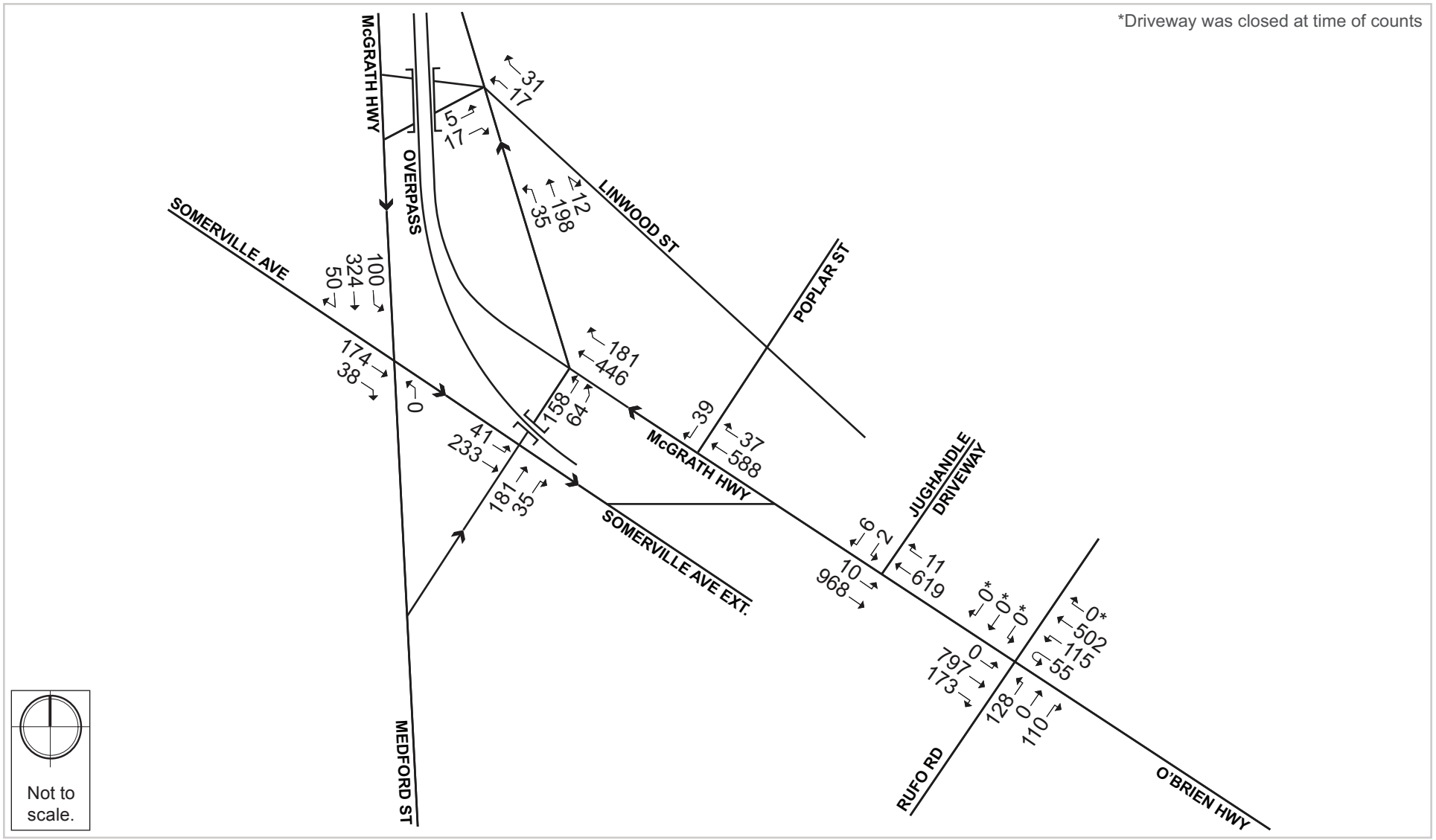


Figure 28. ***Build (2023) Condition Vehicle Volumes, Saturday Midday Peak Hour***



Build (2023) Mitigated Condition

The proposed improvements associated with the 35 McGrath Highway Project include the following:

- A new signalized intersection is proposed at the Jughandle which is expected to operate as a coordinated clustered signal system with the adjacent intersection of McGrath Highway/Rufo Road.
- A new exclusive left-turn pocket in the southbound direction with approximately 75 feet of storage length will be developed, allowing for protected left-turn phasing and improved Site access.
- The existing jughandle curb cut is proposed to shift west to provide additional distance between the existing adjacent intersection of McGrath Highway/Rufo Road.
- A new pedestrian crossing across McGrath Highway on the west side of the jughandle will be added.
- A raised, separated bicycle facility in the westbound direction along the frontage of the Site will be constructed.
- A raised, separated bicycle facility in the eastbound direction for approximately 100 feet will be constructed.
- New signal equipment will be installed to allow for protected phasing of the new southbound left-turn lane.
- A floating MBTA bus stop will be relocated along the far side of the newly proposed signalized intersection at the Jughandle. The new bus stop will be ADA-compliant and consistent with MBTA Bus Stop Design Guidelines.
- Real-time arrival information signs will be added at the northbound bus stop and the future relocated bus stop in the southbound direction on the far side of Rufo Road.

The proposed work will include signal phasing changes to accommodate the new left-turn lane. The southbound left-turn lane will operate during the same phase as the existing northbound left-turn lane at Rufo Road; therefore, the movements will operate with protected-only phasing. For the vehicle analysis, the proposed improvements are included in both the Build (2023) Mitigated Condition and a Future (2030) Mitigated Condition scenarios. Build improvements are further explained in the motor vehicle analysis section.

Future (2030) Condition

A future analysis was completed for the design year 2030. The Future (2030) Condition reflects a future scenario that incorporates anticipated trips associated with other planned specific developments and planned infrastructure improvements that will affect travel patterns throughout the study area. The Future (2030) Condition reflects these trip changes on top of the Build (2023)

Mitigated Condition which already includes the Project-generated trips. Per City of Somerville direction, no general background traffic growth rate was applied to the existing vehicular traffic volume data.

SPECIFIC DEVELOPMENT TRAFFIC GROWTH

Traffic volumes associated with larger known development projects can affect traffic patterns throughout the study area within the future analysis time horizon. A review of planned development projects was conducted to determine if there are any nearby projects in the vicinity of the study area. The following three projects were identified:

- **15 McGrath Highway**. The development at 15 McGrath Highway consists of a proposed office/R&D/lab building with 242,000 sf gross floor area. This includes up to 2,300 sf of arts/creative/retail space that will be provided on the ground floor and approximately 262 vehicle parking spaces to be provided below ground. This development was approved by the Somerville Zoning Board of Appeals on March 17, 2022.
- **1 McGrath Highway**. The development is an approximately 190-room extended stay hotel located at 1 McGrath Highway.
- **200 McGrath Highway**. This development consists of two buildings that will bring up to 980,000 SF of gross floor area, of new commercial uses, including laboratory, life science/technology, R&D, office, and supporting retail/restaurant to the City of Somerville.

PROPOSED INFRASTRUCTURE IMPROVEMENTS

A review of planned improvements to roadway, transit, bicycle, and pedestrian facilities was conducted to determine if there are any nearby infrastructure projects in the vicinity of the study area. Based on this review, the following improvement projects were identified.

- **McGrath Resurfacing Project**. This safety and maintenance project led by MassDOT (Project File Number 608482) proposes near-term improvements to bridges, and the Route 28 corridor. This project proposes to reallocate a travel lane in each direction on Route 28 to install a buffered street-level bicycle lane. The scope of work runs between Third Street in Cambridge to the southeast and Broadway Street in Somerville to the north. The project will also include other healthy transportation improvements such as floating bus stops and ADA pedestrian ramp upgrades as well as selected signal timing adjustments. The change in travel lanes is expected to spur change in travel behavior and possible traffic diversions. Project documentation forecasts local travel is expected to stay on McGrath Highway and where certain proportions of regional travel may shift after the McGrath Reconstruction is complete. Approximately 20% of southbound traffic is expected to take other routes to their destinations during the morning peak hours and 8% during the evening peak hours. In the

northbound direction, approximately 7% of traffic is expected to find alternatives during the morning peak hours and 9% during the evening peak hours. The future traffic volumes reflect the same expected changes to network travel resulting from the future Full Build McGrath Reconstruction in the study area. The McGrath Highway traffic diversion assignments as included in **Appendix E**.

BUS NETWORK REDESIGN

Another major transportation change within the future horizon includes the MBTA bus network redesign. This project is a network-wide improvement to increase service and maximize route efficiency. The following section summarizes some of the changes that are proposed that affect service near the Project. The overall goals of this redesign are to adapt to the changes that have occurred in the Boston metro area as places of employment, residences, and travel patterns shift. Improvements include re-routed bus lines, new lines, removed lines, and modified frequencies on select routes. Within the study area, some of the key bus improvements include the following:

- **Bus Route #80.** Modified route 80 will extend north to Burlington Mall and terminate at Davis Square to the south. The section of the route that currently runs from Tufts University down to Lechmere Station will be eliminated and replaced by the new Green Line E service.
- **Bus Route #88.** This route will be eliminated in the network redesign. The section of the route from McGrath Highway up to Clarendon Hill currently overlaps with Route 90 and will remain served by Route 90 while the section from McGrath Highway down to Lechmere will be replaced by the new Green Line E service.

Bus Routes 69 and 87 within the study area will continue to be served by those existing routes in the redesign. The MBTA Bus Network Redesign rollout is intended to provide additional connections, more service, and more frequency for the metro-Boston area in the next few years.

FUTURE (2030) CONDITION VEHICLE VOLUMES

The traffic volumes associated with the specific development projects listed above were added to the Build (2023) Mitigated Condition to develop the Future (2030) Condition vehicle volumes. The Future (2030) Condition weekday a.m., p.m., and Saturday midday peak hour traffic volumes are shown in **Figure 29** through **Figure 31**, respectively.

Figure 29. ***Future Condition (2030) Condition Vehicle Volumes, Weekday a.m. Peak Hour***

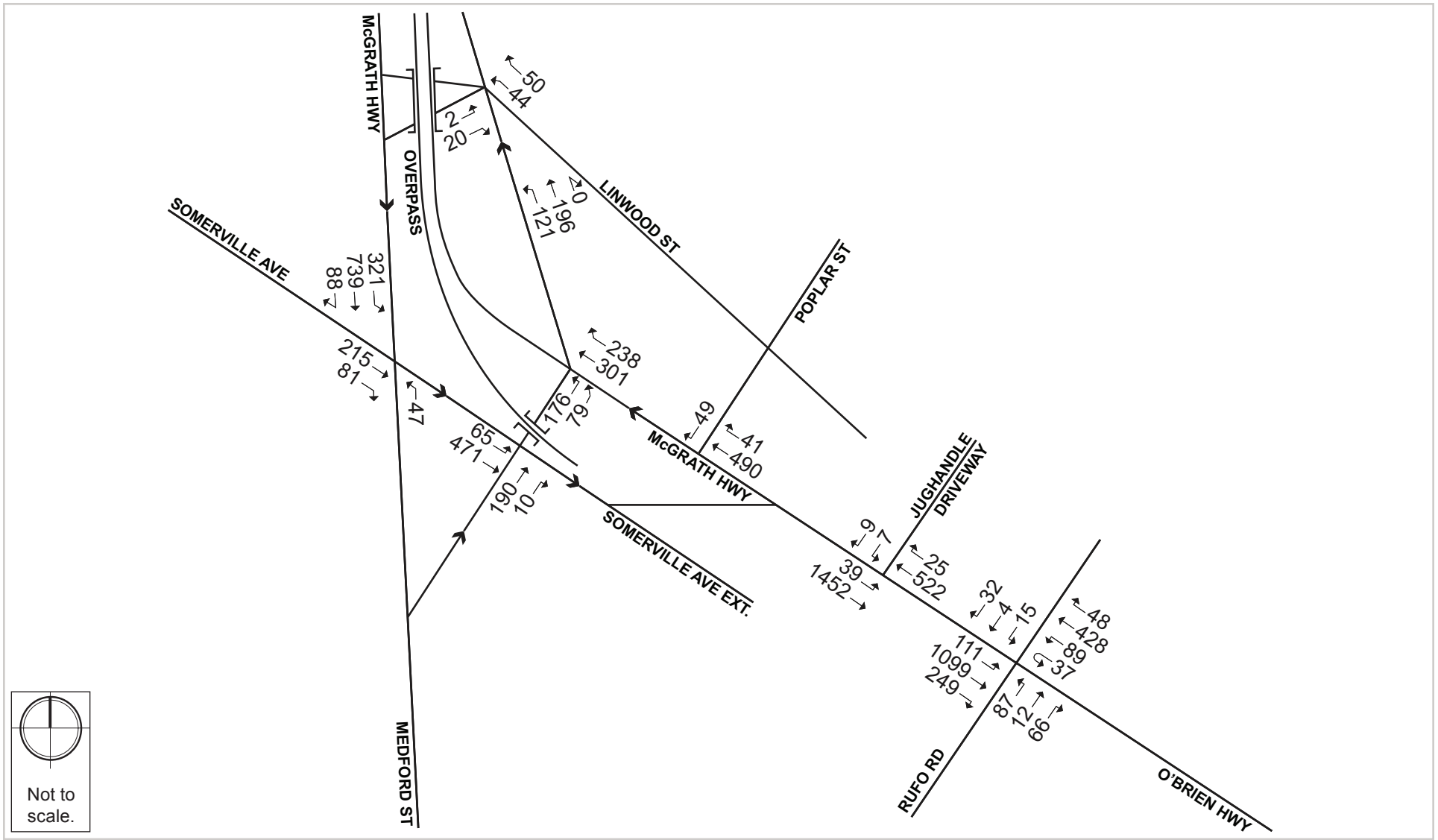


Figure 30. ***Future Condition (2030) Condition Vehicle Volumes, Weekday p.m. Peak Hour***

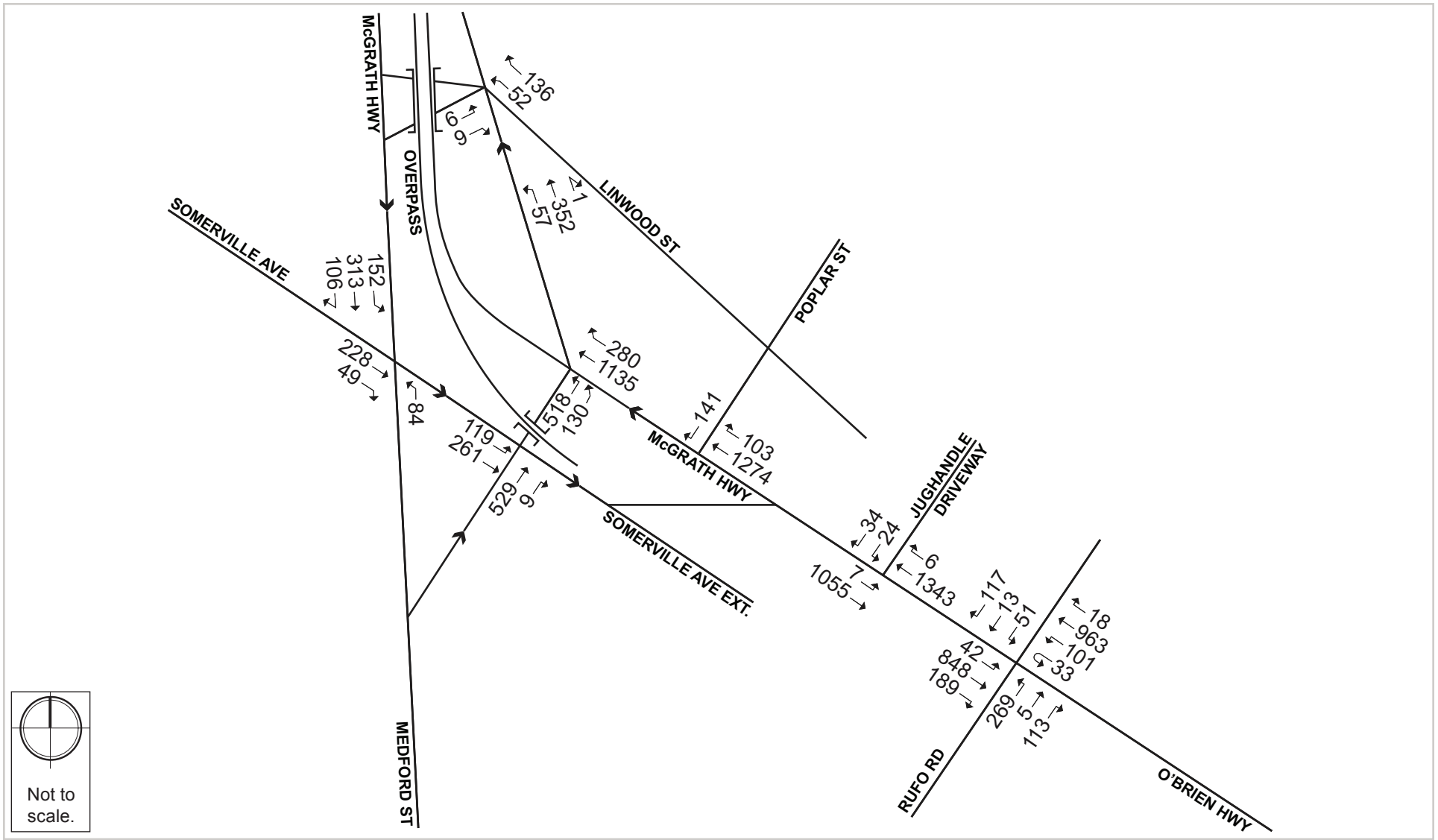
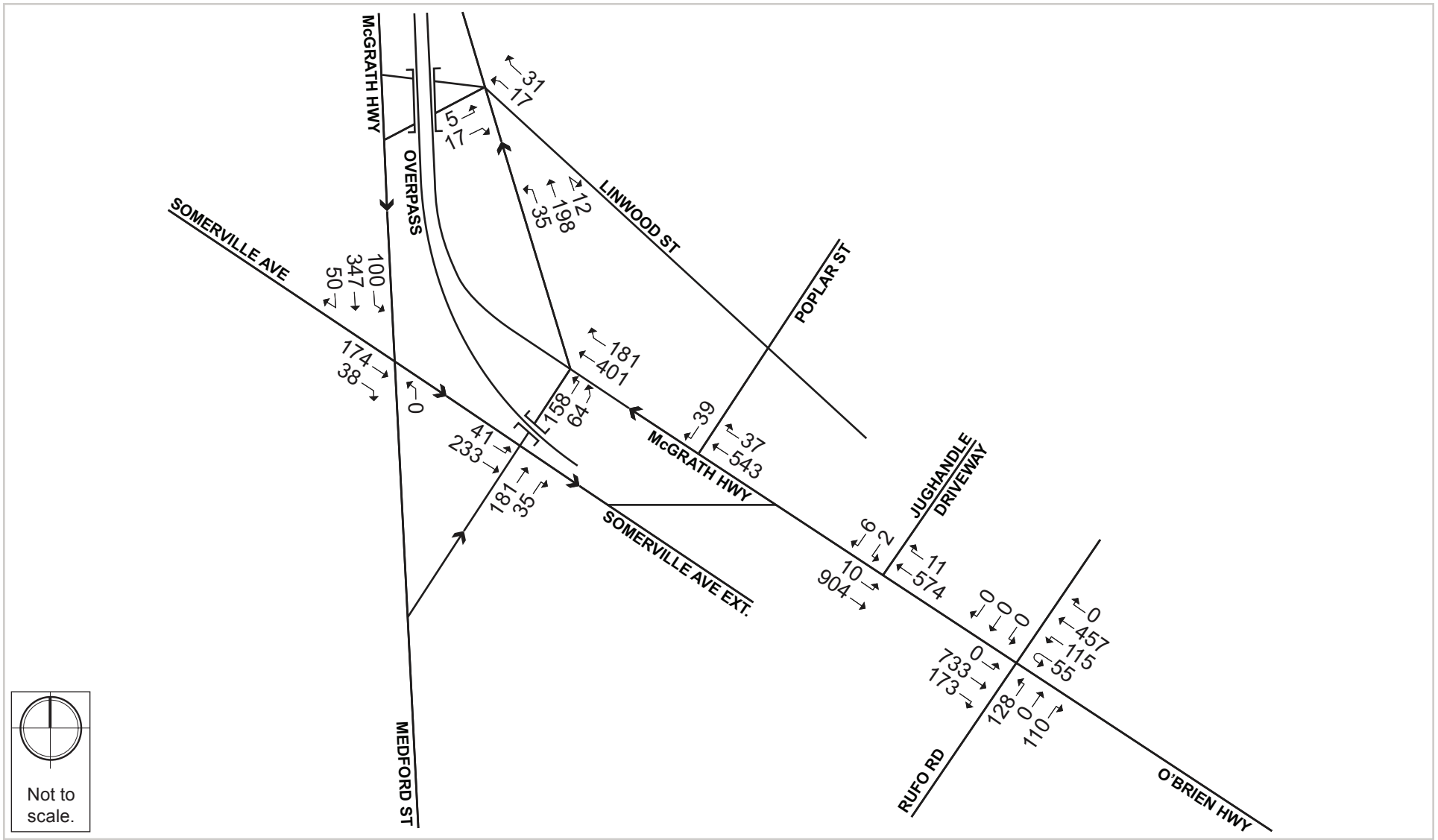


Figure 31. ***Future Condition (2030) Condition Vehicle Volumes, Saturday Midday Peak Hour***



Transportation Impact Analysis

This section discusses the analysis results for the parking, transit, bicycle, pedestrian, and motor vehicle networks. Each section documents the analysis methodology used to evaluate the respective mode and then presents the results. All modes were evaluated for the Existing (2023) Condition, Build (2023) Condition, Build (2023) Mitigated Condition, and Future (2030) Condition.

Parking Capacity Analysis

Parking demand analysis was conducted to evaluate the need for parking to support the Project. Parking demand estimates for the research and development land use utilized the following data and methodologies:

- ITE Parking Generation rates;
- Urban Land Institute (ULI) parking rates;
- Parking demand estimates based on number of employees per square foot; and
- Parking demand estimates based on arriving employees/visitors (ITE trip generation).

ITE AND ULI PARKING RATES

Parking demand estimates for the land uses included in the Project were calculated utilizing data published by ITE in the *Parking Generation Manual* (5th edition) and ULI *Shared Parking* (2nd Edition). ITE and ULI provide parking rates associated with specific land uses to estimate the total number of parking spaces that may be demanded by the Project. Data for these parking estimate sources are largely suburban environments. The parking analyses applied gradual vehicle share reductions to approximate the reduction in vehicle use in Somerville proposed by the policy goals of Somervision 2030 (37.5% vehicle share) and Somervision 2040 (25% vehicle share).

PARKING DEMAND BASED ON EMPLOYEES/SF

At the request of the City of Somerville, a second parking demand analysis was estimated based on the number of employees that would occupy the building on square footage basis for the 145,000-sf R&D uses. Employee occupancy was based on an average of low occupancy (2.5 employees per ksf) and high occupancy (5 employees per ksf).[3] A factor of 0.9 was applied to reflect typical out-of-office employment characteristics at the Project.

[3] U.S. Green Building Council, LEED data.
www.usgbc.org/credits/new-construction-existing-buildings-commercial-interiors-core-and-shell-schools-new-constr-3

PARKING DEMAND BASED TRIP GENERATION ESTIMATES

At the request of the City of Somerville, a third parking demand estimate based on the ITE peak hour trip generation forecasts for the Project were evaluated. Commercial parking demand was estimated assuming peak hour vehicle trips corresponding to 40% of the peak demand of the parking facility (based on the assumption that 40% of occupancy arrives during the a.m. peak hour for office/R&D uses). Peak hour vehicle trip generation estimates were based on the methodology described in the Trip Generation section of this TIS. Parking demand for the Project based on methodologies and data sources outlined above, were then applied to projected mode shares (25% auto, 37.5% auto, and 50% auto, respectively), and are presented in **Table 11**. The parking demand calculations are included in **Appendix F**. **Table 11** also provides a comparison of the estimated demand to capacity rates with the proposed parking supply of 103 spaces.

Table 11. Project Parking Demand

Methodology	Land Use	Parking Demand (spaces)			Parking Capacity (Percent of 103 spaces)		
		25% auto	37.5% auto	50% auto	25% auto	37.5% auto	50% auto
ITE Parking Generation[1]	R&D	94	141	188	91%	137%	183%
ULI Shared Parking[2]	R&D	67	100	133	65%	97%	129%
Employees/sf[3]	R&D	104	165	226	101%	160%	219%
ITE Trip Generation[4]	R&D	78	115	153	76%	112%	149%

[1] ITE Parking Generation, 5th Edition
[2] ULI Shared Parking, 2nd Edition; assumes R&D is 65% of office density (employees per sf; R&D has fewer employees per sf)
[3] U.S. Green Building Council (USGBC) Employee Occupancy, v4; anfd
[4] ITE Trip Generation, 11th Edition.
Shading indicates demand greater than supply.

The Project encourages sustainable mobility behaviors as identified in SomerVision 2040, and the proposed parking supply for the Project will be approximately equal to or up to 60 spaces below the 25%- 37.5% auto use goals for the area. Parking for the Project will be offered at market rate, and spaces will be unbundled. The Project' s proximity to Lechmere Station and key MBTA bus lines will further encourage the Project's non-single occupant vehicle access. TDM strategies further documented will encourage transit, bicycling, and walking.

PARKING SENSITIVITY

Per the City of Somerville request, the Project conducted a sensitivity analysis that forecasts the relationship between the Project's proposed motor vehicle parking supply, vehicular trip generation, and automotive mode share. This analysis includes a low parking scenario of 0.2 spaces per 1,000 sf; a medium parking scenario of 0.4 spaces per 1,000 sf; a high parking scenario of 0.6 spaces per 1,000 sf; and the currently requested parking scenario of 0.71 space per 1,000 sf. The results of the parking sensitivity analysis, using the parking scenarios identified and the mode shares utilized based on the employee parking analysis methodology, is summarized in **Table 12**. The results of the parking sensitivity analysis, using the parking ratio scenarios identified and the mode shares utilized based on a trip generation parking analysis methodology, is summarized in **0**. Based on employee estimates, parking demand would exceed capacity in all scenarios except the 25% vehicle mode share and 0.8 parking ratio scenario. Based on trip generation estimates, parking demand would exceed capacity in all scenarios where the vehicle mode share is 50%. In the 37.5% vehicle mode share scenario, 116 parking spaces would be required to meet parking demands. In the 25% vehicle mode share scenario, parking demand would be met with at least 87 spaces.

Table 12. Parking Sensitivity based on Employee Estimates

Mode Share Scenario (% vehicle)	Median Demand	Parking Capacity (Percent of 103 spaces)				
Parking Spaces		116	103	87	58	29
Parking Ratio		0.8	0.71	0.6	0.4	0.2
50% vehicle	226	195%	219%	260%	390%	779%
37.5% vehicle	165	142%	160%	190%	284%	569%
25% vehicle	104	90%	101%	120%	179%	359%

Based on USGBC Employee Occupancy, v4, with 2.5 to 5 employees per 1,000 sf; Shading indicates demand greater than supply.

Table 13. Parking Sensitivity based on Trip Generation Estimates

Mode Share Scenario (% vehicle)	Median Demand	Parking Capacity (Percent of 103 spaces)				
Parking Spaces		116	103	87	58	29
Parking Ratio		0.8	0.76	0.6	0.4	0.2
50% vehicle	153	132%	149%	176%	264%	528%
37.5% vehicle	115	99%	112%	132%	198%	397%
25% vehicle	78	67%	76%	90%	134%	269%

Based on ITE Trip Generation, 11th Edition; Shading indicates demand greater than supply.

Transit Capacity Analysis

The volume-to-capacity (V/C) ratio is the primary comfort metric to determine the existing passenger conditions and evaluate the impact the Project has on local transit services. The V/C ratio is a measurement of the number of passengers divided by the planning capacity. A V/C ratio of 1.0 or higher means the transit line is at or above capacity, and any additional passengers either cannot fit or will cause delays to service as they try to crowd onto the train or bus. Planning capacity for bus and rail service changes between peak and off-peak hours, indicating there is a different level of comfort that passengers are willing to accept during peak hours than off-peak hours. The V/C ratio was calculated for the different analysis conditions for each transit service before and after the closest stop in both directions.

EXISTING CONDITION

Transit routes within a half-mile radius of the Project were analyzed. This includes MBTA buses 69, 80, 87, and 88. As previously noted, only bus 69 and 87 will remain serving this area after the MBTA bus network redesign and were therefore the only buses analyzed. Rail service for the Green Line Branch was evaluated at Lechmere Station. While riders may also use the East Somerville Station in the outbound direction, for a more conservative rail transit analysis, all project trips were loaded at Lechmere Station in both directions of travel. The load point along each route was identified as the stop with the shortest walking distance from the Project. These stops are documented in **Figure 17**.

To determine the existing ridership, rail and bus data was collected from the MBTA Open Data Portal. Rail flow data from spring 2018 was used to serve as the baseline for the rail transit analyses, which shows average boarding, alighting, and exit loads at each station in 15-minute increments. Automated Passenger Count (APC) data from fall 2021 was used to serve as the baseline for the bus transit analysis, which shows average boarding, alighting, and exit loads at a stop for each bus trip.

The analysis also considers rail service at the Lechmere Station to develop the baseline conditions, given the two new branches that stem from here, Union Square E Branch and Medford D Branch. Information on new Green Line station boardings, train capacity, and service frequency was still unavailable at the time of the TIS and forecasted service data was sourced from the "Green Line Extension Project – Environmental Assessment and Section 4(f) Evaluation" report submitted in October 2011 (referred to as Green Line Extension Report in this study).

BUS METHODOLOGY

Under existing conditions, passenger loads approaching and leaving the bus stops closest to the Project in both the inbound and outbound directions were summarized in half-hour intervals. Bus

planning capacity was determined using the MBTA's Service and Delivery Policy. The planning capacity for a bus is calculated as 125% of the seated capacity during off-peak hours and 140% during peak hours for most bus routes. For example, a standard 40-ft MBTA bus has 39 seats; therefore, the off-peak planning capacity is 48 and the peak planning capacity is 55 passengers per bus.

RAIL METHODOLOGY

The closest rail station to the Project, which serves the recently opened Green Line Extension, is Lechmere Station. This station is less than a 10-minute walk from the Project; however, given its very recent opening, there isn't enough recent data available to obtain existing ridership. To estimate any future impacts on Lechmere Station from the Project, a combination of existing Green Line ridership data and projected station boardings from the Green Line Extension Report were used. The Green Line Extension Report identifies a projected number of daily boardings at each of the new stations. Using those values at the Union Square Branch D and Medford Branch E stations combined with existing Lechmere southbound data, several conservative assumptions were made for boardings in the northbound and southbound directions and are presented in **Appendix D**.

Rail capacity was determined using headways and car types based on those currently operating today. According to the MBTA schedule, the Green Line operates on headways of 6-8 minutes during peak periods and 8-12 minutes during off-peak periods. The Green Line Extension report indicates that the vehicle fleet expected to operate on the Green Line Extension will be various types of three car trains. The report, however, used a conservative estimate of two cars per train, like existing trains on the Green Line, to estimate vehicles needed to meet future demand. Therefore, the analysis also uses a two-car estimate. Each car has approximately 44 to 46 seats with a peak hour capacity of 100 per car and off-peak capacity of 66 per car based on the capacity of Type 7/8 cars as identified in the MBTA Service and Delivery Policy. The total capacity for one train results in approximately 200 passengers during peak hours and 132 during off-peak hours.

EXISTING CAPACITY ANALYSIS

In the Existing Condition, all transit routes resulted in a V/C ratio of less than 1.00 for each half hour increment except one half hour on the Green Line at 6:30-7:00 p.m. which shows a v/c of 1.00. Considering the analysis is already conservatively assuming two-car trains instead of three-cars and assuming full future boardings of the estimates from the Green Line Extension Report are not yet realized, the capacity is likely also not be realized yet.

BUILD (2023) CONDITION

For the Build (2023) Condition, the Project-generated transit trips were distributed according to the transit trip distribution presented in **Table 10** and added to the Existing Condition passenger loads.

The passenger loads and V/C ratio for all transit services are shown in comparison tables and graphics along with the Existing Condition in **Appendix D**.

BUILD (2023) CAPACITY ANALYSIS

In the Build (2023) Condition, with Project-generated transit trips added, no new time periods on any of the transit routes exceed a V/C ratio of 1.00 compared to the Existing Condition except for the same 6:30-7:00 p.m. time period which changes from 1.00 to 1.01 as a result of single trip added during this half hour. The proposed Project is not expected to have any noticeable impact on transit services.

BUILD (2023) CONDITION (WITH MITIGATION)

No transit routes are expected to exceed capacity as a result of Project trips; therefore, a mitigated condition was not evaluated.

FUTURE CONDITION (2030) CONDITION

The Future (2030) Condition considers a ridership growth rate of 1% per year for a period of seven years from the Existing Condition, based on the City of Somerville TIS standards. This is very conservative for the Green Line given that the Green Line forecasting was already performed with station boardings that were assumed to be full future demand for 2030. The Green Line Extension Report indicated that approximately 92% of the forecasted boarding would be realized soon after opening, which suggests using the full boarding estimates to develop existing methodology is assumed to be conservative. These trips were then added to the Build (2023) Condition. The passenger loads and V/C ratio for the Future (2030) Condition for all transit services are shown in tables and graphics along with the Existing and Build (2023) Conditions in **Appendix D**.

FUTURE CONDITION (2030) CAPACITY ANALYSIS

In the Future Condition (2030) Condition, no new time periods on any of the transit routes exceed a V/C ratio of 1.00 as compared to the Build (2023) Condition.

Bicycle Analysis

Within the study area, bicycle facilities are a mix of protected, unprotected, and shared on-street lanes. These facilities all work to create a connected cycling network along some of the main roadways near the Project such as Cambridge Street, Webster Avenue, Prospect Street, and Somerville Avenue. The bicycle network is analyzed using the Bicycle Level of Traffic Stress (BLTS) methodology developed by Mekuria, Furth, and Nixon in the Mineta Transportation Institute (MTI) Report 11-19. This methodology gives a level of stress classification for each segment and intersection based on a set of measurable characteristics or observations. The four tiers of Level of

Traffic Stress (LTS) range from LTS 1, which would classify a low-stress location, to LTS 4, which is considered a high-stress environment. The four levels of stress are described in **Table 14**.

Table 14. Levels of Traffic Street (LTS)

LTS	Description
LTS 1	Strong separation from all except low speed, low volume traffic. Simple crossings. Suitable for children.
LTS 2	Except in low speed/low volume traffic situations, cyclists have their own place to ride that keeps them from having to interact with traffic except at formal crossings. Physical separation from higher speed and multilane traffic. Crossings that are easy for an adult to negotiate. A level of traffic stress that most adults can tolerate, particularly those sometimes classified as "interested but concerned."
LTS 3	Involves iteration with moderate speed traffic or multilane traffic, or close proximity to higher speed traffic. A level of traffic stress acceptable to those classified as "enthused and confident."
LTS 4	Involves iteration with higher speed traffic or close proximity to high-speed traffic. A level of stress acceptable only to those classified as "strong and fearless."

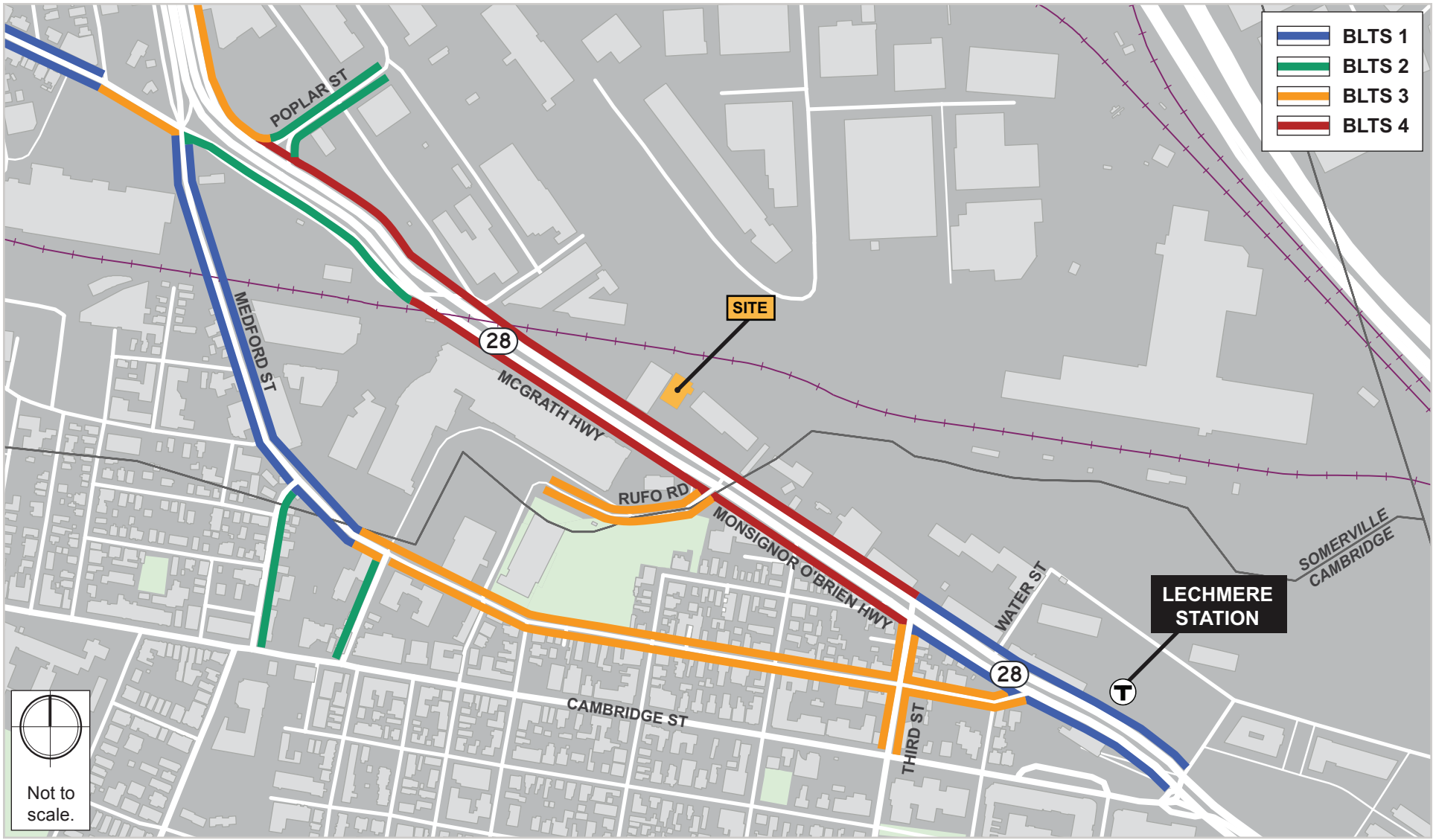
BLTS for a segment or unsignalized intersection is calculated by evaluating the characteristics in the tables found in **Appendix G** and selecting the lowest score (highest numerical value) to identify each segment or intersection with the classifications in **Table 14**.

EXISTING CONDITION

SEGMENT ANALYSIS

The study area was evaluated using these criteria and is shown visually in **Figure 32**. Most roadways in the immediate vicinity of the Project ranked at LTS 3 and 4 due to the wide roads, high speeds, and lack of bicycle infrastructure. Other road segments in the area recently completed infrastructure upgrades and do provide improved bicycle accommodations and ranked at lower levels of stress, particularly along Somerville Avenue and Medford Street.

Figure 32. ***Bicycle Level of Traffic Stress – Existing***



INTERSECTION ANALYSIS

The bicycle infrastructure at the six study area intersections (excluding the Jughandle location) is summarized as follows:

- **Somerville Avenue at Medford Street.** This intersection provides bicycle facilities at all approaches. It is a three-way intersection that is two- to four-lanes-wide depending on the approach. Eastbound, there are faded bicycle facilities that appear to include a bicycle box and a painted lane through the intersection. Southbound, there is a mixed traffic bicycle lane with a faded painted lane through the intersection that turns into a separated bicycle lane. A fully painted bicycle lane is present northbound with no bicycle box. In its current condition, the level of stress is expected to be LTS 3.
- **Somerville Avenue at Medford Street Extension.** This intersection is narrow but leads to McGrath Highway. The eastbound bicycle lane goes through the intersection. However, this lane is in the path of a wide turn that merges into the eastbound approach and through the intersection, creating danger for cyclists. The northbound approach does not have a bicycle lane, but it does have a two-stage bicycle box. The expected level of stress is LTS 3.
- **McGrath Highway Frontage Road at Medford Street Extension**. This intersection is wide and leads to major roads. The northbound approach consists of a narrow, unprotected bicycle lane that leads to the local road. There are no bicycle facilities on the eastbound approach. The expected level of stress is LTS 4.
- **McGrath Highway at Rufo Road.** No bicycle facilities are provided at this intersection. McGrath Highway is six-lanes-wide. The expected level of stress is LTS 4.
- **McGrath Highway at Linwood Street.** A buffered bicycle lane is provided across the northbound approach, which crosses past a circle used for changing direction on McGrath Hgihway. Though this intersection is narrow, the circle may cause confusion and lead to dangerous interactions between vehicles and bicycles. The expected level of stress is LTS 3.
- **McGrath Highway at Poplar Street.** No bicycle facilities are currently provided at this intersection approach/crossing. McGrath Highway is three-lanes-wide, and Poplar Street has a large curb radius creating a channelized turn at its intersection with McGrath Highway. The expected level of stress is LTS 3.

BUILD (2023) CONDITION

The Build (2023) Condition will include any added bicycle trips due to the Project and on-site improvements to bicycle facilities. These conditions are not expected to change the BLTS on any public roads.

BUILD (2023) CONDITION (WITH MITIGATION)

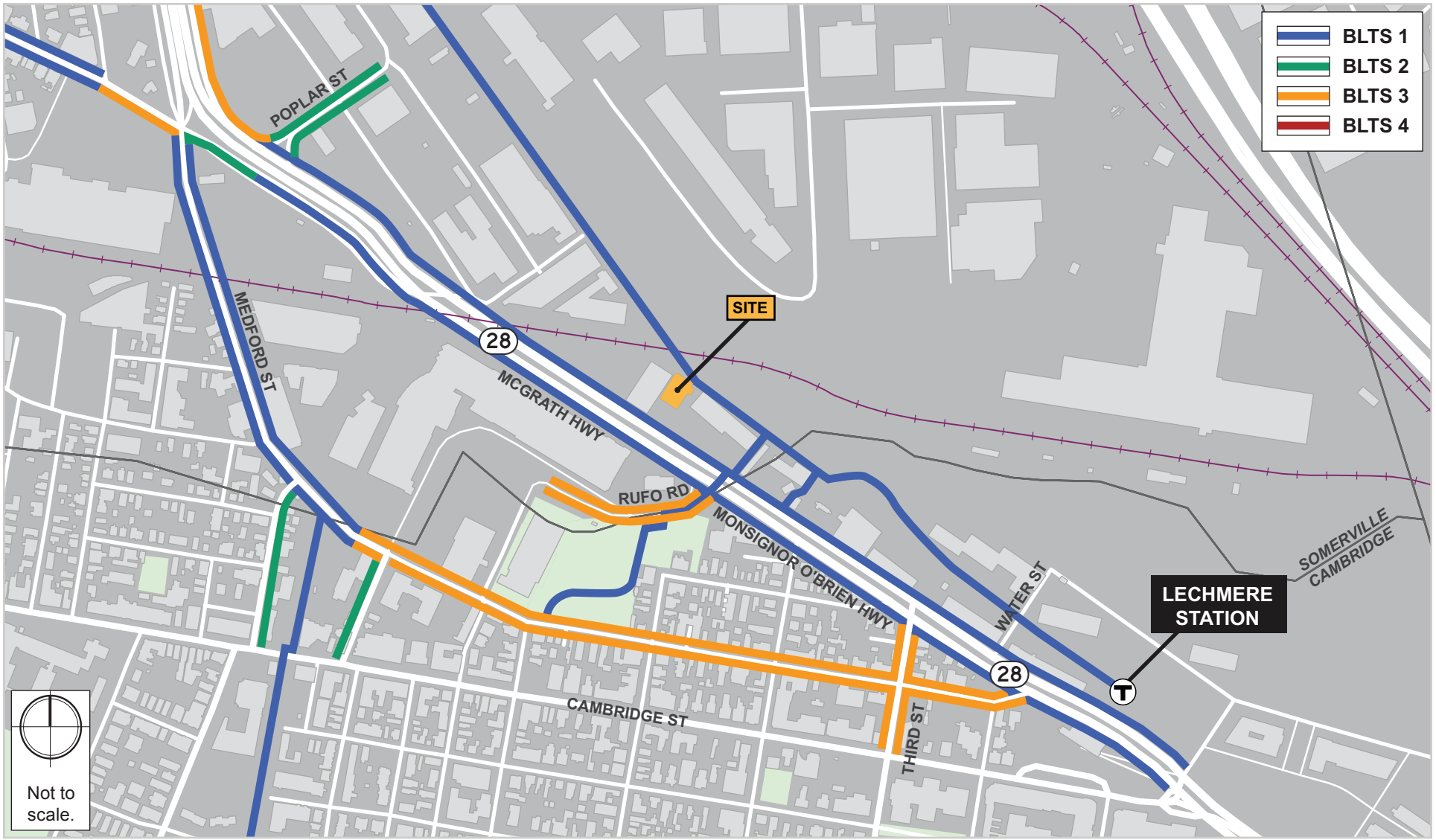
The Project is proposing off-site mitigation to bicycle facilities on McGrath Highway along the length of the Project. The bicycle improvements include raising the buffered bicycle lane along the Site frontage installed by the McGrath Resurfacing Project in both directions of travel. The westbound bicycle facility is proposed to be raised on either side of the Jughandle, up to about 100 ft west of the Jughandle. The eastbound bicycle facility will also be raised for approximately 100 ft directly opposite of the Site. The BLTS in the eastbound and westbound directions are expected to change from BLTS 4 to BLTS 1.

FUTURE CONDITION (2030) CONDITION

The Future (2030) Condition includes the improvements proposed in the Build (2023) Condition as well as changes to bicycle facilities proposed by other developments. Future BLTS is shown visually in **Figure 33**. Off-site bicycle improvements, to be completed by other projects, are expected to include the following:

- There is ongoing construction at Somerville Avenue at Medford Street Extension. The final pavement markings to be constructed in this area as part of the final Somerville Avenue improvements include fresh painting of the existing bicycle lane crossings and new, two-state bicycle boxes. However, given the low level of protection that these facilities provide, the BLTS is expected to remain the same at the signal as the previous ranking of LTS 3.
- Buffered bicycle lanes will be added along the entire length of the McGrath Highway corridor upon completion of the McGrath Resurfacing project. The LTS of these segment facilities is expected to improve from LTS 4 to LTS 1.
- The future extensions of the Somerville Community Path and the Grand Junction Path will be located within a half-mile of the project. Both are off-road, multi-use paths intended for bicycle and pedestrian traffic. They will have an LTS of LTS 1.

Figure 33. ***Bicycle Level of Traffic Stress – Future***



Pedestrian Analysis

The pedestrian network is analyzed using the Pedestrian Level of Traffic Stress (PLTS) methodology developed by the Oregon Department of Transportation (DOT). This methodology gives a level of stress classification for each segment based on sidewalk width, travel lanes, physical buffers between the sidewalk and roadway, and sidewalk condition. PLTS for segments are calculated by evaluating the characteristics from the tables in **Appendix H** and selecting the lowest score (highest numerical value).

EXISTING (2023) CONDITION

SEGMENT ANALYSIS

The PLTS for the study area segments are shown visually in **Figure 34**. Most sidewalks in the immediate vicinity of the Project ranked at LTS 2 with a few at LTS 3. Within the area, many pedestrian areas are being updated alongside other projects. The locations that are identified as LOS 3 include sidewalks that do not have ADA-compliant pedestrian ramps.

INTERSECTION ANALYSIS

PLTS was evaluated for the two unsignalized intersections and pedestrian delay was evaluated for the three signalized intersections. The PLTS for the unsignalized crossings is based on the City of Somerville TIS standards and is presented in Error! Reference source not found.. The pedestrian delay for signalized crossings is based on *Highway Capacity Manual* (HCM) methodology and is presented in **Table 16**.

Table 15. PLTS at Unsignalized Intersections

Intersection and Crosswalk Location		PLTS	Travel Lanes Crossed	Posted Speed Limit	Other Notes
McGrath Highway at Poplar Street	East	3	1	30 mph	No crosswalk markings, no ADA ramps
McGrath Highway at Linwood Street	East	3	2	30 mph	Extremely Long crossings equal to two lanes in each direction

Intersection level of stress at the unsignalized study area intersections both ranked at PLTS 3 due to a lack of ADA-compliant pedestrian ramps and long crossing distances. ADA compliance may include a lack of detectable warning panels, required level landing area, or insufficient clear path of travel.

Figure 34. ***Pedestrian Level of Traffic Stress – Existing***

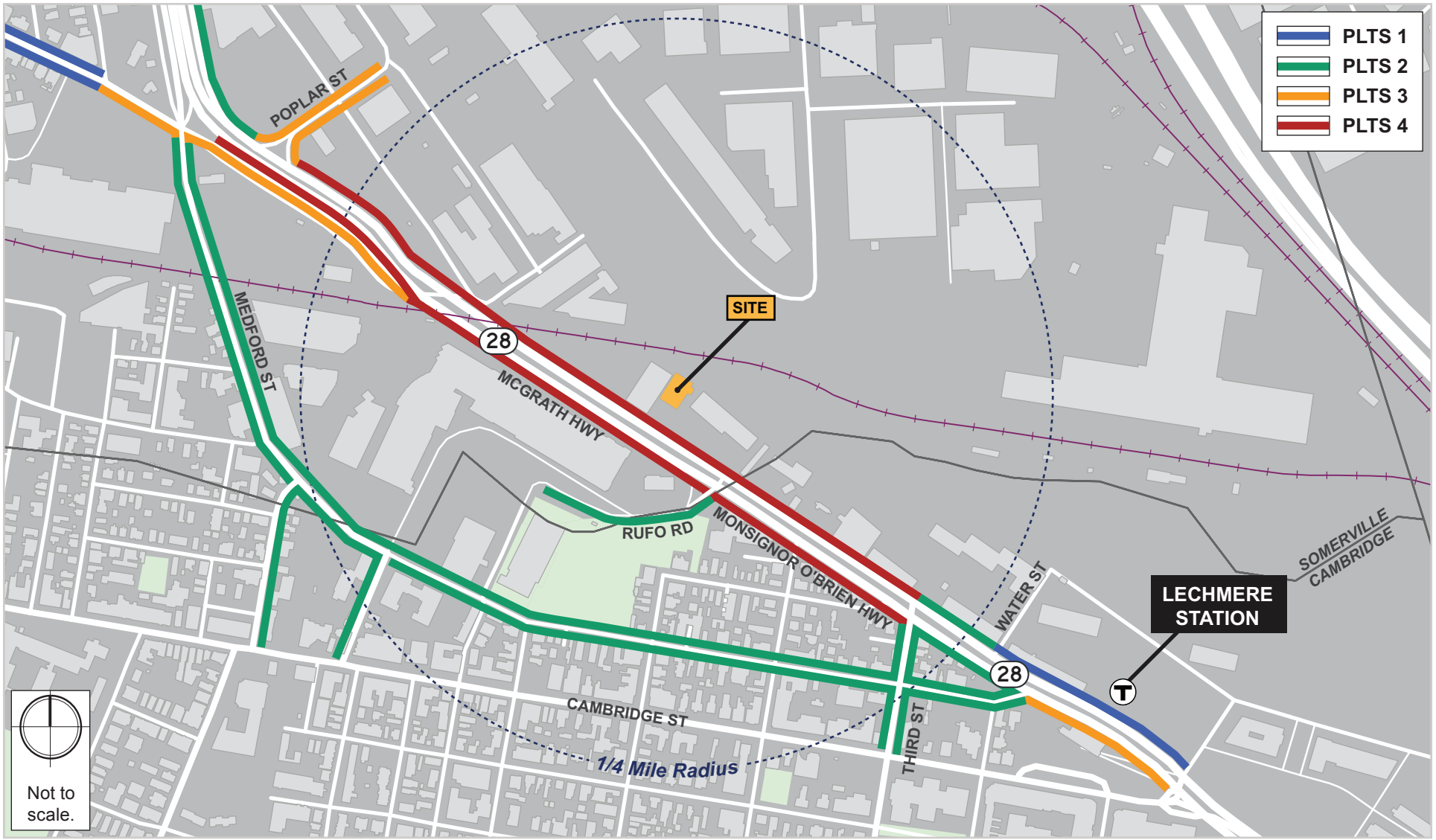


Table 16. Pedestrian Delay and Clearance Comparison at Signalized Intersections

Intersection and Crosswalk Location		Length (ft)	MUTCD FDW Calculation (sec)[1]	Provided FDW (sec)	a.m. Ped. Delay (sec)	p.m. Ped. Delay (sec)
McGrath Highway/ Rufo Road	West (North of Median)	36	11	9	52.9	52.9
	West (South of Median)	40	12	9	51.2	51.2
	South (across channelized right)	36	11	9	55.6	55.6
	South (across Rufo Rd)	63	18	9	30.4	30.4
Somerville Avenue/ Medford Street	North	44	13	13	41.1	39.1
	West	88	26	17	25.2	26.2
	South	54	16	13	41.1	39.1
Somerville Ave/ Medford Street Ext.	Northwest	27	8	13	40.6	38.7
	Southwest	43	13	17	25.2	26.2
	Southeast	29	9	13	40.6	38.7
Medford Street Ext./ McGrath Highway	Southwest	38	11	13	22.1	23.0
	Southeast	45	13	13	21.1	19.4

1. Based on an average walking speed of 3.5 ft/sec.

Pedestrian crossing lengths were used to compute the minimum required clearance time for each crosswalk at the signalized intersections. As shown in **Table 16**, the McGrath Highway/Rufo Road south (across Rufo Road) crosswalk and the Somerville Avenue/Medford Street west crosswalk did not meet the minimum *Manual on Uniform Traffic Control Devices* (MUTCD) requirement for Flashing Don't Walk plus three-second buffer criteria based on a walking speed of 3.5 feet/second. The McGrath Highway/Rufo Road west and south (across channelized right) crosswalks, as well as the Somerville Avenue/Medford Street south crosswalk, would meet the MUTCD requirement Flashing Don't Walk criteria if the three-second buffer is considered in the signal timings. Consistent with HCM methodologies, calculations only considered an effective pedestrian green time and signal cycle length. The average delay assumes pedestrians arrive randomly within a traffic signal cycle to a crossing. All pedestrian movements used concurrent phasing.

BUILD (2023) CONDITION

The Build (2023) Condition includes the added pedestrian trips due to the Project and on-site improvements to pedestrian facilities. The pedestrian improvements include upgrading all sidewalks

abutting the Project to meet design and zoning requirements. Sidewalks abutting the Project along McGrath Highway will be designed to a width compliant with MassDOT guidelines/standards.

BUILD (2023) CONDITION (WITH MITIGATION)

The Project proposes constructing a new pedestrian crossing on the west side of the Jughandle intersection. The additional crossing points on McGrath Highway will make it easier for pedestrians to cross this large facility which today is limited to one crossing point within the immediate vicinity of the Project.

FUTURE CONDITION (2030) CONDITION

The Future Condition (2030) Condition includes the improvements proposed in the Build (2023) Condition as well as changes to sidewalks and crossings proposed by other developments. Off-site pedestrian improvements, to be completed by other projects, are expected to include the following:

- Sidewalk improvements along McGrath Highway in front of the 15 McGrath Highway Prospect will be updated. Sidewalks will be 7-10 feet along the pedestrian path of travel; however, the building frontage will be further set back as there will be an access driveway parallel to McGrath Highway.

Motor Vehicle Operations Analysis

The criterion for evaluating vehicle operations is level of service (LOS), which is determined by assessing average delay experienced by vehicles at intersections and along intersection approaches. Trafficware's Synchro (version 11) software package was used to calculate average delay and associated LOS at the study area intersections. For operational outputs, the latest available methodology in Synchro is HCM 6th Edition, and earlier editions are used where new methodology does not allow. For this analysis, the intersection phasing does not allow the use of the HCM 6th Edition methodology; therefore, the HCM 2000 results were used. Satellite imagery as well as proposed plan sets for ongoing construction were used to collect intersection geometry such as number of turning lanes, lane length, and lane width that were incorporated into the operations analysis.

LOS designations are based on average delay per vehicle for all vehicles entering an intersection. **Table 17** displays the intersection LOS criteria. LOS A indicates the most favorable condition, with minimum traffic delay, while LOS F represents the worst condition, with significant traffic delay. However, LOS E or F is often typical for a stop-controlled minor street that intersects a major roadway and does not necessarily indicate that the operations at the intersection are poor or failing.

Table 17. Vehicle Level of Service Criteria

Level of Service	Average Stopped Delay (sec/veh)	
	Unsignalized Intersection	Signalized Intersection
A	≤10	≤10
B	>10 and ≤15	>10 and ≤20
C	>15 and ≤25	>20 and ≤35
D	>25 and ≤35	>35 and ≤55
E	>35 and ≤50	>55 and ≤80
F	>50	>80

Source: 2000 Highway Capacity Manual, Transportation Research Board.

In addition to delay and LOS, the operational capacity and vehicular queues are calculated and used to further quantify traffic operations at intersections. The following describes these other calculated measures.

- The v/c ratio is a measure of congestion at an intersection approach. A v/c ratio below one indicates that the intersection approach has adequate capacity to process the arriving traffic volumes over the course of an hour. A v/c ratio of one or greater indicates that the traffic volume on the intersection approach exceeds capacity.
- The 50th percentile queue length, measured in feet, represents the maximum queue length during cycle of the traffic signal with typical (or median) entering traffic volumes.
- The 95th percentile queue length, measured in feet, denotes the farthest extent of the vehicle queue (to the last stopped vehicle) upstream from the stop line. This maximum queue occurs 5%, or less, of the time during the peak hour, and typically does not develop during off-peak hours. Since volumes fluctuate throughout the hour, the 95th percentile queue represents what can be considered a "worst case" condition. Queues at an intersection are generally below the 95th percentile length throughout most of the peak hour. It is also unlikely that 95th percentile queues for each approach to an intersection occur simultaneously.

The motor vehicle analysis conditions consist of the following scenarios:

- **Existing (2023) Condition** represents the traffic volumes collected in late 2022 without the project.
- **Build (2023) Condition** represents the Existing Condition with the addition of Project-generated vehicle trips. This evaluates the effect of the Project trips on the roadway network as it exists today.
  - **Build (2023) Mitigated Condition** represents the Build (2023) Condition with the addition of any off-site mitigation proposed by the Project. This scenario is intended to isolate planned improvements proposed by the Project to reflect mitigation of Project-generated trips.
  - **Future (2030) Condition** represents the Build (2023) Condition with the addition of trips from other development projects as well as any network or design improvements proposed by other developments through the future year.
  - **Future (2030) Mitigated Condition** represents the Future (2030) Condition with the addition of any off-site mitigation proposed by the Project, in addition to improvements proposed by other developments and area projects. This scenario is intended to present a comprehensive overview of future forecasted operations after the culmination of changes to the infrastructure network.

For the motor vehicle operations analysis, two Mitigated Conditions were evaluated: the Build (2023) Condition and the Future (2030) Condition. The improvements proposed by the Project are not considered in isolation from other area improvements proposed by the adjacent Project at 15 McGrath Highway and those proposed by the MassDOT McGrath Resurfacing Project. As a result, two versions of the mitigated condition are presented. The Build (2023) Mitigated scenario assumed other area project are not implemented and just included Project-generated trips with the proposed signalized intersection improvements. The other scenario shows Future (2030) Mitigated Condition which considered a mitigated scenario of the Future (2030) Condition where the 35 McGrath Highway improvements will occur sequentially after all other area improvements have also been implemented.

Table 18 through **Table 23** present the a.m., p.m., and Saturday midday peak hour capacity analysis for the study area intersections under each non-mitigated analysis condition: Existing (2023) Condition, Build (2023) Condition, and Future (2030) Condition. **Table 24**, **Table 25**, and **Table 26** present the a.m., p.m., and Saturday midday peak hour, respectively, capacity analysis for the mitigated clustered signalized intersections at McGrath Highway/Jughandle and McGrath Highway/Rufo Road: Build (2023) Mitigated Condition and Future (2030) Mitigated Condition. The detailed analysis reports are provided in **Appendix I** and the queue diagrams for a.m. and p.m. peak hours are included in **Appendix J**.

Table 18. Vehicle Operations Analysis Summary, Weekday a.m. Peak Hour, Signalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
Somerville Avenue at Medford St Extension & Somerville Avenue Extension	**A**	**9.8**				**A**	**9.8**				**B**	**10.4**			
Somerville Ave EB Left/Thru	A	1.9	0.30	15	36	A	1.9	0.30	16	13	A	3.1	0.52	32	53
Medford Street Ext NB Thru | Thru/Right	C	22.4	0.26	13	83	C	22.5	0.26	36	83	C	30.1	0.36	60	101
McGrath Highway (Local)/Medford Street at Somerville Avenue	**C**	**21.4**				**C**	**21.5**				**C**	**23.6**			
Somerville Ave EB Thru	C	27.3	0.54	78	149	C	27.6	0.56	80	153	D	39.1	0.74	145	228
Somerville Ave EB Right	B	12.5	0.05	0	19	B	12.5	0.05	0	19	B	16.9	0.09	7	33
Medford Street NB Left	C	21.6	0.13	18	47	C	21.8	0.13	18	47	C	29.1	0.19	32	59
McGrath Highway SB Left	B	17.0	0.14	13	54	B	17.0	0.14	13	54	B	18.3	0.39	74	151
McGrath Highway SB Thru | Thru/Right	C	21.7	0.66	146	233	C	21.6	0.66	147	233	C	21.7	0.66	230	297
McGrath Highway (Rte 28) at Medford St Extension	**B**	**11.8**				**B**	**11.9**				**B**	**13.6**			
McGrath Highway NB Bear Left | Bear Left	B	17.5	0.28	54	92	B	17.5	0.29	56	94	-	-	-	-	-
McGrath Highway NB Thru	B	17.8	0.32	58	114	B	17.8	0.32	59	114	-	-	-	-	-
McGrath Highway NB Bear Left	-	-	-	-	-	-	-	-	-	-	B	18.7	0.47	142	211
McGrath Highway NB Bear Left/Thru	-	-	-	-	-	-	-	-	-	-	B	19.4	0.52	151	226
Medford St Extension EB Left	A	0.3	0.08	1	1	A	0.2	0.08	1	1	A	0.2	0.09	0	2
Medford St Extension EB Left/Thru	A	1.6	0.14	0	2	A	1.5	0.14	1	2	A	2.5	0.17	3	11
McGrath Hwy at Rufo Road	**B**	**18.6**				**B**	**18.5**				**C**	**23.6**			
Rufo Road EB Left/Thru	E	71.8	0.72	88	136	E	71.8	0.72	88	136	D	54.1	0.64	87	125
Rufo Road EB Right	D	54.1	0.06	0	8	D	54.1	0.06	0	8	D	44.9	0.06	0	0
15 McGrath Driveway WB Left/Thru/Right	A	0	0	0	0	A	0	0	0	0	D	45.4	0.12	14	47
McGrath Highway NB U-turn/Left	E	73.5	0.75	117	#193	E	73.5	0.75	117	#193	E	61.7	0.70	102	171
McGrath Highway NB Thru | Thru | Thru/Right	A	6.3	0.11	21	68	A	6.3	0.12	23	72	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	B	13.1	0.28	89	188
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	E	55.7	0.59	88	144
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	B	17.6	0.58	270	477
McGrath Highway SB Left/Thru | Thru | Thru	A	12.5	0.45	232	307	B	12.5	0.45	234	309	-	-	-	-	-
McGrath Highway SB Right	A	9.9	0.16	0	37	A	9.9	0.16	0	37	B	12.5	0.17	3	53

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 19. Vehicle Operations Analysis Summary, Weekday a.m. Peak Hour, Unsignalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Highway at Jughandle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jughandle WB Left/Right	C	15.8	0.01	-	0	B	10.9	0.03	-	3	D	28	0.10	-	8
McGrath Highway SB Left/Thru | Thru | Thru	B	10.2	0.01	-	0	B	10.7	0.06	-	5	-	-	-	-	-
McGrath Highway SB Left/Thru | Thru	-	-	-	-	-	-	-	-	-	-	A	8.9	0.04	-	5
McGrath Highway NB Thru | Thru | Thru/Right	A	0	0	-	0	A	0	0	-	0	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0	0	-	0
McGrath Hwy at Poplar Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NW Thru | Thru | Thru/Right	A	0	0	-	0	A	0	0	-	0	-	-	-	-	-
McGrath Highway NW Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0	0	-	0
Poplar Street SW Right	B	11.2	0.08	-	8	B	11.3	0.08	-	8	B	11	0.10	-	8
McGrath Hwy at Linwood Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NB Left/Thru/Right	A	7.3	0.02	-	3	A	7.4	0.02	-	3	A	7.6	0.09	-	8
McGrath Highway SB Turn Bay EB left/thru	B	11.8	0.05	-	5	B	11.8	0.05	-	5	C	15.0	0.07	-	5
Linwood Street WB Thru/Right	B	11.5	0.17	-	15	B	11.5	0.17	-	15	B	13.4	0.21	-	20

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 20. Vehicle Operations Analysis Summary, Weekday p.m. Peak Hour, Signalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
Somerville Avenue at Medford St Extension & Somerville Avenue Extension	**B**	**19.0**				**B**	**19.2**				**C**	**26.6**			
Somerville Ave EB Left/Thru	A	2.7	0.32	20	28	A	2.8	0.32	20	29	A	3.6	0.36	31	46
Medford Street Ext NB Thru | Thru/Right	C	32.7	0.64	138	191	C	33.0	0.64	140	191	D	43.0	0.82	192	#268
McGrath Highway (Local)/Medford Street at Somerville Avenue	**C**	**23.6**				**C**	**23.9**				**C**	**26.8**			
Somerville Ave EB Thru	D	38.6	0.71	139	224	D	39.6	0.72	141	224	D	48.1	0.78	149	#236
Somerville Ave EB Right	B	16.2	0.03	0	19	B	16.5	0.03	0	19	B	18.3	0.04	0	20
Medford Street NB Left	C	28.1	0.14	27	46	C	28.4	0.14	27	46	C	32.3	0.33	66	88
McGrath Highway SB Left	B	16.3	0.08	0	35	B	16.2	0.08	0	35	B	16.8	0.11	4	43
McGrath Highway SB Thru | Thru/Right	B	17.9	0.30	79	115	B	17.8	0.30	79	115	B	18.4	0.32	92	130
McGrath Highway (Rte 28) at Medford St Extension	**B**	**18.4**				**B**	**19.0**				**F**	**81.9**			
McGrath Highway NB Bear Left | Bear Left	C	26.5	0.81	314	391	C	27.4	0.83	331	411	-	-	-	-	-
McGrath Highway NB Thru	B	18.8	0.42	132	201	B	18.7	0.42	132	201	-	-	-	-	-
McGrath Highway NB Bear Left	-	-	-	-	-	-	-	-	-	-	F	103.2	1.13	~631	#854
McGrath Highway NB Bear Left/Thru	-	-	-	-	-	-	-	-	-	-	F	109.3	1.15	~646	#870
Medford St Extension EB Left	A	3.1	0.35	9	23	A	3.2	0.36	9	23	A	7.5	0.44	14	m80
Medford St Extension EB Left/Thru	A	3.1	0.35	9	23	A	3.2	0.36	9	23	A	7.4	0.43	13	m77
McGrath Hwy at Rufo Road	**D**	**44.0**				**D**	**43.8**				**D**	**37.9**			
Rufo Road EB Left/Thru	F	234.6	1.34	~358	#521	F	234.6	1.34	~358	#521	E	77.1	0.95	234	#433
Rufo Road EB Right	D	47.3	0.08	0	52	D	47.3	0.08	0	52	C	28.6	0.08	0	43
15 McGrath Driveway WB Left/Thru/Right	A	0	0	0	0	A	0	0	0	0	C	32.0	0.39	70	155
McGrath Highway NB U-turn/Left	E	66.3	0.70	127	#216	E	66.3	0.70	127	#216	E	69.4	0.78	113	#209
McGrath Highway NB Thru | Thru | Thru/Right	B	18.7	0.44	216	253	B	18.8	0.44	217	254	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	C	31.6	0.74	353	497
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	D	55.0	0.36	34	68
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	C	31.7	0.65	295	366
McGrath Highway SB Left/Thru | Thru | Thru	B	15.9	0.34	161	191	B	16.0	0.35	166	196	-	-	-	-	-
McGrath Highway SB Right	B	13.9	0.13	0	35	B	13.9	0.13	0	35	C	23.3	0.13	0	46

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 21. Vehicle Operations Analysis Summary, Weekday p.m. Peak Hour, Unsignalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Highway at Jughandle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jughandle WB Left/Right	E	38.6	0.04	-	3	F	39.1	0.38	-	40	F	92.2	0.64	-	78
McGrath Highway SB Left/thru | Thru | Thru	A	0.0	0.00	-	0	C	19.9	0.03	-	3	-	-	-	-	-
McGrath Highway SB Left/thru | Thru	-	-	-	-	-	-	-	-	-	-	B	12.8	0.02	-	0
McGrath Highway NB Thru | Thru | Thru/Right	A	0.0	0.00	-	0	A	0.0	0.00	-	0	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
McGrath Hwy at Poplar Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NW Thru | Thru | Thru/Right	A	0.0	0.00	-	0	A	0.0	0.00	-	0	-	-	-	-	-
McGrath Highway NW Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0.0	0.00	-	0
Poplar Street SW Right	C	19.2	0.26	-	25	C	19.8	0.27	-	28	C	23.2	0.48	-	63
McGrath Hwy at Linwood Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NB Left/Thru/Right	A	0	0	-	0	A	0	0	-	0	A	0	0	-	0
McGrath Highway SB Turn Bay EB left/thru	C	17.4	0.09	-	8	C	17.4	0.09	-	8	C	18.3	0.09	-	8
Linwood Street WB Thru/Right	C	16.1	0.45	-	58	C	16.1	0.45	-	58	C	16.7	0.46	-	60

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 22. Vehicle Operations Analysis Summary, Saturday Midday Peak Hour, Signalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
Somerville Avenue at Medford St Extension & Somerville Avenue Extension	**B**	**10.3**				**B**	**10.2**				**B**	**10.7**			
Somerville Ave EB Left/Thru	A	1.8	0.27	11	14	A	1.8	0.27	11	14	A	1.7	0.26	11	14
Medford Street Ext NB Thru | Thru/Right	B	19.9	0.33	34	78	B	19.9	0.33	34	78	C	20.9	0.34	37	83
McGrath Highway (Local)/Medford Street at Somerville Avenue	**B**	**18.3**				**C**	**18.4**				**B**	**18.4**			
Somerville Ave EB Thru	C	21.1	0.50	54	144	C	21.1	0.50	54	146	C	22.2	0.51	60	154
Somerville Ave EB Right	A	9.9	0.03	0	12	A	9.9	0.03	0	12	B	10.7	0.03	0	14
Medford Street NB Left	A	0.0	-	-	-	A	0.0	-	-	-	A	0.0	-	-	-
McGrath Highway SB Left	B	16.5	0.07	0	36	B	16.5	0.07	0	36	B	16.1	0.07	0	34
McGrath Highway SB Thru | Thru/Right	B	18.4	0.44	54	125	B	18.4	0.44	54	125	B	18.1	0.44	58	132
McGrath Highway (Rte 28) at Medford St Extension	**B**	**13.0**				**B**	**13.0**				**F**	**81.9**			
McGrath Highway NB Bear Left | Bear Left	B	18.4	0.50	63	142	B	18.4	0.50	63	143	-	-	-	-	-
McGrath Highway NB Thru	B	17.7	0.37	48	131	B	17.5	0.37	48	131	-	-	-	-	-
McGrath Highway NB Bear Left	-	-	-	-	-	-	-	-	-	-	C	20.9	0.63	89	227
McGrath Highway NB Bear Left/Thru	-	-	-	-	-	-	-	-	-	-	C	20.4	0.62	90	227
Medford St Extension EB Left	A	0.0	0.08	0	1	A	5.8	0.08	0	1	A	0.0	0.08	0	1
Medford St Extension EB Left/Thru	A	0.3	0.11	1	0	A	5.9	0.11	1	0	A	0.3	0.12	1	0
McGrath Hwy at Rufo Road	**C**	**26.4**				**C**	**26.4**				**C**	**23.6**			
Rufo Road EB Left/Thru	E	79.5	0.81	129	192	E	79.5	0.81	129	192	E	57.9	0.72	112	159
Rufo Road EB Right	D	51.5	0.08	0	50	D	51.5	0.08	0	50	D	43.9	0.08	0	44
15 McGrath Driveway WB Left/Thru/Right	A	0	0	0	0	A	0	0	0	0	A	0	0	0	0
McGrath Highway NB U-turn/Left	F	83.4	0.84	154	#276	F	83.4	0.84	154	#276	E	55.9	0.69	130	206
McGrath Highway NB Thru | Thru | Thru/Right	B	12.8	0.18	77	104	B	12.8	0.18	78	106	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	8.9	0.22	47	170
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	A	0	0	0	0
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	B	17.4	0.41	170	295
McGrath Highway SB Left/Thru | Thru | Thru	B	12.6	0.27	124	161	B	12.6	0.27	124	161	-	-	-	-	-
McGrath Highway SB Right	B	11.3	0.11	0	33	B	11.3	0.11	0	33	B	14.2	0.11	0	44

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 23. Vehicle Operations Analysis Summary, Saturday Midday Peak Hour, Unsignalized

Intersection/Movement	Existing (2023) Condition					Build (2023) Condition					Future (2030) Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Highway at Jughandle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jughandle WB Left/Right	B	12.7	0.02	-	2	B	13.3	0.03	-	2	B	13.7	0.03	-	2
McGrath Highway SB Left/thru | Thru | Thru	A	0.0	0.00	-	0	B	11.4	0.02	-	2	-	-	-	-	-
McGrath Highway SB Left/thru | Thru	-	-	-	-	-	-	-	-	-	-	A	8.8	0.01	-	0
McGrath Highway NB Thru | Thru | Thru/Right	A	0.0	0.00	-	0	A	0.1	0.00	-	0	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0.1	0.00	-	0
McGrath Hwy at Poplar Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NW Thru | Thru | Thru/Right	A	0.0	0.00	-	0	A	0	0.00	-	0	-	-	-	-	-
McGrath Highway NW Thru | Thru/Right	-	-	-	-	-	-	-	-	-	-	A	0	0.00	-	0
Poplar Street SW Right	B	11.6	0.08	-	6	B	11.7	0.08	-	6	B	10.4	0.07	-	4
McGrath Hwy at Linwood Street	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway NB Left/Thru/Right	A	0.0	0.00	-	0	A	0.0	0.00	-	0	A	0.0	0.00	-	0
McGrath Highway SB Turn Bay EB left/thru	B	11.9	0.05	-	4	B	11.9	0.05	-	4	B	12	0.05	-	4
Linwood Street WB Thru/Right	B	10.8	0.08	-	6	B	10.8	0.08	-	6	B	10.8	0.08	-	6

Grey Shading indicates LOS E or F under the Existing Condition or a change from LOS D or better in a previous condition to LOS E or F.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 24. Vehicle Operations Analysis Summary, Weekday a.m. Peak Hour (Mitigated Scenarios)

Intersection/Movement	Build (2023) Condition					Future (2030) Condition					Build (2023) Mitigated Condition					Future (2030) Mitigated Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Hwy at Jughandle	-	-	-	-	-	-	-	-	-	-	**C**	**32.8**				**C**	**31.4**			
Jughandle WB Left/Right	B	10.9	0.03	-	3	D	28	0.10	-	8	D	46.0	0.04	6	25	D	44.8	0.04	6	25
McGrath Highway NB Thru | Thru | Thru/Right	A	0	0	-	0	-	-	-	-	-	A	4.9	0.16	30	37	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	A	0	0	-	0	-	-	-	-	-	A	7.3	0.32	54	72
McGrath Highway SB Left/thru | Thru | Thru	B	10.7	0.06	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left/thru | Thru	-	-	-	-	-	A	8.9	0.04	-	5	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	D	54.8	0.33	31	63	D	49.4	0.22	29	63
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	D	40.3	0.95	640	#902	D	40.3	0.93	551	#848
McGrath Hwy at Rufo Road	**B**	**18.5**				**C**	**23.6**				**A**	**8.8**				**B**	**15.7**			
Rufo Road EB Left/Thru	E	71.8	0.72	88	136	D	54.1	0.64	87	125	D	54.2	0.61	77	112	D	54.1	0.64	87	125
Rufo Road EB Right	D	54.1	0.06	0	8	D	44.9	0.06	0	0	D	46.0	0.06	0	0	D	44.9	0.06	0	0
15 McGrath Driveway WB Left/Thru/Right	A	0	0	0	0	D	45.4	0.12	14	47	A	0.0	0	0	0	D	45.4	0.12	14	47
McGrath Highway NB U-turn/Left	E	73.5	0.75	117	#193	E	61.7	0.70	102	171	D	53.5	0.62	99	#240	D	54.6	0.63	100	#236
McGrath Highway NB Thru | Thru | Thru/Right	A	6.3	0.12	23	72	-	-	-	-	-	B	11.3	0.15	46	96	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	B	13.1	0.28	89	188	-	-	-	-	-	B	17.5	0.32	107	210
McGrath Highway SB Left	-	-	-	-	-	E	55.7	0.59	88	144	-	-	-	-	-	E	75.9	0.60	98	m108
McGrath Highway SB Thru | Thru	-	-	-	-	-	B	17.6	0.58	270	477	-	-	-	-	-	A	0.3	0.60	1	m1
McGrath Highway SB Left/Thru | Thru | Thru	B	12.5	0.45	234	309	-	-	-	-	-	A	0.1	0.49	0	m1	-	-	-	-	-
McGrath Highway SB Right	A	9.9	0.16	0	37	B	12.5	0.17	3	53	A	1.0	0.16	0	m0	A	1.0	0.18	1	m0

Grey Shading indicates a change to LOS E or F from the previous condition.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 25. Vehicle Operations Analysis Summary, Weekday p.m. Peak Hour (Mitigated Scenarios)

Intersection/Movement	Build (2023) Condition					Future (2030) Condition					Build (2023) Mitigated Condition					Future (2030) Mitigated Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Hwy at Jughandle	-	-	-	-	-	-	-	-	-	-	**C**	**20.4**				**D**	**37.7**			
Jughandle WB Left/Right	F	39.1	0.38	-	40	F	92.2	0.64	-	78	C	34.8	0.08	15	50	C	29.2	0.07	14	51
McGrath Highway NB Thru | Thru | Thru/Right	A	0.0	0.00		0	-	-	-	-	-	A	7.7	0.49	89	100	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	A	0.0	0.00		0	-	-	-	-	-	C	26.8	0.95	595	m#803
McGrath Highway SB Left/thru | Thru | Thru	C	19.9	0.03	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left/thru | Thru	-	-	-	-	-	B	12.8	0.02	-	0	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	E	56.9	0.12	6	21	D	52.4	0.07	6	21
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	C	34.5	0.79	432	528	D	51.8	0.94	433	#564
McGrath Hwy at Rufo Road	**D**	**43.8**				**D**	**37.9**				**C**	**20.7**				**C**	**34.6**			
Rufo Road EB Left/Thru	F	234.6	1.34	~358	#521	E	77.1	0.95	234	#433	E	69.3	0.90	227	#342	F	86.8	0.98	238	#441
Rufo Road EB Right	D	47.3	0.08	0	52	C	28.6	0.08	0	43	C	34.8	0.08	0	42	C	29.3	0.08	0	37
15 McGrath Driveway WB Left/Thru/Right	A	0	0	0	0	C	32.0	0.39	70	155	A	0.0	0.00	0	0	C	33.4	0.41	72	159
McGrath Highway NB U-turn/Left	E	66.3	0.70	127	#216	E	69.4	0.78	113	#209	E	70.9	0.79	112	#221	F	112.5	0.96	117	#249
McGrath Highway NB Thru | Thru | Thru/Right	B	18.8	0.44	217	254	-	-	-	-	-	C	20.4	0.48	178	317	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	C	31.6	0.74	353	497	-	-	-	-	-	D	42.0	0.86	394	#605
McGrath Highway SB Left	-	-	-	-	-	D	55.0	0.36	34	68	-	-	-	-	-	F	85.2	0.36	38	m42
McGrath Highway SB Thru | Thru	-	-	-	-	-	C	31.7	0.65	295	366	-	-	-	-	-	A	1.0	0.61	6	m8
McGrath Highway SB Left/Thru | Thru | Thru	B	16.0	0.35	166	196	-	-	-	-	-	A	0.7	0.41	4	6	-	-	-	-	-
McGrath Highway SB Right	B	13.9	0.13	0	35	C	23.3	0.13	0	46	A	1.1	0.13	0	m0	A	1.6	0.13	0	m0

Grey Shading indicates a change to LOS E or F from the previous condition.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

Table 26. Vehicle Operations Analysis Summary, Saturday Midday Peak Hour (Mitigated Scenarios)

Intersection/Movement	Build (2023) Condition					Future (2030) Condition					Build (2023) Mitigated Condition					Future (2030) Mitigated Condition				
	LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)		LOS	Delay (s)	V/C Ratio	Queues (ft)	
				50th %	95th %				50th %	95th %				50th %	95th %				50th %	95th %
McGrath Hwy at Jughandle	-	-	-	-	-	-	-	-	-	-	**B**	**16.8**				**B**	**18.9**			
Jughandle WB Left/Right	B	13.3	0.03	-	2	B	13.7	0.03	-	2	D	43.6	0.02	2	11	D	42.9	0.02	2	11
McGrath Highway NB Thru | Thru | Thru/Right	A	0.1	0.00	-	0	-	-	-	-	-	A	4.8	0.19	43	53	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	A	0.1	0.00	-	0	-	-	-	-	-	A	6.3	0.28	63	77
McGrath Highway SB Left/thru | Thru | Thru	B	11.4	0.02	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left/thru | Thru	-	-	-	-	-	A	8.8	0.01	-	0	-	-	-	-	-	-	-	-	-	-
McGrath Highway SB Left	-	-	-	-	-	-	-	-	-	-	E	57.2	0.16	8	24	E	56.7	0.15	8	23
McGrath Highway SB Thru | Thru	-	-	-	-	-	-	-	-	-	-	C	23.9	0.59	283	441	C	26.4	0.61	264	445
McGrath Hwy at Rufo Road	**C**	**26.4**				**C**	**23.6**				**B**	**15.6**				**B**	**16.8**			
Rufo Road EB Left/Thru	E	79.5	0.81	129	192	E	57.9	0.72	112	159	E	58.2	0.72	112	159	E	56.8	0.69	111	159
Rufo Road EB Right	D	51.5	0.08	0	50	D	43.9	0.08	0	44	D	44.0	0.08	0	44	D	43.5	0.08	0	35
15 McGrath Driveway WB Left/Thru/Right	A	0.0	0.00	0	0	A	0.0	0.00	0	0	A	0.0	0.00	0	0	A	0.0	0.00	0	0
McGrath Highway NB U-turn/Left	F	83.4	0.84	154	#276	E	55.9	0.69	130	206	E	60.2	0.73	132	204	E	59.3	0.72	132	203
McGrath Highway NB Thru | Thru | Thru/Right	B	12.8	0.18	78	106	-	-	-	-	-	B	11.4	0.18	46	121	-	-	-	-	-
McGrath Highway NB Thru | Thru/Right	-	-	-	-	-	A	8.9	0.22	47	170	-	-	-	-	-	B	14.0	0.25	65	192
McGrath Highway SB Left	-	-	-	-	-	A	0.0	0.00	0	0	-	-	-	-	-	A	0.0	0.00	0	0
McGrath Highway SB Thru | Thru	-	-	-	-	-	B	17.4	0.41	170	295	-	-	-	-	-	A	0.2	0.41	0	1
McGrath Highway SB Left/Thru | Thru | Thru	B	12.6	0.27	124	161	-	-	-	-	-	A	0.1	0.29	0	0	-	-	-	-	-
McGrath Highway SB Right	B	11.3	0.11	0	33	B	14.2	0.11	0	44	A	0.3	0.11	0	0	A	1.3	0.11	0	0

Grey Shading indicates a change to LOS E or F from the previous condition.
~ 50th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
 # 95th percentile volume exceeds capacity. Queue shown is the maximum after two cycles.
m Volumes for 95th percentile queue is metered by upstream signal.

EXISTING (2023) CONDITION ANALYSIS

In the Existing (2023) Condition, the majority intersections and movements operate at adequate LOS D or better for an urban environment except the following:

MCGRATH HIGHWAY AT RUFO ROAD

- The McGrath Highway northbound U-turn/left-turn lane operates at LOS E during the a.m. and p.m. hours. It operates at an LOS F during the Saturday midday peak hour.
- The Rufo Road eastbount left/through operates at LOS E during a.m. peak hour and Saturday midday peak, and LOS F during p.m. peak hour.

MCGRATH HIGHWAY AT JUGHANDLE

- The 35 McGrath Jughandle operates at LOS E during the p.m. peak hour, and LOS C during the a.m. peak hour. The a.m. is likely operating better than LOS E given the low exiting volume and small sample size for average delay.

BUILD (2023) CONDITION ANALYSIS

The Build (2023) Condition operations are forecasted at the same LOS as the Existing (2023) Condition at all study area intersections except:

MCGRATH HIGHWAY AT JUGHANDLE

- The 35 McGrath Jughandle changes from LOS E to LOS F during the p.m. peak hour. Likely for the same reason as mentioned in existing, the added trips from the Project that are exiting this unsignalized driveway have very few gaps available along McGrath Highway given the amount of corridor volume.

FUTURE (2030) CONDITION ANALYSIS

The Future (2030) Condition operates at the same LOS as the Build (2023) Condition except:

MCGRATH HIGHWAY AT MEDFORD STREET EXTENSION

- The overall intersection changes from LOS B to LOS F during the p.m. peak hour.
- The McGrath Highway northbound bear-left movements headed towards the on-ramp change from LOS C to LOS F during the p.m. peak hour.
- The McGrath Highway northbound through headed towards the local frontage road changes from LOS B to LOS F during the p.m. peak hour.

These impacts are most likely a result of the reduction in lanes at this intersection from the McGrath Resurfacing Project.

MCGRATH HIGHWAY AT RUFO ROAD

- The new McGrath Highway southbound left-turn operates at LOS E during the a.m. peak hour and LOS D during the p.m. peak hour.
- The Rufo Road left-turn/through improves from LOS E to LOS D during the a.m. peak hour, and from LOS F to LOS E during the p.m peak hour.
- The McGrath Highway northbound U-turn/left-turn improves from LOS F to LOS E during the Saturday midday peak.

BUILD (2023) MITIGATED AND FUTURE (2030) CONDITION MITIGATED ANALYSIS

The Build (2023) Mitigated Condition and Future (2030) Mitigated Condition are generally forecasted to operate at the same LOS if not better than their respective non-mitigated scenarios, Build (2023) Condition and Future (2030) Condition. Under both mitigated conditions, the newly signalized intersection of McGrath Highway at the 35 McGrath Highway Jughandle operates at an overall LOS C or better with all approaches operating at LOS D or better. This is an improvement in the p.m. peak hour for the Jughandle which operated at LOS F under existing unsignalized conditions.

The adjacent existing signalized intersection at McGrath Highway/Rufo Road, which is proposed to operate as a clustered intersection with the new signal, improves with the proposed changes. Comparing Build (2023) Condition to Build (2023) Mitigated Condition, this signal improves from an overall LOS B to LOS A during the a.m. peak hour, from LOS D to LOS C during the p.m. peak hour, and LOS C to LOS B during the Saturday midday peak hour. Comparing Future (2030) Condition to Future (2030) Mitigated Condition, this signal improves from LOS C to LOS B during the a.m. peak hour, from LOS D to LOS C during the p.m. peak hour, and LOS C to LOS B during the Saturday midday peak hour.

Transportation Mitigation

The Proponent continues to partner with the City of Somerville, MassDOT, and adjacent stakeholders to create a Project that efficiently serves vehicle trips, improves the pedestrian environment, and encourages transit and bicycle use to the Site. The Project will bring all abutting sidewalks and pedestrian ramps that are controlled by the City of Somerville up to the City standards in accordance with the National Association of City Transportation Officials (NACTO) design guidelines. Facilities controlled by other jurisdictions will be made compliant with that jurisdiction's standards.

Other pedestrian realm improvement will include new ADA compliant wheelchair ramps on the Jughandle corners. The existing curb cut at the Jughandle will be shifted slightly west of its current location to develop additional storage length between the existing signalized intersection at Rufo Road and the proposed signalized intersection at the Jughandle. The Jughandle driveway will be designed as a roadway given the size of the proposed design vehicle expected to access the road between 35 McGrath Highway and 15 McGrath Highway.

The Project has committed to install a new Bluebikes bicycle share station at a location to be determined in coordination with the City of Somerville nearby. The Project will provide at least eight (8) short-term bicycle parking spaces around the Site for visitors. The Project will provide 34 long-term bicycle parking spaces in a covered, indoor bicycle storage room on the ground level with access directly off the main lobby entrance. Long-term bicycle parking will be provided at no additional cost for building employees.

The Project proposes a new signalized intersection at McGrath Highway/Jughandle which will operate in coordination with the McGrath Highway/Rufo Road signal. The installation of this signal is contingent upon the Project obtaining all necessary approvals from the relevant agencies that control infrastructure in this area. The Project will improve bicycle facilities along McGrath Highway by raising the buffered bicycle lanes that will be installed by the McGrath Resurfacing Project for the length of the Project frontage both in the eastbound and westbound directions. These proposed facilities will be five-foot, sidewalk level bicycle lanes. The curb-extensions on both sides of McGrath Highway in front of the Site will also allow for a new pedestrian crossing with a median refuge area for additional pedestrian connections.

For transit improvements, the Proponent is proposing to shift the existing westbound bus stop to the far side of the new signalized intersection. In its current placement, it is already on the far-side of the signalized intersection of McGrath Highway/Rufo Road; however, with the proposed clustered intersection, it will be proposed further west to continue to remain on the far-side in-line with MBTA preferences for bus stop placement. The new bus stop will be designed consistent with MBTA Bus Design Guidelines and include a new bus stop shelter. The bus stop relocation will continue to be evaluated with MBTA, the City of Somerville, and others that control infrastructure in this area.

Transportation Demand Management

The Proponent is committed to controlling the initial percentage of trips made to the Site by motor vehicle at 37%, consistent with the existing mode share for that area, and will commit to best mobility practices to influence the percentage of trips made by vehicular travel at 25% or less by 2040. The Proponent will provide the following TDM program:

- Join the Charles River Transportation Management Association (TMA);
- Designate an on-site transportation coordinator for the tenants;
- Host an annual mobility management education meeting for employees;
- Post mobility management information;
- Distribute mobility management information;
- Provide qualified transportation fringe benefits for employees; and
- Provide a guaranteed ride home program for employees.

A Mobility Management Plan (MMP) has been approved by the City and provides detailed TDM and mobility commitments for the Project. The Proponent continues to work with the City of Somerville to create a Project that provides safe access for vehicle trips, improves the pedestrian environment, and encourages transit and bicycle use at the Project Site.

Conclusion

The proposed 35 McGrath Highway development is expected to have positive impacts on the transportation network with enhanced public realm features, protected bicycle amenities, and improved vehicle operations with access investments. The Project's impact on the network and existing infrastructure is expected to be minimal as identified in the study. The Project's is located on a transformative corridor that is expected to serve as a new major route for cyclists and as a key transit corridor with the new Green Line Branch. The improvements for these critical modes are making it easier for people to move through Somerville and into Cambridge and Boston via alternative modes of transportation. The Project intends to continue to support this movement and encourage future building tenants to make sustainable transportation choices by transit, walking, and cycling.

HOWARD STEIN HUDSON

Engineers + Planners

Appendix A

Traffic Count Data

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street 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	4	5	1	0	0	0	0	0	2	5	0	0	0	2	3
6:15 AM	0	5	7	0	0	0	0	0	0	2	8	0	0	0	1	4
6:30 AM	0	4	9	0	0	0	0	0	0	5	14	0	0	0	5	7
6:45 AM	0	5	13	1	0	0	0	0	0	1	11	0	0	0	9	7
7:00 AM	0	12	19	0	0	0	0	0	0	3	7	0	0	0	6	7
7:15 AM	0	7	20	0	0	0	0	0	0	1	8	0	0	0	7	9
7:30 AM	0	10	15	0	0	0	0	0	0	0	7	0	0	0	12	8
7:45 AM	0	8	17	1	0	0	0	0	0	1	9	0	0	0	12	6
8:00 AM	0	16	20	0	0	0	0	0	0	1	1	0	0	0	18	14
8:15 AM	0	7	22	0	0	0	0	0	0	0	3	0	0	0	15	9
8:30 AM	0	9	29	0	0	0	0	0	0	0	7	0	0	0	9	11
8:45 AM	0	8	33	0	0	0	0	0	0	0	6	0	0	0	7	15
9:00 AM	0	8	28	0	0	0	0	0	0	2	4	0	0	0	13	15
9:15 AM	0	4	25	2	0	0	0	0	0	1	5	0	0	0	7	4
9:30 AM	0	13	27	1	0	0	0	0	0	1	4	0	0	0	2	11
9:45 AM	0	5	30	3	0	0	0	0	0	2	7	0	0	0	10	13
10:00 AM	0	9	25	0	0	0	0	0	0	1	1	0	0	0	12	15
10:15 AM	0	8	20	1	0	0	0	0	0	1	5	0	0	0	13	9
10:30 AM	0	6	23	3	0	0	0	0	0	1	3	0	0	0	5	17
10:45 AM	0	9	25	2	0	0	0	0	0	0	7	0	0	0	5	7
11:00 AM	0	12	29	1	0	0	0	0	0	2	5	0	0	0	9	13
11:15 AM	0	9	45	3	0	0	0	0	0	0	2	0	0	0	6	15
11:30 AM	0	8	28	1	0	0	0	0	0	0	5	0	0	0	12	26
11:45 AM	0	12	40	4	0	0	0	0	0	2	5	0	0	0	14	12
12:00 PM	0	19	37	1	0	0	0	0	0	2	9	0	0	0	9	15
12:15 PM	0	15	41	3	0	0	0	0	0	3	9	0	0	0	7	16
12:30 PM	0	8	39	1	0	0	0	0	0	2	5	0	0	0	5	19
12:45 PM	0	9	44	2	0	0	0	0	0	1	5	0	0	0	10	19
1:00 PM	0	12	37	0	0	0	0	0	0	0	6	0	0	0	8	17
1:15 PM	0	12	52	1	0	0	0	0	0	1	8	0	0	0	7	27
1:30 PM	0	8	37	0	0	0	0	0	0	4	2	0	0	0	11	21
1:45 PM	0	10	39	1	0	0	0	0	0	2	8	0	0	0	11	24
2:00 PM	0	12	46	1	0	0	0	0	0	1	4	0	0	0	13	14
2:15 PM	0	13	40	2	0	0	0	0	0	4	3	0	0	0	10	23
2:30 PM	0	7	44	2	0	0	0	0	0	1	2	0	0	0	6	13
2:45 PM	0	16	51	2	0	0	0	0	0	2	6	0	0	0	22	25
3:00 PM	0	9	53	0	0	0	0	0	0	1	4	0	0	0	13	27
3:15 PM	0	13	56	1	0	0	0	0	0	1	3	0	0	0	12	35
3:30 PM	0	9	68	1	0	0	0	0	0	1	3	0	0	0	9	32
3:45 PM	0	15	77	3	0	0	0	0	0	2	4	0	0	0	11	23
4:00 PM	0	7	70	0	0	0	0	0	0	0	5	0	0	0	8	25
4:15 PM	0	9	74	2	0	0	0	0	0	2	2	0	0	0	12	37
4:30 PM	0	7	57	1	0	0	0	0	0	5	5	0	0	0	13	34
4:45 PM	0	12	83	0	0	0	0	0	0	1	5	0	0	0	15	33
5:00 PM	0	11	58	0	0	0	0	0	0	4	3	0	0	0	21	43
5:15 PM	0	13	71	0	0	0	0	0	0	0	0	0	0	0	11	35
5:30 PM	0	9	70	1	0	0	0	0	0	1	1	0	0	0	5	25
5:45 PM	0	13	65	2	0	0	0	0	0	0	3	0	0	0	7	50
6:00 PM	0	9	65	0	0	0	0	0	0	0	2	0	0	0	13	41
6:15 PM	0	11	68	0	0	0	0	0	0	3	0	0	0	0	13	21
6:30 PM	0	7	55	0	0	0	0	0	0	0	4	0	0	0	8	28
6:45 PM	0	13	55	2	0	0	0	0	0	2	1	0	0	0	0	25
7:00 PM	0	7	49	0	0	0	0	0	0	1	0	0	0	0	11	27
7:15 PM	0	9	43	0	0	0	0	0	0	2	2	0	0	0	4	16
7:30 PM	0	9	40	0	0	0	0	0	0	1	2	0	0	0	3	15
7:45 PM	0	10	39	1	0	0	0	0	0	2	1	0	0	0	3	7

AM PEAK HOUR 8:00 AM to 9:00 AM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**40**	**104**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**17**	**0**	**0**	**0**	**49**	**49**
PHF	**0.88**				**0.00**				**0.64**				**0.77**			
HV %	**0.0%**	**22.5%**	**14.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**17.6%**	**0.0%**	**0.0%**	**0.0%**	**30.6%**	**8.2%**

MID PEAK HOUR 1:00 PM to 2:00 PM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**42**	**165**	**2**	**0**	**0**	**0**	**0**	**0**	**7**	**24**	**0**	**0**	**0**	**37**	**89**
PHF	**0.80**				**0.00**				**0.78**				**0.90**			
HV %	**0.0%**	**11.9%**	**10.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**12.5%**	**0.0%**	**0.0%**	**0.0%**	**27.0%**	**9.0%**

PM PEAK HOUR 4:15 PM to 5:15 PM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**39**	**272**	**3**	**0**	**0**	**0**	**0**	**0**	**12**	**15**	**0**	**0**	**0**	**61**	**147**
PHF	**0.83**				**0.00**				**0.68**				**0.81**			
HV %	**0.0%**	**10.3%**	**5.9%**	**33.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**8.3%**	**20.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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HEAVY VEHICLES

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street 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	1	2	0	0	0	0	0	0	0	1	0	0	0	2	1
6:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	3	3
6:45 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	6	2
7:00 AM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	5	0
7:15 AM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	4	0
7:30 AM	0	3	4	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	0
8:00 AM	0	3	3	0	0	0	0	0	0	0	0	0	0	0	7	2
8:15 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	4	0
8:30 AM	0	2	4	0	0	0	0	0	0	0	1	0	0	0	3	1
8:45 AM	0	3	5	0	0	0	0	0	0	0	2	0	0	0	1	1
9:00 AM	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1
9:15 AM	0	2	6	0	0	0	0	0	0	0	0	0	0	0	1	2
9:30 AM	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
10:00 AM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	2	2
10:15 AM	0	3	2	0	0	0	0	0	0	0	1	0	0	0	1	2
10:30 AM	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	4
10:45 AM	0	1	2	0	0	0	0	0	0	0	3	0	0	0	1	0
11:00 AM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	2	9	0	0	0	0	0	0	0	0	0	0	0	3	2
11:30 AM	0	2	4	0	0	0	0	0	0	0	1	0	0	0	0	2
11:45 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	1	1
12:00 PM	0	2	4	0	0	0	0	0	0	1	0	0	0	0	1	0
12:15 PM	0	2	4	0	0	0	0	0	0	0	0	0	0	0	2	0
12:30 PM	0	1	2	0	0	0	0	0	0	0	1	0	0	0	1	1
12:45 PM	0	3	6	0	0	0	0	0	0	0	0	0	0	0	2	0
1:00 PM	0	2	4	0	0	0	0	0	0	0	1	0	0	0	2	0
1:15 PM	0	2	3	0	0	0	0	0	0	0	0	0	0	0	1	2
1:30 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	0	4	2
1:45 PM	0	1	4	0	0	0	0	0	0	0	2	0	0	0	3	4
2:00 PM	0	3	3	0	0	0	0	0	0	0	0	0	0	0	8	1
2:15 PM	0	1	6	0	0	0	0	0	0	1	0	0	0	0	1	3
2:30 PM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	1	1
2:45 PM	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	0
3:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3
3:15 PM	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	1
3:30 PM	0	1	5	0	0	0	0	0	0	0	1	0	0	0	0	1
3:45 PM	0	3	3	0	0	0	0	0	0	0	2	0	0	0	1	0
4:00 PM	0	1	3	0	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0
4:45 PM	0	2	3	0	0	0	0	0	0	0	1	0	0	0	0	0
5:00 PM	0	0	5	0	0	0	0	0	0	1	1	0	0	0	0	0
5:15 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	2	0
5:30 PM	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	1
5:45 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	1	5	0	0	0	0	0	0	0	0	0	0	0	1	0
6:30 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	3
6:45 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 PM	0	1	3	0	0	0	0	0	0	0	0	0	0	0	1	0
7:15 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	1	3	0	0	0	0	0	0	1	0	0	0	0	0	0

AM PEAK HOUR	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
8:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:00 AM	**0**	**9**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**15**	**4**
PHF	**0.75**				**0.00**				**0.38**				**0.53**			

MID PEAK HOUR	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
1:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
2:00 PM	**0**	**5**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**10**	**8**
PHF	**0.92**				**0.00**				**0.38**				**0.64**			

PM PEAK HOUR	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
2:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
3:00 PM	**0**	**7**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**12**	**5**
PHF	**0.79**				**0.00**				**0.25**				**0.47**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PEDESTRIANS & BICYCLES

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street 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	1	0	0	0	3
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	0	0	1	2	0	0	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	2
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	4
8:45 AM	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	2
9:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
10:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2
10:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1
11:30 AM	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
1:15 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0
2:00 PM	0	1	0	2	0	0	0	0	1	0	0	0	0	0	1	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
2:30 PM	1	3	0	1	0	0	0	0	0	0	0	1	0	0	0	1
2:45 PM	0	3	0	3	0	0	0	0	1	0	0	0	0	0	2	0
3:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	2
3:15 PM	0	4	0	0	0	0	0	1	1	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
3:45 PM	0	4	0	3	0	0	0	0	1	0	0	0	0	0	0	1
4:00 PM	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	1	4	0	1	0	0	0	0	0	1	0	0	0	0	0	2
4:45 PM	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	1	7	0	1	0	0	0	1	0	0	0	0	0	0	0	1
5:15 PM	0	10	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:30 PM	1	5	0	2	0	0	0	0	1	0	0	0	0	1	0	4
5:45 PM	1	9	0	1	0	0	0	0	0	0	0	0	0	0	1	4
6:00 PM	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	1	6	0	0	0	0	0	1	0	0	0	0	0	0	0	3
6:30 PM	1	7	0	6	0	0	0	1	0	0	0	0	0	0	0	0
6:45 PM	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	3	0	1	0	0	0	0	1	0	0	1	0	0	0	1
7:15 PM	0	0	0	2	0	0	0	0	6	0	0	0	0	0	0	3
7:30 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
7:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	1	0	6	0	0	0	1	0	0	0	1	0	1	0	9

MID PEAK HOUR 1:00 PM to 2:00 PM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	1	3	1	2	0	0	0	1	1	0	0	1	0	0	0	3

PM PEAK HOUR 4:15 PM to 5:15 PM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	2	19	0	4	0	0	0	1	0	1	0	0	0	0	0	6

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

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	4	0	0	0	0	0	0	22	0	0	0	0	0
6:15 AM	0	0	0	7	0	0	0	0	0	0	37	0	0	0	0	0
6:30 AM	0	0	0	8	0	0	0	0	0	0	42	0	0	0	0	0
6:45 AM	0	0	0	8	0	0	0	0	0	0	32	0	0	0	0	0
7:00 AM	0	0	0	11	0	0	0	0	0	0	40	0	0	0	0	0
7:15 AM	0	0	0	15	0	0	0	0	0	0	48	0	0	0	0	0
7:30 AM	0	0	0	12	0	0	0	0	0	0	55	0	0	0	0	0
7:45 AM	0	0	0	12	0	0	0	0	0	0	51	0	0	0	0	0
8:00 AM	0	0	0	14	0	0	0	0	0	0	60	0	0	0	0	0
8:15 AM	0	0	0	10	0	0	0	0	0	0	68	0	0	0	0	0
8:30 AM	0	0	0	10	0	0	0	0	0	0	39	0	0	0	0	0
8:45 AM	0	0	0	14	0	0	0	0	0	0	71	0	0	0	0	0
9:00 AM	0	0	0	19	0	0	0	0	0	0	54	0	0	0	0	0
9:15 AM	0	0	0	11	0	0	0	0	0	0	64	0	0	0	0	0
9:30 AM	0	0	0	13	0	0	0	0	0	0	49	0	0	0	0	0
9:45 AM	0	0	0	11	0	0	0	0	0	0	56	0	0	0	0	0
10:00 AM	0	0	0	14	0	0	0	0	0	0	63	0	0	0	0	0
10:15 AM	0	0	0	11	0	0	0	0	0	0	65	0	0	0	0	0
10:30 AM	0	0	0	12	0	0	0	0	0	0	46	0	0	0	0	0
10:45 AM	0	0	0	15	0	0	0	0	0	0	54	0	0	0	0	0
11:00 AM	0	0	0	11	0	0	0	0	0	0	61	0	0	0	0	0
11:15 AM	0	0	0	9	0	0	0	0	0	0	65	0	0	0	0	0
11:30 AM	0	0	0	32	0	0	0	0	0	0	68	0	0	0	0	0
11:45 AM	0	0	0	12	0	0	0	0	0	0	67	0	0	0	0	0
12:00 PM	0	0	0	17	0	0	0	0	0	0	63	0	0	0	0	0
12:15 PM	0	0	0	17	0	0	0	0	0	0	60	0	0	0	0	0
12:30 PM	0	0	0	17	0	0	0	0	0	0	59	0	0	0	0	0
12:45 PM	0	0	0	13	0	0	0	0	0	0	63	0	0	0	0	0
1:00 PM	0	0	0	26	0	0	0	0	0	0	73	0	0	0	0	0
1:15 PM	0	0	0	20	0	0	0	0	0	0	67	0	0	0	0	0
1:30 PM	0	0	0	37	0	0	0	0	0	0	77	0	0	0	0	0
1:45 PM	0	0	0	34	0	0	0	0	0	0	75	0	0	0	0	0
2:00 PM	0	0	0	29	0	0	0	0	0	0	74	0	0	0	0	0
2:15 PM	0	0	0	27	0	0	0	0	0	0	72	0	0	0	0	0
2:30 PM	0	0	0	21	0	0	0	0	0	0	69	0	0	0	0	0
2:45 PM	0	0	0	27	0	0	0	0	0	0	74	0	0	0	0	0
3:00 PM	0	0	0	20	0	0	0	0	0	0	75	0	0	0	0	0
3:15 PM	0	0	0	35	0	0	0	0	0	0	77	0	0	0	0	0
3:30 PM	0	0	0	40	0	0	0	0	0	0	65	0	0	0	0	0
3:45 PM	0	0	0	33	0	0	0	0	0	0	53	0	0	0	0	0
4:00 PM	0	0	0	31	0	0	0	0	0	0	74	0	0	0	0	0
4:15 PM	0	0	0	28	0	0	0	0	0	0	66	0	0	0	0	0
4:30 PM	0	0	0	44	0	0	0	0	0	0	78	0	0	0	0	0
4:45 PM	0	0	0	47	0	0	0	0	0	0	84	0	0	0	0	0
5:00 PM	0	0	0	42	0	0	0	0	0	0	91	0	0	0	0	0
5:15 PM	0	0	0	34	0	0	0	0	0	0	78	0	0	0	0	0
5:30 PM	0	0	0	44	0	0	0	0	0	0	58	0	0	0	0	0
5:45 PM	0	0	0	51	0	0	0	0	0	0	61	0	0	0	0	0
6:00 PM	0	0	0	29	0	0	0	0	0	0	78	0	0	0	0	0
6:15 PM	0	0	0	30	0	0	0	0	0	0	78	0	0	0	0	0
6:30 PM	0	0	0	31	0	0	0	0	0	0	66	0	0	0	0	0
6:45 PM	0	0	0	14	0	0	0	0	0	0	68	0	0	0	0	0
7:00 PM	0	0	0	19	0	0	0	0	0	0	84	0	0	0	0	0
7:15 PM	0	0	0	16	0	0	0	0	0	0	73	0	0	0	0	0
7:30 PM	0	0	0	23	0	0	0	0	0	0	50	0	0	0	0	0
7:45 PM	0	0	0	15	0	0	0	0	0	0	61	0	0	0	0	0

AM PEAK HOUR 8:45 AM to 9:45 AM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**57**	**0**	**0**	**0**	**0**	**0**	**0**	**238**	**0**	**0**	**0**	**0**	**0**
PHF	**0.75**				**0.00**				**0.84**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.0%**	**15.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**13.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

MID PEAK HOUR 1:00 PM to 2:00 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**117**	**0**	**0**	**0**	**0**	**0**	**0**	**292**	**0**	**0**	**0**	**0**	**0**
PHF	**0.79**				**0.00**				**0.95**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.0%**	**5.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**9.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**167**	**0**	**0**	**0**	**0**	**0**	**0**	**331**	**0**	**0**	**0**	**0**	**0**
PHF	**0.89**				**0.00**				**0.91**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.0%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**7.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Notes:
Southbound leg at this intersection has been blocked off by construction concrete barrier/fence.
There is a construction activity near/under McGrath Highway bridge area.

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
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HEAVY VEHICLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	1	0	0	0	0	0	0	6	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
6:45 AM	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	9	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	1	0	0	0	0	0	0	8	0	0	0	0	0
8:00 AM	0	0	0	2	0	0	0	0	0	0	6	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0	0	0	11	0	0	0	0	0
8:30 AM	0	0	0	2	0	0	0	0	0	0	8	0	0	0	0	0
8:45 AM	0	0	0	3	0	0	0	0	0	0	11	0	0	0	0	0
9:00 AM	0	0	0	5	0	0	0	0	0	0	6	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
9:30 AM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
10:00 AM	0	0	0	4	0	0	0	0	0	0	9	0	0	0	0	0
10:15 AM	0	0	0	2	0	0	0	0	0	0	7	0	0	0	0	0
10:30 AM	0	0	0	3	0	0	0	0	0	0	4	0	0	0	0	0
10:45 AM	0	0	0	2	0	0	0	0	0	0	7	0	0	0	0	0
11:00 AM	0	0	0	2	0	0	0	0	0	0	9	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0
12:00 PM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
12:15 PM	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0	0	9	0	0	0	0	0
1:15 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0
1:30 PM	0	0	0	2	0	0	0	0	0	0	11	0	0	0	0	0
1:45 PM	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0
2:00 PM	0	0	0	4	0	0	0	0	0	0	11	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
2:30 PM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	0	0
2:45 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
3:00 PM	0	0	0	1	0	0	0	0	0	0	5	0	0	0	0	0
3:15 PM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
3:45 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0
4:00 PM	0	0	0	1	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	2	0	0	0	0	0	0	7	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
6:00 PM	0	0	0	0	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	6	0	0	0	0	0
6:30 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	0	0
7:45 PM	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0

AM PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
8:15 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:15 AM	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**36**	**0**	**0**	**0**	**0**	**0**
PHF	**0.55**				**0.00**				**0.82**				**0.00**			

MID PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
10:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:45 AM	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**0**	**0**	**0**	**0**
PHF	**0.63**				**0.00**				**0.85**				**0.00**			

PM PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
3:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**27**	**0**	**0**	**0**	**0**	**0**
PHF	**0.75**				**0.00**				**0.75**				**0.00**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PEDESTRIANS & BICYCLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	1	0	0	0	0	0	1	0	0	0	0	0	0
6:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0
6:45 AM	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0
7:00 AM	0	0	0	2	0	0	0	0	0	1	0	1	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	5	0	0	0	0	0	2	0	0	0	0	0	0
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	6	0	0	0	0	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	6	0	0	0	0	0	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
9:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0
11:00 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1
11:30 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	0
1:45 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
3:30 PM	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0
4:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0
5:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0
6:00 PM	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0
6:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
7:00 PM	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0
7:15 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0

AM PEAK HOUR 8:45 AM to 9:45 AM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	1	13	0	0	0	0	0	6	0	0	0	0	0	0

MID PEAK HOUR 1:00 PM to 2:00 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	14	0	0	0	0	0	1	0	0	0	0	0	0

PM PEAK HOUR 4:30 PM to 5:30 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	1	11	0	0	0	0	0	1	0	0	0	0	0	0

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

Client:
Project #: 981_A_HSH
BTD #: Location 4
Location: Somerville, MA
Street 1: McGrath Highway
Street 2: Medford Street Ext
Count Date: 10/6/2022
Day of Week: Thursday
Weather: Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway 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	0	0	0	0	28	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	150	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	199	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	277	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	296	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	305	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	330	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	335	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	329	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	304	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	322	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	312	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	319	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	366	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	305	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	268	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	0

AM PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
8:30 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**449**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.87**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**8.7%**	**0.0%**

MID PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
1:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
2:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**745**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.93**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**5.8%**	**0.0%**

PM PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
4:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1319**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.90**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**0.0%**

Notes:
Northbound leg at this intersection has been blocked off by construction concrete barrier/fence.
There is a construction activity near/under McGrath Highway bridge area.

Client:	0
Project #:	981_A_HSH
BTD #:	Location 4
Location:	Somerville, MA
Street 1:	McGrath Highway
Street 2:	Medford Street Ext
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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HEAVY VEHICLES

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway 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	0	0	0	0	4	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0

AM PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
8:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.92**			

MID PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
12:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.70**			

PM PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
2:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
3:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**41**	**0**
PHF	**0.00**				**0.00**				**0.00**				**0.73**			

Client:	0
Project #:	981_A_HSH
BTD #:	Location 4
Location:	Somerville, MA
Street 1:	McGrath Highway
Street 2:	Medford Street Ext
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PEDESTRIANS & BICYCLES

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway 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	1	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
6:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
7:15 AM	0	0	0	2	0	0	0	0	0	0	0	3	0	2	0	1
7:30 AM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
11:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
3:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
3:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	3	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0
5:00 PM	0	0	0	2	0	0	0	0	0	0	0	2	0	4	0	0
5:15 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	3	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
5:45 PM	0	0	0	6	0	0	0	0	0	0	0	1	0	5	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
6:30 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	5	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
7:45 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0

AM PEAK HOUR 8:30 AM to 9:30 AM	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0

MID PEAK HOUR 1:00 PM to 2:00 PM	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0

PM PEAK HOUR 4:45 PM to 5:45 PM	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	3	0	0	0	0	0	0	0	6	0	10	0	0

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

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	10	0	0	0	7	71	8	0	0	15	3	0	0	0	0
6:15 AM	0	9	0	0	0	21	88	15	0	0	13	5	0	0	0	0
6:30 AM	0	13	0	0	0	19	93	8	0	0	23	4	0	0	0	0
6:45 AM	0	17	0	0	0	14	91	15	0	0	19	2	0	0	0	0
7:00 AM	0	18	0	0	0	24	116	22	0	0	15	11	0	0	0	0
7:15 AM	0	25	0	0	0	22	114	20	0	0	27	7	0	0	0	0
7:30 AM	0	25	0	0	0	24	119	29	0	0	31	8	0	0	0	0
7:45 AM	0	28	0	0	0	22	125	13	0	0	29	16	0	0	0	0
8:00 AM	0	27	0	0	0	21	129	21	0	0	37	21	0	0	0	0
8:15 AM	0	17	0	0	0	28	121	19	0	0	40	16	0	0	0	0
8:30 AM	0	23	0	0	0	16	117	16	0	0	23	11	0	0	0	0
8:45 AM	0	22	0	0	0	24	117	15	0	0	46	13	0	0	0	0
9:00 AM	0	29	0	0	0	22	108	23	0	0	30	17	0	0	0	0
9:15 AM	0	16	0	0	0	26	128	16	0	0	36	18	0	0	0	0
9:30 AM	0	21	0	0	0	19	110	17	0	0	30	19	0	0	0	0
9:45 AM	0	26	0	0	0	27	98	21	0	0	29	14	0	0	0	0
10:00 AM	0	31	0	0	0	24	85	18	0	0	35	17	0	0	0	0
10:15 AM	0	28	0	0	0	31	92	22	0	0	30	22	0	0	0	0
10:30 AM	0	31	0	0	0	14	116	16	0	0	32	15	0	0	0	0
10:45 AM	0	29	0	0	0	18	81	21	0	0	35	6	0	0	0	0
11:00 AM	0	33	0	0	0	29	70	14	0	0	30	14	0	0	0	0
11:15 AM	0	36	0	0	0	20	72	26	0	0	42	16	0	0	0	0
11:30 AM	0	20	0	0	0	24	65	21	0	0	43	5	0	0	0	0
11:45 AM	0	33	0	0	0	21	66	26	0	0	45	11	0	0	0	0
12:00 PM	0	32	0	0	0	31	63	22	0	0	30	17	0	0	0	0
12:15 PM	0	46	0	0	0	28	76	23	0	0	30	9	0	0	0	0
12:30 PM	0	43	0	0	0	21	52	24	0	0	38	10	0	0	0	0
12:45 PM	0	36	0	0	0	30	84	24	0	0	34	7	0	0	0	0
1:00 PM	0	26	0	0	0	22	73	20	0	0	48	10	0	0	0	0
1:15 PM	0	43	0	0	0	22	48	21	0	0	45	24	0	0	0	0
1:30 PM	0	40	0	0	0	22	51	17	0	0	56	8	0	0	0	0
1:45 PM	0	28	0	0	0	34	75	24	0	0	43	7	0	0	0	0
2:00 PM	0	53	0	0	0	28	72	12	0	0	44	9	0	0	0	0
2:15 PM	0	38	0	0	0	29	69	24	0	0	41	10	0	0	0	0
2:30 PM	0	40	0	0	0	24	65	16	0	0	45	14	0	0	0	0
2:45 PM	0	53	0	0	0	24	107	21	0	0	50	13	0	0	0	0
3:00 PM	0	54	0	0	0	29	80	20	0	0	46	18	0	0	0	0
3:15 PM	0	50	0	0	0	23	82	18	0	0	55	8	0	0	0	0
3:30 PM	0	55	0	0	0	23	58	25	0	0	41	16	0	0	0	0
3:45 PM	0	51	0	0	0	27	68	23	0	0	25	9	0	0	0	0
4:00 PM	0	58	0	0	0	21	74	19	0	0	53	10	0	0	0	0
4:15 PM	0	55	0	0	0	26	57	19	0	0	41	13	0	0	0	0
4:30 PM	0	64	0	0	0	37	74	20	0	0	42	11	0	0	0	0
4:45 PM	0	52	0	0	0	25	79	21	0	0	59	12	0	0	0	0
5:00 PM	0	41	0	0	0	29	75	17	0	0	65	8	0	0	0	0
5:15 PM	0	54	0	0	0	30	73	17	0	0	46	3	0	0	0	0
5:30 PM	0	56	0	0	0	19	70	23	0	0	40	13	0	0	0	0
5:45 PM	0	57	0	0	0	24	53	17	0	0	37	8	0	0	0	0
6:00 PM	0	55	0	0	0	32	69	16	0	0	47	13	0	0	0	0
6:15 PM	0	51	0	0	0	29	81	25	0	0	50	10	0	0	0	0
6:30 PM	0	49	0	0	0	24	74	25	0	0	40	15	0	0	0	0
6:45 PM	0	45	0	0	0	14	70	21	0	0	51	13	0	0	0	0
7:00 PM	0	42	0	0	0	30	57	24	0	0	48	7	0	0	0	0
7:15 PM	0	39	0	0	0	16	60	12	0	0	49	4	0	0	0	0
7:30 PM	0	34	0	0	0	16	61	21	0	0	34	6	0	0	0	0
7:45 PM	0	27	0	0	0	19	44	21	0	0	41	9	0	0	0	0

AM PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
7:30 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
8:30 AM	**0**	**97**	**0**	**0**	**0**	**95**	**494**	**82**	**0**	**0**	**137**	**61**	**0**	**0**	**0**	**0**
PHF	**0.87**				**0.98**				**0.85**				**0.00**			
HV %	**0.0%**	**3.1%**	**0.0%**	**0.0%**	**0.0%**	**21.1%**	**6.9%**	**13.4%**	**0.0%**	**0.0%**	**10.2%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

MID PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
10:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	**0**	**119**	**0**	**0**	**0**	**87**	**374**	**77**	**0**	**0**	**132**	**60**	**0**	**0**	**0**	**0**
PHF	**0.96**				**0.92**				**0.92**				**0.00**			
HV %	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**17.2%**	**5.9%**	**11.7%**	**0.0%**	**0.0%**	**9.1%**	**6.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
2:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
3:45 PM	**0**	**212**	**0**	**0**	**0**	**99**	**327**	**84**	**0**	**0**	**192**	**55**	**0**	**0**	**0**	**0**
PHF	**0.96**				**0.84**				**0.96**				**0.00**			
HV %	**0.0%**	**3.8%**	**0.0%**	**0.0%**	**0.0%**	**9.1%**	**4.9%**	**3.6%**	**0.0%**	**0.0%**	**5.7%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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HEAVY VEHICLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	2	0	0	0	2	5	2	0	0	3	0	0	0	0	0
6:15 AM	0	1	0	0	0	4	4	2	0	0	1	0	0	0	0	0
6:30 AM	0	0	0	0	0	4	3	3	0	0	3	0	0	0	0	0
6:45 AM	0	2	0	0	0	4	7	3	0	0	3	0	0	0	0	0
7:00 AM	0	1	0	0	0	7	11	3	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	6	7	1	0	0	3	0	0	0	0	0
7:30 AM	0	0	0	0	0	3	6	4	0	0	5	0	0	0	0	0
7:45 AM	0	0	0	0	0	5	6	2	0	0	4	0	0	0	0	0
8:00 AM	0	1	0	0	0	4	13	4	0	0	2	1	0	0	0	0
8:15 AM	0	2	0	0	0	8	9	1	0	0	3	0	0	0	0	0
8:30 AM	0	0	0	0	0	2	8	4	0	0	6	1	0	0	0	0
8:45 AM	0	3	0	0	0	4	3	1	0	0	6	0	0	0	0	0
9:00 AM	0	2	0	0	0	2	5	1	0	0	3	1	0	0	0	0
9:15 AM	0	0	0	0	0	6	11	2	0	0	5	2	0	0	0	0
9:30 AM	0	2	0	0	0	3	7	3	0	0	3	2	0	0	0	0
9:45 AM	0	2	0	0	0	2	3	0	0	0	3	0	0	0	0	0
10:00 AM	0	2	0	0	0	4	8	2	0	0	5	2	0	0	0	0
10:15 AM	0	1	0	0	0	5	5	3	0	0	2	2	0	0	0	0
10:30 AM	0	1	0	0	0	2	6	1	0	0	2	0	0	0	0	0
10:45 AM	0	1	0	0	0	4	3	3	0	0	3	0	0	0	0	0
11:00 AM	0	2	0	0	0	4	5	0	0	0	4	0	0	0	0	0
11:15 AM	0	1	0	0	0	2	4	5	0	0	5	1	0	0	0	0
11:30 AM	0	2	0	0	0	3	1	1	0	0	4	0	0	0	0	0
11:45 AM	0	1	0	0	0	2	2	2	0	0	3	0	0	0	0	0
12:00 PM	0	3	0	0	0	0	5	0	0	0	2	0	0	0	0	0
12:15 PM	0	2	0	0	0	5	6	0	0	0	1	0	0	0	0	0
12:30 PM	0	2	0	0	0	5	2	2	0	0	2	0	0	0	0	0
12:45 PM	0	1	0	0	0	5	2	1	0	0	2	0	0	0	0	0
1:00 PM	0	1	0	0	0	5	5	3	0	0	2	1	0	0	0	0
1:15 PM	0	1	0	0	0	2	3	2	0	0	1	0	0	0	0	0
1:30 PM	0	4	0	0	0	4	7	3	0	0	7	0	0	0	0	0
1:45 PM	0	1	0	0	0	2	10	1	0	0	4	0	0	0	0	0
2:00 PM	0	0	0	0	0	3	8	3	0	0	7	1	0	0	0	0
2:15 PM	0	3	0	0	0	2	2	2	0	0	2	1	0	0	0	0
2:30 PM	0	1	0	0	0	1	3	3	0	0	4	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	7	1	0	0	1	1	0	0	0	0
3:00 PM	0	2	0	0	0	2	5	0	0	0	3	0	0	0	0	0
3:15 PM	0	3	0	0	0	3	1	1	0	0	5	0	0	0	0	0
3:30 PM	0	3	0	0	0	4	3	1	0	0	2	0	0	0	0	0
3:45 PM	0	1	0	0	0	4	4	2	0	0	5	1	0	0	0	0
4:00 PM	0	1	0	0	0	1	0	1	0	0	1	1	0	0	0	0
4:15 PM	0	2	0	0	0	1	3	0	0	0	2	0	0	0	0	0
4:30 PM	0	1	0	0	0	5	0	1	0	0	2	1	0	0	0	0
4:45 PM	0	2	0	0	0	2	2	2	0	0	2	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0
5:15 PM	0	0	0	0	0	5	1	2	0	0	5	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	3	2	1	0	0	2	0	0	0	0	0
6:00 PM	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0
6:15 PM	0	0	0	0	0	3	1	2	0	0	3	0	0	0	0	0
6:30 PM	0	0	0	0	0	2	1	1	0	0	1	1	0	0	0	0
6:45 PM	0	1	0	0	0	1	1	3	0	0	2	0	0	0	0	0
7:00 PM	0	0	0	0	0	4	0	1	0	0	2	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0
7:30 PM	0	1	0	0	0	2	0	1	0	0	1	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	2	0	0	0	1	1	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**3**	**0**	**0**	**0**	**19**	**36**	**11**	**0**	**0**	**15**	**2**	**0**	**0**	**0**	**0**
PHF	**0.38**				**0.79**				**0.61**				**0.00**			

MID PEAK HOUR 1:00 PM to 2:00 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**7**	**0**	**0**	**0**	**13**	**25**	**9**	**0**	**0**	**14**	**1**	**0**	**0**	**0**	**0**
PHF	**0.44**				**0.84**				**0.54**				**0.00**			

PM PEAK HOUR 2:00 PM to 3:00 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**4**	**0**	**0**	**0**	**6**	**20**	**9**	**0**	**0**	**14**	**3**	**0**	**0**	**0**	**0**
PHF	**0.33**				**0.63**				**0.53**				**0.00**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PEDESTRIANS & BICYCLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	1	0	1	1	1	0	1	0	3	0	0	0	0
6:15 AM	0	0	0	2	0	4	0	2	0	0	1	2	0	0	0	0
6:30 AM	0	0	0	2	0	0	0	1	0	0	0	5	0	0	0	2
6:45 AM	1	0	0	3	0	3	0	3	0	0	1	7	0	0	0	0
7:00 AM	1	0	0	5	0	2	0	0	0	0	0	6	0	0	0	4
7:15 AM	0	0	0	1	0	7	0	3	0	0	2	13	0	0	0	0
7:30 AM	5	0	0	3	0	8	0	0	0	0	5	10	0	0	0	0
7:45 AM	3	0	0	4	1	7	1	1	0	0	5	12	0	0	0	2
8:00 AM	0	0	0	5	0	17	0	1	0	0	1	9	0	0	0	0
8:15 AM	0	0	0	3	2	15	0	2	0	0	7	13	0	0	0	1
8:30 AM	1	0	0	4	0	14	0	2	0	0	9	11	0	0	0	0
8:45 AM	2	0	0	9	1	18	0	3	0	0	10	11	0	0	0	5
9:00 AM	0	0	0	6	1	11	0	3	0	1	7	9	0	0	0	0
9:15 AM	2	0	0	0	0	12	0	1	0	2	1	5	0	0	0	1
9:30 AM	0	0	0	2	0	10	0	0	0	0	6	8	0	0	0	0
9:45 AM	1	0	0	3	0	3	0	0	0	0	1	4	0	0	0	0
10:00 AM	1	0	0	2	0	7	0	5	0	0	2	5	0	0	0	0
10:15 AM	1	0	0	1	0	9	0	3	0	0	2	5	0	0	0	0
10:30 AM	0	0	0	3	0	6	0	1	0	0	3	3	0	0	0	0
10:45 AM	1	0	0	0	0	6	0	2	0	1	0	6	0	0	0	2
11:00 AM	2	0	0	2	0	1	0	2	0	0	0	2	0	0	0	0
11:15 AM	2	0	0	4	0	4	0	1	0	0	1	4	0	0	0	1
11:30 AM	1	0	0	0	0	1	1	3	0	0	1	6	0	0	0	0
11:45 AM	0	0	0	2	0	2	1	1	0	0	0	1	0	0	0	0
12:00 PM	1	0	0	0	0	2	0	3	0	0	1	2	0	0	0	4
12:15 PM	1	0	0	4	0	3	1	3	0	0	0	10	0	0	0	0
12:30 PM	1	0	0	2	0	3	2	0	0	0	3	5	0	0	0	0
12:45 PM	0	0	0	2	0	4	0	5	0	0	1	10	0	0	0	0
1:00 PM	4	0	0	1	0	4	0	7	0	0	3	7	0	0	0	0
1:15 PM	2	0	0	1	0	1	0	1	0	0	1	6	0	0	0	2
1:30 PM	0	0	0	2	0	2	2	1	0	0	4	8	0	0	0	3
1:45 PM	0	0	0	2	0	3	0	2	0	0	0	10	0	0	0	3
2:00 PM	0	0	0	3	0	0	0	4	0	0	0	5	0	0	0	0
2:15 PM	0	0	0	5	0	2	0	1	0	0	0	14	0	0	0	5
2:30 PM	1	0	0	3	0	5	0	1	0	0	0	2	0	0	0	6
2:45 PM	0	0	0	2	0	2	0	1	0	0	0	3	0	0	0	1
3:00 PM	3	0	0	3	0	6	0	2	0	0	0	6	0	0	0	3
3:15 PM	0	0	0	2	0	2	0	0	0	1	0	5	0	0	0	0
3:30 PM	4	0	0	2	0	3	0	0	0	0	1	8	0	0	0	8
3:45 PM	5	0	0	4	0	5	0	1	0	0	0	14	0	0	0	1
4:00 PM	1	0	0	6	0	10	0	1	0	0	0	14	0	0	0	0
4:15 PM	5	0	0	3	0	1	0	5	0	0	1	15	0	0	0	2
4:30 PM	6	0	0	3	0	2	1	6	0	0	0	13	0	0	0	0
4:45 PM	7	0	0	3	0	3	0	6	0	1	0	14	0	0	0	1
5:00 PM	7	0	0	3	0	3	1	4	0	0	0	24	0	0	0	0
5:15 PM	11	0	0	5	0	2	0	4	0	0	1	19	0	0	0	1
5:30 PM	7	0	0	7	0	2	1	3	0	1	3	26	0	0	0	1
5:45 PM	8	0	0	6	0	5	0	10	0	1	2	20	0	0	0	0
6:00 PM	8	0	0	9	0	4	1	1	0	0	6	18	0	0	0	0
6:15 PM	7	0	0	4	1	5	0	2	0	0	1	21	0	0	0	1
6:30 PM	4	0	0	3	0	1	0	5	0	0	0	16	0	0	0	0
6:45 PM	6	0	0	0	0	3	0	0	0	0	0	12	0	0	0	0
7:00 PM	2	0	0	1	0	2	0	6	0	0	0	16	0	0	0	0
7:15 PM	3	0	0	0	0	1	0	3	0	0	0	8	0	0	0	0
7:30 PM	0	0	0	0	0	2	0	3	0	0	0	5	0	0	0	0
7:45 PM	3	0	0	1	0	1	1	2	0	0	0	7	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	8	0	0	15	3	47	1	4	0	0	18	44	0	0	0	3

MID PEAK HOUR 10:00 AM to 11:00 AM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	3	0	0	6	0	28	0	11	0	1	7	19	0	0	0	2

PM PEAK HOUR 2:45 PM to 3:45 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	7	0	0	9	0	13	0	3	0	1	1	22	0	0	0	12

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

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	2	0	0	0	0	0	0	26	13
6:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	32	13
6:30 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	38	9
6:45 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	0	62	14
7:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	82	5
7:15 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	88	9
7:30 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	67	12
7:45 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	73	7
8:00 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	99	8
8:15 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	79	8
8:30 AM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	103	10
8:45 AM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	116	12
9:00 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	0	107	13
9:15 AM	0	0	0	0	0	0	0	10	0	0	0	0	0	0	84	6
9:30 AM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	86	7
9:45 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	84	11
10:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	94	10
10:15 AM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	91	9
10:30 AM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	90	17
10:45 AM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	95	10
11:00 AM	0	0	0	0	0	0	0	16	0	0	0	0	0	0	118	11
11:15 AM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	123	13
11:30 AM	0	0	0	0	0	0	0	15	0	0	0	0	0	0	102	11
11:45 AM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	128	6
12:00 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	138	18
12:15 PM	0	0	0	0	0	0	0	19	0	0	0	0	0	0	131	16
12:30 PM	0	0	0	0	0	0	0	15	0	0	0	0	0	0	140	16
12:45 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	143	13
1:00 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	136	10
1:15 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	191	15
1:30 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	0	184	21
1:45 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	189	21
2:00 PM	0	0	0	0	0	0	0	15	0	0	0	0	0	0	215	16
2:15 PM	0	0	0	0	0	0	0	21	0	0	0	0	0	0	219	11
2:30 PM	0	0	0	0	0	0	0	21	0	0	0	0	0	0	241	21
2:45 PM	0	0	0	0	0	0	0	24	0	0	0	0	0	0	253	12
3:00 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	262	17
3:15 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	0	285	27
3:30 PM	0	0	0	0	0	0	0	28	0	0	0	0	0	0	277	28
3:45 PM	0	0	0	0	0	0	0	18	0	0	0	0	0	0	312	17
4:00 PM	0	0	0	0	0	0	0	21	0	0	0	0	0	0	314	20
4:15 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	316	19
4:30 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	292	15
4:45 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	309	22
5:00 PM	0	0	0	0	0	0	0	20	0	0	0	0	0	0	292	28
5:15 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	0	305	23
5:30 PM	0	0	0	0	0	0	0	22	0	0	0	0	0	0	344	30
5:45 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	0	291	24
6:00 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	290	18
6:15 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	0	266	20
6:30 PM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	263	21
6:45 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	0	229	7
7:00 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	206	13
7:15 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	186	17
7:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	147	11
7:45 PM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	143	6

AM PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:30 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**0**	**410**	**41**
PHF	**0.00**				**0.75**				**0.00**				**0.88**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**12.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**8.3%**	**14.6%**

MID PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
1:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
2:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**0**	**0**	**0**	**0**	**0**	**700**	**67**
PHF	**0.00**				**0.80**				**0.00**				**0.91**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**8.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**5.6%**	**13.4%**

PM PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
4:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**69**	**0**	**0**	**0**	**0**	**0**	**0**	**1250**	**103**
PHF	**0.00**				**0.78**				**0.00**				**0.90**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**4.9%**

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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HEAVY VEHICLES

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	1	0	0	0	0	0	0	3	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
6:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4	1
6:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7	0
8:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	8	1
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7	0
8:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	8	0
8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	10	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
9:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	8	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1
10:15 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	13	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4
11:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	9	1
11:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	7	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	8	3
12:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	7	1
12:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	9	4
12:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	10	1
1:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2
1:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	14	3
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	2
2:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7	1
2:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	11	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2
2:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	9	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	4
3:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	9	4
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	5	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	6	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3
7:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	2
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0

AM PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**33**	**5**
PHF	**0.00**				**0.69**				**0.00**				**0.68**			

MID PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**38**	**8**
PHF	**0.00**				**0.58**				**0.00**				**0.68**			

PM PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
3:30 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**13**
PHF	**0.00**				**0.25**				**0.00**				**0.84**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PEDESTRIANS & BICYCLES

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	0
6:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0
11:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	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	1	0	0	0	0	0	1	0	0
11:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0
12:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0
1:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
1:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0
2:15 PM	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
3:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0
3:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
4:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	1	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
5:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	5	0	0	0	0	0	5	0	0
6:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	5	0	0
6:15 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0
6:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:30 AM to 9:30 AM	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	1	2	0	0	0	1	0	1	0	1

MID PEAK HOUR 1:00 PM to 2:00 PM	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	1	3	0	0	0	1	0	1	1	0

PM PEAK HOUR 4:45 PM to 5:45 PM	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	5	0	0	0	0	0	10	0	0

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

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	197	0	0	0	38	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	254	0	0	0	41	2
6:30 AM	0	0	0	0	0	1	0	0	0	1	301	0	0	0	47	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	354	0	0	0	80	1
7:00 AM	0	0	0	0	0	0	0	1	0	3	353	0	0	0	91	2
7:15 AM	0	0	0	0	0	1	0	0	0	1	344	0	0	0	85	1
7:30 AM	0	0	0	0	0	1	0	0	0	2	342	0	0	0	73	0
7:45 AM	0	0	0	0	0	1	0	1	0	2	307	0	0	0	80	1
8:00 AM	0	0	0	0	0	0	0	1	0	0	408	0	0	0	106	1
8:15 AM	0	0	0	0	0	0	0	0	0	2	426	0	0	0	88	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	407	0	0	0	106	0
8:45 AM	0	0	0	0	0	1	0	0	0	1	400	0	0	0	117	1
9:00 AM	0	0	0	0	0	0	0	1	0	0	386	0	0	0	116	0
9:15 AM	0	0	0	0	0	2	0	0	0	1	375	0	0	0	91	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	353	0	0	0	86	0
9:45 AM	0	0	0	0	0	0	0	1	0	1	326	0	0	0	85	3
10:00 AM	0	0	0	0	0	0	0	2	0	0	292	0	0	0	101	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	292	0	0	0	99	2
10:30 AM	0	0	0	0	0	0	0	1	0	0	280	0	0	0	105	1
10:45 AM	0	0	0	0	0	0	0	1	0	0	275	0	0	0	107	1
11:00 AM	0	0	0	0	0	2	0	0	0	1	267	0	0	0	127	0
11:15 AM	0	0	0	0	0	3	0	1	0	0	215	0	0	0	132	3
11:30 AM	0	0	0	0	0	1	0	1	0	0	206	0	0	0	112	2
11:45 AM	0	0	0	0	0	1	0	3	0	2	181	0	0	0	130	5
12:00 PM	0	0	0	0	0	0	0	4	0	0	167	0	0	0	141	2
12:15 PM	0	0	0	0	0	1	0	2	0	0	196	0	0	0	149	2
12:30 PM	0	0	0	0	0	2	0	0	0	0	211	0	0	0	155	0
12:45 PM	0	0	0	0	0	0	0	1	0	0	194	0	0	0	150	0
1:00 PM	0	0	0	0	0	0	0	0	0	1	172	0	0	0	156	2
1:15 PM	0	0	0	0	0	1	0	2	0	0	131	0	0	0	141	1
1:30 PM	0	0	0	0	0	1	0	1	0	0	200	0	0	0	205	0
1:45 PM	0	0	0	0	0	0	0	3	0	0	192	0	0	0	204	1
2:00 PM	0	0	0	0	0	0	0	0	0	0	183	0	0	0	237	2
2:15 PM	0	0	0	0	0	0	0	0	0	0	198	0	0	0	233	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	187	0	0	0	267	1
2:45 PM	0	0	0	0	0	0	0	1	0	0	230	0	0	0	267	1
3:00 PM	0	0	0	0	0	7	0	2	0	0	254	0	0	0	282	0
3:15 PM	0	0	0	0	0	1	0	0	0	1	266	0	0	0	304	1
3:30 PM	0	0	0	0	0	3	0	2	0	0	248	0	0	0	306	2
3:45 PM	0	0	0	0	0	0	0	1	0	0	221	0	0	0	320	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	181	0	0	0	353	0
4:15 PM	0	0	0	0	0	2	0	3	0	0	267	0	0	0	318	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	259	0	0	0	334	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	242	0	0	0	299	1
5:00 PM	0	0	0	0	0	1	0	0	0	0	274	0	0	0	317	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	281	0	0	0	345	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	295	0	0	0	347	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	242	0	0	0	299	0
6:00 PM	0	0	0	0	0	1	0	0	0	1	234	0	0	0	309	1
6:15 PM	0	0	0	0	0	1	0	0	0	0	251	0	0	0	260	2
6:30 PM	0	0	0	0	0	0	0	1	0	1	206	0	0	0	266	0
6:45 PM	0	0	0	0	0	2	0	1	0	0	197	0	0	0	224	0
7:00 PM	0	0	0	0	0	0	0	1	0	0	180	0	0	0	224	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	166	0	0	0	188	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	148	0	0	0	151	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	140	0	0	0	142	0

AM PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:00 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**4**	**1641**	**0**	**0**	**0**	**417**	**2**
PHF	**0.00**				**0.50**				**0.96**				**0.89**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.4%**	**0.0%**	**0.0%**	**0.0%**	**8.6%**	**0.0%**

MID PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
10:15 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:15 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**1**	**1114**	**0**	**0**	**0**	**438**	**4**
PHF	**0.00**				**0.50**				**0.95**				**0.87**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**50.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**9.1%**	**0.0%**

PM PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
4:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1092**	**0**	**0**	**0**	**1308**	**1**
PHF	**0.00**				**0.25**				**0.93**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**2.0%**	**0.0%**

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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HEAVY VEHICLES

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	13	0	0	0	3	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	5	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	5	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	6	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	10	0	0	0	7	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	9	0	0	0	7	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	17	0	0	0	9	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	12	0	0	0	8	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	8	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	11	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	12	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	7	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	16	0	0	0	7	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	5	1
10:00 AM	0	0	0	0	0	0	0	0	0	0	15	0	0	0	8	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	16	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	6	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	8	0
11:00 AM	0	0	0	0	0	1	0	0	0	0	13	0	0	0	10	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	1
11:30 AM	0	0	0	0	0	1	0	0	0	0	14	0	0	0	6	1
11:45 AM	0	0	0	0	0	0	0	2	0	1	6	0	0	0	7	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	0
12:15 PM	0	0	0	0	0	1	0	1	0	0	13	0	0	0	8	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	12	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	10	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	1
1:30 PM	0	0	0	0	0	1	0	0	0	0	8	0	0	0	16	0
1:45 PM	0	0	0	0	0	0	0	1	0	0	6	0	0	0	12	1
2:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	11	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	11	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	12	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	7	0
3:15 PM	0	0	0	0	0	0	0	0	0	1	11	0	0	0	8	0
3:30 PM	0	0	0	0	0	0	0	1	0	0	7	0	0	0	12	1
3:45 PM	0	0	0	0	0	0	0	1	0	0	10	0	0	0	11	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	12	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	11	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	9	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	9	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	8	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0

AM PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**62**	**0**	**0**	**0**	**37**	**0**
PHF	**0.00**				**0.00**				**0.74**				**0.77**			

MID PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
10:15 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**47**	**0**	**0**	**0**	**40**	**0**
PHF	**0.00**				**0.25**				**0.90**				**0.63**			

PM PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
3:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**36**	**0**	**0**	**0**	**38**	**1**
PHF	**0.00**				**0.50**				**0.77**				**0.75**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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PEDESTRIANS & BICYCLES

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	1	0	3	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	3	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	4	0	2	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	2	0	3	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	3	0	0
11:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	2	0	4	0	0	0	2	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	3	0	0
12:30 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
1:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	4	0	0
2:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
2:45 PM	0	0	0	0	0	0	0	7	0	0	0	0	0	2	0	0
3:00 PM	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	4	0	3	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	6	0	2	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	3	0	1	0	0	0	2	0	0
4:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	0
4:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0
5:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0
5:30 PM	0	0	0	0	0	0	0	4	0	1	0	0	0	3	0	0
5:45 PM	0	0	0	0	0	0	0	7	0	0	0	0	0	4	0	0
6:00 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0
6:15 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	8	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
6:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	2	0	0
7:00 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
7:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	11	0	12	0	0	0	1	0	0

MID PEAK HOUR 10:15 AM to 11:15 AM	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	5	0	7	0	0	0	4	0	0

PM PEAK HOUR 4:45 PM to 5:45 PM	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	12	0	1	0	0	0	10	0	0

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

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	4	0	9	0	0	0	0	0	0	167	30	2	10	35	0
6:15 AM	0	4	0	5	0	0	0	0	1	0	213	40	3	7	38	0
6:30 AM	0	7	0	18	0	0	0	0	0	0	265	37	5	8	43	0
6:45 AM	0	13	0	9	0	0	0	0	0	0	307	47	4	7	68	0
7:00 AM	0	15	0	7	0	0	0	0	1	0	300	52	4	8	77	0
7:15 AM	0	17	0	16	0	0	0	0	0	0	280	65	8	16	69	0
7:30 AM	0	10	0	15	0	0	0	0	1	0	297	45	8	13	62	0
7:45 AM	0	12	0	10	0	0	0	0	1	0	260	47	5	12	68	0
8:00 AM	0	14	0	8	0	0	0	0	1	0	351	56	5	28	92	0
8:15 AM	0	16	0	14	0	0	0	0	0	0	373	53	8	25	72	0
8:30 AM	0	18	0	17	0	0	0	0	2	0	335	70	10	21	86	0
8:45 AM	0	29	0	16	0	0	0	0	1	0	334	66	9	19	88	0
9:00 AM	0	24	0	19	0	0	0	0	0	0	326	60	10	24	92	0
9:15 AM	0	19	0	23	0	0	0	0	0	0	342	35	13	21	72	0
9:30 AM	0	19	0	17	0	0	0	0	0	0	312	41	3	20	67	0
9:45 AM	0	17	0	15	0	0	0	0	0	0	265	61	4	15	71	0
10:00 AM	0	21	0	24	0	0	0	0	1	0	255	36	8	24	79	0
10:15 AM	0	24	0	17	0	0	0	0	1	0	240	51	8	21	76	0
10:30 AM	0	25	0	19	0	0	0	0	2	0	230	48	5	30	79	0
10:45 AM	0	23	0	21	0	0	0	0	2	0	225	48	10	17	83	0
11:00 AM	0	31	0	24	0	0	0	0	6	0	216	47	9	21	90	0
11:15 AM	0	35	0	23	0	0	0	0	4	0	173	41	7	27	96	0
11:30 AM	0	28	0	23	0	0	0	0	2	0	163	42	5	24	84	0
11:45 AM	0	24	0	25	0	0	0	0	1	0	135	46	8	21	110	0
12:00 PM	0	34	0	27	0	0	0	0	0	0	133	34	9	29	109	0
12:15 PM	0	50	0	27	0	0	0	0	2	0	151	44	14	35	99	0
12:30 PM	0	40	0	28	0	0	0	0	0	0	168	45	4	23	115	0
12:45 PM	0	29	0	32	0	0	0	0	0	0	142	52	12	26	121	0
1:00 PM	0	35	0	34	0	0	0	0	4	0	134	34	5	23	119	0
1:15 PM	0	23	0	24	0	0	0	0	1	0	105	26	6	17	118	0
1:30 PM	0	39	0	16	0	0	0	0	1	0	157	43	17	25	165	0
1:45 PM	0	43	0	30	0	0	0	0	1	0	149	42	10	30	161	0
2:00 PM	0	56	0	25	0	0	0	0	0	0	148	35	7	29	183	0
2:15 PM	0	44	0	28	0	0	0	0	2	0	151	45	10	16	187	0
2:30 PM	0	48	0	24	0	0	0	0	1	0	149	37	6	16	219	0
2:45 PM	0	37	0	29	0	0	0	0	0	0	196	34	15	20	231	0
3:00 PM	0	53	0	35	0	0	0	0	1	0	190	70	12	28	228	0
3:15 PM	0	57	0	31	0	0	0	0	1	0	216	50	12	18	247	0
3:30 PM	0	60	0	25	0	0	0	0	1	0	202	48	16	25	247	0
3:45 PM	0	50	0	27	0	0	0	0	3	0	177	41	12	28	267	0
4:00 PM	0	63	0	23	0	0	0	0	1	0	139	41	13	16	289	0
4:15 PM	0	55	0	27	0	0	0	0	1	0	193	75	9	22	264	0
4:30 PM	0	65	0	32	0	0	0	0	1	0	212	46	13	15	268	0
4:45 PM	0	59	0	25	0	0	0	0	2	0	196	44	10	24	239	0
5:00 PM	0	70	0	30	0	0	0	0	0	0	232	43	11	23	247	0
5:15 PM	0	78	0	32	0	0	0	0	2	0	241	38	7	20	265	0
5:30 PM	0	62	0	26	0	0	0	0	1	0	230	64	5	34	284	0
5:45 PM	0	59	0	33	0	0	0	0	3	0	197	42	12	23	237	0
6:00 PM	0	58	0	33	0	0	0	0	4	0	200	31	9	26	248	0
6:15 PM	0	42	0	20	0	0	0	0	2	0	215	35	16	28	218	0
6:30 PM	0	52	0	21	0	0	0	0	0	0	166	40	9	21	214	0
6:45 PM	0	35	0	29	0	0	0	0	0	0	157	42	8	29	189	0
7:00 PM	0	51	0	17	0	0	0	0	2	0	151	27	18	31	171	0
7:15 PM	0	32	0	28	0	0	0	0	0	0	141	25	14	16	156	0
7:30 PM	0	28	0	26	0	0	0	0	2	0	125	21	9	16	121	0
7:45 PM	0	35	0	29	0	0	0	0	0	0	113	27	8	28	107	0

AM PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:00 AM	**0**	**77**	**0**	**55**	**0**	**0**	**0**	**0**	**4**	**0**	**1393**	**245**	**32**	**93**	**338**	**0**
PHF	**0.73**				**0.00**				**0.96**				**0.93**			
HV %	**0.0%**	**9.1%**	**0.0%**	**5.5%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.4%**	**3.3%**	**3.1%**	**7.5%**	**8.6%**	**0.0%**

MID PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
10:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	**0**	**93**	**0**	**81**	**0**	**0**	**0**	**0**	**6**	**0**	**950**	**183**	**31**	**92**	**317**	**0**
PHF	**0.97**				**0.00**				**0.98**				**0.96**			
HV %	**0.0%**	**7.5%**	**0.0%**	**4.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**16.7%**	**0.0%**	**4.6%**	**2.2%**	**6.5%**	**4.3%**	**9.5%**	**0.0%**

PM PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
5:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
6:00 PM	**0**	**269**	**0**	**121**	**0**	**0**	**0**	**0**	**6**	**0**	**900**	**187**	**35**	**100**	**1033**	**0**
PHF	**0.89**				**0.00**				**0.93**				**0.90**			
HV %	**0.0%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**1.0%**	**2.5%**	**0.0%**

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

BOSTON TRAFFIC DATA
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HEAVY VEHICLES

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	10	3	0	0	3	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0
6:30 AM	0	0	0	1	0	0	0	0	0	0	12	0	0	0	5	0
6:45 AM	0	1	0	1	0	0	0	0	0	0	10	0	0	1	4	0
7:00 AM	0	1	0	0	0	0	0	0	0	0	11	0	0	1	5	0
7:15 AM	0	0	0	3	0	0	0	0	0	0	8	2	0	0	7	0
7:30 AM	0	0	0	2	0	0	0	0	0	0	10	1	0	0	7	0
7:45 AM	0	2	0	2	0	0	0	0	0	0	9	1	0	0	5	0
8:00 AM	0	1	0	2	0	0	0	0	0	0	12	5	1	1	8	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	11	1	0	4	8	0
8:30 AM	0	0	0	1	0	0	0	0	0	0	11	2	0	0	8	0
8:45 AM	0	6	0	0	0	0	0	0	0	0	14	0	0	2	5	0
9:00 AM	0	2	0	5	0	0	0	0	0	0	10	1	0	0	10	0
9:15 AM	0	0	0	1	0	0	0	0	0	0	21	0	1	2	7	0
9:30 AM	0	0	0	2	0	0	0	0	0	0	15	1	0	3	7	0
9:45 AM	0	1	0	1	0	0	0	0	0	0	13	0	0	0	5	0
10:00 AM	0	0	0	1	0	0	0	0	0	0	15	0	0	0	8	0
10:15 AM	0	5	0	2	0	0	0	0	1	0	7	2	0	0	10	0
10:30 AM	0	1	0	0	0	0	0	0	0	0	11	2	1	3	5	0
10:45 AM	0	1	0	1	0	0	0	0	0	0	11	0	1	1	7	0
11:00 AM	0	1	0	0	0	0	0	0	0	0	13	1	1	3	9	0
11:15 AM	0	2	0	6	0	0	0	0	1	0	8	1	0	3	8	0
11:30 AM	0	1	0	0	0	0	0	0	0	0	11	4	0	2	6	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	4	2	1	0	9	0
12:00 PM	0	2	0	2	0	0	0	0	0	0	7	0	0	1	7	0
12:15 PM	0	0	0	2	0	0	0	0	1	0	12	1	0	0	8	0
12:30 PM	0	3	0	1	0	0	0	0	0	0	9	1	0	2	9	0
12:45 PM	0	0	0	2	0	0	0	0	0	0	8	2	0	1	10	0
1:00 PM	0	0	0	1	0	0	0	0	0	0	7	0	1	0	10	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	10	0
1:30 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	1	16	0
1:45 PM	0	2	0	1	0	0	0	0	0	0	6	0	1	1	11	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	1	12	0
2:15 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	11	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	12	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	7	1	1	0	7	0
3:15 PM	0	1	0	2	0	0	0	0	0	0	9	2	0	0	7	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	1	0	13	0
3:45 PM	0	2	0	0	0	0	0	0	0	0	8	2	0	1	9	0
4:00 PM	0	1	0	0	0	0	0	0	0	0	5	0	1	1	8	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	12	0
4:30 PM	0	2	0	1	0	0	0	0	0	0	8	0	0	3	9	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0
5:00 PM	0	2	0	0	0	0	0	0	0	0	4	0	0	0	7	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	9	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	5	0	0	1	6	0
6:00 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	6	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	1	8	0
6:30 PM	0	1	0	0	0	0	0	0	0	0	2	0	0	0	8	0
6:45 PM	0	0	0	2	0	0	0	0	0	0	4	1	0	0	2	0
7:00 PM	0	0	0	1	0	0	0	0	0	0	6	0	1	1	8	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
7:45 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	3	0

AM PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
8:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
9:45 AM	**0**	**8**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**60**	**2**	**1**	**7**	**29**	**0**
PHF	**0.57**				**0.00**				**0.74**				**0.93**			

MID PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
10:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:45 AM	**0**	**5**	**0**	**7**	**0**	**0**	**0**	**0**	**1**	**0**	**43**	**6**	**2**	**9**	**30**	**0**
PHF	**0.38**				**0.00**				**0.83**				**0.79**			

PM PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
3:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	**0**	**3**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**31**	**5**	**2**	**1**	**36**	**0**
PHF	**0.42**				**0.00**				**0.82**				**0.70**			

Client:	Vannesa Methoxha
Project #:	981_A_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	10/6/2022
Day of Week:	Thursday
Weather:	Clouds & Sun, 60°F

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

PEDESTRIANS & BICYCLES

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	1	0	0	0	2	0	0	3	1	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	2	0	4	0	1	1	0	0	0
6:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	3	0	0	0	4	0	1	0	7	0	0	0	0
7:00 AM	0	0	0	1	0	0	0	4	0	0	0	1	0	0	0	0
7:15 AM	0	0	0	2	0	0	0	2	0	1	2	2	0	1	0	0
7:30 AM	0	0	0	1	0	0	0	5	0	0	1	2	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	3	0	1	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	3	0	0	5	5	0	0	0	0
8:15 AM	0	0	0	3	0	0	0	2	0	1	1	2	0	0	0	1
8:30 AM	0	0	0	2	0	0	0	5	0	1	2	3	0	1	0	1
8:45 AM	0	0	0	2	0	0	0	5	0	2	0	2	0	0	0	0
9:00 AM	0	0	0	4	0	0	0	3	0	1	1	3	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	6	0	1	0	3	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	3	0	2	1	6	0	0	0	0
9:45 AM	0	0	0	1	0	0	0	4	0	1	0	5	0	0	0	0
10:00 AM	0	0	0	1	0	0	0	4	0	0	0	1	0	1	0	0
10:15 AM	0	0	0	1	0	0	0	2	0	0	2	0	0	0	0	0
10:30 AM	0	0	0	1	0	0	0	3	0	1	2	1	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	1	0	1	0	1	0	3	0	0
11:00 AM	0	0	0	0	0	0	0	3	0	0	1	2	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	3	0	0	1	2	0	0	0	0
11:30 AM	0	0	0	2	0	0	0	2	0	0	4	1	0	2	0	0
11:45 AM	0	0	0	6	0	0	0	2	0	0	2	1	0	0	0	0
12:00 PM	0	0	0	4	0	0	0	2	0	0	0	3	0	1	0	0
12:15 PM	0	0	0	1	0	0	0	3	0	1	1	1	1	3	0	0
12:30 PM	0	0	1	2	0	0	0	4	0	1	1	3	1	0	0	0
12:45 PM	0	0	0	3	0	0	0	3	0	0	2	2	0	1	0	0
1:00 PM	0	0	0	3	0	0	0	8	0	0	0	3	0	0	0	0
1:15 PM	0	0	0	1	0	0	0	5	0	0	1	1	1	1	0	0
1:30 PM	0	0	0	2	0	0	0	4	0	0	0	2	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	2	0	0	0	3	0	0	0	0
2:00 PM	2	0	0	0	0	0	2	5	0	0	0	4	0	0	0	0
2:15 PM	0	0	0	1	0	0	0	5	0	0	0	4	0	1	0	0
2:30 PM	0	0	1	2	0	0	0	4	0	0	0	5	1	4	0	0
2:45 PM	0	0	0	0	0	0	0	10	0	0	0	4	0	2	0	0
3:00 PM	0	0	0	2	0	0	0	6	0	0	1	4	0	0	0	0
3:15 PM	0	0	0	2	0	0	0	4	0	1	2	4	0	1	0	0
3:30 PM	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0
3:45 PM	0	0	0	3	0	0	0	4	0	0	2	6	0	0	0	0
4:00 PM	0	0	0	2	0	0	0	1	0	0	0	1	0	1	0	0
4:15 PM	0	0	0	4	0	0	0	3	0	0	1	1	0	2	0	0
4:30 PM	0	0	0	3	0	0	1	4	0	0	0	6	3	3	0	0
4:45 PM	0	0	0	5	0	0	1	3	0	0	0	4	0	1	0	0
5:00 PM	0	0	0	1	0	0	0	4	0	0	0	6	0	2	0	0
5:15 PM	0	0	0	2	0	0	0	5	0	0	0	4	0	3	0	0
5:30 PM	0	0	0	1	0	0	1	5	0	1	0	6	0	2	0	0
5:45 PM	0	0	0	3	0	0	0	4	0	0	0	3	1	4	0	2
6:00 PM	0	0	1	6	0	0	0	6	0	0	0	9	0	2	0	0
6:15 PM	0	0	0	1	0	0	3	5	0	0	0	11	0	5	0	0
6:30 PM	0	0	0	3	0	0	0	2	0	0	0	8	0	4	0	0
6:45 PM	0	0	0	2	0	0	0	0	0	1	1	4	0	2	0	0
7:00 PM	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0	0
7:15 PM	0	0	0	1	0	0	0	1	0	1	0	3	0	0	0	0
7:30 PM	0	0	0	3	0	0	0	0	0	0	0	4	0	3	0	1
7:45 PM	0	0	0	1	0	0	0	2	0	0	0	2	0	1	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	7	0	0	0	15	0	4	8	12	0	1	0	2

MID PEAK HOUR 10:00 AM to 11:00 AM	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	4	0	0	0	10	0	2	4	3	0	4	0	0

PM PEAK HOUR 5:00 PM to 6:00 PM	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	7	0	0	1	18	0	1	0	19	1	11	0	2

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

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	17	82	12	0	111	0	0	0	0	0	0	0	1	0	1	4	10	0	0	14	126
6:15 AM	19	93	18	0	130	0	0	0	0	0	0	0	1	0	1	3	13	0	0	16	147
6:30 AM	17	88	25	0	130	0	0	0	0	0	0	0	1	0	1	2	22	0	0	24	155
6:45 AM	17	108	18	0	143	0	0	0	0	0	0	0	1	0	1	6	34	0	0	40	184
Total	70	371	73	0	514	0	0	0	0	0	0	0	4	0	4	15	79	0	0	94	612
7:00 AM	25	122	19	0	166	0	0	0	0	0	0	0	4	0	4	4	37	0	0	41	211
7:15 AM	26	96	24	0	146	0	0	0	0	0	0	0	2	0	2	7	29	0	0	36	184
7:30 AM	31	97	23	0	151	0	0	0	0	0	1	0	4	0	5	11	32	0	0	43	199
7:45 AM	42	146	23	0	211	0	0	0	0	0	0	0	6	0	6	8	46	0	0	54	271
Total	124	461	89	0	674	0	0	0	0	0	1	0	16	0	17	30	144	0	0	174	865
8:00 AM	37	121	29	0	187	0	0	0	0	0	0	0	6	0	6	10	36	0	0	46	239
8:15 AM	23	160	36	0	219	0	0	0	0	0	0	0	11	0	11	19	42	0	0	61	291
8:30 AM	29	120	31	0	180	0	0	0	0	0	0	0	10	0	10	12	38	0	0	50	240
8:45 AM	19	133	35	0	187	0	0	0	0	0	0	0	5	0	5	14	33	0	0	47	239
Total	108	534	131	0	773	0	0	0	0	0	0	0	32	0	32	55	149	0	0	204	1009
9:00 AM	17	170	29	0	216	0	6	0	0	6	0	0	13	0	13	15	34	0	0	49	284
9:15 AM	20	118	23	0	161	1	0	0	0	1	0	0	3	0	3	9	29	0	0	38	203
9:30 AM	19	103	32	0	154	0	0	0	0	0	0	0	6	0	6	10	44	0	0	54	214
9:45 AM	23	112	20	0	155	0	0	0	0	0	0	0	3	0	3	9	35	0	0	44	202
Total	79	503	104	0	686	1	6	0	0	7	0	0	25	0	25	43	142	0	0	185	903
10:00 AM	18	102	35	0	155	0	0	0	0	0	0	0	7	0	7	9	36	0	0	45	207
10:15 AM	23	101	33	0	157	0	0	0	0	0	0	0	8	0	8	12	56	0	0	68	233
10:30 AM	24	78	33	0	135	0	0	0	0	0	0	0	11	0	11	6	47	0	0	53	199
10:45 AM	24	71	22	0	117	0	0	0	0	0	0	0	5	0	5	4	36	0	0	40	162
Total	89	352	123	0	564	0	0	0	0	0	0	0	31	0	31	31	175	0	0	206	801
11:00 AM	27	77	29	0	133	0	0	0	0	0	0	0	14	0	14	5	37	0	0	42	189
11:15 AM	19	77	36	0	132	0	0	0	0	0	0	0	2	0	2	13	38	0	0	51	185
11:30 AM	27	63	26	0	116	0	0	0	0	0	0	0	5	0	5	9	38	0	0	47	168
11:45 AM	22	71	17	0	110	0	0	0	0	0	0	0	4	1	5	51	1	0	0	52	167
Total	95	288	108	0	491	0	0	0	0	0	0	0	25	1	26	78	114	0	0	192	709
12:00 PM	34	67	31	0	132	0	0	0	0	0	0	0	2	0	2	45	0	0	0	45	179
12:15 PM	29	67	35	0	131	0	0	0	0	0	0	0	1	1	2	47	0	0	0	47	180
12:30 PM	27	55	24	0	106	0	0	0	0	0	0	0	0	0	0	45	2	0	1	48	154
12:45 PM	22	82	30	0	134	0	0	0	0	0	0	0	2	0	2	40	1	0	0	41	177
Total	112	271	120	0	503	0	0	0	0	0	0	0	5	1	6	177	3	0	1	181	690
1:00 PM	28	70	38	0	136	0	0	0	0	0	0	0	3	0	3	27	11	0	0	38	177
1:15 PM	28	68	26	0	122	0	0	0	0	0	0	0	16	0	16	8	39	0	0	47	185
1:30 PM	30	90	27	0	147	0	0	0	0	0	0	0	8	0	8	14	58	0	0	72	227
1:45 PM	34	82	28	0	144	0	0	0	0	0	0	0	8	0	8	10	57	0	0	67	219
Total	120	310	119	0	549	0	0	0	0	0	0	0	35	0	35	59	165	0	0	224	808
2:00 PM	29	70	37	0	136	0	0	0	0	0	0	0	7	0	7	10	45	0	0	55	198
2:15 PM	31	72	37	0	140	0	0	0	0	0	0	0	8	0	8	11	52	0	0	63	211
2:30 PM	31	77	36	0	144	0	0	0	0	0	0	0	7	0	7	8	48	0	0	56	207
2:45 PM	28	101	28	0	157	0	0	0	0	0	0	0	7	0	7	11	57	0	0	68	232
Total	119	320	138	0	577	0	0	0	0	0	0	0	29	0	29	40	202	0	0	242	848
3:00 PM	22	73	18	0	113	0	0	0	0	0	0	0	11	0	11	10	51	0	0	61	185
3:15 PM	26	92	43	0	161	0	0	0	0	0	0	0	7	0	7	9	62	0	0	71	239
3:30 PM	25	72	28	0	125	0	0	0	0	0	0	0	13	0	13	13	49	0	0	62	200
3:45 PM	20	75	27	0	122	0	0	0	0	0	0	0	16	0	16	10	57	0	0	67	205
Total	93	312	116	0	521	0	0	0	0	0	0	0	47	0	47	42	219	0	0	261	829
4:00 PM	23	65	26	0	114	0	0	0	0	0	1	0	8	0	9	5	54	0	0	59	182
4:15 PM	31	66	19	0	116	0	0	0	0	0	0	0	6	0	6	14	58	0	0	72	194
4:30 PM	18	83	25	0	126	0	0	0	0	0	0	0	8	0	8	8	40	0	0	48	182
4:45 PM	26	59	25	0	110	0	0	0	0	0	0	0	13	0	13	13	58	0	0	71	194
Total	98	273	95	0	466	0	0	0	0	0	1	0	35	0	36	40	210	0	0	250	752
5:00 PM	26	74	42	0	142	0	0	0	0	0	0	0	4	0	4	6	45	0	0	51	197
5:15 PM	26	68	34	0	128	0	0	0	0	0	0	0	7	0	7	13	60	0	0	73	208

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	28	77	23	0	128	0	0	0	0	0	0	0	12	0	12	14	53	0	0	67	207
5:45 PM	21	77	18	0	116	0	0	0	0	0	0	0	16	0	16	9	49	0	0	58	190
Total	101	296	117	0	514	0	0	0	0	0	0	0	39	0	39	42	207	0	0	249	802
6:00 PM	21	66	23	0	110	0	0	0	0	0	0	0	4	0	4	18	49	0	0	67	181
6:15 PM	35	71	26	0	132	0	0	0	0	0	0	0	10	0	10	10	52	0	0	62	204
6:30 PM	32	80	23	0	135	0	0	0	0	0	0	0	10	0	10	6	48	0	0	54	199
6:45 PM	26	54	21	0	101	0	0	0	0	0	0	0	9	0	9	6	37	0	0	43	153
Total	114	271	93	0	478	0	0	0	0	0	0	0	33	0	33	40	186	0	0	226	737
7:00 PM	18	63	35	0	116	0	0	0	0	0	0	0	8	0	8	6	40	0	0	46	170
7:15 PM	21	54	17	0	92	0	0	0	0	0	0	0	5	0	5	8	27	0	0	35	132
7:30 PM	19	40	19	0	78	0	0	0	0	0	0	0	10	0	10	7	44	0	0	51	139
7:45 PM	12	54	21	0	87	0	0	0	0	0	0	1	9	0	10	9	49	0	0	58	155
Total	70	211	92	0	373	0	0	0	0	0	0	1	32	0	33	30	160	0	0	190	596
Grand Total	1392	4773	1518	0	7683	1	6	0	0	7	2	1	388	2	393	722	2155	0	1	2878	10961
Approach %	18.1	62.1	19.8	0.0		14.3	85.7	0.0	0.0		0.5	0.3	98.7	0.5		25.1	74.9	0.0	0.0		
Total %	12.7	43.5	13.8	0.0	70.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	3.5	0.0	3.6	6.6	19.7	0.0	0.0	26.3	
Exiting Leg Total					2					3675					5497					1787	10961
Cars	1283	4529	1305	0	7117	1	6	0	0	7	2	1	381	2	386	679	2026	0	1	2706	10216
% Cars	92.2	94.9	86.0	0.0	92.6	100.0	100.0	0.0	0.0	100.0	100.0	100.0	98.2	100.0	98.2	94.0	94.0	0.0	100.0	94.0	93.2
Exiting Leg Total					2					3333					5210					1671	10216
Heavy Vehicles	109	244	213	0	566	0	0	0	0	0	0	0	7	0	7	43	129	0	0	172	745
% Heavy Vehicles	7.8	5.1	14.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.8	6.0	6.0	0.0	0.0	6.0	6.8
Exiting Leg Total					0					342					287					116	745

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

8:15 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:15 AM	23	160	36	0	219	0	0	0	0	0	0	0	11	0	11	19	42	0	0	61	291
8:30 AM	29	120	31	0	180	0	0	0	0	0	0	0	10	0	10	12	38	0	0	50	240
8:45 AM	19	133	35	0	187	0	0	0	0	0	0	0	5	0	5	14	33	0	0	47	239
9:00 AM	17	170	29	0	216	0	6	0	0	6	0	0	13	0	13	15	34	0	0	49	284
Total Volume	88	583	131	0	802	0	6	0	0	6	0	0	39	0	39	60	147	0	0	207	1054
% Approach Total	11.0	72.7	16.3	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		29.0	71.0	0.0	0.0		
PHF	0.759	0.857	0.910	0.000	0.916	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.750	0.000	0.750	0.789	0.875	0.000	0.000	0.848	0.905
Cars	79	558	111	0	748	0	6	0	0	6	0	0	38	0	38	56	139	0	0	195	987
Cars %	89.8	95.7	84.7	0.0	93.3	0.0	100.0	0.0	0.0	100.0	0.0	0.0	97.4	0.0	97.4	93.3	94.6	0.0	0.0	94.2	93.6
Heavy Vehicles	9	25	20	0	54	0	0	0	0	0	0	0	1	0	1	4	8	0	0	12	67
Heavy Vehicles %	10.2	4.3	15.3	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6	6.7	5.4	0.0	0.0	5.8	6.4
Cars Enter Leg	79	558	111	0	748	0	6	0	0	6	0	0	38	0	38	56	139	0	0	195	987
Heavy Enter Leg	9	25	20	0	54	0	0	0	0	0	0	0	1	0	1	4	8	0	0	12	67
Total Entering Leg	88	583	131	0	802	0	6	0	0	6	0	0	39	0	39	60	147	0	0	207	1054
Cars Exiting Leg					0					250					614					123	987
Heavy Exiting Leg					0					28					29					10	67
Total Exiting Leg					0					278					643					133	1054

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	30	90	27	0	147	0	0	0	0	0	0	0	8	0	8	14	58	0	0	72	227
1:45 PM	34	82	28	0	144	0	0	0	0	0	0	0	8	0	8	10	57	0	0	67	219
2:00 PM	29	70	37	0	136	0	0	0	0	0	0	0	7	0	7	10	45	0	0	55	198
2:15 PM	31	72	37	0	140	0	0	0	0	0	0	0	8	0	8	11	52	0	0	63	211
Total Volume	124	314	129	0	567	0	0	0	0	0	0	0	31	0	31	45	212	0	0	257	855
% Approach Total	21.9	55.4	22.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		17.5	82.5	0.0	0.0		
PHF	0.912	0.872	0.872	0.000	0.964	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.969	0.000	0.969	0.804	0.914	0.000	0.000	0.892	0.942
Cars	110	282	113	0	505	0	0	0	0	0	0	0	30	0	30	44	202	0	0	246	781

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars and Heavy Vehicles (Combined)

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Cars %	88.7	89.8	87.6	0.0	89.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.8	0.0	96.8	97.8	95.3	0.0	0.0	95.7	91.3
Heavy Vehicles	14	32	16	0	62	0	0	0	0	0	0	0	1	0	1	1	10	0	0	11	74
Heavy Vehicles %	11.3	10.2	12.4	0.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	3.2	2.2	4.7	0.0	0.0	4.3	8.7
Cars Enter Leg	110	282	113	0	505	0	0	0	0	0	0	0	30	0	30	44	202	0	0	246	781
Heavy Enter Leg	14	32	16	0	62	0	0	0	0	0	0	0	1	0	1	1	10	0	0	11	74
Total Entering Leg	124	314	129	0	567	0	0	0	0	0	0	0	31	0	31	45	212	0	0	257	855
Cars Exiting Leg					0					315					326					140	781
Heavy Exiting Leg					0					26					33					15	74
Total Exiting Leg					0					341					359					155	855

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:30 PM	31	77	36	0	144	0	0	0	0	0	0	0	7	0	7	8	48	0	0	56	207
2:45 PM	28	101	28	0	157	0	0	0	0	0	0	0	7	0	7	11	57	0	0	68	232
3:00 PM	22	73	18	0	113	0	0	0	0	0	0	0	11	0	11	10	51	0	0	61	185
3:15 PM	26	92	43	0	161	0	0	0	0	0	0	0	7	0	7	9	62	0	0	71	239
Total Volume	107	343	125	0	575	0	0	0	0	0	0	0	32	0	32	38	218	0	0	256	863
% Approach Total	18.6	59.7	21.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		14.8	85.2	0.0	0.0		
PHF	0.863	0.849	0.727	0.000	0.893	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.727	0.000	0.727	0.864	0.879	0.000	0.000	0.901	0.903
Cars	100	323	112	0	535	0	0	0	0	0	0	0	32	0	32	35	203	0	0	238	805
Cars %	93.5	94.2	89.6	0.0	93.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	92.1	93.1	0.0	0.0	93.0	93.3
Heavy Vehicles	7	20	13	0	40	0	0	0	0	0	0	0	0	0	0	3	15	0	0	18	58
Heavy Vehicles %	6.5	5.8	10.4	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	6.9	0.0	0.0	7.0	6.7
Cars Enter Leg	100	323	112	0	535	0	0	0	0	0	0	0	32	0	32	35	203	0	0	238	805
Heavy Enter Leg	7	20	13	0	40	0	0	0	0	0	0	0	0	0	0	3	15	0	0	18	58
Total Entering Leg	107	343	125	0	575	0	0	0	0	0	0	0	32	0	32	38	218	0	0	256	863
Cars Exiting Leg					0					315					358					132	805
Heavy Exiting Leg					0					28					23					7	58
Total Exiting Leg					0					343					381					139	863

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	16	77	10	0	103	0	0	0	0	0	0	0	1	0	1	3	6	0	0	9	113
6:15 AM	15	91	13	0	119	0	0	0	0	0	0	0	1	0	1	3	12	0	0	15	135
6:30 AM	15	86	17	0	118	0	0	0	0	0	0	0	1	0	1	1	19	0	0	20	139
6:45 AM	13	100	15	0	128	0	0	0	0	0	0	0	1	0	1	5	32	0	0	37	166
Total	59	354	55	0	468	0	0	0	0	0	0	0	4	0	4	12	69	0	0	81	553
7:00 AM	21	106	13	0	140	0	0	0	0	0	0	0	4	0	4	4	33	0	0	37	181
7:15 AM	23	93	18	0	134	0	0	0	0	0	0	0	1	0	1	7	25	0	0	32	167
7:30 AM	26	94	13	0	133	0	0	0	0	0	1	0	4	0	5	10	26	0	0	36	174
7:45 AM	38	139	18	0	195	0	0	0	0	0	0	0	5	0	5	8	45	0	0	53	253
Total	108	432	62	0	602	0	0	0	0	0	1	0	14	0	15	29	129	0	0	158	775
8:00 AM	34	113	25	0	172	0	0	0	0	0	0	0	6	0	6	8	33	0	0	41	219
8:15 AM	22	150	30	0	202	0	0	0	0	0	0	0	11	0	11	17	40	0	0	57	270
8:30 AM	26	115	26	0	167	0	0	0	0	0	0	0	10	0	10	11	36	0	0	47	224
8:45 AM	18	128	30	0	176	0	0	0	0	0	0	0	4	0	4	13	31	0	0	44	224
Total	100	506	111	0	717	0	0	0	0	0	0	0	31	0	31	49	140	0	0	189	937
9:00 AM	13	165	25	0	203	0	6	0	0	6	0	0	13	0	13	15	32	0	0	47	269
9:15 AM	19	104	18	0	141	1	0	0	0	1	0	0	3	0	3	9	26	0	0	35	180
9:30 AM	18	97	26	0	141	0	0	0	0	0	0	0	6	0	6	10	40	0	0	50	197
9:45 AM	21	111	18	0	150	0	0	0	0	0	0	0	3	0	3	7	30	0	0	37	190
Total	71	477	87	0	635	1	6	0	0	7	0	0	25	0	25	41	128	0	0	169	836
10:00 AM	16	97	23	0	136	0	0	0	0	0	0	0	5	0	5	9	36	0	0	45	186
10:15 AM	22	96	29	0	147	0	0	0	0	0	0	0	8	0	8	10	54	0	0	64	219
10:30 AM	22	74	25	0	121	0	0	0	0	0	0	0	11	0	11	6	45	0	0	51	183
10:45 AM	22	70	19	0	111	0	0	0	0	0	0	0	5	0	5	4	34	0	0	38	154
Total	82	337	96	0	515	0	0	0	0	0	0	0	29	0	29	29	169	0	0	198	742
11:00 AM	27	71	26	0	124	0	0	0	0	0	0	0	14	0	14	4	32	0	0	36	174
11:15 AM	17	76	31	0	124	0	0	0	0	0	0	0	2	0	2	13	33	0	0	46	172
11:30 AM	26	60	23	0	109	0	0	0	0	0	0	0	5	0	5	9	35	0	0	44	158
11:45 AM	21	68	15	0	104	0	0	0	0	0	0	0	4	1	5	47	0	0	0	47	156
Total	91	275	95	0	461	0	0	0	0	0	0	0	25	1	26	73	100	0	0	173	660
12:00 PM	32	63	24	0	119	0	0	0	0	0	0	0	1	0	1	41	0	0	0	41	161
12:15 PM	27	64	30	0	121	0	0	0	0	0	0	0	1	1	2	46	0	0	0	46	169
12:30 PM	23	52	20	0	95	0	0	0	0	0	0	0	0	0	0	39	0	0	1	40	135
12:45 PM	19	73	25	0	117	0	0	0	0	0	0	0	2	0	2	39	0	0	0	39	158
Total	101	252	99	0	452	0	0	0	0	0	0	0	4	1	5	165	0	0	1	166	623
1:00 PM	28	63	32	0	123	0	0	0	0	0	0	0	3	0	3	27	11	0	0	38	164
1:15 PM	27	64	24	0	115	0	0	0	0	0	0	0	16	0	16	8	36	0	0	44	175
1:30 PM	27	78	22	0	127	0	0	0	0	0	0	0	8	0	8	14	54	0	0	68	203
1:45 PM	28	75	26	0	129	0	0	0	0	0	0	0	8	0	8	10	54	0	0	64	201
Total	110	280	104	0	494	0	0	0	0	0	0	0	35	0	35	59	155	0	0	214	743
2:00 PM	25	65	33	0	123	0	0	0	0	0	0	0	6	0	6	9	44	0	0	53	182
2:15 PM	30	64	32	0	126	0	0	0	0	0	0	0	8	0	8	11	50	0	0	61	195
2:30 PM	29	75	33	0	137	0	0	0	0	0	0	0	7	0	7	8	43	0	0	51	195
2:45 PM	27	92	24	0	143	0	0	0	0	0	0	0	7	0	7	8	51	0	0	59	209
Total	111	296	122	0	529	0	0	0	0	0	0	0	28	0	28	36	188	0	0	224	781
3:00 PM	18	72	17	0	107	0	0	0	0	0	0	0	11	0	11	10	50	0	0	60	178
3:15 PM	26	84	38	0	148	0	0	0	0	0	0	0	7	0	7	9	59	0	0	68	223
3:30 PM	22	70	25	0	117	0	0	0	0	0	0	0	13	0	13	13	48	0	0	61	191
3:45 PM	19	69	26	0	114	0	0	0	0	0	0	0	16	0	16	10	55	0	0	65	195
Total	85	295	106	0	486	0	0	0	0	0	0	0	47	0	47	42	212	0	0	254	787
4:00 PM	22	62	24	0	108	0	0	0	0	0	1	0	8	0	9	5	51	0	0	56	173
4:15 PM	29	58	18	0	105	0	0	0	0	0	0	0	6	0	6	13	53	0	0	66	177
4:30 PM	16	81	22	0	119	0	0	0	0	0	0	0	8	0	8	8	39	0	0	47	174
4:45 PM	25	57	24	0	106	0	0	0	0	0	0	0	13	0	13	13	56	0	0	69	188
Total	92	258	88	0	438	0	0	0	0	0	1	0	35	0	36	39	199	0	0	238	712
5:00 PM	25	73	35	0	133	0	0	0	0	0	0	0	4	0	4	6	43	0	0	49	186
5:15 PM	26	66	33	0	125	0	0	0	0	0	0	0	7	0	7	13	59	0	0	72	204

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	27	76	21	0	124	0	0	0	0	0	0	0	12	0	12	12	50	0	0	62	198
5:45 PM	20	77	18	0	115	0	0	0	0	0	0	0	16	0	16	9	49	0	0	58	189
Total	98	292	107	0	497	0	0	0	0	0	0	0	39	0	39	40	201	0	0	241	777
6:00 PM	19	65	22	0	106	0	0	0	0	0	0	0	4	0	4	18	47	0	0	65	175
6:15 PM	35	71	23	0	129	0	0	0	0	0	0	0	10	0	10	9	50	0	0	59	198
6:30 PM	31	79	21	0	131	0	0	0	0	0	0	0	10	0	10	6	48	0	0	54	195
6:45 PM	24	53	21	0	98	0	0	0	0	0	0	0	9	0	9	4	36	0	0	40	147
Total	109	268	87	0	464	0	0	0	0	0	0	0	33	0	33	37	181	0	0	218	715
7:00 PM	17	61	33	0	111	0	0	0	0	0	0	0	8	0	8	6	39	0	0	45	164
7:15 PM	19	54	16	0	89	0	0	0	0	0	0	0	5	0	5	7	26	0	0	33	127
7:30 PM	18	40	17	0	75	0	0	0	0	0	0	0	10	0	10	7	43	0	0	50	135
7:45 PM	12	52	20	0	84	0	0	0	0	0	0	1	9	0	10	8	47	0	0	55	149
Total	66	207	86	0	359	0	0	0	0	0	0	1	32	0	33	28	155	0	0	183	575
Grand Total	1283	4529	1305	0	7117	1	6	0	0	7	2	1	381	2	386	679	2026	0	1	2706	10216
Approach %	18.0	63.6	18.3	0.0		14.3	85.7	0.0	0.0		0.5	0.3	98.7	0.5		25.1	74.9	0.0	0.0		
Total %	12.6	44.3	12.8	0.0	69.7	0.0	0.1	0.0	0.0	0.1	0.0	0.0	3.8	0.0	3.8	6.6	19.8	0.0	0.0	26.5	
Exiting Leg Total					2					3333					5210					1671	10216

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

8:15 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:15 AM	22	150	30	0	202	0	0	0	0	0	0	0	11	0	11	17	40	0	0	57	270
8:30 AM	26	115	26	0	167	0	0	0	0	0	0	0	10	0	10	11	36	0	0	47	224
8:45 AM	18	128	30	0	176	0	0	0	0	0	0	0	4	0	4	13	31	0	0	44	224
9:00 AM	13	165	25	0	203	0	6	0	0	6	0	0	13	0	13	15	32	0	0	47	269
Total Volume	79	558	111	0	748	0	6	0	0	6	0	0	38	0	38	56	139	0	0	195	987
% Approach Total	10.6	74.6	14.8	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		28.7	71.3	0.0	0.0		
PHF	0.760	0.845	0.925	0.000	0.921	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.731	0.000	0.731	0.824	0.869	0.000	0.000	0.855	0.914
Entering Leg	79	558	111	0	748	0	6	0	0	6	0	0	38	0	38	56	139	0	0	195	987
Exiting Leg					0					250					614					123	987
Total					748					256					652					318	1974

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	27	78	22	0	127	0	0	0	0	0	0	0	8	0	8	14	54	0	0	68	203
1:45 PM	28	75	26	0	129	0	0	0	0	0	0	0	8	0	8	10	54	0	0	64	201
2:00 PM	25	65	33	0	123	0	0	0	0	0	0	0	6	0	6	9	44	0	0	53	182
2:15 PM	30	64	32	0	126	0	0	0	0	0	0	0	8	0	8	11	50	0	0	61	195
Total Volume	110	282	113	0	505	0	0	0	0	0	0	0	30	0	30	44	202	0	0	246	781
% Approach Total	21.8	55.8	22.4	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		17.9	82.1	0.0	0.0		
PHF	0.917	0.904	0.856	0.000	0.979	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.938	0.000	0.938	0.786	0.935	0.000	0.000	0.904	0.962
Entering Leg	110	282	113	0	505	0	0	0	0	0	0	0	30	0	30	44	202	0	0	246	781
Exiting Leg					0					315					326					140	781
Total					505					315					356					386	1562

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:30 PM	29	75	33	0	137	0	0	0	0	0	0	0	7	0	7	8	43	0	0	51	195
2:45 PM	27	92	24	0	143	0	0	0	0	0	0	0	7	0	7	8	51	0	0	59	209
3:00 PM	18	72	17	0	107	0	0	0	0	0	0	0	11	0	11	10	50	0	0	60	178
3:15 PM	26	84	38	0	148	0	0	0	0	0	0	0	7	0	7	9	59	0	0	68	223

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Total Volume	100	323	112	0	535	0	0	0	0	0	0	0	32	0	32	35	203	0	0	238	805
% Approach Total	18.7	60.4	20.9	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		14.7	85.3	0.0	0.0		
PHF	0.862	0.878	0.737	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.727	0.000	0.727	0.875	0.860	0.000	0.000	0.875	0.902
Entering Leg	100	323	112	0	535	0	0	0	0	0	0	0	32	0	32	35	203	0	0	238	805
Exiting Leg					0					315					358					132	805
Total					535					315					390					370	1610

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	1	5	2	0	8	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	13
6:15 AM	4	2	5	0	11	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12
6:30 AM	2	2	8	0	12	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	16
6:45 AM	4	8	3	0	15	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	18
Total	11	17	18	0	46	0	0	0	0	0	0	0	0	0	0	3	10	0	0	13	59
7:00 AM	4	16	6	0	26	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	30
7:15 AM	3	3	6	0	12	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	17
7:30 AM	5	3	10	0	18	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	25
7:45 AM	4	7	5	0	16	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	18
Total	16	29	27	0	72	0	0	0	0	0	0	0	2	0	2	1	15	0	0	16	90
8:00 AM	3	8	4	0	15	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	20
8:15 AM	1	10	6	0	17	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	21
8:30 AM	3	5	5	0	13	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	16
8:45 AM	1	5	5	0	11	0	0	0	0	0	0	0	1	0	1	1	2	0	0	3	15
Total	8	28	20	0	56	0	0	0	0	0	0	0	1	0	1	6	9	0	0	15	72
9:00 AM	4	5	4	0	13	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	15
9:15 AM	1	14	5	0	20	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	23
9:30 AM	1	6	6	0	13	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	17
9:45 AM	2	1	2	0	5	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	12
Total	8	26	17	0	51	0	0	0	0	0	0	0	0	0	0	2	14	0	0	16	67
10:00 AM	2	5	12	0	19	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	21
10:15 AM	1	5	4	0	10	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	14
10:30 AM	2	4	8	0	14	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	16
10:45 AM	2	1	3	0	6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	8
Total	7	15	27	0	49	0	0	0	0	0	0	0	2	0	2	2	6	0	0	8	59
11:00 AM	0	6	3	0	9	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	15
11:15 AM	2	1	5	0	8	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	13
11:30 AM	1	3	3	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	10
11:45 AM	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	11
Total	4	13	13	0	30	0	0	0	0	0	0	0	0	0	0	5	14	0	0	19	49
12:00 PM	2	4	7	0	13	0	0	0	0	0	0	0	1	0	1	4	0	0	0	4	18
12:15 PM	2	3	5	0	10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	11
12:30 PM	4	3	4	0	11	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	19
12:45 PM	3	9	5	0	17	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	19
Total	11	19	21	0	51	0	0	0	0	0	0	0	1	0	1	12	3	0	0	15	67
1:00 PM	0	7	6	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
1:15 PM	1	4	2	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	10
1:30 PM	3	12	5	0	20	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	24
1:45 PM	6	7	2	0	15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	18
Total	10	30	15	0	55	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	65
2:00 PM	4	5	4	0	13	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	16
2:15 PM	1	8	5	0	14	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	16
2:30 PM	2	2	3	0	7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	12
2:45 PM	1	9	4	0	14	0	0	0	0	0	0	0	0	0	0	3	6	0	0	9	23
Total	8	24	16	0	48	0	0	0	0	0	0	0	1	0	1	4	14	0	0	18	67
3:00 PM	4	1	1	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
3:15 PM	0	8	5	0	13	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	16
3:30 PM	3	2	3	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
3:45 PM	1	6	1	0	8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	10
Total	8	17	10	0	35	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	42
4:00 PM	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	9
4:15 PM	2	8	1	0	11	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	17
4:30 PM	2	2	3	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
4:45 PM	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	6
Total	6	15	7	0	28	0	0	0	0	0	0	0	0	0	0	1	11	0	0	12	40
5:00 PM	1	1	7	0	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	11
5:15 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	9
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	3	4	10	0	17	0	0	0	0	0	0	0	0	0	0	2	6	0	0	8	25
6:00 PM	2	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	6
6:15 PM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	6
6:30 PM	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6:45 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	6
Total	5	3	6	0	14	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	22
7:00 PM	1	2	2	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
7:15 PM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	5
7:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
7:45 PM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	6
Total	4	4	6	0	14	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	21
Grand Total	109	244	213	0	566	0	0	0	0	0	0	0	7	0	7	43	129	0	0	172	745
Approach %	19.3	43.1	37.6	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		25.0	75.0	0.0	0.0		
Total %	14.6	32.8	28.6	0.0	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	5.8	17.3	0.0	0.0	23.1	
Exiting Leg Total					0					342					287					116	745
Buses	52	61	89	0	202	0	0	0	0	0	0	0	0	0	0	12	52	0	0	64	266
% Buses	47.7	25.0	41.8	0.0	35.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.9	40.3	0.0	0.0	37.2	35.7
Exiting Leg Total					0					141					73					52	266
Single-Unit Trucks	50	174	80	0	304	0	0	0	0	0	0	0	4	0	4	31	60	0	0	91	399
% Single-Unit	45.9	71.3	37.6	0.0	53.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.1	0.0	57.1	72.1	46.5	0.0	0.0	52.9	53.6
Exiting Leg Total					0					140					205					54	399
Articulated Trucks	7	9	44	0	60	0	0	0	0	0	0	0	3	0	3	0	17	0	0	17	80
% Articulated	6.4	3.7	20.7	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	0.0	42.9	0.0	13.2	0.0	0.0	9.9	10.7
Exiting Leg Total					0					61					9					10	80

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

6:45 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	4	8	3	0	15	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	18
7:00 AM	4	16	6	0	26	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	30
7:15 AM	3	3	6	0	12	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	17
7:30 AM	5	3	10	0	18	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	25
Total Volume	16	30	25	0	71	0	0	0	0	0	0	0	1	0	1	2	16	0	0	18	90
% Approach Total	22.5	42.3	35.2	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		11.1	88.9	0.0	0.0		
PHF	0.800	0.469	0.625	0.000	0.683	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.667	0.000	0.000	0.643	0.750
Buses	9	12	12	0	33	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	37
Buses %	56.3	40.0	48.0	0.0	46.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	18.8	0.0	0.0	22.2	41.1
Single-Unit Trucks	7	18	5	0	30	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	41
Single-Unit %	43.8	60.0	20.0	0.0	42.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	62.5	0.0	0.0	61.1	45.6
Articulated Trucks	0	0	8	0	8	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	12
Articulated %	0.0	0.0	32.0	0.0	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	18.8	0.0	0.0	16.7	13.3
Buses	9	12	12	0	33	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	37
Single-Unit Trucks	7	18	5	0	30	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	41
Articulated Trucks	0	0	8	0	8	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	12
Total Entering Leg	16	30	25	0	71	0	0	0	0	0	0	0	1	0	1	2	16	0	0	18	90
Buses					0					15					13					9	37
Single-Unit Trucks					0					15					19					7	41
Articulated Trucks					0					11					0					1	12
Total Exiting Leg					0					41					32					17	90

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	3	12	5	0	20	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	24
1:45 PM	6	7	2	0	15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	18
2:00 PM	4	5	4	0	13	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	16
2:15 PM	1	8	5	0	14	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	16
Total Volume	14	32	16	0	62	0	0	0	0	0	0	0	1	0	1	1	10	0	0	11	74
% Approach Total	22.6	51.6	25.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		9.1	90.9	0.0	0.0		
PHF	0.583	0.667	0.800	0.000	0.775	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	0.625	0.000	0.000	0.688	0.771
Buses	8	18	5	0	31	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	33
Buses %	57.1	56.3	31.3	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	18.2	44.6
Single-Unit Trucks	5	13	10	0	28	0	0	0	0	0	0	0	1	0	1	1	7	0	0	8	37
Single-Unit %	35.7	40.6	62.5	0.0	45.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0	70.0	0.0	0.0	72.7	50.0
Articulated Trucks	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Articulated %	7.1	3.1	6.3	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	9.1	5.4
Buses	8	18	5	0	31	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	33
Single-Unit Trucks	5	13	10	0	28	0	0	0	0	0	0	0	1	0	1	1	7	0	0	8	37
Articulated Trucks	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Total Entering Leg	14	32	16	0	62	0	0	0	0	0	0	0	1	0	1	1	10	0	0	11	74
Buses					0					7					18					8	33
Single-Unit Trucks					0					17					14					6	37
Articulated Trucks					0					2					1					1	4
Total Exiting Leg					0					26					33					15	74

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	4	5	4	0	13	0	0	0	0	0	0	0	1	0	1	1	1	0	0	2	16
2:15 PM	1	8	5	0	14	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	16
2:30 PM	2	2	3	0	7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	12
2:45 PM	1	9	4	0	14	0	0	0	0	0	0	0	0	0	0	3	6	0	0	9	23
Total Volume	8	24	16	0	48	0	0	0	0	0	0	0	1	0	1	4	14	0	0	18	67
% Approach Total	16.7	50.0	33.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		22.2	77.8	0.0	0.0		
PHF	0.500	0.667	0.800	0.000	0.857	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.333	0.583	0.000	0.000	0.500	0.728
Buses	3	15	5	0	23	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	28
Buses %	37.5	62.5	31.3	0.0	47.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.7	0.0	0.0	27.8	41.8
Single-Unit Trucks	4	8	11	0	23	0	0	0	0	0	0	0	1	0	1	4	7	0	0	11	35
Single-Unit %	50.0	33.3	68.8	0.0	47.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0	50.0	0.0	0.0	61.1	52.2
Articulated Trucks	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Articulated %	12.5	4.2	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	11.1	6.0
Buses	3	15	5	0	23	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	28
Single-Unit Trucks	4	8	11	0	23	0	0	0	0	0	0	0	1	0	1	4	7	0	0	11	35
Articulated Trucks	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Total Entering Leg	8	24	16	0	48	0	0	0	0	0	0	0	1	0	1	4	14	0	0	18	67
Buses					0					10					15					3	28
Single-Unit Trucks					0					18					12					5	35
Articulated Trucks					0					2					1					1	4
Total Exiting Leg					0					30					28					9	67

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
6:15 AM	2	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
6:30 AM	2	1	3	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
6:45 AM	3	3	2	0	8	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	10
Total	7	7	9	0	23	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	28
7:00 AM	3	8	4	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
7:15 AM	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
7:30 AM	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
7:45 AM	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
Total	8	9	12	0	29	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	32
8:00 AM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	6
8:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	5
8:30 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
8:45 AM	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	5
Total	3	1	8	0	12	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	19
9:00 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
9:15 AM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
9:30 AM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
9:45 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Total	2	2	7	0	11	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	17
10:00 AM	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
10:30 AM	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
10:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	3	5	5	0	13	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	15
11:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
11:15 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
11:45 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Total	2	1	6	0	9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	13
12:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
12:15 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
12:45 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Total	2	2	5	0	9	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	12
1:00 PM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
1:30 PM	2	4	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
1:45 PM	4	4	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Total	7	10	4	0	21	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	22
2:00 PM	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
2:15 PM	1	5	2	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
2:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:45 PM	1	4	1	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	9
Total	3	15	5	0	23	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	28
3:00 PM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
3:15 PM	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
3:45 PM	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Total	4	3	7	0	14	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	17
4:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
4:15 PM	1	3	1	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	10
4:30 PM	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
4:45 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Total	3	5	6	0	14	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	23
5:00 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
5:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	5
5:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	3	0	4	0	7	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	11
6:00 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
6:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	5
6:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	4
Total	3	0	5	0	8	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	15
7:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
7:15 PM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
7:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
7:45 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
Total	2	1	6	0	9	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	14
Grand Total	52	61	89	0	202	0	0	0	0	0	0	0	0	0	0	12	52	0	0	64	266
Approach %	25.7	30.2	44.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.8	81.3	0.0	0.0		
Total %	19.5	22.9	33.5	0.0	75.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	19.5	0.0	0.0	24.1	
Exiting Leg Total					0					141					73					52	266

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

6:15 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:15 AM	2	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
6:30 AM	2	1	3	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
6:45 AM	3	3	2	0	8	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	10
7:00 AM	3	8	4	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Total Volume	10	12	13	0	35	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	39
% Approach Total	28.6	34.3	37.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		25.0	75.0	0.0	0.0		
PHF	0.833	0.375	0.813	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.750	0.000	0.000	0.500	0.650
Entering Leg	10	12	13	0	35	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	39
Exiting Leg					0					16					13					10	39
Total					35					16					13					14	78

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	2	4	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
1:45 PM	4	4	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
2:00 PM	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
2:15 PM	1	5	2	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
Total Volume	8	18	5	0	31	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	33
% Approach Total	25.8	58.1	16.1	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.500	0.900	0.625	0.000	0.861	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.917
Entering Leg	8	18	5	0	31	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	33
Exiting Leg					0					7					18					8	33
Total					31					7					18					10	66

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
2:15 PM	1	5	2	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	9
2:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	1	4	1	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	9
Total Volume	3	15	5	0	23	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	28
% Approach Total	13.0	65.2	21.7	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.750	0.750	0.625	0.000	0.719	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.417	0.778
Entering Leg	3	15	5	0	23	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	28
Exiting Leg					0					10					15					3	28
Total					23					10					15					8	56

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	8
6:15 AM	2	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
6:30 AM	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	6
6:45 AM	1	5	1	0	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8
Total	3	10	7	0	20	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	27
7:00 AM	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	14
7:15 AM	2	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	6
7:30 AM	3	3	2	0	8	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	13
7:45 AM	2	7	0	0	9	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	10
Total	8	20	4	0	32	0	0	0	0	0	0	0	1	0	1	1	9	0	0	10	43
8:00 AM	2	6	1	0	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	11
8:15 AM	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	12
8:30 AM	2	5	4	0	11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	12
8:45 AM	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
Total	5	23	9	0	37	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	42
9:00 AM	3	4	2	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
9:15 AM	0	13	3	0	16	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	17
9:30 AM	0	6	4	0	10	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	12
9:45 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	6
Total	5	23	9	0	37	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	44
10:00 AM	1	3	3	0	7	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	8
10:15 AM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	7
10:30 AM	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
10:45 AM	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	7
Total	4	9	9	0	22	0	0	0	0	0	0	0	1	0	1	1	4	0	0	5	28
11:00 AM	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	11
11:15 AM	1	1	4	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	9
11:30 AM	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	6
11:45 AM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	8
Total	2	12	7	0	21	0	0	0	0	0	0	0	0	0	0	5	8	0	0	13	34
12:00 PM	1	4	3	0	8	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	12
12:15 PM	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7
12:30 PM	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	12
12:45 PM	2	7	1	0	10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	11
Total	7	17	6	0	30	0	0	0	0	0	0	0	1	0	1	11	0	0	0	11	42
1:00 PM	0	5	2	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
1:15 PM	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	8
1:30 PM	1	7	3	0	11	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	15
1:45 PM	2	3	1	0	6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	8
Total	3	19	8	0	30	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	38
2:00 PM	2	0	3	0	5	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	7
2:15 PM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
2:30 PM	2	1	2	0	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	8
2:45 PM	0	4	3	0	7	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	13
Total	4	8	11	0	23	0	0	0	0	0	0	0	1	0	1	4	7	0	0	11	35
3:00 PM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:15 PM	0	7	1	0	8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	11
3:30 PM	2	2	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3:45 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
Total	4	14	3	0	21	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	25
4:00 PM	1	2	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
4:15 PM	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7
4:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
Total	3	10	1	0	14	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	17
5:00 PM	0	1	5	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	5	0	8	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	12
6:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
6:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	3	1	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
7:00 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	6
Grand Total	50	174	80	0	304	0	0	0	0	0	0	0	4	0	4	31	60	0	0	91	399
Approach %	16.4	57.2	26.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		34.1	65.9	0.0	0.0		
Total %	12.5	43.6	20.1	0.0	76.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	7.8	15.0	0.0	0.0	22.8	
Exiting Leg Total					0					140					205					54	399

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

7:30 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	3	3	2	0	8	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	13
7:45 AM	2	7	0	0	9	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	10
8:00 AM	2	6	1	0	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	11
8:15 AM	1	8	2	0	11	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	12
Total Volume	8	24	5	0	37	0	0	0	0	0	0	0	1	0	1	2	6	0	0	8	46
% Approach Total	21.6	64.9	13.5	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		25.0	75.0	0.0	0.0		
PHF	0.667	0.750	0.625	0.000	0.841	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	0.375	0.000	0.000	0.400	0.885
Entering Leg	8	24	5	0	37	0	0	0	0	0	0	0	1	0	1	2	6	0	0	8	46
Exiting Leg					0					11					26					9	46
Total					37					11					27					17	92

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

12:00 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
12:00 PM	1	4	3	0	8	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	12
12:15 PM	1	3	2	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7
12:30 PM	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	12
12:45 PM	2	7	1	0	10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	11
Total Volume	7	17	6	0	30	0	0	0	0	0	0	0	1	0	1	11	0	0	0	11	42
% Approach Total	23.3	56.7	20.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.583	0.607	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.458	0.000	0.000	0.000	0.458	0.875
Entering Leg	7	17	6	0	30	0	0	0	0	0	0	0	1	0	1	11	0	0	0	11	42
Exiting Leg					0					6					28					8	42
Total					30					6					29					19	84

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	2	0	3	0	5	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	7
2:15 PM	0	3	3	0	6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7
2:30 PM	2	1	2	0	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	8

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	4	3	0	7	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	13
Total Volume	4	8	11	0	23	0	0	0	0	0	0	0	1	0	1	4	7	0	0	11	35
% Approach Total	17.4	34.8	47.8	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		36.4	63.6	0.0	0.0		
PHF	0.500	0.500	0.917	0.000	0.821	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.333	0.583	0.000	0.000	0.458	0.673
Entering Leg	4	8	11	0	23	0	0	0	0	0	0	0	1	0	1	4	7	0	0	11	35
Exiting Leg					0					18					12					5	35
Total					23					18					13					16	70

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:15 AM	0	0	3	0	3	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	5
7:30 AM	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	6
7:45 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	11	0	11	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	15
8:00 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	3
Total	0	4	3	0	7	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	11
9:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
9:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	6
10:00 AM	0	1	6	0	7	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	8
10:15 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	13	0	14	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	16
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
12:00 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:15 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
12:45 PM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	2	0	10	0	12	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	13
1:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	3	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	5
2:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
2:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Articulated Trucks**

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	7	9	44	0	60	0	0	0	0	0	0	0	3	0	3	0	17	0	0	17	80
Approach %	11.7	15.0	73.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
Total %	8.8	11.3	55.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	3.8	0.0	21.3	0.0	0.0	21.3	
Exiting Leg Total					0					61					9					10	80

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

9:45 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
9:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
10:00 AM	0	1	6	0	7	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	8
10:15 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Total Volume	0	1	14	0	15	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	18
% Approach Total	0.0	6.7	93.3	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.583	0.000	0.536	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.563
Entering Leg	0	1	14	0	15	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	18
Exiting Leg					0					16					1					1	18
Total					15					16					2					3	36

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:00 AM	0	1	6	0	7	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	8
10:15 AM	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10:30 AM	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	13	0	14	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	16
% Approach Total	0.0	7.1	92.9	0.0		0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.250	0.542	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	0	1	13	0	14	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	16
Exiting Leg					0					14					1					1	16
Total					14					14					2					2	32

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Medford Street from North					Somerville Avenue from East					Medford Street from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
% Approach Total	50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.250	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.500
Entering Leg	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
Exiting Leg					0					2					1					1	4
Total					2					2					1					3	8

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Medford Street							Somerville Avenue							Medford Street							Somerville Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2
6:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:45 AM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	4
Total	1	5	0	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	0	0	0	0	1	9
7:00 AM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
7:30 AM	0	8	2	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	13
7:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	5
Total	0	15	2	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	2	5	22
8:00 AM	0	4	0	0	0	0	4	0	1	0	0	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0	4	9
8:15 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
8:45 AM	1	11	0	0	0	0	12	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7	1	0	0	0	0	8	21
Total	1	29	0	0	0	0	30	0	1	0	0	0	0	1	0	0	1	0	0	0	1	12	1	0	0	0	0	13	45
9:00 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	0	0	0	0	3	11
9:15 AM	0	8	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	12
9:30 AM	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	13
9:45 AM	1	3	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	7
Total	1	27	1	0	1	0	30	0	0	0	0	0	0	0	0	0	1	0	0	0	1	6	2	0	0	0	4	12	43
10:00 AM	1	5	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	9
10:15 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	8
Total	1	15	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	1	6	23
11:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
11:30 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3
Total	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3	5	8
12:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	3
12:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	4
12:30 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	5
12:45 PM	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6
Total	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0	0	2	0	0	1	3	3	0	0	0	0	1	4	18
1:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	4
1:15 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	4
1:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0	0	2	0	3	10
2:00 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3
2:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	2	3	0	0	0	0	0	0	0	4
2:30 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	4
Total	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	2	0	1	2	5	0	1	0	0	0	0	1	13
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	4	1	0	0	0	1	0	2	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	1	0	1	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	1	0	1	3
3:45 PM	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
Total	1	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6	0	1	1	8	1	0	0	0	3	1	5	15
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	1	0	3	4
4:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	3
4:30 PM	1	1	0	0	0	1	3	0	0	0	0	0	0	0	0	0	3	0	0	0	3	2	0	0	0	0	0	2	8
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0	0	0	6	2	0	0	0	0	0	2	9
Total	1	3	0	0	0	1	5	0	0	0	0	0	0	0	0	0	10	0	1	0	11	6	0	0	0	2	0	8	24
5:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	2	0	0	0	0	0	2	6

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
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Class:

Bicycles (on Roadway and Crosswalks)

	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	0	0	0	0	1	2	11
5:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	0	0	1	0	2	7
Total	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	13	0	2	0	15	3	2	0	0	1	1	7	28
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	1	1	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	1	1	0	0	0	0	2	5
6:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	1	0	3	1	0	1	0	1	0	3	8
Total	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	8	0	2	0	10	2	1	1	0	1	1	6	18
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	2
7:15 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	1	1	6
7:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	1	0	0	0	0	2	4
Total	1	3	0	0	0	0	4	0	0	0	0	0	0	0	0	1	4	0	2	0	7	2	1	0	0	0	1	4	15
Grand Total	7	131	5	0	1	1	145	0	1	0	0	0	0	1	0	1	49	0	10	5	65	44	10	1	0	10	15	80	291
Approach %	4.8	90.3	3.4	0.0	0.7	0.7		0.0	100.0	0.0	0.0	0.0	0.0		0.0	1.5	75.4	0.0	15.4	7.7		55.0	12.5	1.3	0.0	12.5	18.8		
Total %	2.4	45.0	1.7	0.0	0.3	0.3	49.8	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.3	16.8	0.0	3.4	1.7	22.3	15.1	3.4	0.3	0.0	3.4	5.2	27.5	
Exiting Leg Total							4							15							190							82	291

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

8:45 AM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:45 AM	1	11	0	0	0	0	12	0	0	0	0	0	0	0	0	0	1	0	0	0	1	7	1	0	0	0	0	8	21
9:00 AM	0	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	0	0	0	0	3	11
9:15 AM	0	8	0	0	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3	12
9:30 AM	0	9	1	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	3	13
Total Volume	1	35	1	0	1	0	38	0	0	0	0	0	0	0	0	0	2	0	0	0	2	12	3	0	0	0	2	17	57
% Approach Total	2.6	92.1	2.6	0.0	2.6	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		70.6	17.6	0.0	0.0	0.0	11.8		
PHF	0.250	0.795	0.250	0.000	0.250	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.429	0.375	0.000	0.000	0.000	0.250	0.531	0.679
Entering Leg	1	35	1	0	1	0	38	0	0	0	0	0	0	0	0	0	2	0	0	0	2	12	3	0	0	0	2	17	57
Exiting Leg							1							4							47							5	57
Total							39							4							49							22	114

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
10:00 AM	1	5	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	9
10:15 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:30 AM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	4	8
Total Volume	1	15	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	1	6	23
% Approach Total	5.9	88.2	5.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		50.0	16.7	0.0	0.0	16.7	16.7		
PHF	0.250	0.750	0.250	0.000	0.000	0.000	0.607	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.250	0.250	0.375	0.639
Entering Leg	1	15	1	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	1	1	6	23
Exiting Leg							0							2							18							3	23
Total							17							2							18							9	46

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

4:45 PM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0	0	0	6	2	0	0	0	0	0	2	9
5:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	2	0	0	0	0	0	2	6

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Bicycles (on Roadway and Crosswalks)

	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	0	0	0	0	1	2	11
Total Volume	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	15	0	2	0	17	5	1	0	0	0	1	7	30
% Approach Total	0.0	83.3	16.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	88.2	0.0	11.8	0.0		71.4	14.3	0.0	0.0	0.0	14.3		
PHF	0.000	0.417	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.500	0.000	0.708	0.625	0.250	0.000	0.000	0.000	0.250	0.875	0.682
Entering Leg	0	5	1	0	0	0	6	0	0	0	0	0	0	0	0	0	15	0	2	0	17	5	1	0	0	0	1	7	30
Exiting Leg							0							2							12							16	30
Total							6							2							29							23	60

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street							Somerville Avenue							Medford Street							Somerville Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	5	6
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	4	0	4	7
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	2	2	6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	5	8	13	21
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	7
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	5	6
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	4	5	6
7:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	5	7	9
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3	21	24	28
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	1	9	10	17
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	4	5	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	6	6	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	12	13	16
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	9	15	0	0	0	0	3	31	34	50
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	9	9	11
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5	5	6
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	4	6	8
9:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	7	7	9
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	2	25	27	34
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	3	5	8	12
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	0	2	6
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	2	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	5	5	8
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	12	0	0	0	0	5	12	17	29
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	1	4	5	9
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	7	8	15	20
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	2	7	9	15
12:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	1	3	4	11
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	1	3	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	8	16	0	0	0	0	5	12	17	34
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	6	1	7	11
1:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	3	0	3	9
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	6	3	9	0	0	0	0	13	3	16	27
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
2:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3	0	3	7
2:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	5	6	9
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	1	3	4	10
Total	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	9	11	0	0	0	0	7	8	15	28
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	5	7	11
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	6	10	11
3:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	2	2	4	8
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	9	2	11	15
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	4	8	12	0	0	0	0	17	15	32	45
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	3	5	8	10
4:15 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	5	8
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2	9	9
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	8	4	12	16
Total	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	20	14	34	43
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	7	0	7	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	17	5	22	26

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	7	3	10	13
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	8	2	10	11
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	11	0	0	0	0	39	10	49	60
6:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	13	0	13	15
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	10	2	12	17
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	3	1	4	8
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	5	11	12
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	4	7	11	0	0	0	0	32	8	40	52
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	4	1	5	10
7:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	2	4	6
7:30 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	2	3	6
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	1	3	5
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	5	5	10	0	0	0	0	9	6	15	27
Grand Total	0	0	0	0	5	11	16	0	0	0	0	0	0	0	0	0	0	0	61	73	134	0	0	0	0	167	181	348	498
Approach %	0	0	0	0	31.3	68.8		0	0	0	0	0	0		0	0	0	0	45.5	54.5		0	0	0	0	48	52		
Total %	0	0	0	0	1	2.21	3.21	0	0	0	0	0	0	0	0	0	0	0	12.2	14.7	26.9	0	0	0	0	33.5	36.3	69.9	
Exiting Leg Total							16							0							134							348	498

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

8:00 AM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	0	0	0	0	1	9	10	17
8:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	4	5	8
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	6	6	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	12	13	16
Total Volume	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	9	15	0	0	0	0	3	31	34	50
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	8.8	91.2		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.563	0.536	0.000	0.000	0.000	0.000	0.750	0.646	0.654	0.735
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	9	15	0	0	0	0	3	31	34	50
Exiting Leg							1							0							15							34	50
Total							2							0							30							68	100

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

11:45 AM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	1	4	5	9
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	2	7	9	15
12:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	1	3	4	11
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	1	3	5
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	8	18	0	0	0	0	6	15	21	40
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	55.6	44.4		0.0	0.0	0.0	0.0	28.6	71.4		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.500	0.750	0.000	0.000	0.000	0.000	0.750	0.536	0.583	0.667
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	8	18	0	0	0	0	6	15	21	40
Exiting Leg							1							0							18							21	40
Total							2							0							36							42	80

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

4:45 PM	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	8	4	12	16
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	7	0	7	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	17	5	22	26

PDI File #: **228567 (5)**
Location: **N: Medford Street S: Medford Street**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street from North							Somerville Avenue from East							Medford Street from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	7	3	10	13
Total Volume	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	8	4	12	0	0	0	0	39	12	51	65
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	76.5	23.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.500	0.750	0.000	0.000	0.000	0.000	0.574	0.600	0.580	0.625
Entering Leg	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	8	4	12	0	0	0	0	39	12	51	65
Exiting Leg							2							0							12							51	65
Total							4							0							24							102	130

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	2	20	0	0	22	0	17	4	0	21	43
6:15 AM	0	0	0	0	0	0	0	0	0	0	4	16	0	0	20	0	23	8	0	31	51
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	33	0	0	35	0	39	8	0	47	82
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	22	0	0	23	0	38	14	0	52	75
Total	0	0	0	0	0	0	0	0	0	0	9	91	0	0	100	0	117	34	0	151	251
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	48	0	0	50	0	42	16	0	58	108
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	39	0	0	40	0	39	13	0	52	92
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	54	0	0	56	0	42	16	0	58	114
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	56	0	0	57	0	49	21	0	70	127
Total	0	0	0	0	0	0	0	0	0	0	6	197	0	0	203	0	172	66	0	238	441
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	43	0	0	43	0	53	12	0	65	108
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	31	0	0	35	0	65	14	0	79	114
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	45	0	0	47	0	49	21	0	70	117
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	47	0	0	49	0	52	16	0	68	117
Total	0	0	0	0	0	0	0	0	0	0	8	166	0	0	174	0	219	63	0	282	456
9:00 AM	0	0	0	0	0	0	0	0	0	0	2	44	0	0	46	0	51	14	0	65	111
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	23	0	0	24	0	42	9	0	51	75
9:30 AM	0	0	0	0	0	0	0	0	0	0	3	44	0	0	47	0	63	14	0	77	124
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	51	0	0	51	0	38	17	0	55	106
Total	0	0	0	0	0	0	0	0	0	0	6	162	0	0	168	0	194	54	0	248	416
10:00 AM	0	0	0	0	0	0	0	0	0	0	7	29	0	0	36	0	55	16	0	71	107
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	44	0	0	47	0	62	22	0	84	131
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	56	0	0	57	0	60	18	0	78	135
10:45 AM	0	0	0	0	0	0	0	0	0	0	4	51	0	0	55	0	42	16	0	58	113
Total	0	0	0	0	0	0	0	0	0	0	15	180	0	0	195	0	219	72	0	291	486
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	53	0	0	55	0	49	17	0	66	121
11:15 AM	0	0	0	0	0	0	0	0	0	0	5	63	0	0	68	0	65	9	0	74	142
11:30 AM	0	0	0	0	0	0	0	0	0	0	6	59	0	0	65	0	47	17	0	64	129
11:45 AM	0	0	0	0	0	0	0	0	0	0	13	78	0	0	91	0	15	3	0	18	109
Total	0	0	0	0	0	0	0	0	0	0	26	253	0	0	279	0	176	46	0	222	501
12:00 PM	0	0	0	0	0	0	0	0	0	0	9	80	0	0	89	0	29	3	0	32	121
12:15 PM	0	0	0	0	0	0	0	0	0	0	19	80	0	0	99	0	32	3	0	35	134
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	81	0	0	88	0	25	1	0	26	114
12:45 PM	0	0	0	0	0	0	0	0	0	0	15	94	0	0	109	0	26	5	0	31	140
Total	0	0	0	0	0	0	0	0	0	0	50	335	0	0	385	0	112	12	0	124	509
1:00 PM	0	0	0	0	0	0	0	0	0	0	11	71	0	0	82	0	41	10	0	51	133
1:15 PM	0	0	1	0	1	0	0	0	0	0	4	73	0	0	77	0	47	18	0	65	143
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	92	0	0	95	0	55	29	0	84	179
1:45 PM	0	0	0	0	0	0	0	0	0	0	3	85	0	0	88	0	53	31	0	84	172
Total	0	0	1	0	1	0	0	0	0	0	21	321	0	0	342	0	196	88	0	284	627
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	112	0	0	113	0	56	27	0	83	196
2:15 PM	0	0	0	0	0	0	0	0	0	0	7	85	0	0	92	0	67	23	0	90	182
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	89	0	0	90	0	50	31	0	81	171
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	91	0	0	92	0	57	31	0	88	180
Total	0	0	0	0	0	0	0	0	0	0	10	377	0	0	387	0	230	112	0	342	729
3:00 PM	0	0	0	0	0	0	0	0	0	0	5	114	0	0	119	0	53	16	0	69	188
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	91	0	0	91	0	81	24	0	105	196
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	106	0	0	107	0	50	26	0	76	183
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	100	0	0	101	0	52	29	0	81	182
Total	0	0	0	0	0	0	0	0	0	0	7	411	0	0	418	0	236	95	0	331	749
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	108	0	0	110	0	47	31	0	78	188
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	95	0	0	98	0	50	27	0	77	175
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	91	0	0	93	0	44	23	0	67	160
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	104	0	0	107	0	46	38	0	84	191
Total	0	0	0	0	0	0	0	0	0	0	10	398	0	0	408	0	187	119	0	306	714
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	91	0	0	94	0	67	20	0	87	181
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	113	0	0	115	0	57	40	0	97	212

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars and Heavy Vehicles (Combined)

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	93	0	0	94	0	52	21	0	73	167
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	116	0	0	117	0	39	30	0	69	186
Total	0	0	0	0	0	0	0	0	0	0	7	413	0	0	420	0	215	111	0	326	746
6:00 PM	0	0	0	0	0	0	0	0	0	0	3	98	0	0	101	0	49	22	0	71	172
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	99	0	0	102	0	52	27	0	79	181
6:30 PM	0	0	0	0	0	0	0	0	0	0	4	90	0	0	94	0	48	20	0	68	162
6:45 PM	0	0	0	0	0	0	0	0	0	0	2	105	0	0	107	0	45	13	0	58	165
Total	0	0	0	0	0	0	0	0	0	0	12	392	0	0	404	0	194	82	0	276	680
7:00 PM	0	0	0	0	0	0	0	0	0	0	4	85	0	0	89	0	53	21	0	74	163
7:15 PM	0	0	0	0	0	0	0	0	0	0	3	70	0	0	73	0	27	17	0	44	117
7:30 PM	0	0	0	0	0	0	0	0	0	0	7	46	0	0	53	0	41	21	0	62	115
7:45 PM	0	0	0	0	0	0	0	0	0	0	2	59	0	0	61	0	46	24	0	70	131
Total	0	0	0	0	0	0	0	0	0	0	16	260	0	0	276	0	167	83	0	250	526
Grand Total	0	0	1	0	1	0	0	0	0	0	203	3956	0	0	4159	0	2634	1037	0	3671	7831
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		4.9	95.1	0.0	0.0		0.0	71.8	28.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	50.5	0.0	0.0	53.1	0.0	33.6	13.2	0.0	46.9	
Exiting Leg Total					4993					2838					0					0	7831
Cars	0	0	1	0	1	0	0	0	0	0	180	3813	0	0	3993	0	2326	991	0	3317	7311
% Cars	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	88.7	96.4	0.0	0.0	96.0	0.0	88.3	95.6	0.0	90.4	93.4
Exiting Leg Total					4804					2507					0					0	7311
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	23	143	0	0	166	0	308	46	0	354	520
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	3.6	0.0	0.0	4.0	0.0	11.7	4.4	0.0	9.6	6.6
Exiting Leg Total					189					331					0					0	520

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

9:45 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	51	0	0	51	0	38	17	0	55	106
10:00 AM	0	0	0	0	0	0	0	0	0	0	7	29	0	0	36	0	55	16	0	71	107
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	44	0	0	47	0	62	22	0	84	131
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	56	0	0	57	0	60	18	0	78	135
Total Volume	0	0	0	0	0	0	0	0	0	0	11	180	0	0	191	0	215	73	0	288	479
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		5.8	94.2	0.0	0.0		0.0	74.7	25.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.393	0.804	0.000	0.000	0.838	0.000	0.867	0.830	0.000	0.857	0.887
Cars	0	0	0	0	0	0	0	0	0	0	11	168	0	0	179	0	180	70	0	250	429
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	93.3	0.0	0.0	93.7	0.0	83.7	95.9	0.0	86.8	89.6
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	35	3	0	38	50
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	6.3	0.0	16.3	4.1	0.0	13.2	10.4
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	11	168	0	0	179	0	180	70	0	250	429
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	35	3	0	38	50
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	11	180	0	0	191	0	215	73	0	288	479
Cars Exiting Leg					238					191					0					0	429
Heavy Exiting Leg					15					35					0					0	50
Total Exiting Leg					253					226					0					0	479

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	92	0	0	95	0	55	29	0	84	179
1:45 PM	0	0	0	0	0	0	0	0	0	0	3	85	0	0	88	0	53	31	0	84	172
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	112	0	0	113	0	56	27	0	83	196
2:15 PM	0	0	0	0	0	0	0	0	0	0	7	85	0	0	92	0	67	23	0	90	182
Total Volume	0	0	0	0	0	0	0	0	0	0	14	374	0	0	388	0	231	110	0	341	729
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		3.6	96.4	0.0	0.0		0.0	67.7	32.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.835	0.000	0.000	0.858	0.000	0.862	0.887	0.000	0.947	0.930
Cars	0	0	0	0	0	0	0	0	0	0	11	354	0	0	365	0	210	103	0	313	678

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars and Heavy Vehicles (Combined)

	Medford Street Ext					Somerville Avenue					Medford Street Ext					Somerville Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.6	94.7	0.0	0.0	94.1	0.0	90.9	93.6	0.0	91.8	93.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	3	20	0	0	23	0	21	7	0	28	51
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	5.3	0.0	0.0	5.9	0.0	9.1	6.4	0.0	8.2	7.0
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	11	354	0	0	365	0	210	103	0	313	678
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	3	20	0	0	23	0	21	7	0	28	51
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	14	374	0	0	388	0	231	110	0	341	729
Cars Exiting Leg					457					221					0					0	678
Heavy Exiting Leg					27					24					0					0	51
Total Exiting Leg					484					245					0					0	729

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

4:45 PM	Medford Street Ext					Somerville Avenue					Medford Street Ext					Somerville Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	104	0	0	107	0	46	38	0	84	191
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	91	0	0	94	0	67	20	0	87	181
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	113	0	0	115	0	57	40	0	97	212
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	93	0	0	94	0	52	21	0	73	167
Total Volume	0	0	0	0	0	0	0	0	0	0	9	401	0	0	410	0	222	119	0	341	751
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		2.2	97.8	0.0	0.0		0.0	65.1	34.9	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.887	0.000	0.000	0.891	0.000	0.828	0.744	0.000	0.879	0.886
Cars	0	0	0	0	0	0	0	0	0	0	8	396	0	0	404	0	205	117	0	322	726
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.9	98.8	0.0	0.0	98.5	0.0	92.3	98.3	0.0	94.4	96.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	17	2	0	19	25
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	1.2	0.0	0.0	1.5	0.0	7.7	1.7	0.0	5.6	3.3
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	8	396	0	0	404	0	205	117	0	322	726
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	17	2	0	19	25
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	9	401	0	0	410	0	222	119	0	341	751
Cars Exiting Leg					513					213					0					0	726
Heavy Exiting Leg					7					18					0					0	25
Total Exiting Leg					520					231					0					0	751

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	2	18	0	0	20	0	12	3	0	15	35
6:15 AM	0	0	0	0	0	0	0	0	0	0	3	15	0	0	18	0	17	8	0	25	43
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	31	0	0	31	0	30	6	0	36	67
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	19	0	0	20	0	34	13	0	47	67
Total	0	0	0	0	0	0	0	0	0	0	6	83	0	0	89	0	93	30	0	123	212
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	47	0	0	49	0	33	14	0	47	96
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	39	0	0	40	0	31	11	0	42	82
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	51	0	0	52	0	28	14	0	42	94
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	54	0	0	55	0	43	21	0	64	119
Total	0	0	0	0	0	0	0	0	0	0	5	191	0	0	196	0	135	60	0	195	391
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	39	0	0	39	0	47	11	0	58	97
8:15 AM	0	0	0	0	0	0	0	0	0	0	3	28	0	0	31	0	58	13	0	71	102
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	42	0	0	43	0	44	21	0	65	108
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	39	0	0	40	0	45	16	0	61	101
Total	0	0	0	0	0	0	0	0	0	0	5	148	0	0	153	0	194	61	0	255	408
9:00 AM	0	0	0	0	0	0	0	0	0	0	2	42	0	0	44	0	46	14	0	60	104
9:15 AM	0	0	0	0	0	0	0	0	0	0	1	22	0	0	23	0	35	9	0	44	67
9:30 AM	0	0	0	0	0	0	0	0	0	0	3	41	0	0	44	0	54	13	0	67	111
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	50	0	0	50	0	33	15	0	48	98
Total	0	0	0	0	0	0	0	0	0	0	6	155	0	0	161	0	168	51	0	219	380
10:00 AM	0	0	0	0	0	0	0	0	0	0	7	26	0	0	33	0	43	15	0	58	91
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	42	0	0	45	0	56	22	0	78	123
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	50	0	0	51	0	48	18	0	66	117
10:45 AM	0	0	0	0	0	0	0	0	0	0	3	49	0	0	52	0	36	14	0	50	102
Total	0	0	0	0	0	0	0	0	0	0	14	167	0	0	181	0	183	69	0	252	433
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	49	0	0	50	0	39	16	0	55	105
11:15 AM	0	0	0	0	0	0	0	0	0	0	5	61	0	0	66	0	57	7	0	64	130
11:30 AM	0	0	0	0	0	0	0	0	0	0	6	55	0	0	61	0	43	15	0	58	119
11:45 AM	0	0	0	0	0	0	0	0	0	0	12	74	0	0	86	0	12	3	0	15	101
Total	0	0	0	0	0	0	0	0	0	0	24	239	0	0	263	0	151	41	0	192	455
12:00 PM	0	0	0	0	0	0	0	0	0	0	9	73	0	0	82	0	22	3	0	25	107
12:15 PM	0	0	0	0	0	0	0	0	0	0	17	80	0	0	97	0	27	3	0	30	127
12:30 PM	0	0	0	0	0	0	0	0	0	0	7	75	0	0	82	0	19	1	0	20	102
12:45 PM	0	0	0	0	0	0	0	0	0	0	13	89	0	0	102	0	20	5	0	25	127
Total	0	0	0	0	0	0	0	0	0	0	46	317	0	0	363	0	88	12	0	100	463
1:00 PM	0	0	0	0	0	0	0	0	0	0	10	67	0	0	77	0	35	10	0	45	122
1:15 PM	0	0	1	0	1	0	0	0	0	0	4	72	0	0	76	0	41	18	0	59	136
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	89	0	0	92	0	49	26	0	75	167
1:45 PM	0	0	0	0	0	0	0	0	0	0	2	81	0	0	83	0	51	27	0	78	161
Total	0	0	1	0	1	0	0	0	0	0	19	309	0	0	328	0	176	81	0	257	586
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	103	0	0	104	0	50	27	0	77	181
2:15 PM	0	0	0	0	0	0	0	0	0	0	5	81	0	0	86	0	60	23	0	83	169
2:30 PM	0	0	0	0	0	0	0	0	0	0	1	87	0	0	88	0	46	27	0	73	161
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	88	0	0	89	0	50	28	0	78	167
Total	0	0	0	0	0	0	0	0	0	0	8	359	0	0	367	0	206	105	0	311	678
3:00 PM	0	0	0	0	0	0	0	0	0	0	5	112	0	0	117	0	51	16	0	67	184
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	88	0	0	88	0	74	22	0	96	184
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	105	0	0	106	0	46	26	0	72	178
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	98	0	0	98	0	48	29	0	77	175
Total	0	0	0	0	0	0	0	0	0	0	6	403	0	0	409	0	219	93	0	312	721
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	105	0	0	107	0	43	30	0	73	180
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	92	0	0	95	0	46	25	0	71	166
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	88	0	0	90	0	41	22	0	63	153
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	103	0	0	105	0	43	38	0	81	186
Total	0	0	0	0	0	0	0	0	0	0	9	388	0	0	397	0	173	115	0	288	685
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	91	0	0	94	0	59	19	0	78	172
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	111	0	0	113	0	55	40	0	95	208

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	91	0	0	92	0	48	20	0	68	160
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	116	0	0	117	0	39	30	0	69	186
Total	0	0	0	0	0	0	0	0	0	0	7	409	0	0	416	0	201	109	0	310	726
6:00 PM	0	0	0	0	0	0	0	0	0	0	3	98	0	0	101	0	47	21	0	68	169
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	99	0	0	102	0	47	27	0	74	176
6:30 PM	0	0	0	0	0	0	0	0	0	0	3	88	0	0	91	0	46	20	0	66	157
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	103	0	0	104	0	44	13	0	57	161
Total	0	0	0	0	0	0	0	0	0	0	10	388	0	0	398	0	184	81	0	265	663
7:00 PM	0	0	0	0	0	0	0	0	0	0	4	85	0	0	89	0	50	21	0	71	160
7:15 PM	0	0	0	0	0	0	0	0	0	0	2	68	0	0	70	0	25	17	0	42	112
7:30 PM	0	0	0	0	0	0	0	0	0	0	7	46	0	0	53	0	37	21	0	58	111
7:45 PM	0	0	0	0	0	0	0	0	0	0	2	58	0	0	60	0	43	24	0	67	127
Total	0	0	0	0	0	0	0	0	0	0	15	257	0	0	272	0	155	83	0	238	510
Grand Total	0	0	1	0	1	0	0	0	0	0	180	3813	0	0	3993	0	2326	991	0	3317	7311
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		4.5	95.5	0.0	0.0		0.0	70.1	29.9	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	52.2	0.0	0.0	54.6	0.0	31.8	13.6	0.0	45.4	
Exiting Leg Total					4804					2507					0					0	7311

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

9:45 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	50	0	0	50	0	33	15	0	48	98
10:00 AM	0	0	0	0	0	0	0	0	0	0	7	26	0	0	33	0	43	15	0	58	91
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	42	0	0	45	0	56	22	0	78	123
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	50	0	0	51	0	48	18	0	66	117
Total Volume	0	0	0	0	0	0	0	0	0	0	11	168	0	0	179	0	180	70	0	250	429
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		6.1	93.9	0.0	0.0		0.0	72.0	28.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.393	0.840	0.000	0.000	0.877	0.000	0.804	0.795	0.000	0.801	0.872
Entering Leg	0	0	0	0	0	0	0	0	0	0	11	168	0	0	179	0	180	70	0	250	429
Exiting Leg					238					191					0					0	429
Total					238					191					179					250	858

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:30 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:30 PM	0	0	0	0	0	0	0	0	0	0	3	89	0	0	92	0	49	26	0	75	167
1:45 PM	0	0	0	0	0	0	0	0	0	0	2	81	0	0	83	0	51	27	0	78	161
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	103	0	0	104	0	50	27	0	77	181
2:15 PM	0	0	0	0	0	0	0	0	0	0	5	81	0	0	86	0	60	23	0	83	169
Total Volume	0	0	0	0	0	0	0	0	0	0	11	354	0	0	365	0	210	103	0	313	678
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		3.0	97.0	0.0	0.0		0.0	67.1	32.9	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.550	0.859	0.000	0.000	0.877	0.000	0.875	0.954	0.000	0.943	0.936
Entering Leg	0	0	0	0	0	0	0	0	0	0	11	354	0	0	365	0	210	103	0	313	678
Exiting Leg					457					221					0					0	678
Total					457					221					365					313	1356

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

4:45 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	103	0	0	105	0	43	38	0	81	186
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	91	0	0	94	0	59	19	0	78	172
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	111	0	0	113	0	55	40	0	95	208
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	91	0	0	92	0	48	20	0	68	160

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Total Volume	0	0	0	0	0	0	0	0	0	0	8	396	0	0	404	0	205	117	0	322	726
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		2.0	98.0	0.0	0.0		0.0	63.7	36.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.892	0.000	0.000	0.894	0.000	0.869	0.731	0.000	0.847	0.873
Entering Leg	0	0	0	0	0	0	0	0	0	0	8	396	0	0	404	0	205	117	0	322	726
Exiting Leg					513					213					0					0	726
Total					513					213					404					322	1452

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

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

	Medford Street Ext					Somerville Avenue					Medford Street Ext					Somerville Avenue					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	1	0	6	8
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	6	0	0	6	8
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	9	2	0	11	15
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	1	0	5	8
Total	0	0	0	0	0	0	0	0	0	0	3	8	0	0	11	0	24	4	0	28	39
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	9	2	0	11	12
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	10	10
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	14	2	0	16	20
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
Total	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	37	6	0	43	50
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	6	1	0	7	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	7	1	0	8	12
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	5	0	0	5	9
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	8	0	0	9	0	7	0	0	7	16
Total	0	0	0	0	0	0	0	0	0	0	3	18	0	0	21	0	25	2	0	27	48
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	0	0	5	7
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	7	0	0	7	8
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	9	1	0	10	13
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	2	0	7	8
Total	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	26	3	0	29	36
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	12	1	0	13	16
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	12	0	0	12	18
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	6	2	0	8	11
Total	0	0	0	0	0	0	0	0	0	0	1	13	0	0	14	0	36	3	0	39	53
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	10	1	0	11	16
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	2	0	10	12
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	2	0	6	10
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	3	0	0	3	8
Total	0	0	0	0	0	0	0	0	0	0	2	14	0	0	16	0	25	5	0	30	46
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	7	0	0	7	14
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	5	0	0	5	7
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	6	0	0	6	12
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	6	0	0	6	13
Total	0	0	0	0	0	0	0	0	0	0	4	18	0	0	22	0	24	0	0	24	46
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	6	0	0	6	11
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	6	0	0	6	7
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	3	0	9	12
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	2	4	0	6	11
Total	0	0	0	0	0	0	0	0	0	0	2	12	0	0	14	0	20	7	0	27	41
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	6	0	0	6	15
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	7	0	0	7	13
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	4	0	8	10
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	7	3	0	10	13
Total	0	0	0	0	0	0	0	0	0	0	2	18	0	0	20	0	24	7	0	31	51
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	7	2	0	9	12
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	4	0	0	4	7
Total	0	0	0	0	0	0	0	0	0	0	1	8	0	0	9	0	17	2	0	19	28
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	1	0	5	8
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	2	0	6	9
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	1	0	4	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	0	0	3	5
Total	0	0	0	0	0	0	0	0	0	0	1	10	0	0	11	0	14	4	0	18	29
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	9	9
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	0	0	2	4

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	1	0	5	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	14	2	0	16	20
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
6:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	0	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	10	1	0	11	17
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
7:15 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
Total	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	12	0	0	12	16
Grand Total	0	0	0	0	0	0	0	0	0	0	23	143	0	0	166	0	308	46	0	354	520
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		13.9	86.1	0.0	0.0		0.0	87.0	13.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	27.5	0.0	0.0	31.9	0.0	59.2	8.8	0.0	68.1	
Exiting Leg Total					189					331					0					0	520
Buses	0	0	0	0	0	0	0	0	0	0	1	29	0	0	30	0	138	8	0	146	176
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	20.3	0.0	0.0	18.1	0.0	44.8	17.4	0.0	41.2	33.8
Exiting Leg Total					37					139					0					0	176
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	22	104	0	0	126	0	109	33	0	142	268
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.7	72.7	0.0	0.0	75.9	0.0	35.4	71.7	0.0	40.1	51.5
Exiting Leg Total					137					131					0					0	268
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	61	5	0	66	76
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	6.0	0.0	19.8	10.9	0.0	18.6	14.6
Exiting Leg Total					15					61					0					0	76

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

7:30 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	14	2	0	16	20
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	6	1	0	7	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	7	1	0	8	12
Total Volume	0	0	0	0	0	0	0	0	0	0	2	12	0	0	14	0	33	4	0	37	51
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		14.3	85.7	0.0	0.0		0.0	89.2	10.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.875	0.000	0.589	0.500	0.000	0.578	0.638
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	12	1	0	13	15
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	14.3	0.0	36.4	25.0	0.0	35.1	29.4
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	8	0	0	10	0	9	2	0	11	21
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	66.7	0.0	0.0	71.4	0.0	27.3	50.0	0.0	29.7	41.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	12	1	0	13	15
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	14.3	0.0	36.4	25.0	0.0	35.1	29.4
Buses	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	12	1	0	13	15
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	8	0	0	10	0	9	2	0	11	21
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	12	1	0	13	15
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	2	12	0	0	14	0	33	4	0	37	51
Buses					3					12					0					0	15
Single-Unit Trucks					10					11					0					0	21
Articulated Trucks					3					12					0					0	15
Total Exiting Leg					16					35					0					0	51

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:30 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	12	0	0	12	18
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	6	2	0	8	11
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	10	1	0	11	16
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	8	2	0	10	12
Total Volume	0	0	0	0	0	0	0	0	0	0	2	14	0	0	16	0	36	5	0	41	57
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0		0.0	87.8	12.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.583	0.000	0.000	0.667	0.000	0.750	0.625	0.000	0.854	0.792
Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	0	0	6	9
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	18.8	0.0	16.7	0.0	0.0	14.6	15.8
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	9	0	0	11	0	24	5	0	29	40
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	64.3	0.0	0.0	68.8	0.0	66.7	100.0	0.0	70.7	70.2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	12.5	0.0	16.7	0.0	0.0	14.6	14.0
Buses	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	0	0	6	9
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	9	0	0	11	0	24	5	0	29	40
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	0	0	6	8
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	2	14	0	0	16	0	36	5	0	41	57
Buses					3					6					0					0	9
Single-Unit Trucks					14					26					0					0	40
Articulated Trucks					2					6					0					0	8
Total Exiting Leg					19					38					0					0	57

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	6	0	0	6	15
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	7	0	0	7	13
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	4	0	8	10
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	7	3	0	10	13
Total Volume	0	0	0	0	0	0	0	0	0	0	2	18	0	0	20	0	24	7	0	31	51
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		10.0	90.0	0.0	0.0		0.0	77.4	22.6	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.000	0.556	0.000	0.857	0.438	0.000	0.775	0.850
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	8	2	0	10	11
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	5.0	0.0	33.3	28.6	0.0	32.3	21.6
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	17	0	0	19	0	13	4	0	17	36
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	94.4	0.0	0.0	95.0	0.0	54.2	57.1	0.0	54.8	70.6
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	14.3	0.0	12.9	7.8
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	8	2	0	10	11
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	2	17	0	0	19	0	13	4	0	17	36
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	2	18	0	0	20	0	24	7	0	31	51
Buses					3					8					0					0	11
Single-Unit Trucks					21					15					0					0	36
Articulated Trucks					1					3					0					0	4
Total Exiting Leg					25					26					0					0	51

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	13	0	0	13	14
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	16
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	3	0	0	3	8
Total	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	10	1	0	11	19
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	13	1	0	14	16
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	7	0	0	7	11
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	9	11
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	7
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	6	0	0	6	7
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	4
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	8	2	0	10	11
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5	0	0	5	6
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	12	0	0	12	15
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	12	3	0	15	17
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	7	1	0	8	10
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	9	11
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	9	11
Grand Total	0	0	0	0	0	0	0	0	0	0	1	29	0	0	30	0	138	8	0	146	176
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		3.3	96.7	0.0	0.0		0.0	94.5	5.5	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	16.5	0.0	0.0	17.0	0.0	78.4	4.5	0.0	83.0	
Exiting Leg Total					37					139					0					0	176

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

8:15 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	1	0	4	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	3	0	0	3	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	0	0	4	5
Total Volume	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	12	1	0	13	21
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0		0.0	92.3	7.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.350	0.000	0.000	0.400	0.000	0.750	0.250	0.000	0.813	0.656
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	12	1	0	13	21
Exiting Leg					8					13					0					0	21
Total					8					13					8					13	42

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	7	0	0	7	11
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.438	0.000	0.000	0.438	0.458
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	7	0	0	7	11
Exiting Leg					4					7					0					0	11
Total					4					7					4					7	22

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

3:45 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	6	6

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	13	3	0	16	19
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	81.3	18.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.375	0.000	0.813	0.375	0.000	0.667	0.792
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	13	3	0	16	19
Exiting Leg					6					13					0					0	19
Total					6					13					3					16	38

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	1	0	5	6
6:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	3	1	0	4	7
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	1	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	9	3	0	12	20
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	1	0	5	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	5	1	0	6	10
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	9	4	0	13	19
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	1	0	3	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	5
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	3	0	0	3	7
Total	0	0	0	0	0	0	0	0	0	0	2	10	0	0	12	0	9	1	0	10	22
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	1	0	5	8
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	9	2	0	11	16
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	0	0	6	9
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	6	2	0	8	11
Total	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	13	3	0	16	24
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	7	1	0	8	11
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	2	0	7	9
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	1	2	0	3	7
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	1	0	0	1	6
Total	0	0	0	0	0	0	0	0	0	0	2	12	0	0	14	0	14	5	0	19	33
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	3	0	0	3	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	1	0	0	1	8
Total	0	0	0	0	0	0	0	0	0	0	4	16	0	0	20	0	6	0	0	6	26
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	2	0	0	2	6
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	3	0	7	9
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	1	3	0	4	9
Total	0	0	0	0	0	0	0	0	0	0	2	10	0	0	12	0	10	6	0	16	28
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	4	0	0	4	12
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	4	0	0	4	10
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	3	0	4	6
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	1	0	5	8
Total	0	0	0	0	0	0	0	0	0	0	2	17	0	0	19	0	13	4	0	17	36
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	3
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2	0	4	6
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	5	2	0	7	13
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	1	0	2	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	2	1	0	3	11
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	6	1	0	7	9
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	1	1	0	2	6
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	3
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	0	0	3	5
Grand Total	0	0	0	0	0	0	0	0	0	0	22	104	0	0	126	0	109	33	0	142	268
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		17.5	82.5	0.0	0.0		0.0	76.8	23.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	38.8	0.0	0.0	47.0	0.0	40.7	12.3	0.0	53.0	
Exiting Leg Total					137					131					0					0	268

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

6:45 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	1	0	2	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	1	0	5	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	5	1	0	6	10
Total Volume	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	10	5	0	15	23
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		12.5	87.5	0.0	0.0		0.0	66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.583	0.000	0.000	0.500	0.000	0.500	0.625	0.000	0.625	0.575
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	10	5	0	15	23
Exiting Leg					12					11					0					0	23
Total					12					11					8					15	46

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:30 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	0	0	6	9
10:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	6	2	0	8	11
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	7	1	0	8	11
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5	2	0	7	9
Total Volume	0	0	0	0	0	0	0	0	0	0	2	9	0	0	11	0	24	5	0	29	40
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		18.2	81.8	0.0	0.0		0.0	82.8	17.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.917	0.000	0.857	0.625	0.000	0.906	0.909
Entering Leg	0	0	0	0	0	0	0	0	0	0	2	9	0	0	11	0	24	5	0	29	40
Exiting Leg					14					26					0					0	40
Total					14					26					11					29	80

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	4	0	0	4	12
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	4	0	0	4	10
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	3	0	4	6

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Single-Unit Trucks**

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	4	1	0	5	8
Total Volume	0	0	0	0	0	0	0	0	0	0	2	17	0	0	19	0	13	4	0	17	36
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		10.5	89.5	0.0	0.0		0.0	76.5	23.5	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.531	0.000	0.000	0.594	0.000	0.813	0.333	0.000	0.850	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	2	17	0	0	19	0	13	4	0	17	36
Exiting Leg					21					15					0					0	36
Total					21					15					19					17	72

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	3	4
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	1	0	3	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	6
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	3	4
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	12	2	0	14	15
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	6	0	0	6	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	8
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	16	0	0	16	18
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	11	0	0	11	13
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4	1	0	5	6
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	61	5	0	66	76
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	92.4	7.6	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	0.0	0.0	13.2	0.0	80.3	6.6	0.0	86.8	
Exiting Leg Total					15					61					0					0	76

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

9:45 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	8
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	18	0	0	18	20
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.563	0.000	0.000	0.563	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	18	0	0	18	20
Exiting Leg					2					18					0					0	20
Total					2					18					2					18	40

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	8
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	4	6
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	16	0	0	16	18
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	100.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.500	0.563
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	16	0	0	16	18
Exiting Leg					2					16					0					0	18
Total					2					16					2					16	36

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	3

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	Medford Street Ext from North					Somerville Avenue from East					Medford Street Ext from South					Somerville Avenue from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	75.0	25.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.000	0.333	0.333
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	4
Exiting Leg					1					3					0					0	4
Total					1					3					0					4	8

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	Medford Street Ext							Somerville Avenue							Medford Street Ext							Somerville Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	2	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	3	0	2	0	0	0	1	3	6
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	1	3
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	1	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	1	1	0	0	1	3	5
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	2	1	0	0	1	4	7
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	4	0	0	0	0	4	8
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	1	0	0	0	0	1	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	3	0	1	0	0	0	3	4	7
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	4
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	5
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	0	0	0	0	1	0	1	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	1	6	0	0	0	0	1	0	1	7
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	1	1	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	1	0	12	0	0	0	0	0	1	1	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1	0	10	0	2	0	0	0	0	2	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	8

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
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PRECISION DATA INDUSTRIES, LLC
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Class:

Bicycles (on Roadway and Crosswalks)

	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	0	0	0	0	1	9
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	1	0	31	0	3	0	0	0	0	3	34
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	6
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	6
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	1	0	0	0	0	1	4
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	0	0	0	0	0	1	1	7
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	0	1	0	0	0	1	2	23
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	2	3
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	0	0	4
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	0	0	0	0	1	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	1	1	0	0	0	1	3	11
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	90	0	0	9	5	104	1	16	1	0	1	8	27	132
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	86.5	0.0	0.0	8.7	4.8		3.7	59.3	3.7	0.0	3.7	29.6		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.8	0.0	68.2	0.0	0.0	6.8	3.8	78.8	0.8	12.1	0.8	0.0	0.8	6.1	20.5	
Exiting Leg Total							91							16							16							9	132

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

8:45 AM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	1	0	1	0	0	0	0	1	3
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	1	1	0	0	1	3	5
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	1	1	4	0	3	1	0	0	1	5	10
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	0.0		0.0	50.0	0.0	0.0	25.0	25.0		0.0	60.0	20.0	0.0	0.0	20.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.250	0.250	0.500	0.000	0.750	0.250	0.000	0.000	0.250	0.417	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	1	1	4	0	3	1	0	0	1	5	10
Exiting Leg							3							3							3							1	10
Total							3							4							7							6	20

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	0	0	0	1	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	4	0	0	0	0	4	8
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.667
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	4	0	0	0	0	4	8
Exiting Leg							0							4							4							0	8
Total							0							4							8							4	16

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

5:00 PM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	1	0	10	0	2	0	0	0	0	2	12
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	0	0	0	0	0	0	8
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	5

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Bicycles (on Roadway and Crosswalks)

	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	0	1	0	0	0	0	1	9
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	1	0	31	0	3	0	0	0	0	3	34
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	96.8	0.0	0.0	3.2	0.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.833	0.000	0.000	0.250	0.000	0.775	0.000	0.375	0.000	0.000	0.000	0.000	0.375	0.708
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	1	0	31	0	3	0	0	0	0	3	34
Exiting Leg							30							3							1							0	34
Total							30							3							32							3	68

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street Ext							Somerville Avenue							Medford Street Ext							Somerville Avenue							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	1	3
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	9	0	0	0	0	2	0	2	11
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	0	1	4
7:45 AM	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
Total	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	2	2	4	11
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	2	2	4	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	1	1	2	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	3	3	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	1	2	3	7
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	11	16	0	0	0	0	4	8	12	29
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1	0	1	4
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	3
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	4	4	8	0	0	0	0	1	1	2	11
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	4
10:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	1	1	5
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
10:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	1	3	6
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	3	6	9	0	0	0	0	3	2	5	16
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	0	0	0	0	0	1	1	6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	9	0	0	0	0	1	3	4	13
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	2	2	7
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	4	0	0	0	0	1	0	1	7
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	1	0	1	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	1	0	1	4
Total	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	9	6	15	0	0	0	0	3	2	5	23
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	2	0	2	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	2	2	5
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	1	1	5
Total	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	5	2	7	0	0	0	0	3	3	6	16
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3	0	3	6
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	1	0	1	4
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8	0	0	0	0	5	0	5	13
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	14	0	0	0	0	9	0	9	23
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	1	0	1	7
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3	1	4	7
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	2	2	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	3	0	3	6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	14	0	0	0	0	7	3	10	24
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	2	1	3	6
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3	0	3	6
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	1	8	0	0	0	0	8	1	9	18
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	2	1	3	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	6	0	0	0	0	4	0	4	10

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	12	1	13	0	0	0	0	8	1	9	23
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	0	6	0	0	0	0	6	0	6	13
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	26	2	28	0	0	0	0	20	2	22	52
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	3	2	5	7
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	2	8	0	0	0	0	4	0	4	13
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1	3	4
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	1	1	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	9	3	12	0	0	0	0	9	4	13	27
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	0	2	2	4	10
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:30 PM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	2	0	2	10
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	0	2	4
Total	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	9	5	14	0	0	0	0	6	3	9	25
Grand Total	0	0	0	0	6	4	10	0	0	0	0	0	10	10	0	0	0	0	105	62	167	0	0	0	0	78	34	112	299
Approach %	0	0	0	0	60	40		0	0	0	0	0	100		0	0	0	0	62.9	37.1		0	0	0	0	69.6	30.4		
Total %	0	0	0	0	2.01	1.34	3.34	0	0	0	0	0	3.34	3.34	0	0	0	0	35.1	20.7	55.9	0	0	0	0	26.1	11.4	37.5	
Exiting Leg Total							10							10							167							112	299

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

8:00 AM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	2	2	4	10
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	1	1	2	7
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	3	3	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	1	2	3	7
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	11	16	0	0	0	0	4	8	12	29
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	31.3	68.8		0.0	0.0	0.0	0.0	33.3	66.7		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.917	0.800	0.000	0.000	0.000	0.000	0.500	0.667	0.750	0.725
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	11	16	0	0	0	0	4	8	12	29
Exiting Leg							1							0							16							12	29
Total							2							0							32							24	58

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

11:45 AM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	0	0	0	0	0	1	1	6
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	2	2	7
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	4	0	0	0	0	1	0	1	7
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	1	0	1	5
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	11	6	17	0	0	0	0	2	3	5	25
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	64.7	35.3		0.0	0.0	0.0	0.0	40.0	60.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.688	0.500	0.850	0.000	0.000	0.000	0.000	0.500	0.375	0.625	0.893
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	11	6	17	0	0	0	0	2	3	5	25
Exiting Leg							1							2							17							5	25
Total							2							4							34							10	50

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

5:30 PM	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	12	1	13	0	0	0	0	8	1	9	23
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	0	6	0	0	0	0	6	0	6	13
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	3	2	5	7

PDI File #: **228567 (6)**
Location: **N: Medford Street Ext S: Medford Street Ext**
Location: **E: Somerville Avenue W: Somerville Avenue**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	Medford Street Ext from North							Somerville Avenue from East							Medford Street Ext from South							Somerville Avenue from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	6	2	8	0	0	0	0	4	0	4	13
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	26	3	29	0	0	0	0	21	3	24	56
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	89.7	10.3		0.0	0.0	0.0	0.0	87.5	12.5		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.000	0.000	0.000	0.000	0.542	0.375	0.558	0.000	0.000	0.000	0.000	0.656	0.375	0.667	0.609
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	26	3	29	0	0	0	0	21	3	24	56
Exiting Leg							0							3							29							24	56
Total							0							6							58							48	112

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars and Heavy Vehicles (Combined)

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	12	24	0	0	36	0	8	17	0	25	61
6:15 AM	0	0	0	0	0	0	0	0	0	0	13	23	0	0	36	0	11	13	0	24	60
6:30 AM	0	0	0	0	0	0	0	0	0	0	13	26	0	0	39	0	11	31	0	42	81
6:45 AM	0	0	0	0	0	0	0	0	0	0	27	40	0	0	67	0	15	23	0	38	105
Total	0	0	0	0	0	0	0	0	0	0	65	113	0	0	178	0	45	84	0	129	307
7:00 AM	0	0	0	0	0	0	0	0	0	0	31	51	0	0	82	0	19	45	0	64	146
7:15 AM	0	0	0	0	0	0	0	0	0	0	29	40	0	0	69	0	10	42	0	52	121
7:30 AM	0	0	0	0	0	0	0	0	0	0	35	62	0	0	97	0	17	53	0	70	167
7:45 AM	0	0	0	0	0	0	0	0	0	0	28	57	0	0	85	0	13	62	0	75	160
Total	0	0	0	0	0	0	0	0	0	0	123	210	0	0	333	0	59	202	0	261	594
8:00 AM	0	0	0	0	0	0	0	0	0	0	37	59	0	0	96	0	17	41	0	58	154
8:15 AM	0	0	0	0	0	0	0	0	0	0	31	52	0	0	83	0	13	33	0	46	129
8:30 AM	0	0	0	0	0	0	0	0	0	0	36	75	0	0	111	0	20	45	0	65	176
8:45 AM	0	0	0	0	0	0	0	0	0	0	40	71	0	0	111	0	24	40	0	64	175
Total	0	0	0	0	0	0	0	0	0	0	144	257	0	0	401	0	74	159	0	233	634
9:00 AM	0	0	0	0	0	0	0	0	0	0	29	54	0	0	83	0	20	39	0	59	142
9:15 AM	0	0	0	0	0	0	0	0	0	0	42	62	0	0	104	0	10	22	0	32	136
9:30 AM	0	0	0	0	0	0	0	0	0	0	26	50	0	0	76	0	18	41	0	59	135
9:45 AM	0	0	0	0	0	0	0	0	0	0	23	73	0	0	96	0	18	50	0	68	164
Total	0	0	0	0	0	0	0	0	0	0	120	239	0	0	359	0	66	152	0	218	577
10:00 AM	0	0	0	0	0	0	0	0	0	0	31	49	0	0	80	0	15	28	0	43	123
10:15 AM	0	0	0	0	0	0	0	0	0	0	28	61	0	0	89	0	29	35	0	64	153
10:30 AM	0	0	0	0	0	0	0	0	0	0	33	70	0	0	103	0	25	47	0	72	175
10:45 AM	0	0	0	0	0	0	0	0	0	0	33	64	0	0	97	0	19	49	0	68	165
Total	0	0	0	0	0	0	0	0	0	0	125	244	0	0	369	0	88	159	0	247	616
11:00 AM	0	0	0	0	0	0	0	0	0	0	43	89	0	0	132	0	15	54	0	69	201
11:15 AM	0	0	0	0	0	0	0	0	0	0	29	64	0	0	93	0	22	49	0	71	164
11:30 AM	0	0	0	0	0	0	0	0	0	0	30	83	0	0	113	0	31	44	0	75	188
11:45 AM	0	0	0	0	0	0	0	0	0	0	39	77	0	0	116	0	26	55	0	81	197
Total	0	0	0	0	0	0	0	0	0	0	141	313	0	0	454	0	94	202	0	296	750
12:00 PM	0	0	0	0	0	0	0	0	0	0	51	84	0	0	135	0	25	57	0	82	217
12:15 PM	0	0	0	0	0	0	0	0	0	0	45	107	0	0	152	0	27	56	0	83	235
12:30 PM	0	0	0	0	0	0	0	0	0	0	31	76	0	0	107	0	20	62	0	82	189
12:45 PM	0	0	0	0	0	0	0	0	0	0	45	103	0	0	148	0	23	75	0	98	246
Total	0	0	0	0	0	0	0	0	0	0	172	370	0	0	542	0	95	250	0	345	887
1:00 PM	0	0	0	0	0	0	0	0	0	0	40	107	0	0	147	0	19	60	0	79	226
1:15 PM	0	0	0	0	0	0	0	0	0	0	51	140	1	0	192	0	22	72	0	94	286
1:30 PM	0	0	0	0	0	0	0	0	0	0	48	116	0	0	164	0	36	85	0	121	285
1:45 PM	0	0	0	0	0	0	0	0	0	0	37	168	0	0	205	0	33	82	0	115	320
Total	0	0	0	0	0	0	0	0	0	0	176	531	1	0	708	0	110	299	0	409	1117
2:00 PM	0	0	0	0	0	0	0	0	0	0	52	170	0	0	222	0	32	108	0	140	362
2:15 PM	0	0	0	0	0	0	0	0	0	0	52	155	0	0	207	0	39	69	0	108	315
2:30 PM	0	0	0	0	0	0	0	0	0	0	47	160	0	0	207	0	28	93	0	121	328
2:45 PM	0	0	0	0	0	0	0	0	0	0	47	166	0	0	213	0	39	86	0	125	338
Total	0	0	0	0	0	0	0	0	0	0	198	651	0	0	849	0	138	356	0	494	1343
3:00 PM	0	0	0	0	0	0	0	0	0	0	55	194	0	0	249	0	25	107	0	132	381
3:15 PM	0	0	0	0	0	0	0	0	0	0	67	236	0	0	303	0	26	90	0	116	419
3:30 PM	0	0	0	0	0	0	0	0	0	0	62	209	0	0	271	0	36	94	0	130	401
3:45 PM	0	0	0	0	0	0	0	0	0	0	60	222	0	0	282	0	35	99	0	134	416
Total	0	0	0	0	0	0	0	0	0	0	244	861	0	0	1105	0	122	390	0	512	1617
4:00 PM	0	0	0	0	0	0	0	0	0	0	46	207	0	0	253	0	42	99	0	141	394
4:15 PM	0	0	0	0	0	0	0	0	0	0	46	219	0	0	265	0	27	99	0	126	391
4:30 PM	0	0	0	0	0	0	0	0	0	0	60	226	0	0	286	0	22	95	0	117	403
4:45 PM	0	0	0	0	0	0	0	0	0	0	58	199	0	0	257	0	36	109	0	145	402
Total	0	0	0	0	0	0	0	0	0	0	210	851	0	0	1061	0	127	402	0	529	1590
5:00 PM	0	0	0	0	0	0	0	0	0	0	66	249	0	0	315	0	23	86	0	109	424
5:15 PM	0	0	0	0	0	0	0	0	0	0	45	192	0	0	237	0	34	120	0	154	391

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars and Heavy Vehicles (Combined)

	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	68	249	0	0	317	0	25	88	0	113	430
5:45 PM	0	0	0	0	0	0	0	0	0	0	49	220	0	0	269	0	31	112	0	143	412
Total	0	0	0	0	0	0	0	0	0	0	228	910	0	0	1138	0	113	406	0	519	1657
6:00 PM	0	0	0	0	0	0	0	0	0	0	76	233	0	0	309	0	39	85	0	124	433
6:15 PM	0	0	0	0	0	0	0	0	0	0	60	183	0	0	243	1	35	91	0	127	370
6:30 PM	0	0	0	0	0	0	0	0	0	0	56	170	0	0	226	0	26	86	0	112	338
6:45 PM	0	0	0	0	0	0	0	0	0	0	40	113	0	0	153	0	30	91	0	121	274
Total	0	0	0	0	0	0	0	0	0	0	232	699	0	0	931	1	130	353	0	484	1415
7:00 PM	0	0	0	0	0	0	0	0	0	0	32	108	0	0	140	0	28	79	0	107	247
7:15 PM	0	0	0	0	0	0	0	0	0	0	38	114	0	0	152	0	16	69	0	85	237
7:30 PM	0	0	0	0	0	0	0	0	0	0	42	109	0	0	151	0	12	57	0	69	220
7:45 PM	0	0	0	0	0	0	0	0	0	0	29	98	0	0	127	0	28	56	0	84	211
Total	0	0	0	0	0	0	0	0	0	0	141	429	0	0	570	0	84	261	0	345	915
Grand Total	0	0	0	0	0	0	0	0	0	0	2319	6678	1	0	8998	1	1345	3675	0	5021	14019
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		25.8	74.2	0.0	0.0		0.0	26.8	73.2	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	47.6	0.0	0.0	64.2	0.0	9.6	26.2	0.0	35.8	
Exiting Leg Total					10353					3664					1					1	14019
Cars	0	0	0	0	0	0	0	0	0	0	2082	6495	1	0	8578	1	1268	3567	0	4836	13414
% Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.8	97.3	100.0	0.0	95.3	100.0	94.3	97.1	0.0	96.3	95.7
Exiting Leg Total					10062					3350					1					1	13414
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	237	183	0	0	420	0	77	108	0	185	605
% Heavy Vehicles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	2.7	0.0	0.0	4.7	0.0	5.7	2.9	0.0	3.7	4.3
Exiting Leg Total					291					314					0					0	605

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

8:00 AM	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	37	59	0	0	96	0	17	41	0	58	154
8:15 AM	0	0	0	0	0	0	0	0	0	0	31	52	0	0	83	0	13	33	0	46	129
8:30 AM	0	0	0	0	0	0	0	0	0	0	36	75	0	0	111	0	20	45	0	65	176
8:45 AM	0	0	0	0	0	0	0	0	0	0	40	71	0	0	111	0	24	40	0	64	175
Total Volume	0	0	0	0	0	0	0	0	0	0	144	257	0	0	401	0	74	159	0	233	634
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		35.9	64.1	0.0	0.0		0.0	31.8	68.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.857	0.000	0.000	0.903	0.000	0.771	0.883	0.000	0.896	0.901
Cars	0	0	0	0	0	0	0	0	0	0	120	243	0	0	363	0	66	147	0	213	576
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	83.3	94.6	0.0	0.0	90.5	0.0	89.2	92.5	0.0	91.4	90.9
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	24	14	0	0	38	0	8	12	0	20	58
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	5.4	0.0	0.0	9.5	0.0	10.8	7.5	0.0	8.6	9.1
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	120	243	0	0	363	0	66	147	0	213	576
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	24	14	0	0	38	0	8	12	0	20	58
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	144	257	0	0	401	0	74	159	0	233	634
Cars Exiting Leg					390					186					0					0	576
Heavy Exiting Leg					26					32					0					0	58
Total Exiting Leg					416					218					0					0	634

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:45 PM	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:45 PM	0	0	0	0	0	0	0	0	0	0	37	168	0	0	205	0	33	82	0	115	320
2:00 PM	0	0	0	0	0	0	0	0	0	0	52	170	0	0	222	0	32	108	0	140	362
2:15 PM	0	0	0	0	0	0	0	0	0	0	52	155	0	0	207	0	39	69	0	108	315
2:30 PM	0	0	0	0	0	0	0	0	0	0	47	160	0	0	207	0	28	93	0	121	328
Total Volume	0	0	0	0	0	0	0	0	0	0	188	653	0	0	841	0	132	352	0	484	1325
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		22.4	77.6	0.0	0.0		0.0	27.3	72.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.904	0.960	0.000	0.000	0.947	0.000	0.846	0.815	0.000	0.864	0.915
Cars	0	0	0	0	0	0	0	0	0	0	172	636	0	0	808	0	122	336	0	458	1266

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Cars and Heavy Vehicles (Combined)

	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.5	97.4	0.0	0.0	96.1	0.0	92.4	95.5	0.0	94.6	95.5
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	16	17	0	0	33	0	10	16	0	26	59
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	2.6	0.0	0.0	3.9	0.0	7.6	4.5	0.0	5.4	4.5
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	172	636	0	0	808	0	122	336	0	458	1266
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	16	17	0	0	33	0	10	16	0	26	59
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	188	653	0	0	841	0	132	352	0	484	1325
Cars Exiting Leg					972					294					0					0	1266
Heavy Exiting Leg					33					26					0					0	59
Total Exiting Leg					1005					320					0					0	1325

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

5:15 PM	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:15 PM	0	0	0	0	0	0	0	0	0	0	45	192	0	0	237	0	34	120	0	154	391
5:30 PM	0	0	0	0	0	0	0	0	0	0	68	249	0	0	317	0	25	88	0	113	430
5:45 PM	0	0	0	0	0	0	0	0	0	0	49	220	0	0	269	0	31	112	0	143	412
6:00 PM	0	0	0	0	0	0	0	0	0	0	76	233	0	0	309	0	39	85	0	124	433
Total Volume	0	0	0	0	0	0	0	0	0	0	238	894	0	0	1132	0	129	405	0	534	1666
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		21.0	79.0	0.0	0.0		0.0	24.2	75.8	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.783	0.898	0.000	0.000	0.893	0.000	0.827	0.844	0.000	0.867	0.962
Cars	0	0	0	0	0	0	0	0	0	0	224	883	0	0	1107	0	126	402	0	528	1635
Cars %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.1	98.8	0.0	0.0	97.8	0.0	97.7	99.3	0.0	98.9	98.1
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	14	11	0	0	25	0	3	3	0	6	31
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	1.2	0.0	0.0	2.2	0.0	2.3	0.7	0.0	1.1	1.9
Cars Enter Leg	0	0	0	0	0	0	0	0	0	0	224	883	0	0	1107	0	126	402	0	528	1635
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	14	11	0	0	25	0	3	3	0	6	31
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	238	894	0	0	1132	0	129	405	0	534	1666
Cars Exiting Leg					1285					350					0					0	1635
Heavy Exiting Leg					14					17					0					0	31
Total Exiting Leg					1299					367					0					0	1666

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Cars

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	9	20	0	0	29	0	7	15	0	22	51
6:15 AM	0	0	0	0	0	0	0	0	0	0	11	20	0	0	31	0	11	12	0	23	54
6:30 AM	0	0	0	0	0	0	0	0	0	0	11	23	0	0	34	0	11	27	0	38	72
6:45 AM	0	0	0	0	0	0	0	0	0	0	20	35	0	0	55	0	14	20	0	34	89
Total	0	0	0	0	0	0	0	0	0	0	51	98	0	0	149	0	43	74	0	117	266
7:00 AM	0	0	0	0	0	0	0	0	0	0	27	45	0	0	72	0	18	42	0	60	132
7:15 AM	0	0	0	0	0	0	0	0	0	0	24	39	0	0	63	0	9	42	0	51	114
7:30 AM	0	0	0	0	0	0	0	0	0	0	28	57	0	0	85	0	15	49	0	64	149
7:45 AM	0	0	0	0	0	0	0	0	0	0	23	52	0	0	75	0	13	60	0	73	148
Total	0	0	0	0	0	0	0	0	0	0	102	193	0	0	295	0	55	193	0	248	543
8:00 AM	0	0	0	0	0	0	0	0	0	0	32	52	0	0	84	0	15	38	0	53	137
8:15 AM	0	0	0	0	0	0	0	0	0	0	25	50	0	0	75	0	11	31	0	42	117
8:30 AM	0	0	0	0	0	0	0	0	0	0	30	74	0	0	104	0	19	43	0	62	166
8:45 AM	0	0	0	0	0	0	0	0	0	0	33	67	0	0	100	0	21	35	0	56	156
Total	0	0	0	0	0	0	0	0	0	0	120	243	0	0	363	0	66	147	0	213	576
9:00 AM	0	0	0	0	0	0	0	0	0	0	24	49	0	0	73	0	20	37	0	57	130
9:15 AM	0	0	0	0	0	0	0	0	0	0	38	59	0	0	97	0	10	21	0	31	128
9:30 AM	0	0	0	0	0	0	0	0	0	0	18	44	0	0	62	0	17	38	0	55	117
9:45 AM	0	0	0	0	0	0	0	0	0	0	19	71	0	0	90	0	18	47	0	65	155
Total	0	0	0	0	0	0	0	0	0	0	99	223	0	0	322	0	65	143	0	208	530
10:00 AM	0	0	0	0	0	0	0	0	0	0	24	44	0	0	68	0	13	26	0	39	107
10:15 AM	0	0	0	0	0	0	0	0	0	0	25	57	0	0	82	0	28	34	0	62	144
10:30 AM	0	0	0	0	0	0	0	0	0	0	27	67	0	0	94	0	20	46	0	66	160
10:45 AM	0	0	0	0	0	0	0	0	0	0	28	59	0	0	87	0	17	49	0	66	153
Total	0	0	0	0	0	0	0	0	0	0	104	227	0	0	331	0	78	155	0	233	564
11:00 AM	0	0	0	0	0	0	0	0	0	0	42	84	0	0	126	0	14	50	0	64	190
11:15 AM	0	0	0	0	0	0	0	0	0	0	26	60	0	0	86	0	19	48	0	67	153
11:30 AM	0	0	0	0	0	0	0	0	0	0	26	77	0	0	103	0	28	41	0	69	172
11:45 AM	0	0	0	0	0	0	0	0	0	0	35	76	0	0	111	0	25	52	0	77	188
Total	0	0	0	0	0	0	0	0	0	0	129	297	0	0	426	0	86	191	0	277	703
12:00 PM	0	0	0	0	0	0	0	0	0	0	43	80	0	0	123	0	23	54	0	77	200
12:15 PM	0	0	0	0	0	0	0	0	0	0	40	102	0	0	142	0	27	56	0	83	225
12:30 PM	0	0	0	0	0	0	0	0	0	0	27	69	0	0	96	0	17	59	0	76	172
12:45 PM	0	0	0	0	0	0	0	0	0	0	44	100	0	0	144	0	23	71	0	94	238
Total	0	0	0	0	0	0	0	0	0	0	154	351	0	0	505	0	90	240	0	330	835
1:00 PM	0	0	0	0	0	0	0	0	0	0	37	104	0	0	141	0	19	56	0	75	216
1:15 PM	0	0	0	0	0	0	0	0	0	0	45	138	1	0	184	0	21	71	0	92	276
1:30 PM	0	0	0	0	0	0	0	0	0	0	46	113	0	0	159	0	34	81	0	115	274
1:45 PM	0	0	0	0	0	0	0	0	0	0	36	166	0	0	202	0	31	76	0	107	309
Total	0	0	0	0	0	0	0	0	0	0	164	521	1	0	686	0	105	284	0	389	1075
2:00 PM	0	0	0	0	0	0	0	0	0	0	47	163	0	0	210	0	29	103	0	132	342
2:15 PM	0	0	0	0	0	0	0	0	0	0	48	152	0	0	200	0	36	68	0	104	304
2:30 PM	0	0	0	0	0	0	0	0	0	0	41	155	0	0	196	0	26	89	0	115	311
2:45 PM	0	0	0	0	0	0	0	0	0	0	45	162	0	0	207	0	36	83	0	119	326
Total	0	0	0	0	0	0	0	0	0	0	181	632	0	0	813	0	127	343	0	470	1283
3:00 PM	0	0	0	0	0	0	0	0	0	0	50	191	0	0	241	0	24	106	0	130	371
3:15 PM	0	0	0	0	0	0	0	0	0	0	62	227	0	0	289	0	23	88	0	111	400
3:30 PM	0	0	0	0	0	0	0	0	0	0	59	208	0	0	267	0	36	93	0	129	396
3:45 PM	0	0	0	0	0	0	0	0	0	0	57	220	0	0	277	0	34	98	0	132	409
Total	0	0	0	0	0	0	0	0	0	0	228	846	0	0	1074	0	117	385	0	502	1576
4:00 PM	0	0	0	0	0	0	0	0	0	0	42	207	0	0	249	0	41	96	0	137	386
4:15 PM	0	0	0	0	0	0	0	0	0	0	44	216	0	0	260	0	23	98	0	121	381
4:30 PM	0	0	0	0	0	0	0	0	0	0	54	224	0	0	278	0	19	94	0	113	391
4:45 PM	0	0	0	0	0	0	0	0	0	0	53	198	0	0	251	0	35	109	0	144	395
Total	0	0	0	0	0	0	0	0	0	0	193	845	0	0	1038	0	118	397	0	515	1553
5:00 PM	0	0	0	0	0	0	0	0	0	0	62	248	0	0	310	0	22	86	0	108	418
5:15 PM	0	0	0	0	0	0	0	0	0	0	40	189	0	0	229	0	33	119	0	152	381

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	66	243	0	0	309	0	24	86	0	110	419
5:45 PM	0	0	0	0	0	0	0	0	0	0	44	219	0	0	263	0	31	112	0	143	406
Total	0	0	0	0	0	0	0	0	0	0	212	899	0	0	1111	0	110	403	0	513	1624
6:00 PM	0	0	0	0	0	0	0	0	0	0	74	232	0	0	306	0	38	85	0	123	429
6:15 PM	0	0	0	0	0	0	0	0	0	0	57	183	0	0	240	1	35	91	0	127	367
6:30 PM	0	0	0	0	0	0	0	0	0	0	49	167	0	0	216	0	25	85	0	110	326
6:45 PM	0	0	0	0	0	0	0	0	0	0	37	113	0	0	150	0	28	91	0	119	269
Total	0	0	0	0	0	0	0	0	0	0	217	695	0	0	912	1	126	352	0	479	1391
7:00 PM	0	0	0	0	0	0	0	0	0	0	29	106	0	0	135	0	28	79	0	107	242
7:15 PM	0	0	0	0	0	0	0	0	0	0	35	114	0	0	149	0	14	69	0	83	232
7:30 PM	0	0	0	0	0	0	0	0	0	0	37	108	0	0	145	0	12	57	0	69	214
7:45 PM	0	0	0	0	0	0	0	0	0	0	27	97	0	0	124	0	28	55	0	83	207
Total	0	0	0	0	0	0	0	0	0	0	128	425	0	0	553	0	82	260	0	342	895
Grand Total	0	0	0	0	0	0	0	0	0	0	2082	6495	1	0	8578	1	1268	3567	0	4836	13414
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		24.3	75.7	0.0	0.0		0.0	26.2	73.8	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	48.4	0.0	0.0	63.9	0.0	9.5	26.6	0.0	36.1	
Exiting Leg Total					10062					3350					1					1	13414

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

8:30 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:30 AM	0	0	0	0	0	0	0	0	0	0	30	74	0	0	104	0	19	43	0	62	166
8:45 AM	0	0	0	0	0	0	0	0	0	0	33	67	0	0	100	0	21	35	0	56	156
9:00 AM	0	0	0	0	0	0	0	0	0	0	24	49	0	0	73	0	20	37	0	57	130
9:15 AM	0	0	0	0	0	0	0	0	0	0	38	59	0	0	97	0	10	21	0	31	128
Total Volume	0	0	0	0	0	0	0	0	0	0	125	249	0	0	374	0	70	136	0	206	580
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.4	66.6	0.0	0.0		0.0	34.0	66.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.822	0.841	0.000	0.000	0.899	0.000	0.833	0.791	0.000	0.831	0.873
Entering Leg	0	0	0	0	0	0	0	0	0	0	125	249	0	0	374	0	70	136	0	206	580
Exiting Leg					385					195					0					0	580
Total					385					195					374					206	1160

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:45 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:45 PM	0	0	0	0	0	0	0	0	0	0	36	166	0	0	202	0	31	76	0	107	309
2:00 PM	0	0	0	0	0	0	0	0	0	0	47	163	0	0	210	0	29	103	0	132	342
2:15 PM	0	0	0	0	0	0	0	0	0	0	48	152	0	0	200	0	36	68	0	104	304
2:30 PM	0	0	0	0	0	0	0	0	0	0	41	155	0	0	196	0	26	89	0	115	311
Total Volume	0	0	0	0	0	0	0	0	0	0	172	636	0	0	808	0	122	336	0	458	1266
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		21.3	78.7	0.0	0.0		0.0	26.6	73.4	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.896	0.958	0.000	0.000	0.962	0.000	0.847	0.816	0.000	0.867	0.925
Entering Leg	0	0	0	0	0	0	0	0	0	0	172	636	0	0	808	0	122	336	0	458	1266
Exiting Leg					972					294					0					0	1266
Total					972					294					808					458	2532

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

5:15 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:15 PM	0	0	0	0	0	0	0	0	0	0	40	189	0	0	229	0	33	119	0	152	381
5:30 PM	0	0	0	0	0	0	0	0	0	0	66	243	0	0	309	0	24	86	0	110	419
5:45 PM	0	0	0	0	0	0	0	0	0	0	44	219	0	0	263	0	31	112	0	143	406
6:00 PM	0	0	0	0	0	0	0	0	0	0	74	232	0	0	306	0	38	85	0	123	429

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Cars**

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Total Volume	0	0	0	0	0	0	0	0	0	0	224	883	0	0	1107	0	126	402	0	528	1635
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		20.2	79.8	0.0	0.0		0.0	23.9	76.1	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.757	0.908	0.000	0.000	0.896	0.000	0.829	0.845	0.000	0.868	0.953
Entering Leg	0	0	0	0	0	0	0	0	0	0	224	883	0	0	1107	0	126	402	0	528	1635
Exiting Leg					1285					350					0					0	1635
Total					1285					350					1107					528	3270

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	1	2	0	3	10
6:15 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	1	0	1	6
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	4	0	4	9
6:45 AM	0	0	0	0	0	0	0	0	0	0	7	5	0	0	12	0	1	3	0	4	16
Total	0	0	0	0	0	0	0	0	0	0	14	15	0	0	29	0	2	10	0	12	41
7:00 AM	0	0	0	0	0	0	0	0	0	0	4	6	0	0	10	0	1	3	0	4	14
7:15 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	1	0	0	1	7
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	5	0	0	12	0	2	4	0	6	18
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	0	2	0	2	12
Total	0	0	0	0	0	0	0	0	0	0	21	17	0	0	38	0	4	9	0	13	51
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	7	0	0	12	0	2	3	0	5	17
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	2	2	0	4	12
8:30 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	0	7	0	1	2	0	3	10
8:45 AM	0	0	0	0	0	0	0	0	0	0	7	4	0	0	11	0	3	5	0	8	19
Total	0	0	0	0	0	0	0	0	0	0	24	14	0	0	38	0	8	12	0	20	58
9:00 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	0	2	0	2	12
9:15 AM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	0	1	0	1	8
9:30 AM	0	0	0	0	0	0	0	0	0	0	8	6	0	0	14	0	1	3	0	4	18
9:45 AM	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6	0	0	3	0	3	9
Total	0	0	0	0	0	0	0	0	0	0	21	16	0	0	37	0	1	9	0	10	47
10:00 AM	0	0	0	0	0	0	0	0	0	0	7	5	0	0	12	0	2	2	0	4	16
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	1	1	0	2	9
10:30 AM	0	0	0	0	0	0	0	0	0	0	6	3	0	0	9	0	5	1	0	6	15
10:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	2	0	0	2	12
Total	0	0	0	0	0	0	0	0	0	0	21	17	0	0	38	0	10	4	0	14	52
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	1	4	0	5	11
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	3	1	0	4	11
11:30 AM	0	0	0	0	0	0	0	0	0	0	4	6	0	0	10	0	3	3	0	6	16
11:45 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	1	3	0	4	9
Total	0	0	0	0	0	0	0	0	0	0	12	16	0	0	28	0	8	11	0	19	47
12:00 PM	0	0	0	0	0	0	0	0	0	0	8	4	0	0	12	0	2	3	0	5	17
12:15 PM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	0	0	0	0	10
12:30 PM	0	0	0	0	0	0	0	0	0	0	4	7	0	0	11	0	3	3	0	6	17
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	4	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	18	19	0	0	37	0	5	10	0	15	52
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	4	0	4	10
1:15 PM	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	1	1	0	2	10
1:30 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	2	4	0	6	11
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	6	0	8	11
Total	0	0	0	0	0	0	0	0	0	0	12	10	0	0	22	0	5	15	0	20	42
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	7	0	0	12	0	3	5	0	8	20
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	3	1	0	4	11
2:30 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	0	2	4	0	6	17
2:45 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	3	3	0	6	12
Total	0	0	0	0	0	0	0	0	0	0	17	19	0	0	36	0	11	13	0	24	60
3:00 PM	0	0	0	0	0	0	0	0	0	0	5	3	0	0	8	0	1	1	0	2	10
3:15 PM	0	0	0	0	0	0	0	0	0	0	5	9	0	0	14	0	3	2	0	5	19
3:30 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	1	0	1	5
3:45 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	1	1	0	2	7
Total	0	0	0	0	0	0	0	0	0	0	16	15	0	0	31	0	5	5	0	10	41
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	3	0	4	8
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	4	1	0	5	10
4:30 PM	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	3	1	0	4	12
4:45 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	1	0	0	1	7
Total	0	0	0	0	0	0	0	0	0	0	17	6	0	0	23	0	9	5	0	14	37
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	1	0	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	5	3	0	0	8	0	1	1	0	2	10

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	6	0	0	8	0	1	2	0	3	11
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	16	11	0	0	27	0	3	3	0	6	33
6:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	1	0	0	1	4
6:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	1	1	0	2	12
6:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	15	4	0	0	19	0	4	1	0	5	24
7:00 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	5
7:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	5
7:30 PM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	6
7:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	13	4	0	0	17	0	2	1	0	3	20
Grand Total	0	0	0	0	0	0	0	0	0	0	237	183	0	0	420	0	77	108	0	185	605
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		56.4	43.6	0.0	0.0		0.0	41.6	58.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.2	30.2	0.0	0.0	69.4	0.0	12.7	17.9	0.0	30.6	
Exiting Leg Total					291					314					0					0	605
Buses	0	0	0	0	0	0	0	0	0	0	125	44	0	0	169	0	20	18	0	38	207
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.7	24.0	0.0	0.0	40.2	0.0	26.0	16.7	0.0	20.5	34.2
Exiting Leg Total					62					145					0					0	207
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	100	122	0	0	222	0	57	75	0	132	354
% Single-Unit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.2	66.7	0.0	0.0	52.9	0.0	74.0	69.4	0.0	71.4	58.5
Exiting Leg Total					197					157					0					0	354
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	12	17	0	0	29	0	0	15	0	15	44
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	9.3	0.0	0.0	6.9	0.0	0.0	13.9	0.0	8.1	7.3
Exiting Leg Total					32					12					0					0	44

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

7:30 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	7	5	0	0	12	0	2	4	0	6	18
7:45 AM	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	0	2	0	2	12
8:00 AM	0	0	0	0	0	0	0	0	0	0	5	7	0	0	12	0	2	3	0	5	17
8:15 AM	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	2	2	0	4	12
Total Volume	0	0	0	0	0	0	0	0	0	0	23	19	0	0	42	0	6	11	0	17	59
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		54.8	45.2	0.0	0.0		0.0	35.3	64.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.821	0.679	0.000	0.000	0.875	0.000	0.750	0.688	0.000	0.708	0.819
Buses	0	0	0	0	0	0	0	0	0	0	10	3	0	0	13	0	3	0	0	3	16
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.5	15.8	0.0	0.0	31.0	0.0	50.0	0.0	0.0	17.6	27.1
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	10	12	0	0	22	0	3	8	0	11	33
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.5	63.2	0.0	0.0	52.4	0.0	50.0	72.7	0.0	64.7	55.9
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	3	0	3	10
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	21.1	0.0	0.0	16.7	0.0	0.0	27.3	0.0	17.6	16.9
Buses	0	0	0	0	0	0	0	0	0	0	10	3	0	0	13	0	3	0	0	3	16
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	10	12	0	0	22	0	3	8	0	11	33
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	3	0	3	10
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	23	19	0	0	42	0	6	11	0	17	59
Buses					3					13					0					0	16
Single-Unit Trucks					20					13					0					0	33
Articulated Trucks					7					3					0					0	10
Total Exiting Leg					30					29					0					0	59

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:45 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

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

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	6	0	8	11
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	7	0	0	12	0	3	5	0	8	20
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	3	1	0	4	11
2:30 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	0	2	4	0	6	17
Total Volume	0	0	0	0	0	0	0	0	0	0	16	17	0	0	33	0	10	16	0	26	59
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		48.5	51.5	0.0	0.0		0.0	38.5	61.5	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.607	0.000	0.000	0.688	0.000	0.833	0.667	0.000	0.813	0.738
Buses	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	1	0	0	1	12
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	17.6	0.0	0.0	33.3	0.0	10.0	0.0	0.0	3.8	20.3
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	8	14	0	0	22	0	9	14	0	23	45
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	82.4	0.0	0.0	66.7	0.0	90.0	87.5	0.0	88.5	76.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	7.7	3.4
Buses	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	1	0	0	1	12
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	8	14	0	0	22	0	9	14	0	23	45
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	16	17	0	0	33	0	10	16	0	26	59
Buses					3					9					0					0	12
Single-Unit Trucks					28					17					0					0	45
Articulated Trucks					2					0					0					0	2
Total Exiting Leg					33					26					0					0	59

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	5	7	0	0	12	0	3	5	0	8	20
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	3	1	0	4	11
2:30 PM	0	0	0	0	0	0	0	0	0	0	6	5	0	0	11	0	2	4	0	6	17
2:45 PM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	3	3	0	6	12
Total Volume	0	0	0	0	0	0	0	0	0	0	17	19	0	0	36	0	11	13	0	24	60
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		47.2	52.8	0.0	0.0		0.0	45.8	54.2	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.708	0.679	0.000	0.000	0.750	0.000	0.917	0.650	0.000	0.750	0.750
Buses	0	0	0	0	0	0	0	0	0	0	9	3	0	0	12	0	3	0	0	3	15
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.9	15.8	0.0	0.0	33.3	0.0	27.3	0.0	0.0	12.5	25.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	8	16	0	0	24	0	8	12	0	20	44
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.1	84.2	0.0	0.0	66.7	0.0	72.7	92.3	0.0	83.3	73.3
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	4.2	1.7
Buses	0	0	0	0	0	0	0	0	0	0	9	3	0	0	12	0	3	0	0	3	15
Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	8	16	0	0	24	0	8	12	0	20	44
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Entering Leg	0	0	0	0	0	0	0	0	0	0	17	19	0	0	36	0	11	13	0	24	60
Buses					3					12					0					0	15
Single-Unit Trucks					28					16					0					0	44
Articulated Trucks					1					0					0					0	1
Total Exiting Leg					32					28					0					0	60

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Buses

	McGrath Highway NB					Frontage Road NB					McGrath Highway NB					Medford Street Connector					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	1	0	1	5
6:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
6:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
6:45 AM	0	0	0	0	0	0	0	0	0	0	2	4	0	0	6	0	0	1	0	1	7
Total	0	0	0	0	0	0	0	0	0	0	8	9	0	0	17	0	0	2	0	2	19
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	0	0	0	7
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	10	7	0	0	17	0	0	0	0	0	17
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	1	0	0	1	4
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	2	0	0	2	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	3	2	0	5	9
Total	0	0	0	0	0	0	0	0	0	0	11	3	0	0	14	0	6	2	0	8	22
9:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	1	0	1	5
9:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	1	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	7
9:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
Total	0	0	0	0	0	0	0	0	0	0	14	2	0	0	16	0	0	3	0	3	19
10:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	2	0	2	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	0	1	3	0	4	14
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	7	2	0	0	9	0	0	2	0	2	11
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	4
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	3
1:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	1	0	0	1	9
2:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
2:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	4
Total	0	0	0	0	0	0	0	0	0	0	9	3	0	0	12	0	3	0	0	3	15
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
3:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	1	1	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	7	2	0	0	9	0	1	2	0	3	12
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	1	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	2	0	0	2	6
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6	0	1	0	0	1	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	5
Total	0	0	0	0	0	0	0	0	0	0	13	5	0	0	18	0	4	1	0	5	23
5:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	1	1	0	2	6

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Buses

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	10	5	0	0	15	0	2	1	0	3	18
6:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
6:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	1	3
6:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	0	0	1	3
Total	0	0	0	0	0	0	0	0	0	0	8	1	0	0	9	0	1	1	0	2	11
7:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
7:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	4
7:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	5
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	10	1	0	0	11	0	1	1	0	2	13
Grand Total	0	0	0	0	0	0	0	0	0	0	125	44	0	0	169	0	20	18	0	38	207
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		74.0	26.0	0.0	0.0		0.0	52.6	47.4	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.4	21.3	0.0	0.0	81.6	0.0	9.7	8.7	0.0	18.4	
Exiting Leg Total					62					145					0					0	207

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

8:45 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	3	2	0	5	9
9:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	1	0	1	5
9:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	1	3
9:30 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	7
Total Volume	0	0	0	0	0	0	0	0	0	0	15	2	0	0	17	0	3	4	0	7	24
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		88.2	11.8	0.0	0.0		0.0	42.9	57.1	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.536	0.500	0.000	0.000	0.607	0.000	0.250	0.500	0.000	0.350	0.667
Entering Leg	0	0	0	0	0	0	0	0	0	0	15	2	0	0	17	0	3	4	0	7	24
Exiting Leg					6					18					0					0	24
Total					6					18					17					7	48

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

10:00 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
10:00 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	2	0	2	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
10:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	0	1	3	0	4	14
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		80.0	20.0	0.0	0.0		0.0	25.0	75.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.500	0.000	0.000	0.625	0.000	0.250	0.375	0.000	0.500	0.583
Entering Leg	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	0	1	3	0	4	14
Exiting Leg					5					9					0					0	14
Total					5					9					10					4	28

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

3:45 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	1	1	0	2	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	1	0	1	5
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	2	0	0	2	6

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class: **Buses**

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6	0	1	0	0	1	7
Total Volume	0	0	0	0	0	0	0	0	0	0	12	5	0	0	17	0	4	2	0	6	23
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		70.6	29.4	0.0	0.0		0.0	66.7	33.3	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.625	0.000	0.000	0.708	0.000	0.500	0.500	0.000	0.750	0.821
Entering Leg	0	0	0	0	0	0	0	0	0	0	12	5	0	0	17	0	4	2	0	6	23
Exiting Leg					7					16					0					0	23
Total					7					16					17					6	46

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	1	0	2	5
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
6:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	2	0	3	7
Total	0	0	0	0	0	0	0	0	0	0	5	5	0	0	10	0	2	5	0	7	17
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	2	0	3	6
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	4	0	0	8	0	2	3	0	5	13
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	1	0	1	5
Total	0	0	0	0	0	0	0	0	0	0	8	7	0	0	15	0	4	6	0	10	25
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	1	2	0	3	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	2	0	3	7
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	0	3	0	3	10
Total	0	0	0	0	0	0	0	0	0	0	11	10	0	0	21	0	2	9	0	11	32
9:00 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	1	0	1	6
9:15 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	5
9:30 AM	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	1	3	0	4	11
9:45 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	2	0	2	5
Total	0	0	0	0	0	0	0	0	0	0	7	13	0	0	20	0	1	6	0	7	27
10:00 AM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	2	0	0	2	7
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	3
10:30 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	0	4	0	0	4	10
10:45 AM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	2	0	0	2	10
Total	0	0	0	0	0	0	0	0	0	0	11	10	0	0	21	0	9	0	0	9	30
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	1	2	0	3	8
11:15 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	3	1	0	4	8
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	3	2	0	5	12
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	3	0	4	5
Total	0	0	0	0	0	0	0	0	0	0	5	12	0	0	17	0	8	8	0	16	33
12:00 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	2	3	0	5	12
12:15 PM	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	0	0	0	7
12:30 PM	0	0	0	0	0	0	0	0	0	0	2	6	0	0	8	0	3	1	0	4	12
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	4	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	10	16	0	0	26	0	5	8	0	13	39
1:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	3	0	3	7
1:15 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	1	1	0	2	7
1:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	4	0	5	8
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	5	0	7	9
Total	0	0	0	0	0	0	0	0	0	0	6	8	0	0	14	0	4	13	0	17	31
2:00 PM	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	2	5	0	7	16
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	3	1	0	4	8
2:30 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	2	3	0	5	12
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	1	3	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	8	16	0	0	24	0	8	12	0	20	44
3:00 PM	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	1	1	0	2	8
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	8	0	0	11	0	3	1	0	4	15
3:30 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	9	12	0	0	21	0	4	3	0	7	28
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	1	0	3	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	5	3	0	8	13
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Single-Unit Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	1	2	0	3	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	6	6	0	0	12	0	1	2	0	3	15
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	5	3	0	0	8	0	1	0	0	1	9
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	3	0	0	3	13
7:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
7:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	1	0	0	1	7
Grand Total	0	0	0	0	0	0	0	0	0	0	100	122	0	0	222	0	57	75	0	132	354
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		45.0	55.0	0.0	0.0		0.0	43.2	56.8	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.2	34.5	0.0	0.0	62.7	0.0	16.1	21.2	0.0	37.3	
Exiting Leg Total					197					157					0					0	354

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

7:30 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	0	0	0	0	0	0	0	0	0	4	4	0	0	8	0	2	3	0	5	13
7:45 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	1	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	1	2	0	3	11
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	4
Total Volume	0	0	0	0	0	0	0	0	0	0	10	12	0	0	22	0	3	8	0	11	33
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		45.5	54.5	0.0	0.0		0.0	27.3	72.7	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.600	0.000	0.000	0.688	0.000	0.375	0.667	0.000	0.550	0.635
Entering Leg	0	0	0	0	0	0	0	0	0	0	10	12	0	0	22	0	3	8	0	11	33
Exiting Leg					20					13					0					0	33
Total					20					13					22					11	66

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:45 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	5	0	7	9
2:00 PM	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	2	5	0	7	16
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	3	1	0	4	8
2:30 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	2	3	0	5	12
Total Volume	0	0	0	0	0	0	0	0	0	0	8	14	0	0	22	0	9	14	0	23	45
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		36.4	63.6	0.0	0.0		0.0	39.1	60.9	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.611	0.000	0.750	0.700	0.000	0.821	0.703
Entering Leg	0	0	0	0	0	0	0	0	0	0	8	14	0	0	22	0	9	14	0	23	45
Exiting Leg					28					17					0					0	45
Total					28					17					22					23	90

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

2:00 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	2	5	0	7	16
2:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	3	1	0	4	8
2:30 PM	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	2	3	0	5	12

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Single-Unit Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	1	3	0	4	8
Total Volume	0	0	0	0	0	0	0	0	0	0	8	16	0	0	24	0	8	12	0	20	44
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		33.3	66.7	0.0	0.0		0.0	40.0	60.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.571	0.000	0.000	0.667	0.000	0.667	0.600	0.000	0.714	0.688
Entering Leg	0	0	0	0	0	0	0	0	0	0	8	16	0	0	24	0	8	12	0	20	44
Exiting Leg					28					16					0					0	44
Total					28					16					24					20	88

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
6:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	3	0	3	5
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
Total	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	3	0	3	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	1	0	1	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
10:00 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	5	0	0	7	0	0	1	0	1	8
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	0	2	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	0	2	0	2	9
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1:15 PM	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Articulated Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	12	17	0	0	29	0	0	15	0	15	44
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		41.4	58.6	0.0	0.0		0.0	0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	38.6	0.0	0.0	65.9	0.0	0.0	34.1	0.0	34.1	
Exiting Leg Total					32					12					0					0	44

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

7:15 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	3	0	3	10
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		42.9	57.1	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.500	0.000	0.000	0.875	0.000	0.000	0.750	0.000	0.750	0.833
Entering Leg	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	3	0	3	10
Exiting Leg					7					3					0					0	10
Total					7					3					7					3	20

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

11:45 AM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	0	2	4
Total Volume	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	0	2	0	2	9
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		57.1	42.9	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.750	0.000	0.000	0.583	0.000	0.000	0.250	0.000	0.250	0.563
Entering Leg	0	0	0	0	0	0	0	0	0	0	4	3	0	0	7	0	0	2	0	2	9
Exiting Leg					5					4					0					0	9
Total					5					4					7					2	18

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

3:45 PM	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Class:

Articulated Trucks

	McGrath Highway NB from North					Frontage Road NB from East					McGrath Highway NB from South					Medford Street Connector from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
Exiting Leg					2					0					0					0	2
Total					2					0					1					1	4

PDI File #: **228567 (7)**
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City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

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Bicycles (on Roadway and Crosswalks)

	McGrath Highway NB							Frontage Road NB							McGrath Highway NB							Medford Street Connector							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2	3
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	0	0	2	4
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	1	0	0	0	0	1	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	0	0	1	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4	0	1	1	0	0	0	2	6
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	2
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	4	0	0	0	0	4	6
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	3
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	5	0	0	0	0	5	7
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	1	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	3	0	0	0	0	3	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0	2	0	11	1	0	0	0	12	15
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	9	0	0	0	0	9	11
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	8	0	0	0	0	8	9

PDI File #: **228567 (7)**
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PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Bicycles (on Roadway and Crosswalks)

	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	5	0	0	0	0	5	8
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	25	0	0	0	0	25	31
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	6	0	0	0	0	6	7
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	6	1	0	0	0	7	10
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	3	0	0	0	0	3	7
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	6	0	0	0	0	6	9
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	0	21	1	0	0	0	22	33
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	0	1	0	0	0	0	1	4
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0	2	3
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	0	8	0	0	0	0	8	12
Grand Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	29	0	4	0	0	3	36	0	82	3	0	0	0	85	122
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0	0.0		80.6	0.0	11.1	0.0	0.0	8.3		0.0	96.5	3.5	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.8	23.8	0.0	3.3	0.0	0.0	2.5	29.5	0.0	67.2	2.5	0.0	0.0	0.0	69.7	
Exiting Leg Total							3							111							3							5	122

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

8:45 AM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	2	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2	3
Exiting Leg							0							2							1							0	3
Total							0							2							2							2	6

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

1:15 PM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	1	0	0	0	0	1	3
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	0	0	1	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4	0	2	1	0	0	0	3	7
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		50.0	0.0	0.0	0.0	0.0	50.0		0.0	66.7	33.3	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.500	0.250	0.000	0.000	0.000	0.750	0.583
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	4	0	2	1	0	0	0	3	7
Exiting Leg							1							4							2							0	7
Total							1							4							6							3	14

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

6:00 PM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	6	0	0	0	0	6	7
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	6	1	0	0	0	7	10
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	3	0	0	0	0	3	7

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**

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Class:

Bicycles (on Roadway and Crosswalks)

	McGrath Highway NB							Frontage Road NB							McGrath Highway NB							Medford Street Connector							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	6	0	0	0	0	6	9
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	0	21	1	0	0	0	22	33
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		0.0	95.5	4.5	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.688	0.000	0.875	0.250	0.000	0.000	0.000	0.786	0.825
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	0	21	1	0	0	0	22	33
Exiting Leg							1							32							0							0	33
Total							1							32							11							22	66

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Pedestrians

	McGrath Highway NB							Frontage Road NB							McGrath Highway NB							Medford Street Connector							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	2	0	2	3
Total	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	1	1	0	0	0	0	2	0	2	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	4
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:00 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	1	1	0	0	0	0	0	1	1	4
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	1	0	1	2
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:15 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	2	0	2	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Pedestrians

	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	4	0	4	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	5	5	0	0	0	0	0	0	0	8
Total	0	0	0	0	4	1	5	0	0	0	0	4	1	5	0	0	0	0	0	8	8	0	0	0	0	0	0	0	18
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	0	1	4
6:15 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	2	3	0	0	0	0	1	0	1	6
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	11	4	15	0	0	0	0	11	4	15	0	0	0	0	5	18	23	0	0	0	0	5	1	6	59
Approach %	0	0	0	0	73.3	26.7		0	0	0	0	73.3	26.7		0	0	0	0	21.7	78.3		0	0	0	0	83.3	16.7		
Total %	0	0	0	0	18.6	6.78	25.4	0	0	0	0	18.6	6.78	25.4	0	0	0	0	8.47	30.5	39	0	0	0	0	8.47	1.69	10.2	
Exiting Leg Total							15							15							23							6	59

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

7:45 AM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	2	0	2	6
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	2	0	2	6
Exiting Leg							1							1							2							2	6
Total							2							2							4							4	12

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

11:30 AM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
11:30 AM	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2
Total Volume	0	0	0	0	2	1	3	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	8
% Approach Total	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500
Entering Leg	0	0	0	0	2	1	3	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	0	1	1	8
Exiting Leg							3							3							1							1	8
Total							6							6							2							2	16

PM Peak Hour Analysis from 2:00 PM to 08:00 PM begins at:

5:30 PM	McGrath Highway NB from North							Frontage Road NB from East							McGrath Highway NB from South							Medford Street Connector from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
5:30 PM	0	0	0	0	4	0	4	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	5	5	0	0	0	0	0	0	0	8
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	0	1	4

PDI File #: **228567 (7)**
Location: **N: McGrath Highway NB S: McGrath Highway NB**
Location: **E: Frontage Road NB W: Medford Street Connector**
City, State: **Somerville, MA**
Client: **VHB/A. Domogala**
Site Code: **14877.00**
Count Date: **Thursday, April 28, 2022**
Start Time: **6:00 AM**
End Time: **8:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Pedestrians

	McGrath Highway NB							Frontage Road NB							McGrath Highway NB							Medford Street Connector							
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:15 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	5	0	5	0	0	0	0	5	0	5	0	0	0	0	1	8	9	0	0	0	0	1	0	1	20
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	11.1	88.9		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.313	0.000	0.313	0.000	0.000	0.000	0.000	0.417	0.000	0.417	0.000	0.000	0.000	0.000	0.250	0.400	0.450	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.625
Entering Leg	0	0	0	0	5	0	5	0	0	0	0	5	0	5	0	0	0	0	1	8	9	0	0	0	0	1	0	1	20
Exiting Leg							5							5							9							1	20
Total							10							10							18							2	40

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°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

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street 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	7	47	2	0	0	0	0	0	0	4	0	0	0	0	10
10:15 AM	0	8	28	4	0	0	0	0	0	3	2	0	0	0	3	12
10:30 AM	0	7	35	0	0	0	0	0	0	1	5	0	0	0	8	3
10:45 AM	0	10	30	3	0	0	0	0	0	1	0	0	0	0	3	4
11:00 AM	0	5	39	2	0	0	0	0	0	1	1	0	0	0	8	11
11:15 AM	0	2	40	1	0	0	0	0	0	1	4	0	0	0	6	4
11:30 AM	0	11	31	2	0	0	0	0	0	2	4	0	0	0	1	10
11:45 AM	0	6	43	4	0	0	0	0	0	4	0	0	0	0	5	10
12:00 PM	0	5	45	0	0	0	0	0	0	2	5	0	0	0	4	4
12:15 PM	0	8	56	1	0	0	0	0	0	1	4	0	0	0	2	13
12:30 PM	0	5	44	0	0	0	0	0	0	1	4	0	0	0	7	7
12:45 PM	0	5	44	1	0	0	0	0	0	0	3	0	0	0	3	9
1:00 PM	0	12	68	2	0	0	0	0	0	1	6	0	0	0	5	8
1:15 PM	0	8	62	0	0	0	0	0	0	2	3	0	0	0	8	4
1:30 PM	0	10	37	9	0	0	0	0	0	2	5	0	0	0	1	10
1:45 PM	0	9	46	1	0	0	0	0	0	2	2	0	0	0	5	8

MID PEAK HOUR	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
1:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
2:00 PM	**0**	**39**	**213**	**12**	**0**	**0**	**0**	**0**	**0**	**7**	**16**	**0**	**0**	**0**	**19**	**30**
PHF	**0.80**				**0.00**				**0.82**				**0.94**			
HV %	**0.0%**	**5.1%**	**4.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**6.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**13.3%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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HEAVY VEHICLES

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street 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	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1
10:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	1	4	0	0	0	0	0	0	0	0	0	0	0	1	1
12:00 PM	0	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0
12:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	1
1:15 PM	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1

MID PEAK HOUR	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
11:15 AM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
to	**0**	**4**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**2**
12:15 PM																
PHF	**0.67**				**0.00**				**0.50**				**0.38**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 1
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Linwood Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PEDESTRIANS & BICYCLES

	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
10:00 AM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	5
10:15 AM	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	3
10:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0	1
11:15 AM	0	1	0	1	0	1	0	0	2	0	0	0	0	0	0	3
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0
12:00 PM	0	4	0	2	0	0	1	0	1	0	0	0	0	0	0	0
12:15 PM	0	3	0	0	0	0	1	1	0	0	0	0	0	0	0	1
12:30 PM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	3

MID PEAK HOUR 1:00 PM to 2:00 PM	McGrath Highway (Route 28) Northbound				McGrath Highway (Route 28) Southbound				McGrath Highway SB Left Turn Bay Eastbound				Linwood Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	1	1	0	0	2	2	0	0	2	0	0	0	8

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

BOSTON TRAFFIC DATA
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	33	8	0	0	0	0	0	7	27	0	0	0	0	0
10:15 AM	0	0	33	4	0	0	0	0	0	7	35	0	0	0	0	0
10:30 AM	0	0	35	6	0	0	0	0	0	7	37	0	0	0	0	0
10:45 AM	0	0	42	6	0	0	0	0	0	6	37	0	0	0	0	0
11:00 AM	0	0	32	3	0	0	0	0	0	7	42	0	0	0	0	0
11:15 AM	0	0	49	6	0	0	0	0	0	5	36	0	0	0	0	0
11:30 AM	0	0	38	10	0	0	0	0	0	4	47	0	0	0	0	0
11:45 AM	0	0	47	11	0	0	0	0	0	8	45	0	0	0	0	0
12:00 PM	0	0	41	5	0	0	0	0	0	5	45	0	0	0	0	0
12:15 PM	0	0	61	10	0	0	0	0	0	7	48	0	0	0	0	0
12:30 PM	0	0	54	4	0	0	0	0	0	12	54	0	0	0	0	0
12:45 PM	0	0	44	14	0	0	0	0	0	13	52	0	0	0	0	0
1:00 PM	0	0	39	3	0	0	0	0	0	10	62	0	0	0	0	0
1:15 PM	0	0	46	6	0	0	0	0	0	6	64	0	0	0	0	0
1:30 PM	0	0	52	12	0	0	0	0	0	12	53	0	0	0	0	0
1:45 PM	0	0	39	7	0	0	0	0	0	7	40	0	0	0	0	0

MID PEAK HOUR 12:45 PM to 1:45 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**181**	**35**	**0**	**0**	**0**	**0**	**0**	**41**	**231**	**0**	**0**	**0**	**0**	**0**
PHF	**0.84**				**0.00**				**0.94**				**0.00**			
HV %	**0.0%**	**0.0%**	**1.7%**	**8.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

BOSTON TRAFFIC DATA
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HEAVY VEHICLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	3	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10:30 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
10:45 AM	0	0	0	1	0	0	0	0	0	1	5	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	1	0	0	0	0	0	0	0	3	0	0	0	0	0
11:30 AM	0	0	0	1	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	4	0	0	0	0	0
12:00 PM	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
12:45 PM	0	0	1	2	0	0	0	0	0	0	2	0	0	0	0	0
1:00 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
1:30 PM	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0

MID PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
10:30 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:30 AM	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**12**	**0**	**0**	**0**	**0**	**0**
PHF	**0.75**				**0.00**				**0.54**				**0.00**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 2
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

BOSTON TRAFFIC DATA
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PEDESTRIANS & BICYCLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext 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	0	0	0	0	0	0	1	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2
10:30 AM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:45 AM	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
11:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	2	0	1	0	0	0	2	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	2
1:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	4	0	0	0	1	0	0	0	1	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0

MID PEAK HOUR 12:45 PM to 1:45 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Ext Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	6	0	0	0	5	0	1	0	1	0	0	0	2

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	14	50	13	0	0	20	16	0	0	0	0
10:15 AM	0	0	0	0	0	14	60	11	0	0	28	10	0	0	0	0
10:30 AM	0	0	0	0	0	13	69	9	0	0	33	5	0	0	0	0
10:45 AM	0	0	0	0	0	15	64	16	0	0	27	13	0	0	0	0
11:00 AM	0	0	0	0	0	19	59	19	0	0	31	14	0	0	0	0
11:15 AM	0	0	0	0	0	11	62	10	0	0	28	12	0	0	0	0
11:30 AM	0	0	0	0	0	18	75	16	0	0	32	7	0	0	0	0
11:45 AM	0	0	0	0	0	29	78	11	0	0	26	12	0	0	0	0
12:00 PM	0	0	0	0	0	14	86	10	0	0	36	11	0	0	0	0
12:15 PM	0	0	0	0	0	24	63	14	0	0	30	10	0	0	0	0
12:30 PM	0	0	0	0	0	28	86	10	0	0	39	10	0	0	0	0
12:45 PM	0	0	0	0	0	22	99	9	0	0	43	11	0	0	0	0
1:00 PM	0	0	0	0	0	26	68	12	0	0	47	12	0	0	0	0
1:15 PM	0	0	0	0	0	28	75	15	0	0	41	8	0	0	0	0
1:30 PM	0	0	0	0	0	24	82	14	0	0	42	7	0	0	0	0
1:45 PM	0	0	0	0	0	18	85	13	0	0	28	12	0	0	0	0

MID PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
12:30 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:30 PM	**0**	**0**	**0**	**0**	**0**	**104**	**328**	**46**	**0**	**0**	**170**	**41**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.92**				**0.89**				**0.00**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**6.7%**	**2.7%**	**6.5%**	**0.0%**	**0.0%**	**2.4%**	**2.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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HEAVY VEHICLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	3	1	0	0	2	0	0	0	0	0
10:15 AM	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0
10:45 AM	0	0	0	0	0	3	2	1	0	0	3	0	0	0	0	0
11:00 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0
11:15 AM	0	0	0	0	0	2	1	1	0	0	1	0	0	0	0	0
11:30 AM	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0
11:45 AM	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	1	1	0	0	3	1	0	0	0	0
12:15 PM	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	4	1	0	0	2	0	0	0	0	0
12:45 PM	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	2	1	1	0	0	1	1	0	0	0	0
1:15 PM	0	0	0	0	0	3	1	1	0	0	1	0	0	0	0	0
1:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	2	0	1	0	0	1	0	0	0	0	0

MID PEAK HOUR	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
11:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:45 PM	**0**	**0**	**0**	**0**	**0**	**7**	**10**	**3**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.56**				**0.38**				**0.00**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 3
Location:	Somerville, MA
Street 1:	Medford Street
Street 2:	Somerville Avenue
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PEDESTRIANS & BICYCLES

	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext 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	0	0	1	0	0	0	1	1	5	0	0	0	0
10:15 AM	0	0	0	1	0	1	0	0	0	0	0	5	0	0	0	0
10:30 AM	0	0	0	0	0	3	0	1	0	0	0	3	0	0	0	0
10:45 AM	0	0	0	2	1	2	0	0	0	0	0	9	0	0	0	1
11:00 AM	0	0	0	1	0	2	0	0	0	0	0	6	0	0	0	0
11:15 AM	0	0	0	1	0	2	0	2	0	0	0	5	0	0	0	0
11:30 AM	0	0	0	0	0	1	0	0	0	0	2	7	0	0	0	0
11:45 AM	0	0	0	1	0	2	0	0	0	0	1	6	0	0	0	0
12:00 PM	0	0	0	0	0	1	0	0	0	2	0	9	0	0	0	0
12:15 PM	0	0	0	0	1	2	0	2	0	0	1	6	0	0	0	0
12:30 PM	0	0	0	0	0	3	0	1	0	2	2	3	0	0	0	0
12:45 PM	0	0	0	0	0	2	0	0	0	1	0	9	0	0	0	0
1:00 PM	0	0	0	2	0	0	0	2	0	0	1	6	0	0	0	0
1:15 PM	0	0	0	6	0	5	0	0	0	0	0	8	0	0	0	0
1:30 PM	0	0	0	0	0	4	0	2	0	0	1	10	0	0	0	0
1:45 PM	0	0	0	3	0	2	0	0	0	1	2	11	0	0	0	0

MID PEAK HOUR 12:30 PM to 1:30 PM	Medford Street Northbound				Medford Street Southbound				Somerville Avenue Eastbound				Somerville Avenue Ext Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	8	0	10	0	3	0	3	3	26	0	0	0	0

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 4
Location:	Somerville, MA
Street 1:	McGrath Highway
Street 2:	Medford Street Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
Start Time	Left	Bear Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Bear Right
10:00 AM	22	21	0	0	0	0	0	0	0	0	0	0	0	0	73	36
10:15 AM	27	13	0	0	0	0	0	0	0	0	0	0	0	0	72	26
10:30 AM	28	10	0	0	0	0	0	0	0	0	0	0	0	0	93	39
10:45 AM	38	11	0	0	0	0	0	0	0	0	0	0	0	0	83	29
11:00 AM	25	11	0	0	0	0	0	0	0	0	0	0	0	0	66	30
11:15 AM	33	21	0	0	0	0	0	0	0	0	0	0	0	0	79	29
11:30 AM	35	7	0	0	0	0	0	0	0	0	0	0	0	0	78	37
11:45 AM	37	17	0	0	0	0	0	0	0	0	0	0	0	0	85	41
12:00 PM	33	13	0	0	0	0	0	0	0	0	0	0	0	0	102	37
12:15 PM	50	20	0	0	0	0	0	0	0	0	0	0	0	0	82	49
12:30 PM	46	21	0	0	0	0	0	0	0	0	0	0	0	0	83	32
12:45 PM	40	14	0	0	0	0	0	0	0	0	0	0	0	0	106	37
1:00 PM	35	14	0	0	0	0	0	0	0	0	0	0	0	0	104	57
1:15 PM	33	20	0	0	0	0	0	0	0	0	0	0	0	0	108	51
1:30 PM	50	16	0	0	0	0	0	0	0	0	0	0	0	0	126	36
1:45 PM	31	16	0	0	0	0	0	0	0	0	0	0	0	0	106	38

MID PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
12:45 PM to 1:45 PM	Left	Bear Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Bear Right
	158	**64**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**444**	**181**
PHF	**0.84**				**0.00**				**0.00**				**0.96**			
HV %	**1.3%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**6.6%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 4
Location:	Somerville, MA
Street 1:	McGrath Highway
Street 2:	Medford Street Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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HEAVY VEHICLES

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
Start Time	Left	Bear Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Bear Right
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
10:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
12:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2
12:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
1:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

MID PEAK HOUR	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
11:45 AM	Left	Bear Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Bear Right
to 12:45 PM	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**12**
PHF	**0.25**				**0.00**				**0.00**				**0.75**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 4
Location:	Somerville, MA
Street 1:	McGrath Highway
Street 2:	Medford Street Ext
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PEDESTRIANS & BICYCLES

	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
Start Time	Left	Bear Left	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Bear Right	PED
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
10:30 AM	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2
10:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1
11:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:15 AM	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0
12:15 PM	0	2	0	2	0	0	0	0	0	0	0	1	0	0	1	3
12:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
1:30 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 12:45 PM to 1:45 PM	Medford Street Ext Northbound				Southbound				McGrath Highway Eastbound				McGrath Highway Westbound			
	Left	Bear Left	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Bear Right	PED
	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	5

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	10	0	0	0	0	0	0	97	5
10:15 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	0	92	2
10:30 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	126	3
10:45 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	0	100	6
11:00 AM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	95	6
11:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	99	5
11:30 AM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	111	9
11:45 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	113	8
12:00 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	134	7
12:15 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	121	7
12:30 PM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	115	5
12:45 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	134	11
1:00 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	0	149	8
1:15 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	150	11
1:30 PM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	153	7
1:45 PM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	139	9

MID PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:45 PM to 1:45 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**0**	**586**	**37**
PHF	**0.00**				**0.81**				**0.00**				**0.97**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.4%**	**10.8%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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HEAVY VEHICLES

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	0	0	0	0	5	0
10:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
10:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2
1:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

MID PEAK HOUR	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
11:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**6**
PHF	**0.00**				**0.25**				**0.00**				**0.83**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 5
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Poplar Street
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PEDESTRIANS & BICYCLES

	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	0	0	0	0	1	0	0	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1
10:30 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
12:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0
12:45 PM	0	0	0	0	0	0	0	1	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	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0

MID PEAK HOUR 12:45 PM to 1:45 PM	Northbound				Poplar Street Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	135	0	0	0	97	0
10:15 AM	0	0	0	0	0	0	0	2	0	1	145	0	0	0	95	2
10:30 AM	0	0	0	0	0	0	0	3	0	1	178	0	0	0	131	2
10:45 AM	0	0	0	0	0	1	0	1	0	0	174	0	0	0	103	1
11:00 AM	0	0	0	0	0	0	0	0	0	0	175	0	0	0	100	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	204	0	0	0	107	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	219	0	0	0	121	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	223	0	0	0	115	2
12:00 PM	0	0	0	0	0	3	0	0	0	0	229	0	0	0	144	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	200	0	0	0	126	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	249	0	0	0	121	2
12:45 PM	0	0	0	0	0	1	0	0	0	2	251	0	0	0	142	1
1:00 PM	0	0	0	0	0	0	0	1	0	0	230	0	0	0	158	3
1:15 PM	0	0	0	0	0	0	0	2	0	0	254	0	0	0	153	0
1:30 PM	0	0	0	0	0	0	0	1	0	0	237	0	0	0	158	1
1:45 PM	0	0	0	0	0	0	0	1	0	0	209	0	0	0	151	0

MID PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:45 PM to 1:45 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**1**	**0**	**4**	**0**	**2**	**972**	**0**	**0**	**0**	**611**	**5**
PHF	**0.00**				**0.63**				**0.96**				**0.96**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.3%**	**0.0%**	**0.0%**	**0.0%**	**3.1%**	**0.0%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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HEAVY VEHICLES

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	4	0	0	0	7	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	6	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	4	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	7	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0

MID PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:30 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**0**	**0**	**0**	**21**	**1**
PHF	**0.00**				**0.00**				**0.69**				**0.79**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 6
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	35-51 McGrath Highway Driveway
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PEDESTRIANS & BICYCLES

	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	0	0	0	0	0	0	0	0	0	0	1	0	5
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
10:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	3
11:00 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	1	0	4
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	3
12:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	7
1:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	5
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
1:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2

MID PEAK HOUR	Northbound				35-51 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:45 PM																
to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
1:45 PM	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	16

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

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	22	0	21	0	0	0	0	0	0	107	28	8	28	74	0
10:15 AM	0	29	0	25	0	0	0	0	0	0	117	28	5	21	68	0
10:30 AM	0	31	0	16	0	0	0	0	1	0	140	37	8	20	101	0
10:45 AM	0	25	0	20	0	0	0	0	3	0	145	27	5	14	76	0
11:00 AM	0	28	0	16	0	0	0	0	1	0	137	37	13	21	71	0
11:15 AM	0	29	0	18	0	0	0	0	1	0	167	36	12	26	78	0
11:30 AM	0	22	0	17	0	0	0	0	2	0	177	40	14	21	96	0
11:45 AM	0	30	0	19	0	0	0	0	0	0	179	44	8	23	86	0
12:00 PM	0	33	0	23	0	0	0	0	2	0	188	42	12	29	110	0
12:15 PM	0	26	0	31	0	0	0	0	2	0	169	29	15	21	99	0
12:30 PM	0	27	0	26	0	0	0	0	0	0	207	43	13	40	96	0
12:45 PM	0	32	0	37	0	0	0	0	0	0	201	51	13	32	111	0
1:00 PM	0	37	0	26	0	0	0	0	1	0	192	37	12	27	123	0
1:15 PM	0	26	0	18	0	0	0	0	2	0	205	47	13	27	125	0
1:30 PM	0	33	0	29	0	0	0	0	1	0	198	38	17	29	125	0
1:45 PM	0	37	0	28	0	0	0	0	0	0	176	33	8	33	114	0

MID PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:45 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:45 PM	**0**	**128**	**0**	**110**	**0**	**0**	**0**	**0**	**4**	**0**	**796**	**173**	**55**	**115**	**484**	**0**
PHF	**0.86**				**0.00**				**0.96**				**0.96**			
HV %	**0.0%**	**0.8%**	**0.0%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.4%**	**0.6%**	**0.0%**	**0.9%**	**3.9%**	**0.0%**

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

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

HEAVY VEHICLES

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	2	1	0	0	8	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0
10:30 AM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	4	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	2	1	1	0	3	0
11:15 AM	0	1	0	0	0	0	0	0	0	0	4	1	0	0	5	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	2	0	1	0	3	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	6	1	0	1	6	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	1	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	3	2	0	0	6	0
12:45 PM	0	0	0	1	0	0	0	0	0	0	4	1	0	1	4	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0
1:15 PM	0	1	0	1	0	0	0	0	0	0	10	0	0	0	7	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
1:45 PM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	2	0

MID PEAK HOUR	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
12:30 PM to 1:30 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**3**	**0**	**1**	**22**	**0**
PHF	**0.38**				**0.00**				**0.58**				**0.82**			

Client:	Vannesa Methoxha, EIT
Project #:	1235_3_HSH
BTD #:	Location 7
Location:	Somerville, MA
Street 1:	McGrath Highway (Route 28)
Street 2:	Rufo Rd/1-15 McGrath Highway Dr
Count Date:	4/29/2023
Day of Week:	Saturday
Weather:	Cloudy, 50°F

BOSTON TRAFFIC DATA
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DataRequest@BostonTrafficData.com
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PEDESTRIANS & BICYCLES

	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) 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	5	0	0	0	4	0	1	0	4	0	1	0	0
10:15 AM	0	0	0	0	0	0	0	5	0	0	0	4	0	0	0	0
10:30 AM	0	0	0	4	0	0	0	1	0	0	0	4	1	0	0	0
10:45 AM	0	0	1	0	0	0	0	4	0	0	1	3	0	1	0	0
11:00 AM	0	0	2	4	0	0	0	4	0	0	1	4	0	1	0	0
11:15 AM	0	0	0	4	0	0	0	4	0	0	0	4	1	0	0	0
11:30 AM	0	0	0	3	0	0	0	1	0	0	0	1	0	1	0	0
11:45 AM	1	0	0	1	0	0	0	2	0	0	0	2	0	1	0	0
12:00 PM	0	0	0	1	0	0	0	1	0	1	0	1	5	2	0	1
12:15 PM	0	0	0	1	0	0	0	2	0	0	0	0	2	1	0	0
12:30 PM	0	0	0	4	0	0	0	1	0	0	0	3	0	2	0	0
12:45 PM	0	0	2	8	0	0	0	3	0	1	0	7	0	0	0	0
1:00 PM	0	0	0	1	0	0	0	6	0	1	0	5	1	0	0	0
1:15 PM	0	0	1	3	0	0	0	3	0	0	0	1	0	0	0	0
1:30 PM	0	0	0	2	0	0	0	1	0	0	0	4	0	0	0	0
1:45 PM	0	0	0	2	0	0	0	2	0	0	1	1	0	0	0	0

MID PEAK HOUR 12:45 PM to 1:45 PM	Rufo Road Northbound				1-15 McGrath Highway Driveway Southbound				McGrath Highway (Route 28) Eastbound				McGrath Highway (Route 28) Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	3	14	0	0	0	13	0	2	0	17	1	0	0	0

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

HOWARD STEIN HUDSON

Engineers + Planners

Appendix B

Crash Data and Crash Rate Worksheets

Crash Date	Crash Severity	Crash Time	Max Injury Severity Reported	Number of Vehicles	Age of Driver - Youngest Known	Age of Driver - Oldest Known	Age of Non-Motorist - Youngest Known	Age of Non-Motorist - Oldest Known
07/11/2016	Property damage only (none injured)	5:17 PM	No injury	2	21-24	35-44		
09/15/2017	Property damage only (none injured)	11:52 PM	No injury	3	25-34	25-34		
02/08/2018	Property damage only (none injured)	4:50 PM	No injury	1			35-44	35-44
07/23/2018	Property damage only (none injured)	4:30 PM	No injury	3	35-44	45-54		
08/05/2018	Property damage only (none injured)	6:10 PM	No injury	2	25-34	45-54		
01/05/2019	Property damage only (none injured)	7:00 PM	No injury	2	25-34	35-44		
02/01/2019	Property damage only (none injured)	5:30 PM	No injury	3	21-24	55-64		
01/28/2019	Property damage only (none injured)	10:39 AM	No injury	2	55-64	65-74		
07/18/2020	Property damage only (none injured)	11:50 AM	No Apparent Injury (O)	2	25-34	45-54		
08/22/2020	Property damage only (none injured)	11:42 AM	No Apparent Injury (O)	2	21-24	35-44		
02/16/2017	Property damage only (none injured)	9:51 AM	No injury	1	25-34	25-34		
06/05/2017	Not Reported	5:23 PM	Not reported	2	25-34	25-34		
06/28/2018	Property damage only (none injured)	1:47 PM	No injury	2	35-44	65-74		
01/23/2017	Non-fatal injury	9:45 AM	Non-fatal injury - Non-incapacitating	3	35-44	35-44		
12/21/2016	Non-fatal injury	6:30 PM	Non-fatal injury - Non-incapacitating	2	35-44	55-64		
01/10/2020	Property damage only (none injured)	4:01 PM	No Apparent Injury (O)	2	25-34	25-34		
03/22/2016	Property damage only (none injured)	9:22 PM	No injury	2	45-54	45-54		
02/12/2016	Property damage only (none injured)	3:30 PM	No injury	2	35-44	35-44		
07/27/2016	Property damage only (none injured)	8:40 PM	No injury	2	35-44	35-44		
05/25/2016	Non-fatal injury	4:24 PM	Non-fatal injury - Non-incapacitating	1	75-84	75-84	35-44	35-44
06/15/2016	Property damage only (none injured)	6:35 PM	No injury	3	25-34	55-64		
09/15/2016	Non-fatal injury	3:54 PM	Non-fatal injury - Non-incapacitating	1	45-54	45-54	25-34	25-34
11/22/2016	Not Reported	9:58 AM	Not reported	2	35-44	35-44		
11/12/2016	Non-fatal injury	2:04 PM	Non-fatal injury - Possible	2	35-44	65-74		
01/05/2017	Property damage only (none injured)	5:21 PM	No injury	1	35-44	35-44	25-34	25-34
05/05/2017	Property damage only (none injured)	10:02 PM	No injury	2	25-34	55-64		
04/29/2017	Non-fatal injury	11:35 PM	Non-fatal injury - Non-incapacitating	2	21-24	55-64		
04/04/2017	Not Reported	10:37 AM	Not reported	1	65-74	65-74	25-34	25-34
06/09/2017	Non-fatal injury	10:12 AM	Non-fatal injury - Non-incapacitating	1	25-34	25-34	25-34	25-34
07/16/2017	Property damage only (none injured)	7:06 AM	No injury	2	25-34	55-64		
12/01/2017	Property damage only (none injured)	5:55 PM	No injury	2	25-34	25-34		
04/26/2018	Non-fatal injury	6:45 PM	Non-fatal injury - Non-incapacitating	3	35-44	75-84		
04/22/2018	Not Reported	12:09 PM	Not reported	2	25-34	25-34		
08/21/2018	Non-fatal injury	1:50 PM	Non-fatal injury - Possible	2	25-34	25-34		
02/09/2020	Property damage only (none injured)	12:35 AM	No Apparent Injury (O)	3	45-54	45-54		

Driver Contributing Circumstances (All Drivers)	Driver Distracted By (All Vehicles)	Light Conditions	Manner of Collision	Non-Motorist Action (All Persons)	Non-Motorist Location (All Persons)
D1: (No improper driving) / D2: (Followed too closely),(Failed to yield right of way)	D1: Not Distracted / D2: Not Distracted	Daylight	Angle		
D1: (No improper driving) / D2: (No improper driving) / D3: (Inattention)	D1: Not Distracted / D2: Not Distracted	Dark - lighted roadway	Rear-end		
		Dusk	Pedestrian Involved Crash	P1: Entering or crossing specified location	P1: Marked crosswalk at intersection
D1: (Followed too closely) / D2: (No improper driving) / D3: (No improper driving)	D1: Not Distracted / D2: Not Distracted / D3: Not Dist	Daylight	Rear-end		
D1: (No improper driving) / D2: (Failed to yield right of way)	D1: Not Distracted	Daylight	Angle		
D1: (Inattention) / D2: (No improper driving)		Dark - lighted roadway	Rear-end		
D1: (No improper driving) / D2: (Failed to yield right of way) / D3: (No improper driving)	D1: Not Distracted / D2: Not Distracted / D3: Not Dist	Dark - lighted roadway	Sideswipe, same direction		
D1: (No improper driving) / D2: (Failed to yield right of way)		Daylight	Angle		
D1: (Failed to yield right of way) / D2: (No improper driving)	D1: Not Distracted / D2: Not Distracted	Daylight	Angle		
D2: (Failed to yield right of way)	D1: Not Distracted / D2: Not Distracted	Daylight	Angle		
D1: (Inattention)	D1: Other activity (searching, eating, personal hygien	Daylight	Single vehicle crash		
D1: (No improper driving) / D2: (No improper driving)	D1: Not Distracted / D2: Not Distracted	Dawn	Rear-end		
D1: (Other improper action) / D2: (No improper driving)		Daylight	Sideswipe, same direction		
D1: (Inattention) / D2: (No improper driving) / D3: (No improper driving)	D1: Not Distracted / D2: Not Distracted / D3: Not Dist	Daylight	Angle		
D1: (No improper driving) / D2: (Followed too closely)	D1: Not Distracted / D2: Not Distracted	Dark - lighted roadway	Rear-end		
D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	D1: Not Distracted / D2: Not Distracted	Daylight	Angle		
D1: (No improper driving) / D2: (Failed to yield right of way)		Dark - lighted roadway	Angle		
D1: (No improper driving) / D2: (Failed to yield right of way),(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner)	D1: Not Distracted	Daylight	Angle		
D1: (No improper driving) / D2: (Made an improper turn)	D1: Not Distracted	Dark - lighted roadway	Sideswipe, opposite direction		
D1: (Failed to yield right of way)	D1: Not Distracted	Daylight	Cyclist Involved Crash	P2: Walking, running or cycling	P2: In roadway
D1: (No improper driving) / D2: (No improper driving) / D3: (No improper driving)	D1: Not Distracted / D2: Not Distracted / D3: Not Dist	Daylight	Single vehicle crash		
D1: (No improper driving)	D1: Not Distracted	Daylight	Cyclist Involved Crash	P2: Walking, running or cycling	P2: Marked crosswalk at intersection
D1: (Unknown) / D2: (Unknown),(Failure to keep in proper lane or running off road)		Daylight	Angle		
D1: (No improper driving) / D2: (Unknown)		Daylight	Rear-end		
D1: (No improper driving)	D1: Not Distracted	Dark - lighted roadway	Cyclist Involved Crash	P2: Walking, running or cycling	P2: In roadway
D1: (No improper driving) / D2: (Followed too closely)	D1: Not Distracted / D2: Not Distracted	Dark - lighted roadway	Rear-end		
D1: (Disregarded traffic signs, signals, road markings) / D2: (No improper driving)	D2: Not Distracted	Dark - lighted roadway	Rear-end		
D1: (Unknown)		Daylight	Cyclist Involved Crash	P2: Other	P2: Marked crosswalk at intersection
D1: (No improper driving)	D1: Not Distracted	Daylight	Cyclist Involved Crash	P2: Walking, running or cycling	P2: In roadway
D1: (No improper driving) / D2: (No improper driving)	D1: Not Distracted / D2: Not Distracted	Daylight	Rear-end		
D1: (Inattention) / D2: (No improper driving)	D2: Not Distracted	Dark - lighted roadway	Rear-end		
D1: (No improper driving) / D2: (Illness) / D3: (No improper driving)	D1: Not Distracted / D3: Not Distracted	Daylight	Angle		
D1: (No improper driving) / D2: (No improper driving)	D1: Not Distracted / D2: Not Distracted	Daylight	Single vehicle crash		
D1: (No improper driving)	D1: Not Distracted	Daylight	Rear-end		
D1: (Physical impairment)		Dark - lighted roadway	Sideswipe, same direction		

Non-Motorist Type (All Persons)	Road Surface Condition	Roadway Junction Type	Total Fatalities	Total Non-Fatal Injuries	Vehicle Actions Prior to Crash (All Vehicles)
	Dry	Four-way intersection	0	0	V1: Turning left / V2: Travelling straight ahead
	Dry	Not at junction	0	0	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic / V3: Travelling straight ahead
P1: Pedestrian	Dry	T-intersection	0	0	V1: Travelling straight ahead
	Dry	Not at junction	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic / V3: Slowing or stopped in traffic
	Dry	T-intersection	0	0	V1: Travelling straight ahead / V2: Making U-turn
	Dry	Not at junction	0	0	V1: Travelling straight ahead / V2: Turning left
	Wet	T-intersection	0	0	V1: Slowing or stopped in traffic / V2: Changing lanes / V3: Travelling straight ahead
	Dry	Four-way intersection	0	0	V1: Travelling straight ahead / V2: Turning left
	Dry	T-intersection	0	0	V1: Turning left / V2: Travelling straight ahead
	Dry	T-intersection	0	0	V1: Travelling straight ahead / V2: Backing
	Slush	Not at junction	0	0	V1: Travelling straight ahead
	Wet	Not at junction	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic
	Wet	Four-way intersection	0	0	V1: Changing lanes / V2: Travelling straight ahead
	Wet	Not at junction	0	2	V1: Changing lanes / V2: Travelling straight ahead / V3: Travelling straight ahead
	Dry	T-intersection	0	1	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic
	Dry	Four-way intersection	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead
	Dry	T-intersection	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead
	Dry	Driveway	0	0	V1: Travelling straight ahead / V2: Backing
	Dry	T-intersection	0	0	V1: Travelling straight ahead / V2: Turning right
P2: Cyclist	Dry	Driveway	0	1	V1: Turning left
	Dry	Not at junction	0	0	V1: Travelling straight ahead / V2: Travelling straight ahead / V3: Travelling straight ahead
P2: Cyclist	Dry	Y-intersection	0	1	V1: Turning left
	Dry	Not at junction	0	0	V1: Entering traffic lane / V2: Travelling straight ahead
	Dry	Four-way intersection	0	2	V1: Slowing or stopped in traffic / V2: Slowing or stopped in traffic
P2: Cyclist	Dry	Four-way intersection	0	0	V1: Slowing or stopped in traffic
	Wet	Four-way intersection	0	0	V1: Slowing or stopped in traffic / V2: Travelling straight ahead
	Dry	T-intersection	0	1	V1: Travelling straight ahead / V2: Slowing or stopped in traffic
P2: Cyclist	Wet	T-intersection	0	0	V1: Travelling straight ahead
P2: Cyclist	Dry	Not at junction	0	1	V1: Travelling straight ahead
	Dry	T-intersection	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic
	Dry	Not at junction	0	0	V1: Travelling straight ahead / V2: Slowing or stopped in traffic
	Dry	On-ramp	0	1	V1: Travelling straight ahead / V2: Other / V3: Travelling straight ahead
	Dry	Not at junction	0	0	V1: Turning left / V2: Travelling straight ahead
	Dry	Not at junction	0	1	V1: Travelling straight ahead / V2: Turning right
	Dry	Off-ramp	0	0	V1: Travelling straight ahead / V2: Parked / V3: Parked

Vehicle Configuration (All Vehicles)	Weather Conditions	Roadway
V1:(Single-unit truck (2-axle, 6-tires)) / V2:(Passenger car)	Cloudy	MCGRATH HIGHWAY/RUFO ROAD
V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	Clear	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/RUFO ROAD
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	Not Reported	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	Cloudy	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	Cloudy	MCGRATH HIGHWAY/RUFO ROAD
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/RUFO ROAD
V1:(Passenger car) / V2:(Truck/trailer)	Rain	MCGRATH HIGHWAY/RUFO ROAD
V1:(Other e.g. farm equipment)	Cloudy/Cloudy	MCGRATH HIGHWAY/SITE DRIVEWAY
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	Cloudy	MCGRATH HIGHWAY/SITE DRIVEWAY
V1:(Passenger car) / V2:(Passenger car)	Cloudy/Rain	MCGRATH HIGHWAY/SITE DRIVEWAY
V1:(Passenger car) / V2:(Passenger car) / V3:(Passenger car)	Snow	MCGRATH HIGHWAY/POPLAR STREET
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/LINWOOD STREET
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MCGRATH HIGHWAY/LINWOOD STREET
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Tractor/semi-trailer)	Cloudy	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Light truck(van, mini-van, pickup, sport utility))	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Truck/trailer)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Passenger car)	Cloudy/Rain	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car)	Snow	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Passenger car)	Clear/Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Light truck(van, mini-van, pickup, sport utility))	Cloudy	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(Passenger car) / V3:(Light truck(van, mini-van, pickup, sport utility))	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Passenger car) / V2:(MOPED)	Clear/Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(MOPED) / V2:(MOPED)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY
V1:(Light truck(van, mini-van, pickup, sport utility)) / V2:(Light truck(van, mini-van, pickup, sport utility)) / V3:(Passenger car)	Clear	MEDFORD STREET/SOMERVILLE AVENUE/MCGRATH HIGHWAY

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 10/6/2022

DISTRICT : UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : McGrath Highway

MINOR STREET(S) : Rufo Rd

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	382	0	1,169	1,093		**2,644**

" K " FACTOR : **0.079** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **33,468**

TOTAL # OF CRASHES : 10 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **2.00**

CRASH RATE CALCULATION : **0.16** RATE = $\frac{(A * 1{,}000{,}000)}{(ADT * 365)}$

Comments :

Project Title & Date: 35 McGrath Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 10/6/2022

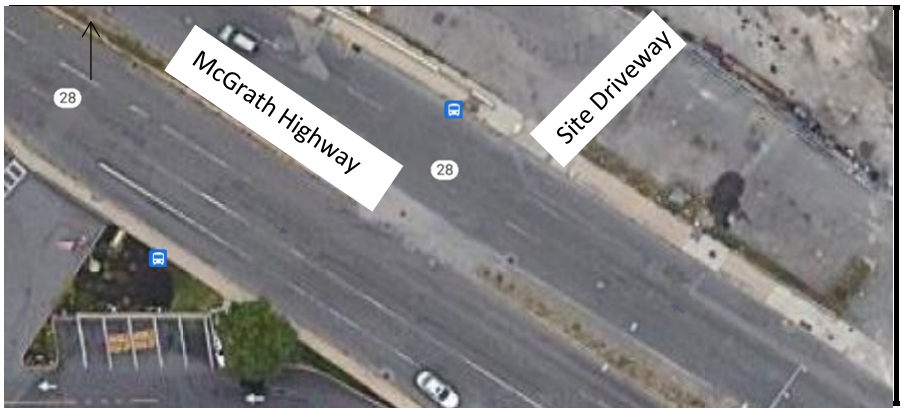
DISTRICT : UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : McGrath Highway

MINOR STREET(S) : Site Driveway

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	0	1	1,309	1,092		**2,402**

" K " FACTOR : **0.079**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **30,405**

TOTAL # OF CRASHES : 3

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.60**

CRASH RATE CALCULATION : **0.05**

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

Comments :

Project Title & Date: 35 McGrath Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 10/6/2022

DISTRICT : UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : McGrath Highway

MINOR STREET(S) : Poplar Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	69	0	1,353	0		**1,422**

" K " FACTOR : **0.079**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **18,000**

TOTAL # OF CRASHES : 1

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.20**

CRASH RATE CALCULATION : **0.03**

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

Comments :

Project Title & Date: 35 McGrath Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 10/6/2022

DISTRICT : UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : McGrath Highway

MINOR STREET(S) : Linwood Street

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/**PM**) :	15	188	328	0		**531**

" K " FACTOR : **0.079**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **6,722**

TOTAL # OF CRASHES : 2

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **0.40**

CRASH RATE CALCULATION : **0.16**

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

Comments :

Project Title & Date: 35 McGrath Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : 4/28/2022

DISTRICT : UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : McGrath Highway

MINOR STREET(S) : Medford Street

Somerville Avenue

INTERSECTION DIAGRAM (Label Approaches)



Peak Hour Volumes

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB	NB2	
PEAK HOURLY VOLUMES (AM/**PM**) :	262	1,126	410	508	36	**2,342**

" K " FACTOR : **0.079**

INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **29,646**

TOTAL # OF CRASHES : 19

OF YEARS : 5

AVERAGE # OF CRASHES PER YEAR (**A**) : **3.80**

CRASH RATE CALCULATION : **0.35**

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

Comments :

Project Title & Date: 35 McGrath Highway

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Appendix C

Trip Generation and Mode Share

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate[1]	Unadjusted Person-Trips	Primary Person-Trips	Transit Share[3]	Transit Person-Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Auto Share[3]	Auto Person-Trips	% Taxi/ TNC[4]	Taxi/TNC Person-Trips	Assumed Local Auto Occupancy Rate for Taxis[6]	Private Auto Person-Trips	Primary Auto-Person Trips	Assumed Local Auto Occupancy Rate[5]	Taxi/TNC Auto Trips	Primary Non-Taxi Auto Trips	Primary AutoTrips
Daily																							
Research & Development Center[12]	145	Total		11.080	1,606	1.18	**1,896**	**1,896**	25%	**474**	27%	**512**	48%	**910**	2%	18	1.18	892	892	1.18	**32**	**756**	**788**
	KSF	In	50%	5.540	803	1.18	**948**	**948**	25%	**237**	27%	**256**	48%	**455**	2%	9	1.18	446	446	1.18	**16**	**378**	**394**
		Out	50%	5.540	803	1.18	**948**	**948**	25%	**237**	27%	**256**	48%	**455**	2%	9	1.18	446	446	1.18	**16**	**378**	**394**
Total		Total			**1,606**		**1,896**	**1,896**		**474**		**512**		**910**							**32**		**788**
		In			**803**		**948**	**948**		**237**		**256**		**455**							**16**		**394**
		Out			**803**		**948**	**948**		**237**		**256**		**455**							**16**		**394**
AM Peak Hour																							
Research & Development Center[12]	145	Total		1.030	149	1.18	**176**	**176**		**44**		**48**		**84**	2%	1	1.18	83	83	1.18	**2**	**71**	**73**
	KSF	In	82%	0.845	122	1.18	**144**	**144**	25%	**36**	27%	**39**	48%	**69**	2%	1	1.18	68	68	1.18	**1**	**58**	**59**
		Out	18%	0.185	27	1.18	**32**	**32**	25%	**8**	27%	**9**	48%	**15**	2%	0	1.18	15	15	1.18	**1**	**13**	**14**
Total		Total			**149**		**176**	**176**		**44**		**48**		**84**							**2**		**73**
		In			**122**		**144**	**144**		**36**		**39**		**69**							**1**		**59**
		Out			**27**		**32**	**32**		**8**		**9**		**15**							**1**		**14**
PM Peak Hour																							
Research & Development Center[12]	145	Total		0.980	142	1.18	**167**	**167**		**42**		**45**		**80**	2%	1	1.18	79	79	1.18	**2**	**67**	**69**
	KSF	In	16%	0.157	23	1.18	**27**	**27**	25%	**7**	27%	**7**	48%	**13**	2%	0	1.18	13	13	1.18	**1**	**11**	**12**
		Out	84%	0.823	119	1.18	**140**	**140**	25%	**35**	27%	**38**	48%	**67**	2%	1	1.18	66	66	1.18	**1**	**56**	**57**
Total		Total			**142**		**167**	**167**		**42**		**45**		**80**							**2**		**69**
		In			**23**		**27**	**27**		**7**		**7**		**13**							**1**		**12**
		Out			**119**		**140**	**140**		**35**		**38**		**67**							**1**		**57**

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate[1]	Unadjusted Person-Trips	Internal Capture Person-Trips[2]	Primary Person-Trips	Transit Share[3]	Transit Person-Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Auto Share[3]	Auto Person-Trips	% Taxi/ TNC[4]	Taxi/TNC Person-Trips	Assumed Local Auto Occupancy Rate for Taxis[6]	Private Auto Person-Trips	Pass-By Percentage	Pass-By Person Trips	Primary Auto-Person Trips	Assumed Local Auto Occupancy Rate[5]	Taxi/TNC Auto Trips	Pass-By Auto-Trips	Primary Non-Taxi Auto Trips	Primary AutoTrips
Saturday Daily																											
Research & Development Center[12]	145	Total		1.910	276	1.18	**326**	0	**326**	25%	**82**	27%	**88**	48%	**156**	2%	4	1.18	152		0	152	1.18	**8**	**0**	**128**	**136**
	KSF	In	50%	0.955	138	1.18	**163**		**163**	25%	**41**	27%	**44**	48%	**78**	2%	2	1.18	76	0%	0	76	1.18	**4**	**0**	**64**	**68**
		Out	50%	0.955	138	1.18	**163**		**163**	25%	**41**	27%	**44**	48%	**78**	2%	2	1.18	76	0%	0	76	1.18	**4**	**0**	**64**	**68**
Total		Total			**276**		**326**	**0**	**326**		**82**		**88**		**156**									**8**	**0**		**136**
		In			**138**		**163**	**0**	**163**		**41**		**44**		**78**									**4**	**0**		**68**
		Out			**138**		**163**	**0**	**163**		**41**		**44**		**78**									**4**	**0**		**68**
Sat Peak Hour																											
Research & Development Center[12]	145	Total		0.240	35	1.18	**41**	0	**41**		**11**		**11**		**19**	2%	0	1.18	19		0	19	1.18	**0**	**0**	**17**	**17**
	KSF	In	82%	0.197	29	1.18	**34**		**34**	25%	**9**	27%	**9**	48%	**16**	2%	0	1.18	16	0%	0	16	1.18	**0**	**0**	**14**	**14**
		Out	18%	0.043	6	1.18	**7**		**7**	25%	**2**	27%	**2**	48%	**3**	2%	0	1.18	3	0%	0	3	1.18	**0**	**0**	**3**	**3**
Total		Total			**35**		**41**	**0**	**41**		**11**		**11**		**19**									**0**	**0**		**17**
		In			**29**		**34**	**0**	**34**		**9**		**9**		**16**									**0**	**0**		**14**
		Out			**6**		**7**	**0**	**7**		**2**		**2**		**3**									**0**	**0**		**3**

Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Assumed National Vehicle Occupancy Rate[1]	Unadjusted Person-Trips	Internal Capture Person-Trips[2]	Primary Person-Trips	Transit Share[3]	Transit Person-Trips	Walk/Bike/ Other Share[3]	Walk/ Bike/ Other Trips	Auto Share[3]	Auto Person-Trips	% Taxi/ TNC[4]	Taxi/TNC Person-Trips	Assumed Local Auto Occupancy Rate for Taxis[6]	Private Auto Person-Trips	Pass-By Percentage	Pass-By Person Trips	Primary Auto-Person Trips	Assumed Local Auto Occupancy Rate[5]	Taxi/TNC Auto Trips	Pass-By Auto-Trips	Primary Non-Taxi Auto Trips	Primary AutoTrips
Daily																											
Research & Development Center[12]	145	Total		0.100	14	1.18	**16**	0	**16**		**0**		**0**	100%	**16**	2%	0	1.18	16		0	16	1.18	**0**	**0**	**14**	**14**
	KSF	In	50%	0.050	7	1.18	**8**		**8**	0%	**0**	0%	**0**	100%	**8**	2%	0	1.18	8	0%	0	8	1.18	**0**	**0**	**7**	**7**
		Out	50%	0.050	7	1.18	**8**		**8**	0%	**0**	0%	**0**	100%	**8**	2%	0	1.18	8	0%	0	8	1.18	**0**	**0**	**7**	**7**
Total		Total			**14**		**16**	**0**	**16**		**0**		**0**		**16**									**0**	**0**		**14**
		In			**7**		**8**	**0**	**8**		**0**		**0**		**8**									**0**	**0**		**7**
		Out			**7**		**8**	**0**	**8**		**0**		**0**		**8**									**0**	**0**		**7**
AM Peak Hour																											
Research & Development Center[12]	145	Total		0.010	2	1.18	**2**	0	**2**		**0**		**0**		**2**	2%	0	1.18	2		0	2	1.18	**0**	**0**	**2**	**2**
	KSF	In	50%	0.005	1	1.18	**1**		**1**		**0**		**0**	100%	**1**	2%	0	1.18	1	0%	0	1	1.18	**0**	**0**	**1**	**1**
		Out	50%	0.005	1	1.18	**1**		**1**		**0**		**0**	100%	**1**	2%	0	1.18	1	0%	0	1	1.18	**0**	**0**	**1**	**1**
Total		Total			**2**		**2**	**0**	**2**		**0**		**0**		**2**									**0**	**0**		**2**
		In			**1**		**1**	**0**	**1**		**0**		**0**		**1**									**0**	**0**		**1**
		Out			**1**		**1**	**0**	**1**		**0**		**0**		**1**									**0**	**0**		**1**
PM Peak Hour																											
Research & Development Center[12]	145	Total		0.010	2	1.18	**2**	0	**2**		**0**		**0**		**2**	2%	0	1.18	2		0	2	1.18	**0**	**0**	**2**	**2**
	KSF	In	50%	0.005	1	1.18	**1**		**1**		**0**		**0**	100%	**1**	2%	0	1.18	1	0%	0	1	1.18	**0**	**0**	**1**	**1**
		Out	50%	0.005	1	1.18	**1**		**1**		**0**		**0**	100%	**1**	2%	0	1.18	1	0%	0	1	1.18	**0**	**0**	**1**	**1**
Total		Total			**2**		**2**	**0**	**2**		**0**		**0**		**2**									**0**	**0**		**2**
		In			**1**		**1**	**0**	**1**		**0**		**0**		**1**									**0**	**0**		**1**
		Out			**1**		**1**	**0**	**1**		**0**		**0**		**1**									**0**	**0**		**1**

Table 1. Existing Mode Share

Mode Type	Overall, Mode Split	Mode Split (for Trip Generation)
Non-Vehicle Modes		
Public Transportation	**20%**	**25%**
Walking	**13%**	**17%**
Biking	**8%**	**10%**
Vehicle Modes		
Personal Vehicle	**37%**	**46%**
Taxi	**0%**	**2%**
Other (Work from Home)	**22%**	**--**

**Based on U.S. Census 2021: ACS 5-Year Estimates for Means of Transportation to Work for census tract 3515.*

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Appendix D

Transit Analysis

Make sure Enter/Exit correctly corresponds with IB or OB directionality of transit route - may be necessary to split these depending on location of Site along route

	TOTALS	
	ENTER	EXIT
5:00 AM	2	0
6:00 AM	13	1
7:00 AM	36	8
8:00 AM	36	8
9:00 AM	17	12
10:00 AM	14	16
11:00 AM	16	17
12:00 PM	18	18
1:00 PM	20	18
2:00 PM	20	18
3:00 PM	19	23
4:00 PM	7	35
5:00 PM	7	35
6:00 PM	4	8
7:00 PM	2	6
8:00 PM	2	4
9:00 PM	1	4
10:00 PM	1	5
11:00 PM	1	1
12:00 AM	1	0
Total	237	237

			69				87				Green Line					
update direction based on each service		Inbound		Outbound		Inbound		Outbound		Northbound		Southbound			
insert trip distribution		3%	0%	0%	3%	13%	0%	0%	13%	63%	21%	21%	63%		
		Alighting	Boarding	Alighting	Boarding	Alighting	Boarding	Alighting	Boarding	Alighting	Boarding	Alighting	Boarding		
5:00 AM	5:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	2	0
6:00 AM	6:00 AM	0	0	0	0	2	0	0	0	8	0	3	1	13	1
7:00 AM	7:00 AM	1	0	0	0	5	0	0	1	22	2	8	5	36	8
8:00 AM	8:00 AM	1	0	0	0	5	0	0	1	22	2	8	5	36	8
9:00 AM	9:00 AM	1	0	0	0	2	0	0	1	10	3	4	8	17	12
10:00 AM	10:00 AM	0	0	0	0	2	0	0	2	9	3	3	11	14	16
11:00 AM	11:00 AM	0	0	0	1	2	0	0	2	10	3	4	11	16	17
12:00 PM	12:00 PM	1	0	0	1	2	0	0	2	11	4	4	11	18	18
1:00 PM	1:00 PM	1	0	0	1	3	0	0	2	12	4	4	11	20	18
2:00 PM	2:00 PM	1	0	0	1	3	0	0	2	12	4	4	11	20	18
3:00 PM	3:00 PM	1	0	0	1	2	0	0	3	12	5	4	14	19	23
4:00 PM	4:00 PM	0	0	0	1	1	0	0	5	5	7	1	22	7	35
5:00 PM	5:00 PM	0	0	0	1	1	0	0	5	5	7	1	22	7	35
6:00 PM	6:00 PM	0	0	0	0	1	0	0	1	2	2	1	5	4	8
7:00 PM	7:00 PM	0	0	0	0	0	0	0	1	2	1	0	4	2	6
8:00 PM	8:00 PM	0	0	0	0	0	0	0	1	2	1	0	2	2	4
9:00 PM	9:00 PM	0	0	0	0	0	0	0	1	1	1	0	2	1	4
10:00 PM	10:00 PM	0	0	0	0	0	0	0	1	1	1	0	3	1	5
11:00 PM	11:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	1
12:00 AM	12:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Total	Total	7	0	0	7	31	0	0	31	149	50	50	149	237	237
		7	0	0	7	31	0	0	31	149	50	50	149	237	237

Predicted Lechmere (based on Lechmere SB Distribution)

	Ridership Info based on GLX federal report & Boardings Assumptions				
				Station Directional Split	
		Total Daily Boardings	NB Boardings	SB Boardings	NB Boardings	SB Boardin
	Lechmere	8820	**2683**	6137	30%	70%
D Branch	Union Square Station	3570	0	3570	0%	100%
	Washington Street	2830	861	1969	30%	70%
	Gilman Square	3930	999	2931	25%	75%
E Branch	Lowell Street	1140	233	907	20%	80%
	Ball Square	1850	285	1565	15%	85%
	College Avenue	2140	0	2140	0%	100%

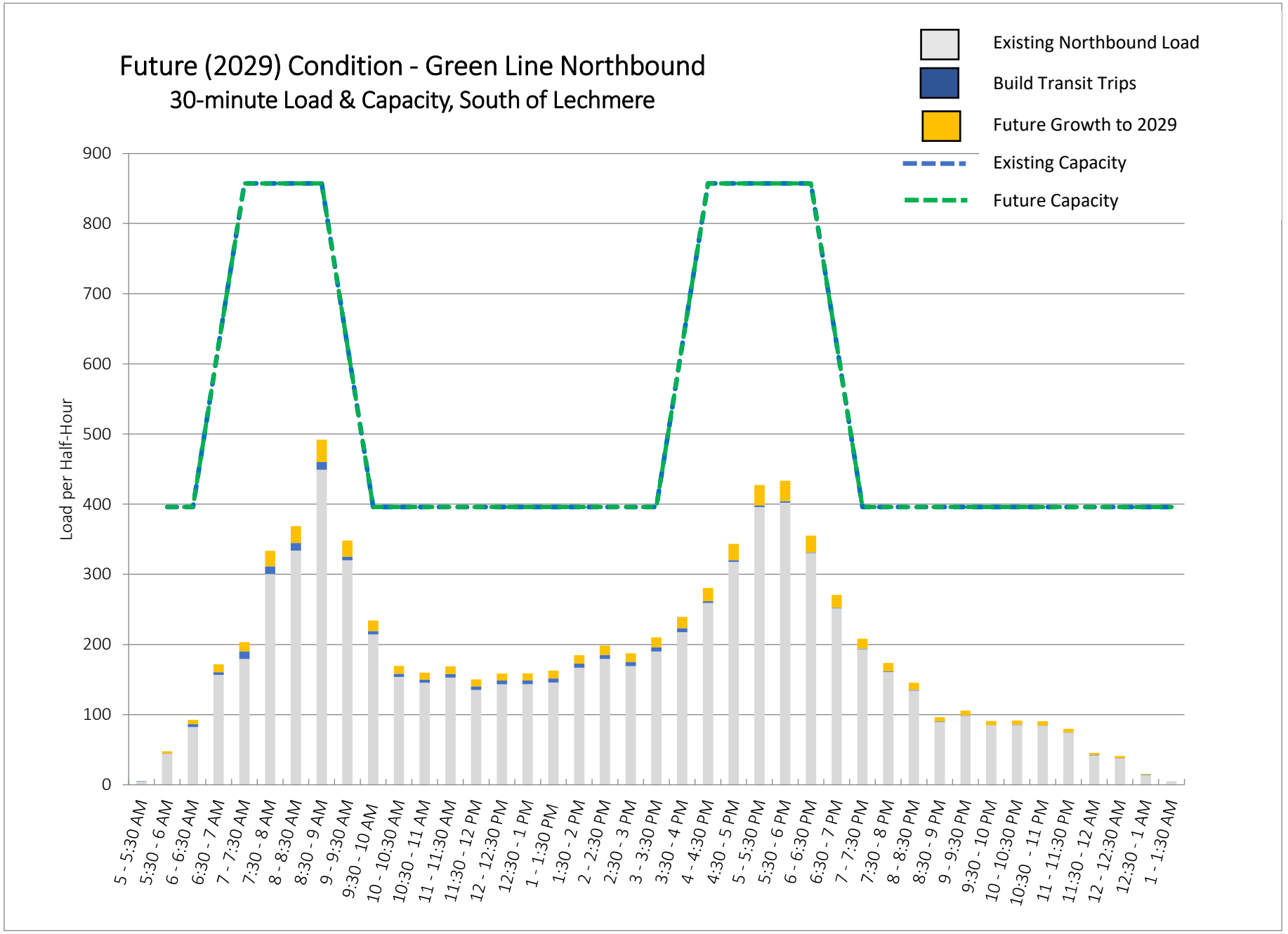
	SB Riders (not Lechmere)	13082
E Branch Only	SB alighting before Lechmere (30%)	2854
E and D Branches	SB alighting at Lechmere (=NB Boarding)	**2683**
E and D Branches	SB alighting after Boston	**7545**

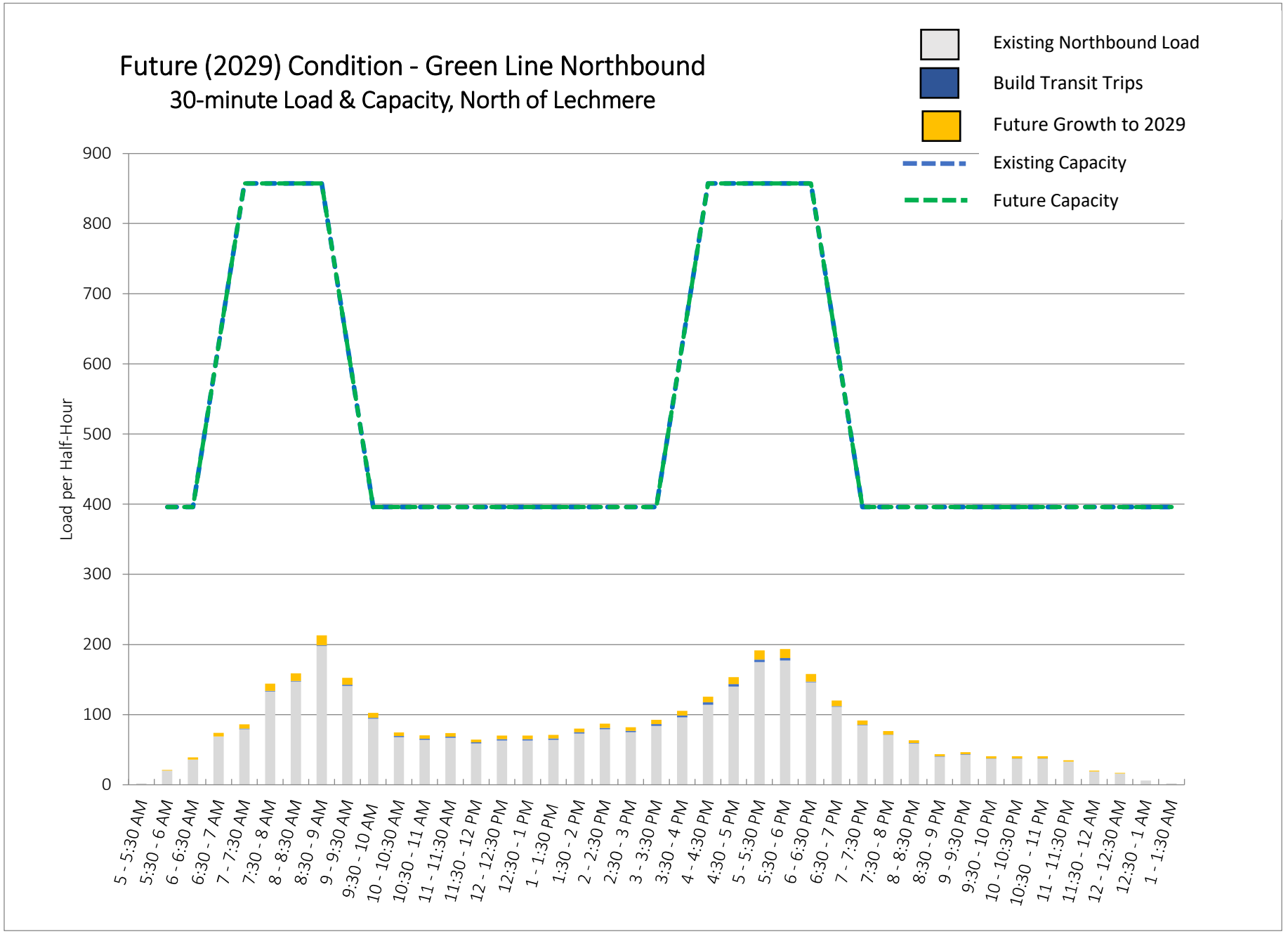
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
Route ID	Green					*updated these cells based on rail service and desired stop*										
direction_id	1	Northbound														

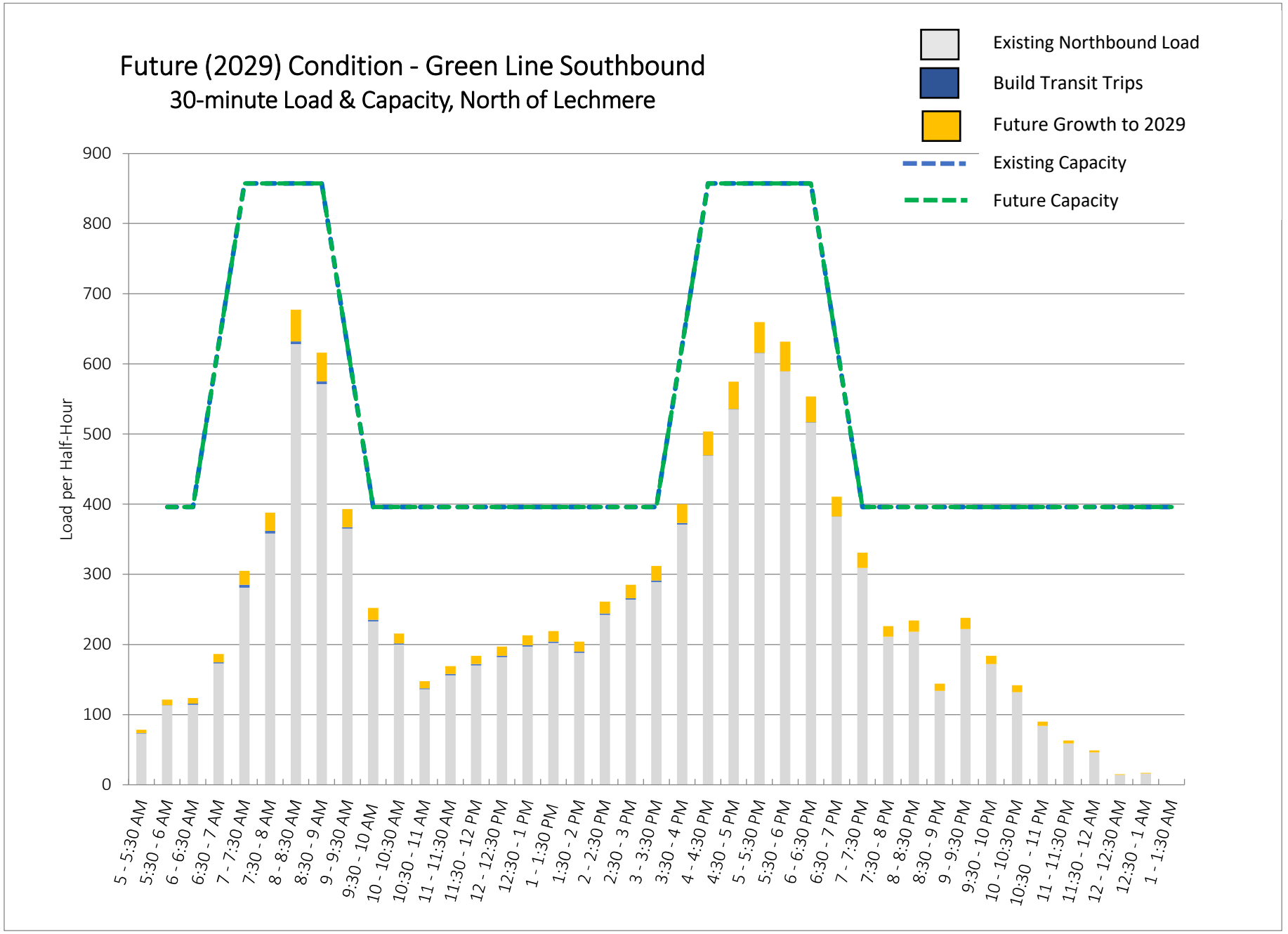
											2683	10% of column I				
NB	Copley	Arlington	Boylston	Park Street	Government Center	Haymarket	North Station	Science Park	Lechmere		Predicted NB Flow leaving Lechmere towards Union and Medford Branches	10% of existing Science Park flow continues north past Lechmere			South of Lechmere Station	North of Lechmere Station
5:00:00 AM	145	133	117	47	15	12	4	3	0		2	0			5	2
5:30:00 AM	245	225	196	129	68	65	33	27	0		17	3			44	20
6:00:00 AM	463	438	384	238	139	118	66	51	0		31	5			82	36
6:30:00 AM	795	758	678	431	240	210	118	98	0		59	10			157	69
7:00:00 AM	1462	1365	1235	666	357	270	131	111	0		68	11			179	79
7:30:00 AM	1975	1841	1659	851	464	358	215	186	0		114	19			300	133
8:00:00 AM	2355	2209	2014	1048	554	440	251	208	0		126	21			334	147
8:30:00 AM	2239	2119	1898	1132	633	501	322	279	0		170	28			449	198
9:00:00 AM	1577	1497	1295	800	461	360	227	199	0		121	20			320	141
9:30:00 AM	1021	985	848	540	326	245	156	133	0		81	13			214	94
10:00:00 AM	866	861	755	475	276	190	117	96	0		58	10			154	68
10:30:00 AM	763	758	668	443	268	185	109	90	0		55	9			145	64
11:00:00 AM	816	829	733	472	279	186	114	95	0		58	9			153	67
11:30:00 AM	828	841	747	472	273	186	102	84	0		51	8			135	59
12:00:00 PM	896	929	840	534	309	209	111	89	0		54	9			143	63
12:30:00 PM	866	908	829	554	324	217	109	89	0		54	9			143	63
1:00:00 PM	954	1000	923	614	353	227	108	91	0		55	9			146	64
1:30:00 PM	932	980	920	627	354	240	121	104	0		63	10			167	73
2:00:00 PM	1206	1265	1201	813	418	275	133	111	0		68	11			179	79
2:30:00 PM	1232	1319	1265	895	471	303	124	105	0		64	11			169	75
3:00:00 PM	1508	1628	1587	1091	538	349	138	118	0		72	12			190	84
3:30:00 PM	1609	1770	1796	1260	651	435	153	135	0		82	14			217	96
4:00:00 PM	1895	2186	2173	1462	846	572	179	161	0		98	16			259	114
4:30:00 PM	1975	2361	2340	1628	1002	692	219	198	0		120	20			318	140
5:00:00 PM	2370	2874	2846	1811	1170	842	275	246	0		150	25			396	175
5:30:00 PM	2020	2386	2333	1532	978	657	274	250	0		152	25			402	177
6:00:00 PM	1794	2117	2067	1356	864	579	232	205	0		125	21			330	146
6:30:00 PM	1448	1657	1596	1072	671	447	175	157	0		95	16			252	111
7:00:00 PM	1166	1332	1298	856	518	360	133	120	0		73	12			193	85
7:30:00 PM	991	1118	1101	749	436	284	110	100	0		61	10			161	71
8:00:00 PM	905	1015	1012	669	386	251	94	83	0		51	8			134	59
8:30:00 PM	818	898	895	589	295	179	63	55	0		34	6			89	40
9:00:00 PM	926	993	1002	642	325	199	71	61	0		37	6			98	43
9:30:00 PM	890	932	947	635	296	167	59	52	0		32	5			84	37
10:00:00 PM	1040	1092	1089	755	329	175	58	53	0		32	5			85	37
10:30:00 PM	859	908	944	773	299	165	58	52	0		32	5			84	37
11:00:00 PM	700	764	793	690	232	114	50	46	0		28	5			74	33
11:30:00 PM	418	464	489	471	147	81	27	26	0		16	3			42	19
12:00:00 AM	241	273	299	324	96	49	24	24	0		14	2			38	16
12:30:00 AM	63	76	87	111	32	17	9	9	0		5	1			14	6
1:00:00 AM	3	5	8	22	8	5	4	3	0		2	0			5	2
1:30:00 AM	0	0	0	0	0	0	0	0	0		0	0			-	0

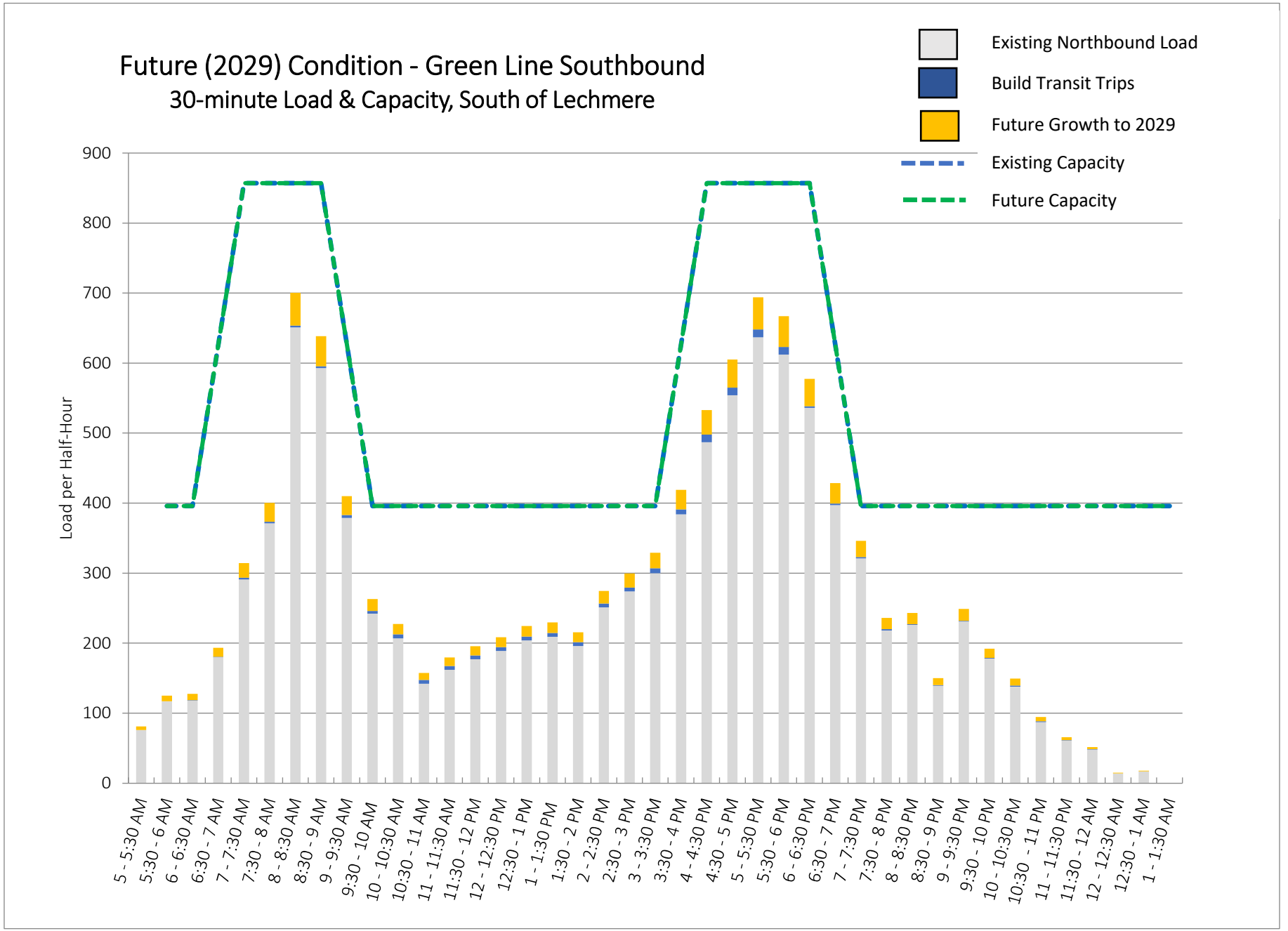
Route ID	Green	
direction_id	0	Southbound

										10228	7545	50% of column C	column L	column M+N
SB	Lechmere	Science Park	North Station	Haymarket	Government Center	Park Street	Boylston	Arlington	Copley	Predicted SB Flow into Lechmere	Predicted SB Flow continuing past Lechmere	Assumed 50% of Existing Lechmere SB flow is near the station - other 50% transfers from buses pre-GLX therefore post GLX it's assumed they will come from the north as new boardings at new stations	North of Lechmere Station	South Lechmere Station
5:00:00 AM	44	43	44	163	219	105	88	82	21	73	54	22	73	76
5:30:00 AM	68	61	114	236	532	469	450	383	175	113	83	34	113	117
6:00:00 AM	68	58	199	352	790	785	753	642	320	114	84	34	114	118
6:30:00 AM	104	99	337	518	977	1186	1139	950	486	173	128	52	173	180
7:00:00 AM	169	147	460	673	1212	1590	1562	1327	711	281	207	84	281	291
7:30:00 AM	215	217	855	1076	1674	2192	2143	1677	857	358	264	107	358	371
8:00:00 AM	377	346	867	1084	1614	2270	2224	1699	860	628	463	188	628	651
8:30:00 AM	343	341	896	1122	1662	2534	2481	1859	878	571	422	171	571	593
9:00:00 AM	219	216	524	682	1081	1648	1616	1271	635	365	269	110	365	379
9:30:00 AM	140	133	329	477	810	1221	1205	1012	507	233	172	70	233	242
10:00:00 AM	120	112	268	379	622	979	1000	884	472	200	147	60	200	207
10:30:00 AM	82	95	229	325	576	861	880	794	422	136	101	41	136	142
11:00:00 AM	94	93	243	340	546	788	807	759	415	156	115	47	156	162
11:30:00 AM	102	111	220	331	564	868	886	819	447	170	126	51	170	177
12:00:00 PM	109	109	271	383	606	886	923	882	499	182	134	55	182	189
12:30:00 PM	118	130	247	351	582	908	942	895	495	197	145	59	197	204
1:00:00 PM	121	143	272	385	608	903	954	926	520	202	149	60	202	209
1:30:00 PM	113	129	247	367	642	978	1020	967	548	188	139	57	188	196
2:00:00 PM	145	148	266	401	683	983	1037	988	580	242	178	73	242	251
2:30:00 PM	158	176	278	415	745	1025	1083	1036	619	264	195	79	264	274
3:00:00 PM	173	212	366	509	892	1168	1219	1191	719	289	213	87	289	300
3:30:00 PM	222	238	374	544	963	1289	1407	1359	807	371	273	111	371	384
4:00:00 PM	282	302	466	636	1094	1420	1506	1503	959	469	346	141	469	487
4:30:00 PM	321	347	548	676	1216	1653	1764	1768	1130	535	394	160	535	554
5:00:00 PM	369	435	706	903	1662	2460	2481	2524	1641	615	453	184	615	637
5:30:00 PM	354	395	611	766	1339	2303	2422	2454	1641	589	435	177	589	612
6:00:00 PM	310	329	542	677	1108	1912	2035	2078	1433	516	381	155	516	536
6:30:00 PM	229	243	394	516	819	1504	1611	1658	1156	382	282	115	382	397
7:00:00 PM	185	196	301	402	637	1099	1202	1227	841	309	228	93	309	321
7:30:00 PM	126	135	205	281	456	766	857	894	629	211	155	63	211	218
8:00:00 PM	131	131	186	282	414	639	720	754	537	218	161	65	218	226
8:30:00 PM	80	91	145	228	376	571	644	671	478	134	99	40	134	139
9:00:00 PM	133	127	166	240	353	492	582	609	437	222	164	67	222	231
9:30:00 PM	103	118	182	231	319	435	535	556	383	172	127	51	172	178
10:00:00 PM	79	82	211	280	344	431	529	538	362	132	98	40	132	138
10:30:00 PM	50	55	200	265	336	377	439	438	288	84	62	25	84	87
11:00:00 PM	35	40	215	263	286	316	367	376	248	59	43	18	59	61
11:30:00 PM	28	28	87	118	156	202	243	250	172	46	34	14	46	48
12:00:00 AM	8	8	37	55	84	123	157	162	112	14	10	4	14	14
12:30:00 AM	10	11	22	33	44	58	70	71	48	16	12	5	16	17
1:00:00 AM	0	0	0	0	3	18	24	25	20	0	0	0	0	-
1:30:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	-


Future (2029) Condition - Green Line Northbound
30-minute Load & Capacity, South of Lechmere
Existing Northbound Load
Build Transit Trips
Future Growth to 2029
Existing Capacity
Future Capacity
Load per Half-Hour
900
800
700
600
500
400
300
200
100
0
5 - 5:30 AM
5:30 - 6 AM
6 - 6:30 AM
6:30 - 7 AM
7 - 7:30 AM
7:30 - 8 AM
8 - 8:30 AM
8:30 - 9 AM
9 - 9:30 AM
9:30 - 10 AM
10 - 10:30 AM
10:30 - 11 AM
11 - 11:30 AM
11:30 - 12 PM
12 - 12:30 PM
12:30 - 1 PM
1 - 1:30 PM
1:30 - 2 PM
2 - 2:30 PM
2:30 - 3 PM
3 - 3:30 PM
3:30 - 4 PM
4 - 4:30 PM
4:30 - 5 PM
5 - 5:30 PM
5:30 - 6 PM
6 - 6:30 PM
6:30 - 7 PM
7 - 7:30 PM
7:30 - 8 PM
8 - 8:30 PM
8:30 - 9 PM
9 - 9:30 PM
9:30 - 10 PM
10 - 10:30 PM
10:30 - 11 PM
11 - 11:30 PM
11:30 - 12 AM
12 - 12:30 AM
12:30 - 1 AM
1 - 1:30 AM


Future (2029) Condition - Green Line Northbound
30-minute Load & Capacity, North of Lechmere
Existing Northbound Load
Build Transit Trips
Future Growth to 2029
Existing Capacity
Future Capacity
Load per Half-Hour
900
800
700
600
500
400
300
200
100
0
5 - 5:30 AM
5:30 - 6 AM
6 - 6:30 AM
6:30 - 7 AM
7 - 7:30 AM
7:30 - 8 AM
8 - 8:30 AM
8:30 - 9 AM
9 - 9:30 AM
9:30 - 10 AM
10 - 10:30 AM
10:30 - 11 AM
11 - 11:30 AM
11:30 - 12 PM
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12:30 - 1 PM
1 - 1:30 PM
1:30 - 2 PM
2 - 2:30 PM
2:30 - 3 PM
3 - 3:30 PM
3:30 - 4 PM
4 - 4:30 PM
4:30 - 5 PM
5 - 5:30 PM
5:30 - 6 PM
6 - 6:30 PM
6:30 - 7 PM
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10:30 - 11 PM
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11:30 - 12 AM
12 - 12:30 AM
12:30 - 1 AM
1 - 1:30 AM


Future (2029) Condition - Green Line Southbound
30-minute Load & Capacity, North of Lechmere
Existing Northbound Load
Build Transit Trips
Future Growth to 2029
Existing Capacity
Future Capacity
Load per Half-Hour
900
800
700
600
500
400
300
200
100
0
5 - 5:30 AM
5:30 - 6 AM
6 - 6:30 AM
6:30 - 7 AM
7 - 7:30 AM
7:30 - 8 AM
8 - 8:30 AM
8:30 - 9 AM
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9:30 - 10 AM
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10:30 - 11 AM
11 - 11:30 AM
11:30 - 12 PM
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9 - 9:30 PM
9:30 - 10 PM
10 - 10:30 PM
10:30 - 11 PM
11 - 11:30 PM
11:30 - 12 AM
12 - 12:30 AM
12:30 - 1 AM
1 - 1:30 AM


Future (2029) Condition - Green Line Southbound
30-minute Load & Capacity, South of Lechmere
Existing Northbound Load
Build Transit Trips
Future Growth to 2029
Existing Capacity
Future Capacity
Load per Half-Hour
900
800
700
600
500
400
300
200
100
0
5 - 5:30 AM
5:30 - 6 AM
6 - 6:30 AM
6:30 - 7 AM
7 - 7:30 AM
7:30 - 8 AM
8 - 8:30 AM
8:30 - 9 AM
9 - 9:30 AM
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10:30 - 11 AM
11 - 11:30 AM
11:30 - 12 PM
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12:30 - 1 PM
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1:30 - 2 PM
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3:30 - 4 PM
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7:30 - 8 PM
8 - 8:30 PM
8:30 - 9 PM
9 - 9:30 PM
9:30 - 10 PM
10 - 10:30 PM
10:30 - 11 PM
11 - 11:30 PM
11:30 - 12 AM
12 - 12:30 AM
12:30 - 1 AM
1 - 1:30 AM

V/C Ratio Summary Table - Green Line at Union Square Station

Time	Existing Capacity	Existing		Future Capacity	Build		Future 2029	
		South of Union Square			South of Union Square		South of Union Square	
		NB	SB		NB	SB	NB	SB
5-530 AM	396	0.01	0.19	396	0.01	0.19	0.01	0.20
5:30 - 6AM	396	0.11	0.30	396	0.11	0.30	0.12	0.32
6- 6:30 AM	396	0.21	0.30	396	0.22	0.30	0.23	0.32
6:30 - 7 AM	857	0.18	0.21	857	0.19	0.21	0.20	0.23
7- 7:30 AM	857	0.21	0.34	857	0.22	0.34	0.24	0.37
7:30 - 8 AM	857	0.35	0.43	857	0.36	0.44	0.39	0.47
8 - 8:30 AM	857	0.39	0.76	857	0.40	0.76	0.43	0.82
8:30 - 9 AM	857	0.52	0.69	857	0.54	0.69	0.57	0.74
9 to 9:30 AM	396	0.81	0.96	396	0.82	0.97	0.88	1.04
9:30 - 10 AM	396	0.54	0.61	396	0.55	0.62	0.59	0.66
10 - 10:30 AM	396	0.39	0.52	396	0.40	0.54	0.43	0.57
10:30 - 11 AM	396	0.37	0.36	396	0.38	0.37	0.40	0.40
11 - 11:30 AM	396	0.39	0.41	396	0.40	0.42	0.43	0.45
11:30 - 12 PM	396	0.34	0.45	396	0.35	0.46	0.38	0.49
12 - 12:30 PM	396	0.36	0.48	396	0.38	0.49	0.40	0.53
12:30 - 1 PM	396	0.36	0.52	396	0.38	0.53	0.40	0.57
1 - 1:30 PM	396	0.37	0.53	396	0.38	0.54	0.41	0.58
1:30 - 2 PM	396	0.42	0.49	396	0.44	0.51	0.47	0.54
2 - 2:30 PM	396	0.45	0.63	396	0.47	0.65	0.50	0.69
2:30 - 3 PM	396	0.43	0.69	396	0.44	0.71	0.47	0.76
3 - 3:30 PM	396	0.48	0.76	396	0.50	0.78	0.53	0.83
3:30 - 4 PM	857	0.25	0.45	857	0.26	0.46	0.28	0.49
4 - 4:30 PM	857	0.30	0.57	857	0.31	0.58	0.33	0.62
4:30 - 5 PM	857	0.37	0.65	857	0.37	0.66	0.40	0.71
5 - 5:30 PM	857	0.46	0.74	857	0.46	0.76	0.50	0.81
5:30 - 6 PM	857	0.47	0.71	857	0.47	0.73	0.51	0.78
6 - 6:30 PM	857	0.39	0.63	857	0.39	0.63	0.41	0.67
6:30 - 7 PM	396	0.64	1.00	396	0.64	1.01	0.68	1.08
7 - 7:30 PM	396	0.49	0.81	396	0.49	0.82	0.53	0.87
7:30 - 8 PM	396	0.41	0.55	396	0.41	0.56	0.44	0.60
8 - 8:30 PM	396	0.34	0.57	396	0.34	0.57	0.37	0.61
8:30 - 9 PM	396	0.23	0.35	396	0.23	0.35	0.24	0.38
9 - 9:30 PM	396	0.25	0.58	396	0.25	0.59	0.27	0.63
9:30 - 10 PM	396	0.21	0.45	396	0.21	0.45	0.23	0.48
10 - 10:30 PM	396	0.22	0.35	396	0.22	0.35	0.23	0.38
10:30 - 11 PM	396	0.21	0.22	396	0.21	0.22	0.23	0.24
11 - 11:30 PM	396	0.19	0.15	396	0.19	0.16	0.20	0.17
11:30 - 12 AM	396	0.11	0.12	396	0.11	0.12	0.12	0.13
12 - 12:30 am	396	0.09	0.04	396	0.10	0.04	0.10	0.04

Volume Summary Table - Green Line at Union Square Station

Time	Number of Existing Trains	Existing Load		Number of Future Trains	Build Load		Future 2029 Load	
		South of Union Square			South of Union Square		South of Union Square	
		NB	SB		NB	SB	NB	SB
5-530 AM	3	5	76	3	5	76	5	81
5:30 - 6AM	3	44	117	3	45	117	48	125
6- 6:30 AM	3	82	118	3	86	119	92	128
6:30 - 7 AM	4	157	180	4	161	181	172	194
7- 7:30 AM	4	179	291	4	190	294	203	315
7:30 - 8 AM	4	300	371	4	311	374	333	401
8 - 8:30 AM	4	334	651	4	345	654	369	701
8:30 - 9 AM	4	449	593	4	460	596	492	639
9 to 9:30 AM	3	320	379	3	325	383	348	410
9:30 - 10 AM	3	214	242	3	219	246	234	263
10 - 10:30 AM	3	154	207	3	158	213	169	228
10:30 - 11 AM	3	145	142	3	150	148	160	158
11 - 11:30 AM	3	153	162	3	158	168	169	180
11:30 - 12 PM	3	135	177	3	140	183	150	196
12 - 12:30 PM	3	143	189	3	149	195	159	209
12:30 - 1 PM	3	143	204	3	149	210	159	225
1 - 1:30 PM	3	146	209	3	152	215	163	230
1:30 - 2 PM	3	167	196	3	173	202	185	216
2 - 2:30 PM	3	179	251	3	185	257	198	275
2:30 - 3 PM	3	169	274	3	175	280	187	300
3 - 3:30 PM	3	190	300	3	196	307	210	329
3:30 - 4 PM	4	217	384	4	223	391	239	419
4 - 4:30 PM	4	259	487	4	262	498	281	533
4:30 - 5 PM	4	318	554	4	320	565	343	605
5 - 5:30 PM	4	396	637	4	398	648	427	694
5:30 - 6 PM	4	402	612	4	404	623	433	667
6 - 6:30 PM	4	330	536	4	331	539	355	578
6:30 - 7 PM	3	252	397	3	253	400	271	429
7 - 7:30 PM	3	193	321	3	194	323	208	346
7:30 - 8 PM	3	161	218	3	162	220	174	236
8 - 8:30 PM	3	134	226	3	135	227	145	243
8:30 - 9 PM	3	89	139	3	90	140	96	150
9 - 9:30 PM	3	98	231	3	99	232	106	249
9:30 - 10 PM	3	84	178	3	85	179	91	192
10 - 10:30 PM	3	85	138	3	86	140	92	150
10:30 - 11 PM	3	84	87	3	85	89	91	95
11 - 11:30 PM	3	74	61	3	75	62	80	66
11:30 PM- 12 AM	3	42	48	3	43	49	46	52
12 - 12:30 AM	3	38	14	3	38	14	41	15
12:30 - 1 AM	3	14	17	3	14	17	15	18
1 - 1:30 AM	3	5	0	3	5	0	5	0

Bus Route 69 - Inbound Analysis Before CAMBRIDGE ST @ SCIARAPPA ST (Volume/VC Tables Hourly)

			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	1	46	4	0.08	4	0.08	4	0.09
6:00 AM	3	150	8	0.06	8	0.06	9	0.06
7:00 AM	4	208	17	0.08	18	0.09	20	0.09
8:00 AM	6	312	28	0.09	29	0.09	31	0.10
9:00 AM	3	138	17	0.12	18	0.13	19	0.14
10:00 AM	2	92	15	0.17	15	0.17	17	0.18
11:00 AM	2	92	14	0.15	14	0.15	15	0.16
12:00 PM	3	138	27	0.19	28	0.20	30	0.21
1:00 PM	2	92	20	0.21	21	0.22	22	0.24
2:00 PM	4	184	30	0.16	31	0.17	33	0.18
3:00 PM	4	190	42	0.22	43	0.22	46	0.24
4:00 PM	3	156	34	0.21	34	0.21	36	0.23
5:00 PM	3	156	26	0.17	26	0.17	28	0.18
6:00 PM	3	150	19	0.13	19	0.13	20	0.13
7:00 PM	2	92	11	0.12	11	0.12	12	0.13
8:00 PM	1	46	5	0.11	5	0.11	5	0.12
9:00 PM	1	46	6	0.12	6	0.12	6	0.13
10:00 PM	2	92	8	0.09	8	0.09	8	0.09
11:00 PM	2	92	3	0.03	3	0.03	3	0.03
12:00 AM	1	46	2	0.03	2	0.03	2	0.03
1:00 AM	1	46	2	0.03	2	0.03	2	0.04

Red = transit demand is greater than planning capacity (V/C > 1.00)

Bus Route 69 - Inbound Analysis After CAMBRIDGE ST @ SCIARAPPA ST (Volume/VC Tables Hourly)

			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	1	46	4	0.08	4	0.08	4	0.09
6:00 AM	3	150	8	0.05	8	0.05	9	0.06
7:00 AM	4	208	16	0.08	16	0.08	17	0.08
8:00 AM	6	312	25	0.08	25	0.08	27	0.09
9:00 AM	3	138	16	0.11	16	0.11	17	0.12
10:00 AM	2	92	14	0.16	14	0.16	15	0.17
11:00 AM	2	92	13	0.14	13	0.14	14	0.15
12:00 PM	3	138	25	0.18	25	0.18	27	0.20
1:00 PM	2	92	18	0.20	18	0.20	20	0.21
2:00 PM	4	184	26	0.14	26	0.14	28	0.15
3:00 PM	4	190	35	0.18	35	0.18	37	0.20
4:00 PM	3	156	30	0.19	30	0.19	32	0.20
5:00 PM	3	156	23	0.15	23	0.15	25	0.16
6:00 PM	3	150	16	0.11	16	0.11	18	0.12
7:00 PM	2	92	10	0.11	10	0.11	11	0.12
8:00 PM	1	46	4	0.09	4	0.09	5	0.10
9:00 PM	1	46	5	0.12	5	0.12	6	0.13
10:00 PM	2	92	7	0.08	7	0.08	8	0.08
11:00 PM	2	92	3	0.03	3	0.03	3	0.03
12:00 AM	1	46	1	0.03	1	0.03	2	0.03
1:00 AM	1	46	1	0.03	1	0.03	1	0.03

Red = transit demand is greater than planning capacity (V/C > 1.00)

Bus Route 69 - Outbound Analysis Before CAMBRIDGE ST @ SCIARAPPA ST (Volume/VC Tables Hourly)

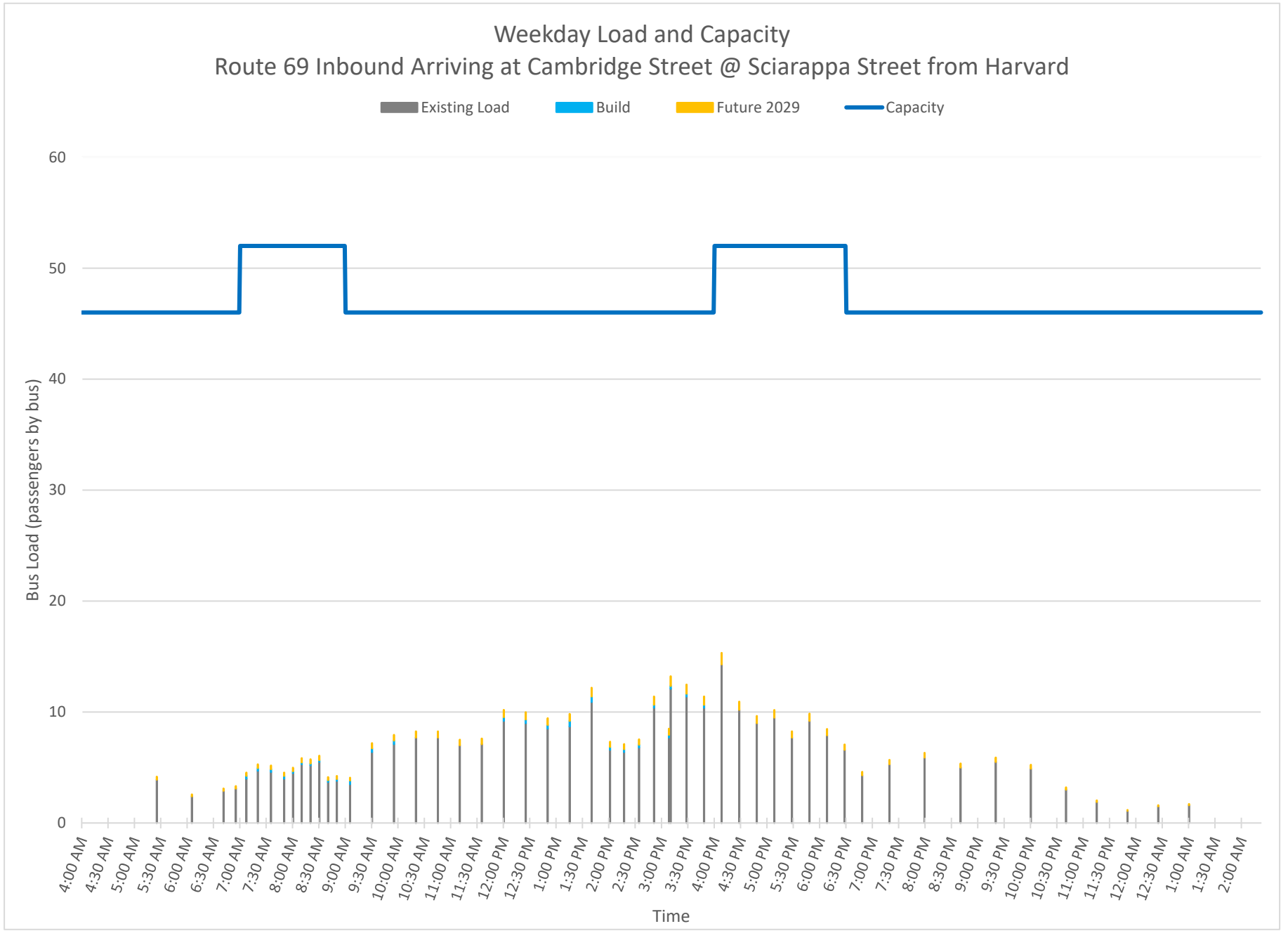
			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	1	46	6	0.12	6	0.12	6	0.13
6:00 AM	2	98	8	0.08	8	0.08	9	0.09
7:00 AM	5	260	23	0.09	23	0.09	24	0.09
8:00 AM	5	260	32	0.12	32	0.12	34	0.13
9:00 AM	3	138	12	0.09	12	0.09	13	0.09
10:00 AM	2	92	11	0.12	11	0.12	12	0.13
11:00 AM	2	92	14	0.15	14	0.15	15	0.16
12:00 PM	3	138	21	0.15	21	0.15	22	0.16
1:00 PM	3	138	19	0.14	19	0.14	20	0.15
2:00 PM	3	138	21	0.15	21	0.15	22	0.16
3:00 PM	3	144	21	0.14	21	0.14	22	0.15
4:00 PM	3	156	25	0.16	25	0.16	27	0.17
5:00 PM	3	156	27	0.18	27	0.18	29	0.19
6:00 PM	3	150	21	0.14	21	0.14	23	0.15
7:00 PM	2	92	12	0.13	12	0.13	13	0.14
8:00 PM	1	46	5	0.10	5	0.10	5	0.11
9:00 PM	2	92	5	0.06	5	0.06	5	0.06
10:00 PM	1	46	3	0.06	3	0.06	3	0.06
11:00 PM	2	92	4	0.04	4	0.04	4	0.04
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

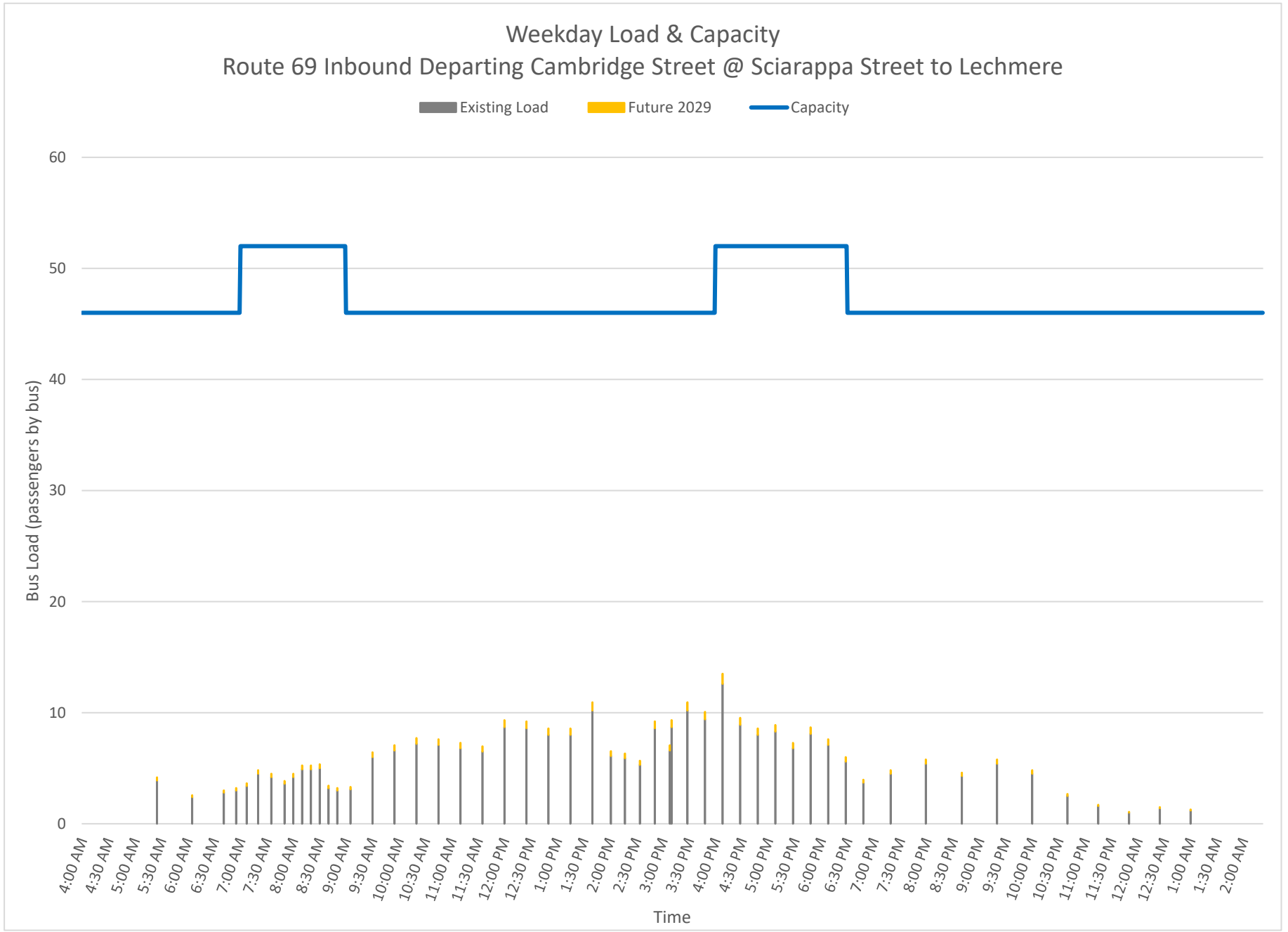
Red = transit demand is greater than planning capacity (V/C > 1.00)

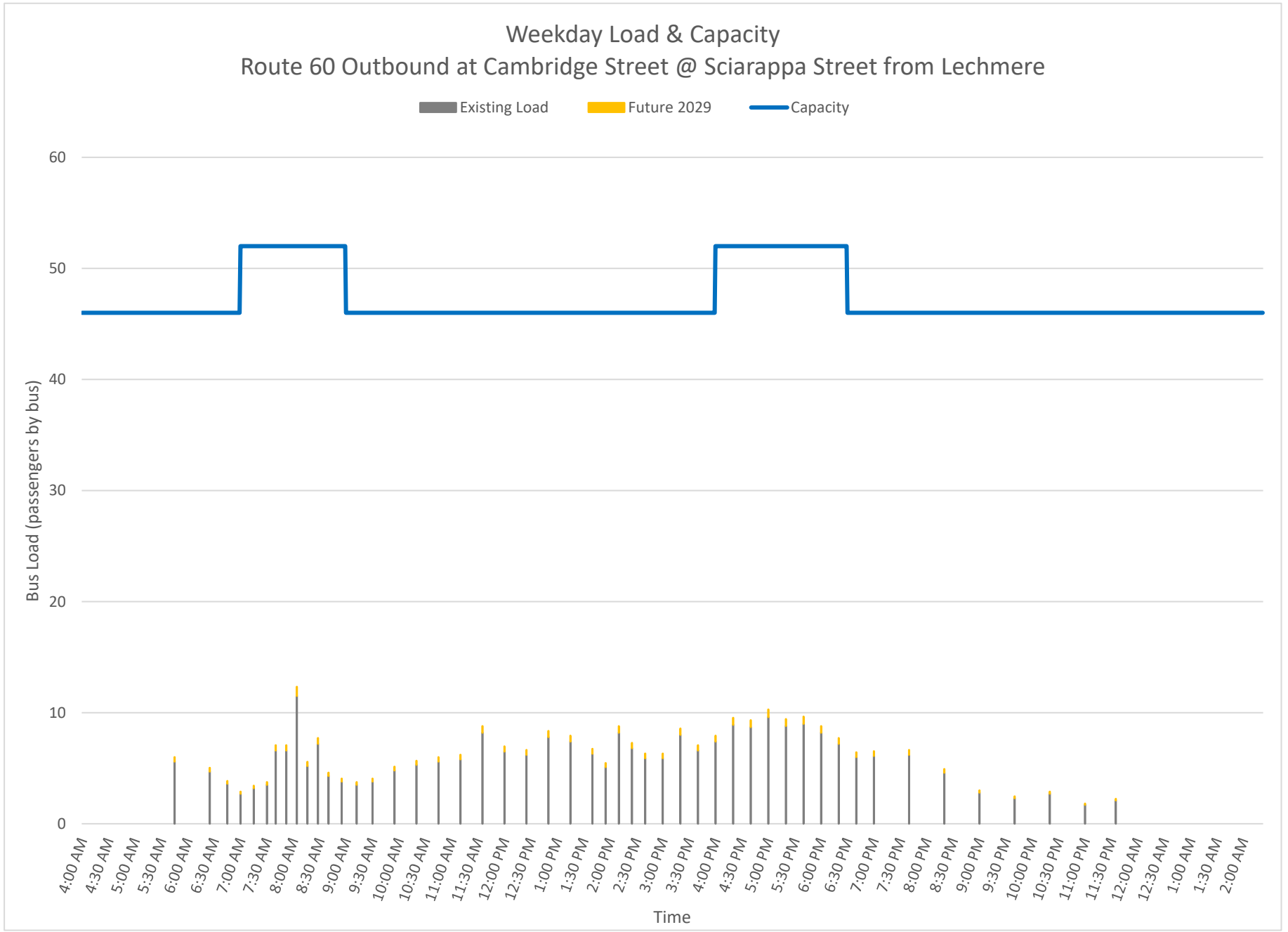
Bus Route 69 - Outbound Analysis After CAMBRIDGE ST @ SCIARAPPA ST (Volume/VC Tables Hourly)

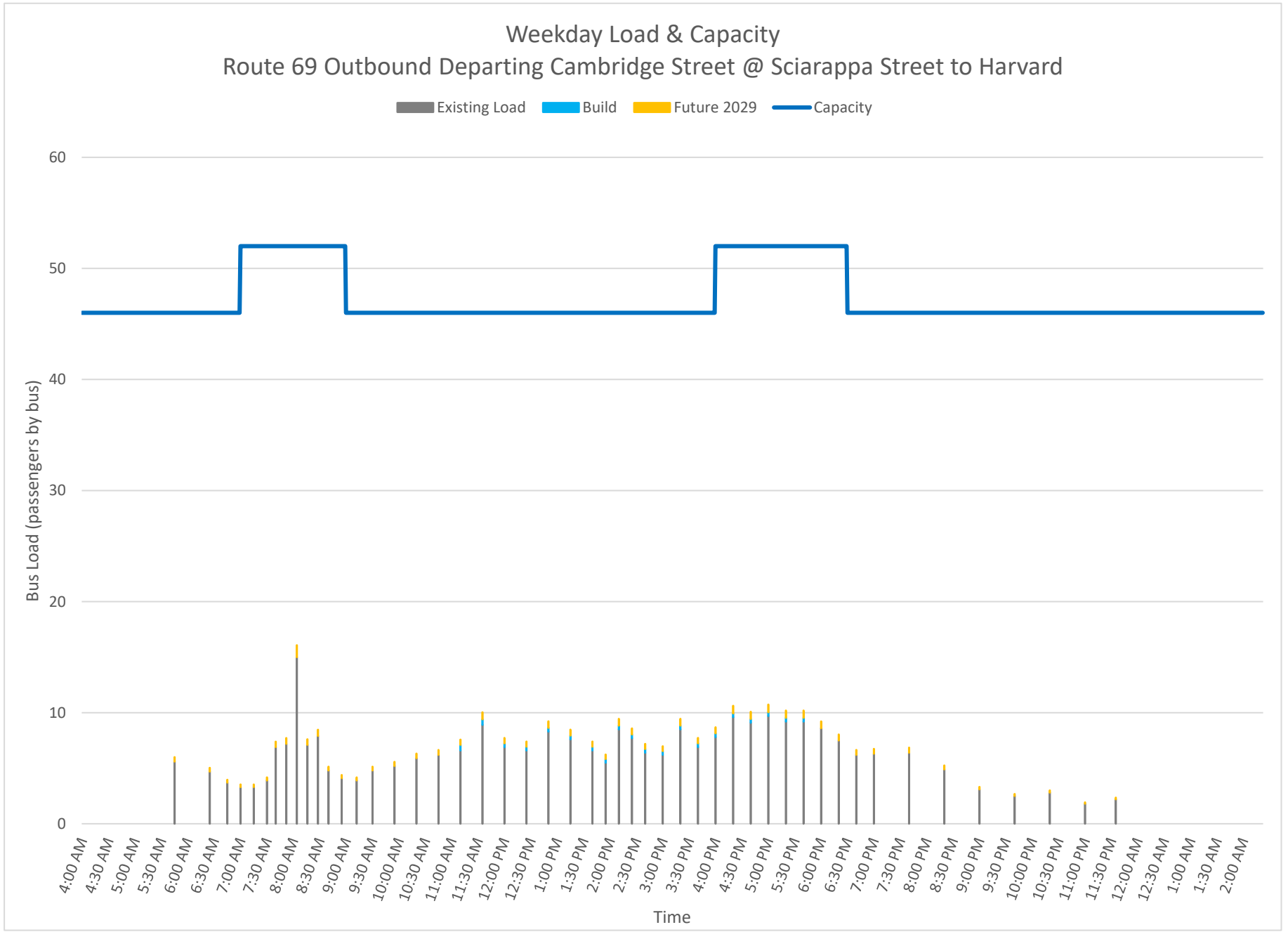
			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	1	46	6	0.12	6	0.12	6	0.13
6:00 AM	2	98	8	0.09	8	0.09	9	0.09
7:00 AM	5	260	25	0.09	25	0.09	26	0.10
8:00 AM	5	260	39	0.15	39	0.15	42	0.16
9:00 AM	3	138	14	0.10	14	0.10	15	0.11
10:00 AM	2	92	12	0.13	12	0.13	13	0.14
11:00 AM	2	92	16	0.17	17	0.18	18	0.19
12:00 PM	3	138	22	0.16	23	0.17	24	0.18
1:00 PM	3	138	20	0.14	21	0.15	22	0.16
2:00 PM	3	138	23	0.16	24	0.17	25	0.18
3:00 PM	3	144	22	0.15	23	0.16	24	0.17
4:00 PM	3	156	27	0.17	28	0.18	29	0.19
5:00 PM	3	156	28	0.18	29	0.19	31	0.20
6:00 PM	3	150	22	0.15	22	0.15	24	0.16
7:00 PM	2	92	13	0.14	13	0.14	14	0.15
8:00 PM	1	46	5	0.11	5	0.11	5	0.11
9:00 PM	2	92	6	0.06	6	0.06	6	0.07
10:00 PM	1	46	3	0.06	3	0.06	3	0.07
11:00 PM	2	92	4	0.04	4	0.04	4	0.05
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

Red = transit demand is greater than planning capacity (V/C > 1.00)


Weekday Load and Capacity
Route 69 Inbound Arriving at Cambridge Street @ Sciarappa Street from Harvard
Existing Load
Build
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
8:00 AM
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9:00 AM
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10:00 PM
10:30 PM
11:00 PM
11:30 PM
12:00 AM
12:30 AM
1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load & Capacity
Route 69 Inbound Departing Cambridge Street @ Sciarappa Street to Lechmere
Existing Load
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
8:00 AM
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12:00 AM
12:30 AM
1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load & Capacity
Route 60 Outbound at Cambridge Street @ Sciarappa Street from Lechmere
Existing Load
Future 2029
Capacity
60
50
40
30
20
10
0
Bus Load (passengers by bus)
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
8:00 AM
8:30 AM
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12:00 AM
12:30 AM
1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load & Capacity
Route 69 Outbound Departing Cambridge Street @ Sciarappa Street to Harvard
Existing Load
Build
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
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1:30 AM
2:00 AM
Time

Bus Route 87 - Inbound Analysis Before McGrath Highway at Twin City Plaza (Volume/VC Tables Hourly)

			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	3	138	8	0.05	8	0.05	8	0.06
6:00 AM	4	196	19	0.10	21	0.11	22	0.11
7:00 AM	4	208	30	0.15	35	0.17	37	0.18
8:00 AM	3	156	21	0.13	26	0.17	28	0.18
9:00 AM	3	138	19	0.14	21	0.15	23	0.16
10:00 AM	2	92	15	0.16	17	0.18	18	0.19
11:00 AM	3	138	23	0.17	25	0.18	27	0.20
12:00 PM	2	92	14	0.15	16	0.17	17	0.18
1:00 PM	3	138	19	0.14	22	0.16	23	0.17
2:00 PM	3	138	19	0.14	22	0.16	23	0.17
3:00 PM	3	150	18	0.12	20	0.14	22	0.14
4:00 PM	3	156	18	0.12	19	0.12	21	0.13
5:00 PM	3	156	18	0.11	19	0.12	20	0.13
6:00 PM	2	98	8	0.08	9	0.09	9	0.10
7:00 PM	3	138	10	0.07	10	0.07	10	0.08
8:00 PM	2	92	6	0.07	6	0.07	7	0.07
9:00 PM	2	92	7	0.08	7	0.08	8	0.09
10:00 PM	2	92	5	0.05	5	0.05	5	0.05
11:00 PM	1	46	2	0.04	2	0.04	2	0.05
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

Red = transit demand is greater than planning capacity (V/C > 1.00)

Bus Route 87 - Inbound Analysis After McGrath Highway at Twin City Plaza (Volume/VC Tables Hourly)

			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	3	138	8	0.05	8	0.05	8	0.06
6:00 AM	4	196	17	0.08	17	0.08	18	0.09
7:00 AM	4	208	25	0.12	25	0.12	27	0.13
8:00 AM	3	156	18	0.11	18	0.11	19	0.12
9:00 AM	3	138	16	0.12	16	0.12	18	0.13
10:00 AM	2	92	12	0.13	12	0.13	13	0.14
11:00 AM	3	138	20	0.14	20	0.14	21	0.15
12:00 PM	2	92	12	0.13	12	0.13	13	0.14
1:00 PM	3	138	17	0.13	17	0.13	19	0.13
2:00 PM	3	138	16	0.11	16	0.11	17	0.12
3:00 PM	3	150	15	0.10	15	0.10	17	0.11
4:00 PM	3	156	16	0.10	16	0.10	17	0.11
5:00 PM	3	156	13	0.08	13	0.08	14	0.09
6:00 PM	2	98	6	0.06	6	0.06	7	0.07
7:00 PM	3	138	8	0.05	8	0.05	8	0.06
8:00 PM	2	92	5	0.06	5	0.06	6	0.06
9:00 PM	2	92	6	0.07	6	0.07	7	0.07
10:00 PM	2	92	4	0.04	4	0.04	4	0.05
11:00 PM	1	46	2	0.04	2	0.04	2	0.05
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

Red = transit demand is greater than planning capacity (V/C > 1.00)

Bus Route 87 - Outbound Analysis Before McGrath Highway opp Twin City Plaza (Volume/VC Tables Hourly)

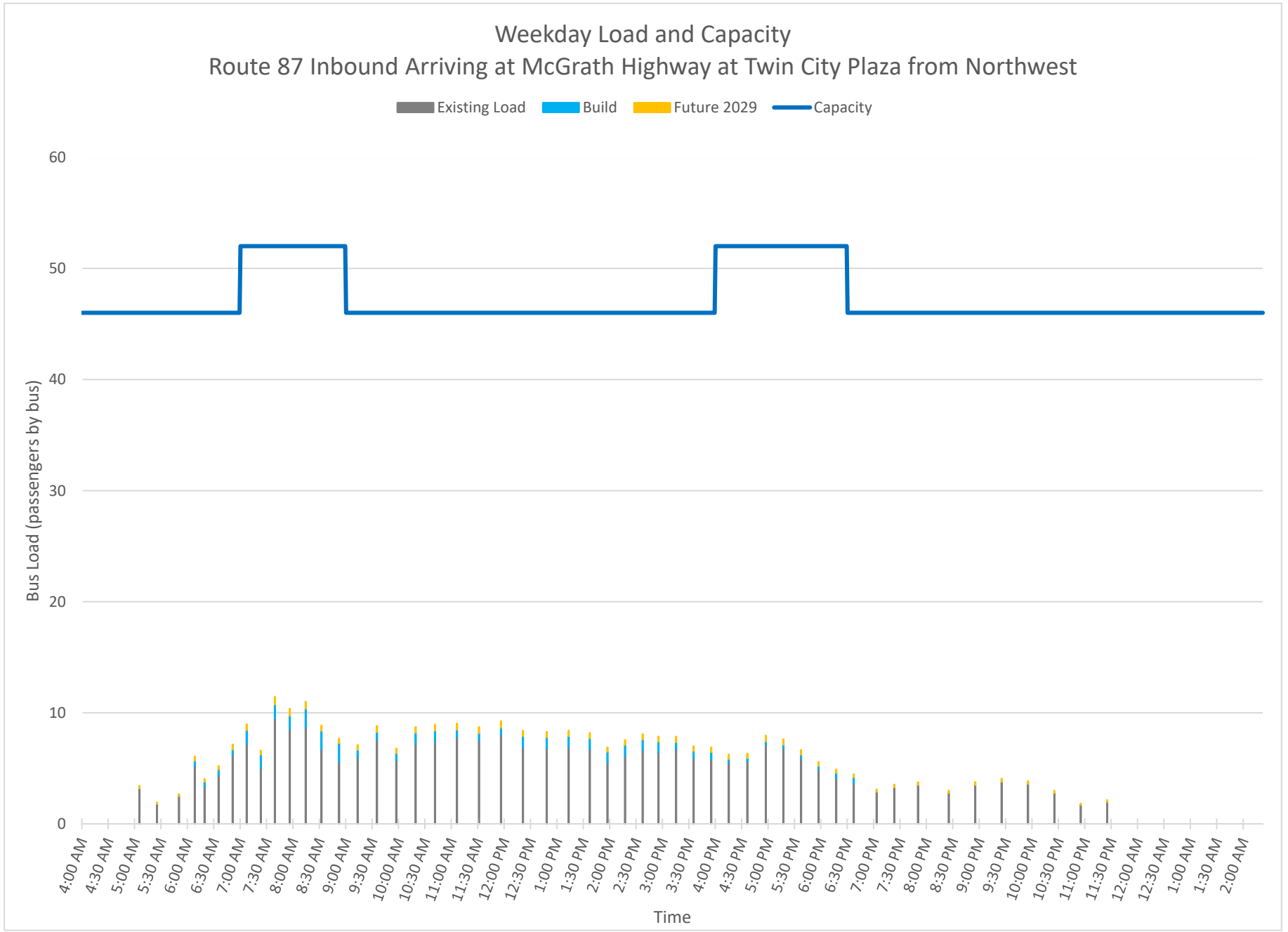
			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	2	92	3	0.04	3	0.04	4	0.04
6:00 AM	3	150	8	0.05	8	0.05	9	0.06
7:00 AM	3	156	8	0.05	8	0.05	9	0.06
8:00 AM	3	156	8	0.05	8	0.05	9	0.06
9:00 AM	3	138	9	0.07	9	0.07	10	0.07
10:00 AM	2	92	11	0.11	11	0.11	11	0.12
11:00 AM	2	92	9	0.10	9	0.10	10	0.11
12:00 PM	3	138	16	0.12	16	0.12	17	0.13
1:00 PM	2	92	16	0.17	16	0.17	17	0.18
2:00 PM	3	138	16	0.11	16	0.11	17	0.12
3:00 PM	3	150	17	0.11	17	0.11	18	0.12
4:00 PM	3	156	25	0.16	25	0.16	27	0.17
5:00 PM	3	156	28	0.18	28	0.18	29	0.19
6:00 PM	3	144	19	0.13	19	0.13	20	0.14
7:00 PM	3	138	16	0.12	16	0.12	17	0.13
8:00 PM	2	92	7	0.08	7	0.08	7	0.08
9:00 PM	2	92	6	0.06	6	0.06	6	0.07
10:00 PM	2	92	4	0.05	4	0.05	5	0.05
11:00 PM	2	92	6	0.07	6	0.07	7	0.07
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

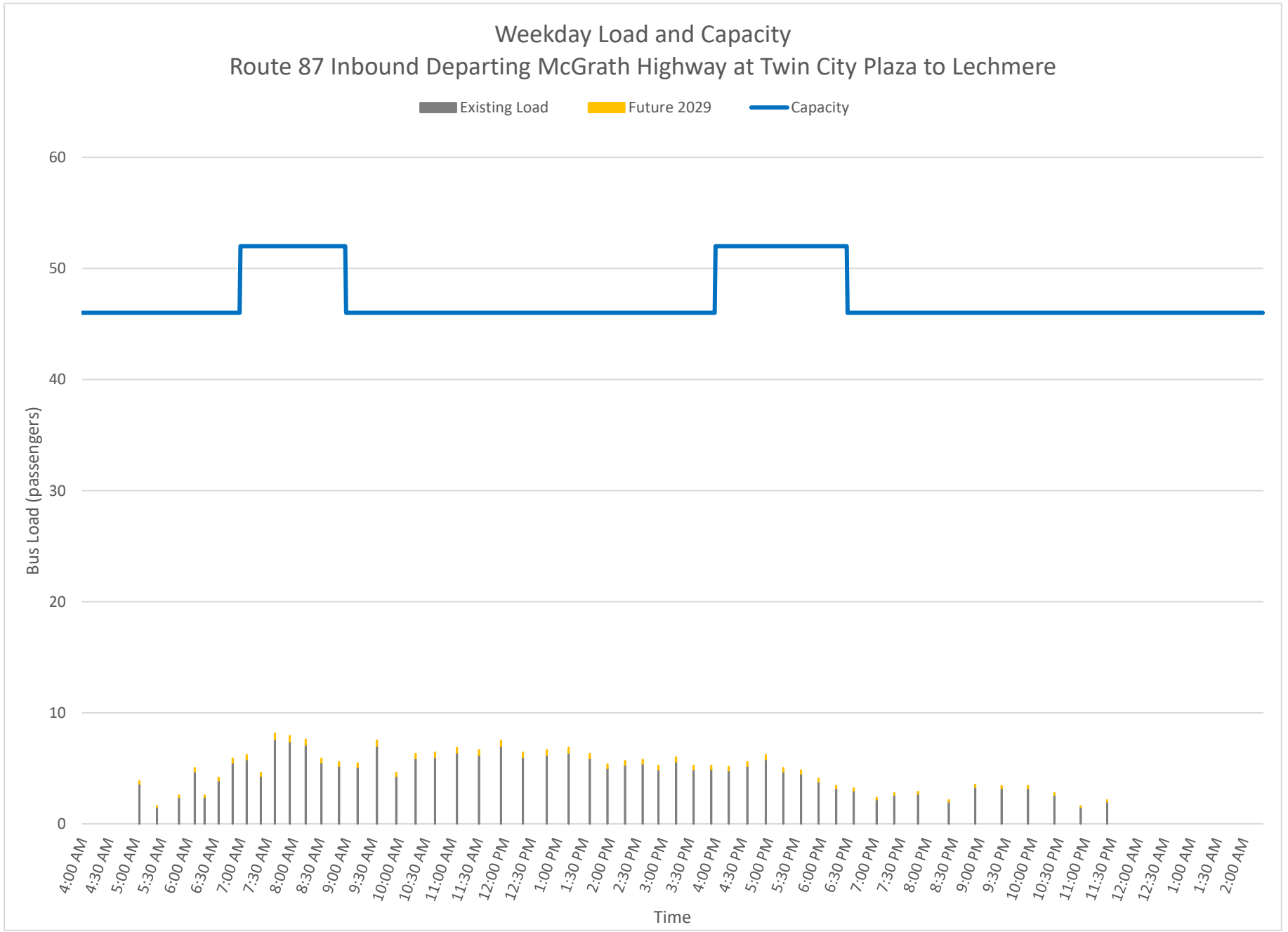
Red = transit demand is greater than planning capacity (V/C > 1.00)

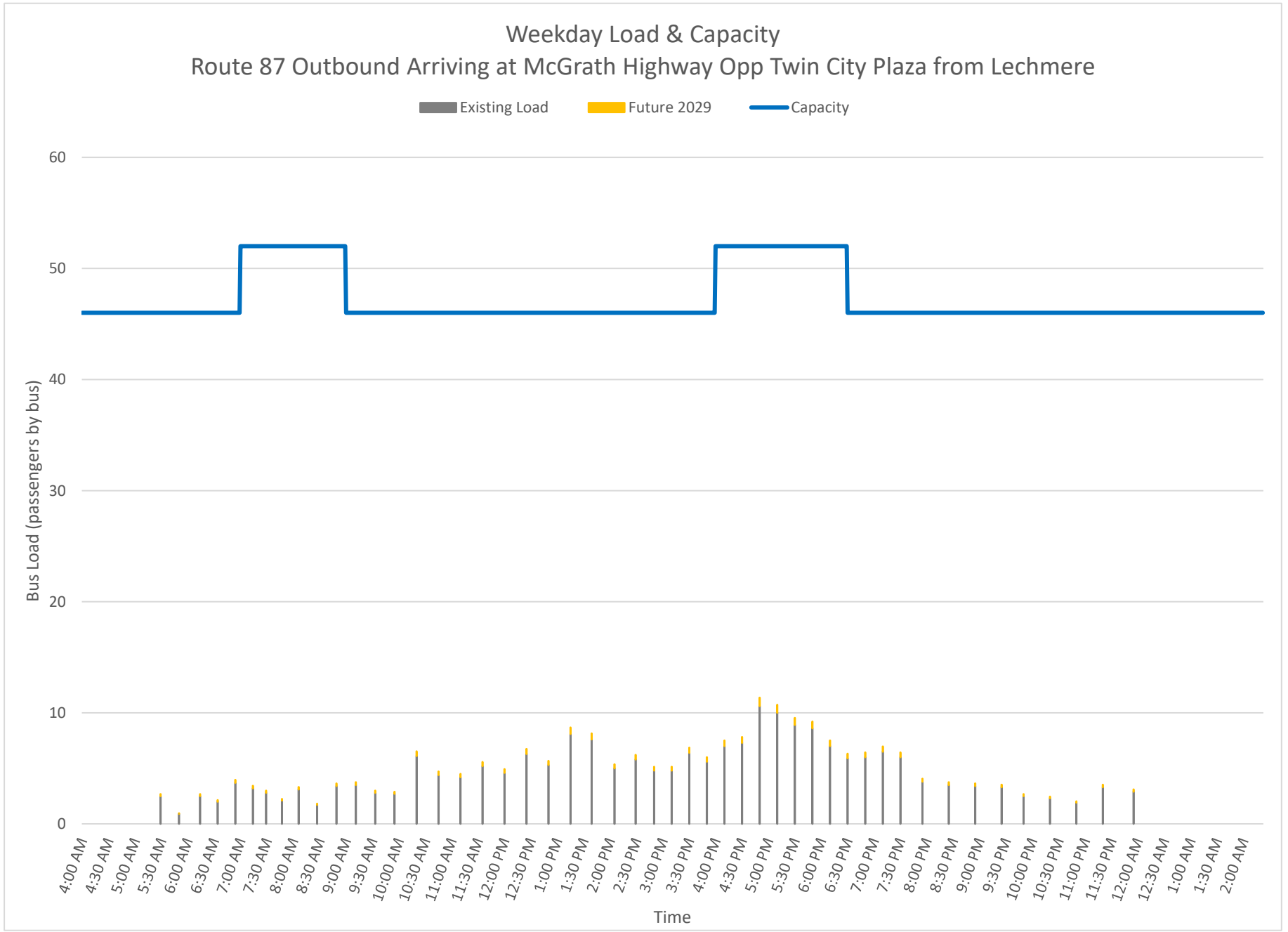
Bus Route 87 - Outbound Analysis After McGrath Highway opp Twin City Plaza (Volume/VC Tables Hourly)

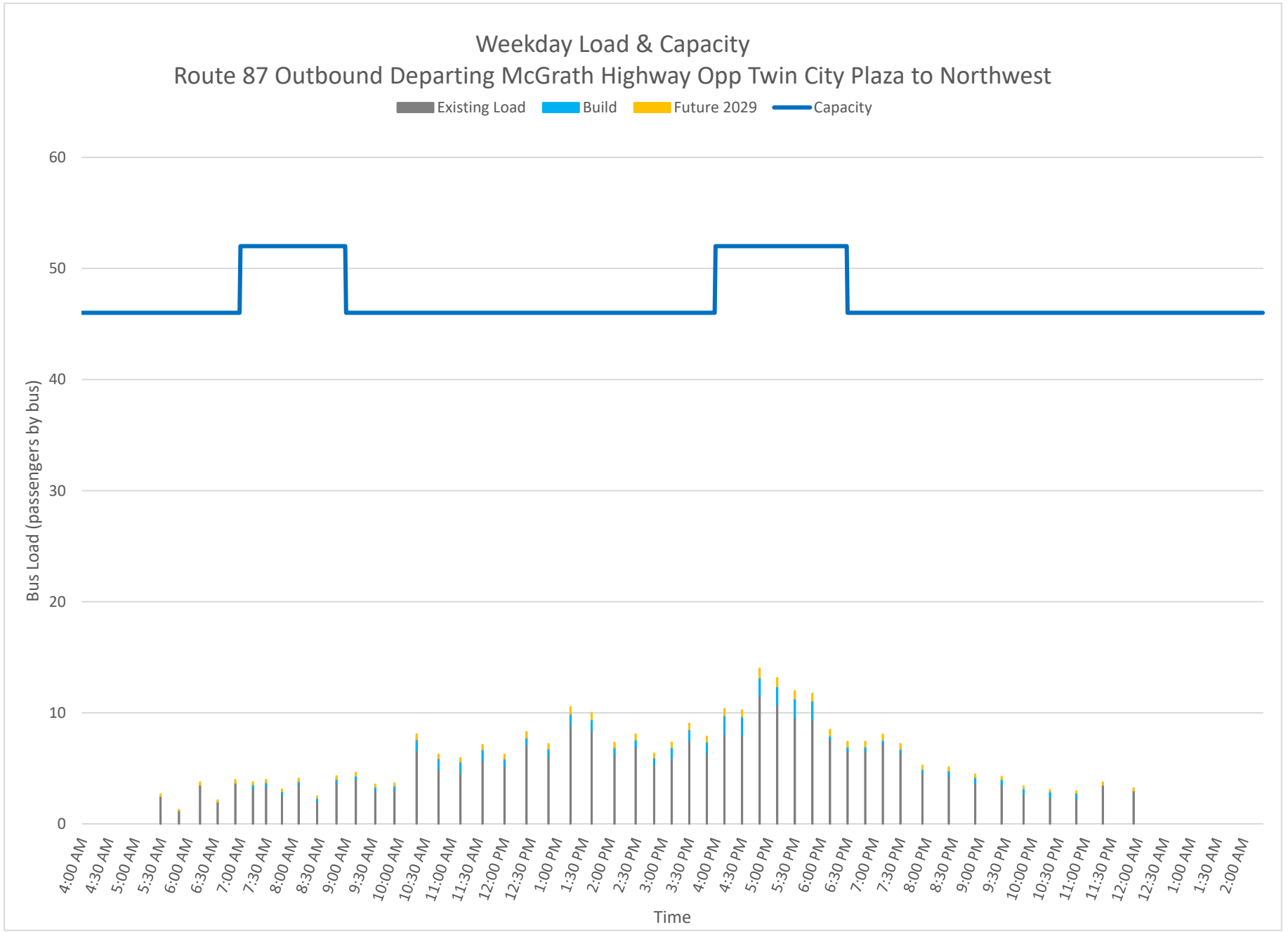
			Existing		Build		Future 2029	
	# of Buses	Capacity	Hourly Volume	V/C	Hourly Volume	V/C	Hourly Volume	V/C
5:00 AM	2	92	4	0.04	4	0.04	4	0.04
6:00 AM	3	150	9	0.06	9	0.06	10	0.07
7:00 AM	3	156	9	0.06	10	0.07	11	0.07
8:00 AM	3	156	9	0.06	10	0.07	11	0.07
9:00 AM	3	138	10	0.07	11	0.08	12	0.09
10:00 AM	2	92	12	0.13	14	0.15	14	0.16
11:00 AM	2	92	10	0.11	12	0.13	13	0.14
12:00 PM	3	138	18	0.13	20	0.15	22	0.16
1:00 PM	2	92	17	0.19	19	0.21	21	0.22
2:00 PM	3	138	18	0.13	20	0.15	22	0.16
3:00 PM	3	150	20	0.13	23	0.15	24	0.16
4:00 PM	3	156	28	0.18	33	0.21	35	0.22
5:00 PM	3	156	30	0.19	35	0.22	37	0.24
6:00 PM	3	144	21	0.14	22	0.15	23	0.16
7:00 PM	3	138	18	0.13	19	0.14	21	0.15
8:00 PM	2	92	8	0.09	9	0.10	10	0.10
9:00 PM	2	92	6	0.07	7	0.08	8	0.08
10:00 PM	2	92	5	0.05	6	0.06	6	0.07
11:00 PM	2	92	7	0.07	7	0.07	7	0.08
12:00 AM	0	0	0	0.00	0	0.00	0	0.00
1:00 AM	0	0	0	0.00	0	0.00	0	0.00

Red = transit demand is greater than planning capacity (V/C > 1.00)


Weekday Load and Capacity
Route 87 Inbound Arriving at McGrath Highway at Twin City Plaza from Northwest
Existing Load
Build
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
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10:30 PM
11:00 PM
11:30 PM
12:00 AM
12:30 AM
1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load and Capacity
Route 87 Inbound Departing McGrath Highway at Twin City Plaza to Lechmere
Existing Load
Future 2029
Capacity
Bus Load (passengers)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
8:00 AM
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9:30 PM
10:00 PM
10:30 PM
11:00 PM
11:30 PM
12:00 AM
12:30 AM
1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load & Capacity
Route 87 Outbound Arriving at McGrath Highway Opp Twin City Plaza from Lechmere
Existing Load
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
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12:00 AM
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1:00 AM
1:30 AM
2:00 AM
Time


Weekday Load & Capacity
Route 87 Outbound Departing McGrath Highway Opp Twin City Plaza to Northwest
Existing Load
Build
Future 2029
Capacity
Bus Load (passengers by bus)
60
50
40
30
20
10
0
4:00 AM
4:30 AM
5:00 AM
5:30 AM
6:00 AM
6:30 AM
7:00 AM
7:30 AM
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2:00 AM
Time

HOWARD STEIN HUDSON

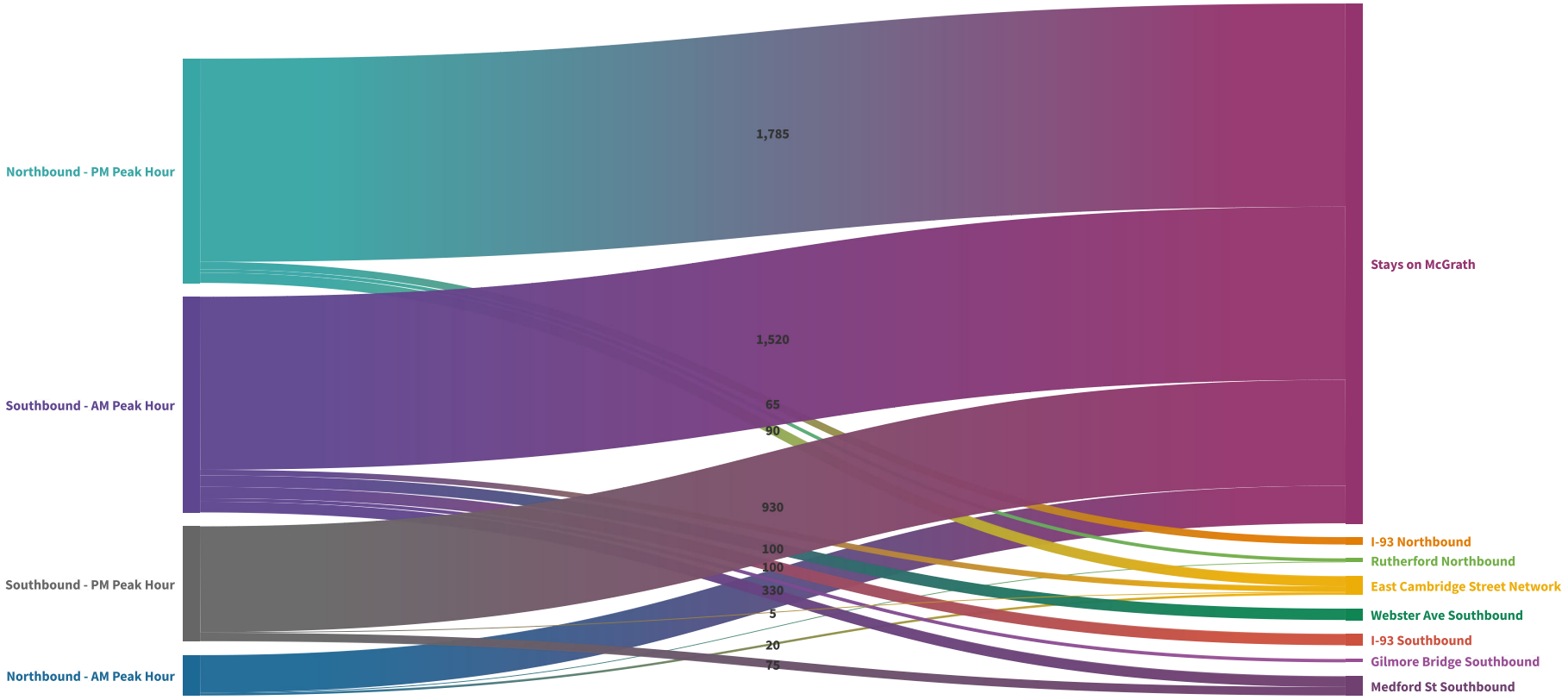
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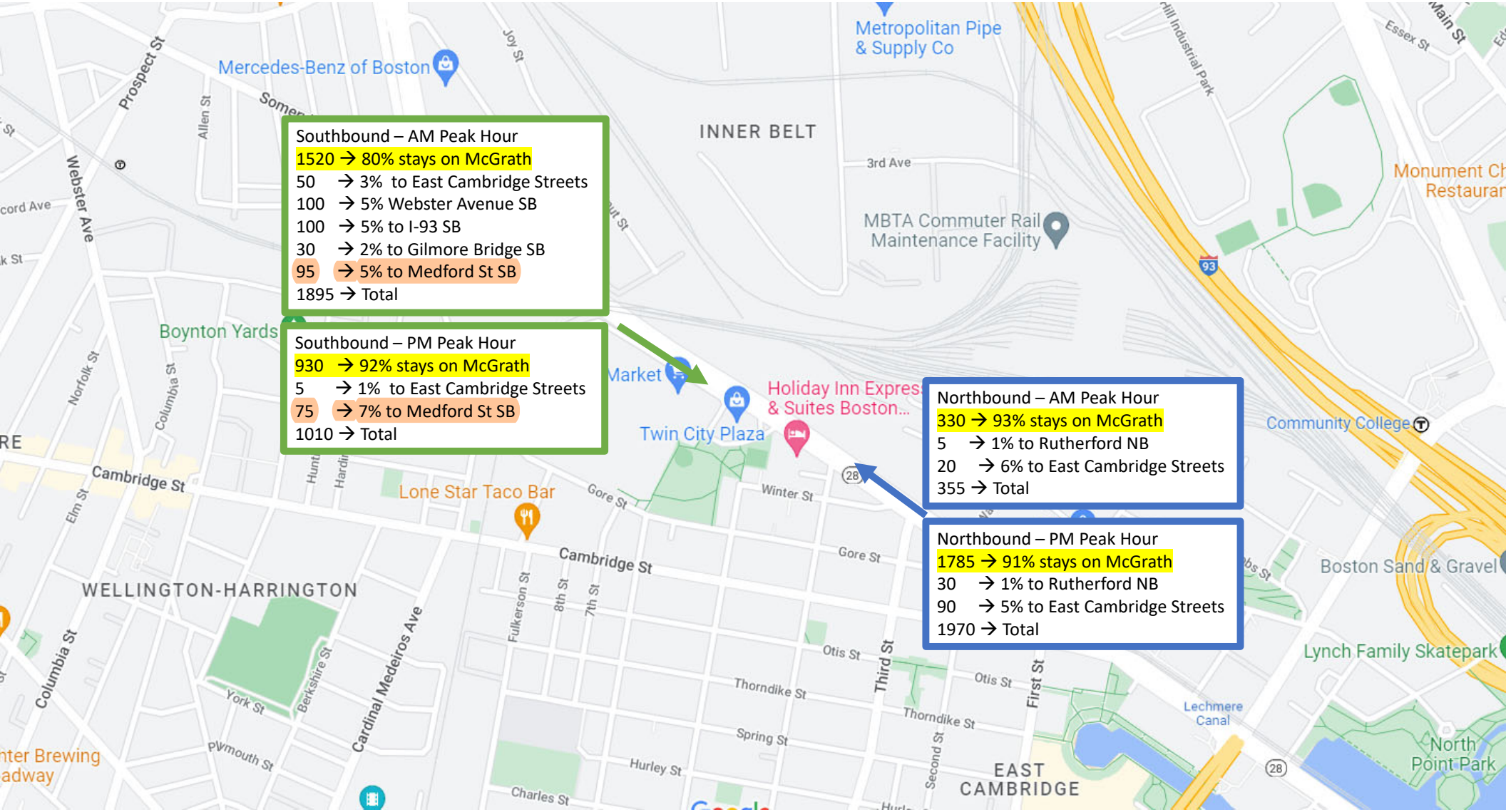
Appendix E

Forecasted McGrath Highway Traffic Diversions

Southern Segment - Peak Hours

Mobile users click the link below to access.





Source: [McGrath Highway Resurfacing (arcgis.com)]

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Appendix F

Parking Analysis

35 McGrath TIS

Parking Generation Worksheet

HOWARD STEIN HUDSON

10-Apr-2023

Land Use	Size	Units	Rate	Unadjusted Spaces	Auto Mode	Adjusted Spaces	Auto Mode	Adjusted Spaces	Auto Mode	Adjusted Spaces
Institute of Transportation Engineers (ITE)[1]										
Community Center	0	ksf	2.07	0	25%	0	37.5%	0	50%	0
Residential	0	units	0.98	0	25%	0	37.5%	0	50%	0
Office	0	ksf	2.39	0	25%	0	37.5%	0	50%	0
R&D	145	ksf	2.58	374	25%	94	37.5%	141	50%	188
Retail	0	ksf	1.95	0	25%	0	37.5%	0	50%	0
TOTAL						**94**		**141**		**188**

[1] ITE Parking Generation, 5th Edition

103 spaces

	% auto			Capacity (103 spaces)		
	25%	37.50%	50%	25%	37.50%	50%
ITE	94	141	188	91%	137%	183%
ULI	67	100	133	65%	97%	129%
Employees (Office + R&D+Retail)	104	165	226	101%	160%	219%
ITE Trip Gen (Office + R&D+ Retail)	78	115	153	76%	112%	149%

Land Use (ksf)

145.00 R&D (LUC 760)

Land Use	Size	Units	Rate	Unadjusted Spaces	Auto Mode[3]	Adjusted Spaces	Auto Mode[3]	Adjusted Spaces	Auto Mode[3]	Adjusted Spaces
Urban Land Institute (ULI)[2]										
Residential										
resident	0	units	1.6	0	25%	0	37.5%	0	50%	0
visitor			0.15	0	25%	0	37.5%	0	50%	0
						0		0		0
Office										
employee	145	ksf	2.6	377	25%	95	37.5%	142	50%	189
visitor			0.2	29	25%	8	37.5%	11	50%	15
						103		153		204
Retail										
employee	0	ksf	0.7	0	25%	0	37.5%	0	50%	0
visitor			2.9	0	25%	0	37.5%	0	50%	0
						0		0		0
TOTAL						**103**		**153**		**204**

[2] ULI Parking Rates, 2nd Edition

65% (Office ==> R&D Conversion)

Land Use	Size	Units	Rate	Unadjusted Spaces	Auto Mode[3]	Adjusted Spaces	Auto Mode[3]	Adjusted Spaces	Auto Mode[3]	Adjusted Spaces
Urban Land Institute (ULI)[2]										
Residential										
resident	0	units	1.6	0	25%	0	37.5%	0	50%	0
visitor			0.15	0	25%	0	37.5%	0	50%	0
						0		0		0
Office										
employee	0	ksf	2.6	0	25%	0	37.5%	0	50%	0
visitor			0.2	0	25%	0	37.5%	0	50%	0
						0		0		0
R&D[3]										
employee	145	ksf	1.69	245	25%	62	37.5%	92	50%	123
visitor			0.13	19	25%	5	37.5%	8	50%	10
						67		100		133
Retail										
employee	0	ksf	0.7	0	25%	0	0.375	0	50%	0
visitor			2.9	0	25%	0	37.5%	0	50%	0
						0		0		0
TOTAL						**67**		**100**		**133**

[2] ULI Parking Rates, 2nd Edition

[3] assumesR&D is 65% occupancy of office

35 McGrath TIS

Parking Sensitivity Analysis

HOWARD STEIN HUDSON

10-Apr-2023

145,000 SF R&D SF

Industrial	0.00	ksf
Community Ctr	0.00	ksf
ACE	0.00	ksf
R&D	145.00	ksf
Retail	0.00	ksf

Parking Demand based on Estimated Employees for 145 ksf R&D

							space scenario (% capacity)				
Employees/ 1000 sf	Employees	Mode Share ID	Mode Share		Range	Median Demand	116 0.8/ksf	103 spaces	87 0.6/ksf	58 0.4/ksf	29 0.2/ksf
2.5	362.5	Existing (70%)	62% SOV // 0.08 HOV	0.62	216						
5	725			0.08	431	324	279%	315%	372%	559%	1117%
2.5	362.5	60%	52% SOV // 0.08 HOV	0.52	183						
5	725			0.08	366	275	237%	267%	316%	474%	948%
2.5	362.5	50%	42% SOV // 0.08 HOV	0.42	151						
5	725			0.08	301	226	195%	219%	260%	390%	779%
2.5	362.5	37.50%	30% SOV // 0.08 HOV	0.295	110						
5	725			0.08	219	165	142%	160%	190%	284%	569%
2.5	362.5	25%	17% SOV // 0.08 HOV	0.17	69						
5	725			0.08	138	104	**90%**	101%	120%	179%	359%

Parking Demand based on ITE Trip Generation Parking Projection for R&D (145 ksf)

				space scenario (% capacity)				
				116	103	87	58	29
Mode Share		Peak Hour Entering Trips	Demand (peak hour = 40%)	0.8/ksf	spaces	0.6/ksf	0.4/ksf	0.2/ksf
Existing (70%)	62% SOV // 0.08 HOV	86	215	185%	209%	247%	371%	741%
60%	52% SOV // 0.08 HOV	73	183	158%	178%	210%	316%	631%
50%	42% SOV // 0.08 HOV	61	153	132%	149%	176%	264%	528%
37.50%	30% SOV // 0.08 HOV	46	115	**99%**	112%	132%	198%	397%
25%	17% SOV // 0.08 HOV	31	78	**67%**	**76%**	**90%**	134%	269%

Assuemptions

ITE Trip Generation Manual, 11th Edition, LUC 760 (Research & Development Center), am peak hour average rate for 145 ksf

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Appendix G

BLTS Tables

Appendix: Bicycle Level of Traffic Stress Methodology

Bicycle Level of Traffic Stress (BLTS) is based on methodology set forth by Mekuria, Furth, and Nixon in Mineta Transportation Institute (MTI) Report 11-19. The goal of BLTS is to identify gaps in the low-stress bicycling network and prioritize improvements to allow low-stress bicycle travel throughout a city or region. BLTS uses readily available data that can be collected in the field or on a recent, high-quality aerial. BLTS acknowledges that different facilities are appropriate on different streets and that not all bicycle lanes are created equal.

BLTS analysis for the City of Somerville shall apply as required in Section 3.3.2. of the Somerville TIS standards. BLTS for any segment or intersection crossing is calculated by considering all applicable tables and applying the lowest-score (highest numerical value) to the segment/crossing in question. For example, a segment that scored LTS 1 one table and LTS 4 on another table would automatically be classified as LTS 4. BLTS results are best shown graphically, though BLTS for street crossings may be best conveyed in a table.

BLTS Along Street Segments

BLTS can be determined along a segment by comparing the size of the bike lane (or bike lane plus parking lane) to the street width, prevailing speed, and the general amount of time a bike lane tends to be blocked. High BLTS as along segments can be mitigated by reducing the number of vehicle travel lanes along the street to one lane in each direction, adding width or a buffer to the bike lane, reducing the speed along the roadway in question, or reducing the likelihood that a bike lane is blocked.

BLTS analysis for segments are as follows:

Table 1A. Criteria for Bike Lanes Alongside a Parking Lane

	LTS ≥ 1	LTS ≥ 2	LTS ≥ 3	LTS 4
Street Width (through lanes per direction)	1	(no effect)	2 or more	(no effect)
Sum of bike lane and parking lane width (incudes marked buffer and paved gutter)	15 feet or more	14 or 14.5 feet[a]	13.5 feet or less	(no effect)
Speed limit or prevailing speed	25mph or less	30 mph	35 mph	40 mph or more

Bike lane blockage	Rare	(no effect)	Frequent	(no effect)

Note: (no effect) = factor does not trigger an increase to this level of traffic stress
a: if speed limit < 25mph or street type is residential, than any width is acceptable for LTS 2.

Table 1B. Criteria for Bike Lanes Not Alongside a Parking Lane

	LTS ≥ 1	LTS ≥ 2	LTS ≥ 3	LTS 4
Street Width (through lanes per direction)	1	(no effect	2 or more	(no effect)
Bike lane width (includes marked buffer and paved gutter)	6 feet or more	5.5 feet or less	(no effect)	(no effect)
Speed limit or prevailing speed	25mph or less	30 mph	35 mph	40 mph or more
Bike lane blockage	Rare	(no effect)	Frequent	(no effect)

Note: (no effect) = factor does not trigger an increase to this level of traffic stress

Table 2. Criteria for BLTS in Mixed Traffic

Speed Limit/ Street Width	2-3 Lanes	4-5 Lanes	6+ Lanes
< 25 mph	LTS 1 or 2[a]	LTS 3	LTS 4
25-30 mph	LTS 2 or 3[a]	LTS 4	LTS 4
> 30 mph	LTS 4	LTS 4	LTS 4

a: Use lower value for streets without marked centerlines or classified as residential and with fewer than 3 travel lanes; use higher value otherwise.

BLTS along physically separated bicycle lanes is LTS 1 by default, between intersections. Physically separated facilities isolate users from typical traffic stress. This also applies to any standalone path, shared use path, etc. Sharing space with pedestrians does not increase BLTS; the added delay and level of awareness that comes with sharing a space with pedestrians or other, nonmotorized road users is different from the real safety concerns that come with riding next to or mixed with vehicle traffic. However, if a physically separated facility is interrupted by frequent commercial driveway crossings, or if the facility commonly ramps down to street level to accommodate driveways, the City or the transportation professional preparing this TIS may opt to assign a higher BLTS to a segment.

BLTS Along Intersection Approaches

BLTS can be used to analyze the level of comfort of a standard bicycle lane as it approaches an intersection. These "pocket bike lanes", which run between a thru lane and a right-turn lane, can be stressful if drivers are not forced to deliberately turn through the bike lane at a slow speed. Right turn lanes in mixed traffic can be similarly stressful. BLTS analysis for *approaches to intersections* are as follows:

Table 3A. Level of Traffic Stress Criteria for Pocket Bike Lanes Approaching Intersections

Configuration	BLTS
Single right-turn lane up to 150 feet long, starting abruptly while the bike lane continues straight, and having an intersection angle and curb radius such that turning speed is ≤ 15 mph.	LTS ≥ 2
Single right-turn lane longer than 150 feet, starting abruptly while the bike lane continues straight, and having an intersection angle and curb radius such that turning speed is ≤ 20 mph.	LTS ≥ 3
> Single right-turn lane in which the bike lane shifts to the left but the intersection and curb radius are such that turning speed is ≤ 15 mph.	LTS ≥ 3
Single right-turn lane with any other configuration; dual right-turn lanes; or right-turn lane along with shared (thru/right) lane.	LTS 4

Table 3B. Level of Traffic Stress Criteria for Mixed Traffic in the Presence of a Right-turn Lane

Configuration	BLTS
Single right-turn lane with length ≤ 75 feet and intersection angle and curb radius limit turning speed to 15 mph.	LTS ≥ 3
Single right-turn lane with length between 75 feet and 150 feet and intersection angle and curb radius limit turning speed to 15 mph.	LTS ≥ 3
All other configurations	LTS 4

BLTS through Unsignalized Street Crossings

BLTS can be used to analyze the level of comfort of unsignalized intersections. Unsignalized crossings of major roadways can be a barrier to cycling, but this can be mitigated by reducing the size of the crossing, providing a median refuge, or reducing the prevailing speed of the street being crossed.

Crossings of major driveways should be considered a street crossing for the purposes of analysis. For the purposes of this analysis, the "speed limit" of driveways should be determined by the speed at which vehicles are able to make turns into a driveway. Typically, driveway crossings will be LTS 1 unless they are wider than 3 total lanes.

BLTS analysis for unsignalized intersection crossings are as follows:

Table 4A. Level of Traffic Stress Criteria for Unsignalized Crossings Without a Median Refuge

Speed Limit of Street Being Crossed	Width of Street Being Crossed		
	2-3 Lanes	4-5 Lanes	6+ Lanes
< 25 mph	LTS 1	LTS 2	LTS 4
25-30 mph	LTS 1	LTS 2	LTS 4
30-35mph	LTS 2	LTS 3	LTS 4
40+ mph	LTS 3	LTS 4	LTS 4

Table 4B. Level of Traffic Stress Criteria for Unsignalized Crossings With a Median Refuge at Least Six Feet Wide

Speed Limit of Street Being Crossed	Width of Street Being Crossed		
	2-3 Lanes	4-5 Lanes	6+ Lanes
< 25 mph	LTS 1	LTS 1	LTS 2
25-30 mph	LTS 1	LTS 2	LTS 3
30-35mph	LTS 2	LTS 3	LTS 4
40+ mph	LTS 3	LTS 4	LTS 4

BLTS does not apply through **Signalized Street Crossings.** These crossings should be evaluated **qualitatively**. Bike boxes, two-stage left-turn boxes, phase-separated right-turn lanes, dedicated bicycle signals, etc. can all improve bicyclists' comfort at signalized intersections.

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Appendix H

PLTS Tables

Appendix: Pedestrian Level of Traffic Stress Methodology

Pedestrian Level of Traffic Stress (PLTS) is based on methodology set forth by Oregon DOT. The goal of PLTS is to identify gaps in the low-stress pedestrian network and prioritize sidewalk enhancement. PLTS, like BLTS, uses readily available data that can be measured in the field or using recent, high-quality aerial imagery. PLTS acknowledges that, while bare minimum sidewalk widths must be achieved to ensure ADA compliance, the most comfortable sidewalks are physically separated from traffic and located along dense urban fabric.

Note that Oregon DOT's methodology includes a metric for the adjacent land uses along the sidewalk. While this is a valid metric for determining walkability and comfort level while walking, including this criterion is not appropriate for development proposals to analyze in the context of a TIS, as land uses outside of the proposed development site are outside both the City's and the Applicant's ability to mitigate in the short-term. As such, this criterion is not included in this methodology.

PLTS can be analyzed for sidewalk segments and intersection crossings. Sidewalk segment analysis should be presented graphically, while intersection analysis is likely best presented in tabular format. Like BLTS, PLTS is determined by applying the lowest score (highest numerical value) to a sidewalk segment after all metrics have been analyzed; for example, a sidewalk segment with a wide traffic buffer lined with trees would be PLTS 4 if the sidewalk itself was in poor condition or was less than four feet.

PLTS along Sidewalk Segments

PLTS is determined along sidewalk segments by comparing sidewalk condition and width to the size and material of the buffer between the sidewalk and moving vehicle traffic. Wider sidewalks and wider buffers, or buffers lined with trees, parked cars, or other vertical barriers provide the highest level of comfort for pedestrians. Mitigation for poor PLTS can be provided by repairing poor sidewalks, widening sidewalks, and/or providing a wider buffer with vertical barriers between the sidewalk and travel lanes. Note that, in order to achieve the highest level of comfort, the *effective* width of the sidewalk (the consistent usable width of the sidewalk, free of obstructions) must be at least six (6) feet.

Note that there is no PLTS metric for sidewalks that share a space with bicyclists, or sidewalks located alongside sidewalk-level bicycle lanes. Sidewalk segments that are PLTS 1 after applying all metrics may be adjusted to PLTS 2 if pedestrians on the sidewalk can expect to conflict with a significant number of bicyclists, such that the effective width available for pedestrians is less than 6 feet.

Table 1: Level of Stress Criteria Based on Sidewalk Width and Condition

Actual/Effective Sidewalk Width (ft)		Sidewalk Condition				
		Good	Fair	Poor	Very Poor	No Sidewalk
Actual	<4	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4
	≥4 to <5	PLTS 3	PLTS 3	PLTS 3		
	≥5	PLTS 2	PLTS 2	PLTS 2	PLTS 2	
Effective	≥6	PTLS 1	PLTS 1		PLTS 3	

Table 1B: Level of Stress Criteria Based on Buffer Type

Physical Buffer Type					
Buffer Type	**Prevailing or Posted Speed**				
	≤20 MPH	**25 MPH**	**30 MPH**	**35 MPH**	**≥40 MPH**
No buffer (curb tight)	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 4
Solid surface (e.g. bike lanes)	PLTS 1		PLTS 2	PLTS 2	PLTS 2
Landscaped		PLTS 1			
Landscaped with trees			PLTS 1	PLTS 1	
Vertical (e.g. parking)					

Table 1C: Level of Stress Criteria Based on Buffer Width

Total Number of Travel Lanes (both directions)	**Total Buffering Width (ft)**				
	≤5	**≥5 to <10**	**≥10 to <15**	**≥15 to <25**	**≥25**
2	PLTS 2	PLTS 2	PLTS 1	PLTS 1	PLTS 1
3	PLTS 3		PLTS 2		
4-5	PLTS 4	PLTS 3			
6+		PLTS 4	PLTS 3	PLTS 2	PLTS 2

PLTS at Unsignalized Crossings

At unsignalized crossings, pedestrians must judge the speed of vehicle traffic, often in multiple lanes and directions. Depending on the prevailing speed and traffic volume of a street crossing, this can be daunting. Median refuges help by reducing the number of lanes that a pedestrian must cross, but also allowing pedestrians to only judge the speed of one direction of traffic at a time. High levels of traffic stress can be mitigated by providing a median refuge, reducing the number of travel lanes to be crossed, and/or reducing the speed and/or volume of traffic.

Level of Stress Criteria Based on Curb Ramps: Crossing locations without ramps shall be PLTS 4. Crossing locations with substandard ramps, including ramps that are too steep, do not provide proper level landing areas, do not provide tactile warning panels, etc. shall be ranked no better than LTS 3.

Pedestrian Crossing Enhancements: This analysis does not account for pedestrian crossing enhancements, such as curb extensions, raised crosswalks, or activated beacons. Crossings one or more of treatments may improve the PLTS score that would otherwise be assigned to a given crossing by 1 point (0.5 points for curb extensions), up to a best possible score of PLTS 1. Multiple treatments do not provide a cumulative improvement to PLTS. For example, a crossing with a PLTS of 4 would improve to PLTS 3.5 if curb extensions were installed, and would improve to PLTS 3 if a ped activated beacon was installed. The application of such adjustments to PLTS is subject to the approval of the Director of Mobility. Engineering judgement should be exercised when applying these adjustments.

Table 2A: Level of Traffic Stress at Unsignalized Intersection Crossings of One or Two Lanes[1, 2, 3, 4]

Speed Limit or Prevailing Speed	Width of Street Being Crossed		
	No median refuge		Median Refuge Present
	Total Lanes Crossed		
	1 Lane	2 Lanes	
< 25 mph	LTS 1	LTS 1	LTS 1
25-30 mph	LTS 1	LTS 2	LTS 1
30-35mph	LTS 2	LTS 2	LTS 2
40+ mph	LTS 3	LTS 3	LTS 3

1. For street being crossed.
2. Minimum PLTS 4 when crossing lacks ADA ramps, or PLTS 3 when ramps are non-compliant
3. Use Table 2C or Table 2D for oneway streets, when ADT exceeds 5,000, or total number of lanes exceeds two.
4. Street may be considered a one-lane road when no centerline is striped and when oncoming vehicles commonly yield to each other (yield streets).
5. Refuge should be at least 10 feet for PLTS 1, otherwise use PLTS 2 for refuges 6-10 feet. Narrower refuge islands shall not be considered a refuge island for the purposes of this analysis.

Table 2B: Unsignalized Intersection Crossings Without a Median Refuge[1, 2]

Speed Limit or Prevailing Speed	Total Lanes Being Crossed (both directions)					
	2 Lanes			3 Lanes		
	<5,000 vpd	5,000-9,000 vpd[4]	>9,000 vpd	<8,000 vpd	8,000-12,000 vpd[4]	>12,000 vpd
< 25 mph	PLTS 2	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 4
25-30 mph	PLTS 2	PLTS 3	PLTS 3	PLTS 3	PLTS 3	PLTS 4
30-35mph	PLTS 3	PLTS 3	PLTS 4	PLTS 3	PLTS 4	PLTS 4
40+ mph	PLTS 3	PLTS 4	PLTS 4	PLTS 4	PLTS 4	PLTS 4

1. For street being crossed.
2. Minimum PLTS 4 when crossing lacks ADA ramps, or PLTS 3 when ramps are non-compliant
3. For one-way streets, use Table 2D. Use PLTS 4 for crossings of four or more lanes.
4. Use these columns when ADT volumes are not available and unable to be confidently estimated.

Table 2C: Unsignalized Intersection Crossings (1 to 2 lanes) With a Median Refuge[1, 2]

Speed Limit or Prevailing Speed	Maximum Through/Turn Lanes Crossed Per Direction			
	1 Lane	2 Lanes		
	Any	< 5,000 vpd	5,000-9,000 vpd[4]	> 9,000 vpd
< 25 mph	PLTS 1[3]	PLTS 1[3]	PLTS 2	PLTS 2
25-30 mph	PLTS 2	PLTS 2	PLTS 2	PLTS 2
30-35mph	PLTS 2	PLTS 2	PLTS 2	PLTS 3
40+ mph	PLTS 3	PLTS 3	PLTS 3	PLTS 4

1. For street being crossed.
2. Minimum PLTS 4 when crossing lacks ADA ramps, or PLTS 3 when ramps are non-compliant
3. Refuge should be at least 10 feet for PLTS 1, otherwise use PLTS 2 for refuges 6-10 feet. Narrower refuge islands shall not be considered a refuge island for the purposes of this analysis.
4. Use this column when ADT volumes are not available and unable to be confidently estimated.

Table 2D: Unsignalized Intersection Crossings (3 or more lanes) With a Median Refuge[1, 2]

Speed Limit or Prevailing Speed	Maximum Through/Turn Lanes Crossed Per Direction			
	1 Lane			4+ lanes
	< 8,000 VPD	8,000-12,000 vpd	> 12,000 vpd	Any
< 25 mph	PLTS 1[3]	PLTS 2	PLTS 3	PLTS 4
25-30 mph	PLTS 2	PLTS 3	PLTS 3	PLTS 3
30-35mph	PLTS 3	PLTS 3	PLTS 4	PLTS 4
40+ mph	PLTS 4	PLTS 4	PLTS 4	PLTS 4

5. For street being crossed.
6. Minimum PLTS 4 when crossing lacks ADA ramps, or PLTS 3 when ramps are non-compliant
7. Refuge should be at least 10 feet for PLTS 1, otherwise use PLTS 2 for refuges 6-10 feet. Narrower refuge islands shall not be considered a refuge island for the purposes of this analysis.
8. Use this column when ADT volumes are not available and unable to be confidently estimated.

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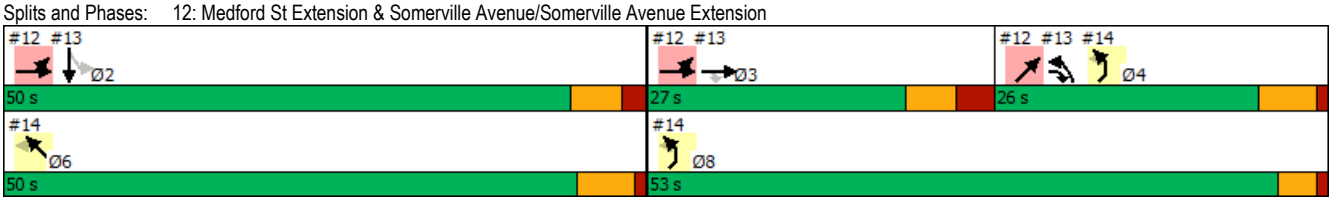
Appendix I

Synchro Analysis Reports

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	217	169				
Future Volume (vph)	217	169				
Lane Group Flow (vph)	317	199				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	22.5
Total Split (s)		26.0	50.0	27.0	50.0	53.0
Total Split (%)		25.2%	49%	26%	49%	51%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.30	0.28				
Control Delay	2.2	26.4				
Queue Delay	0.3	0.0				
Total Delay	2.6	26.4				
Queue Length 50th (ft)	15	36				
Queue Length 95th (ft)	13	83				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1294	990				
Starvation Cap Reductn	505	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.40	0.20				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 71.6
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	65	217	0	0	0	0	0	169	10	0	0	0
Future Volume (vph)	65	217	0	0	0	0	0	169	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1724						3218				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1724						3218				
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	73	244	0	0	0	0	0	188	11	0	0	0
RTOR Reduction (vph)	0	14	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	303	0	0	0	0	0	195	0	0	0	0
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	11%	0%	2%	2%	2%	0%	10%	30%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		42.0						16.4				
Effective Green, g (s)		42.0						16.4				
Actuated g/C Ratio		0.59						0.23				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1021						744				
v/s Ratio Prot		c0.18						c0.06				
v/s Ratio Perm												
v/c Ratio		0.30						0.26				
Uniform Delay, d1		7.1						22.3				
Progression Factor		0.25						1.00				
Incremental Delay, d2		0.1						0.1				
Delay (s)		1.9						22.4				
Level of Service		A						C				
Approach Delay (s)		1.9			0.0			22.4			0.0	
Approach LOS		A			A			C			A	

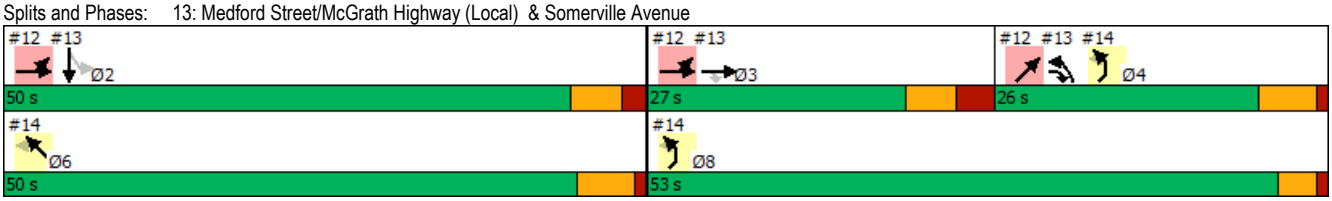
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	70.9	Sum of lost time (s)	18.5
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	151	60	39	131	583		
Future Volume (vph)	151	60	39	131	583		
Lane Group Flow (vph)	178	71	52	142	730		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	22.5
Total Split (s)	27.0	26.0	26.0	50.0	50.0	50.0	53.0
Total Split (%)	26.2%	25.2%	25.2%	48.5%	48.5%	49%	51%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.55	0.11	0.13	0.25	0.67		
Control Delay	36.0	3.6	27.5	8.7	24.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	36.0	3.6	27.5	8.7	24.4		
Queue Length 50th (ft)	78	0	18	13	146		
Queue Length 95th (ft)	149	19	47	54	233		
Internal Link Dist (ft)	645				688		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	541	780	537	1067	2194		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.33	0.09	0.10	0.13	0.33		

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 71.6
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





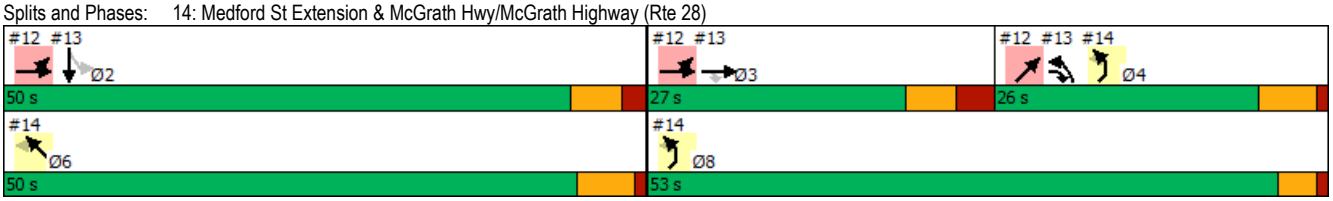
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	151	60	0	0	0	39	0	0	131	583	88
Future Volume (vph)	0	151	60	0	0	0	39	0	0	131	583	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.97				1.00			1.00	0.99	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.98	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1810	1466				1752			1570	3330	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1810	1466				1752			1570	3330	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	0	178	71	0	0	0	52	0	0	142	634	96
RTOR Reduction (vph)	0	0	42	0	0	0	0	0	0	68	13	0
Lane Group Flow (vph)	0	178	29	0	0	0	52	0	0	74	717	0
Confl. Peds. (#/hr)			10				33					33
Confl. Bikes (#/hr)			32									35
Heavy Vehicles (%)	0%	5%	7%	0%	0%	0%	3%	0%	0%	15%	4%	10%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		12.9	29.3				16.4			23.1	23.1	
Effective Green, g (s)		12.9	29.3				16.4			23.1	23.1	
Actuated g/C Ratio		0.18	0.41				0.23			0.33	0.33	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		329	605				405			511	1084	
v/s Ratio Prot		c0.10	0.01				c0.03				c0.22	
v/s Ratio Perm			0.01							0.05		
v/c Ratio		0.54	0.05				0.13			0.14	0.66	
Uniform Delay, d1		26.3	12.5				21.6			16.9	20.5	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		1.0	0.0				0.1			0.0	1.2	
Delay (s)		27.3	12.5				21.6			17.0	21.7	
Level of Service		C	B				C			B	C	
Approach Delay (s)		23.1			0.0			21.6			20.9	
Approach LOS		C			A			C			C	

Intersection Summary				
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.46			
Actuated Cycle Length (s)	70.9	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	47.7%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	275	149	157	77				
Future Volume (vph)	275	149	157	77				
Lane Group Flow (vph)	316	171	130	130				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	22.5
Total Split (s)	50.0	50.0			50.0	27.0	26.0	53.0
Total Split (%)	48.5%	48.5%			49%	26%	25%	51%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.29	0.32	0.15	0.17				
Control Delay	19.4	21.3	0.4	2.0				
Queue Delay	0.0	0.0	0.2	0.2				
Total Delay	19.4	21.3	0.6	2.3				
Queue Length 50th (ft)	54	58	1	0				
Queue Length 95th (ft)	92	114	1	2				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	2219	1071	1174	1073				
Starvation Cap Reductn	0	0	595	534				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.14	0.16	0.22	0.24				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 71.6
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	275	149	157	77	0
Future Volume (vph)	0	0	0	0	275	149	157	77	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	1.00	1.00	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3335	1610	1601	1499	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3335	1610	1601	1499	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	316	171	174	86	0
RTOR Reduction (vph)	0	0	0	0	0	0	61	15	0
Lane Group Flow (vph)	0	0	0	0	316	171	69	115	0
Confl. Peds. (#/hr)							1		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	18%	7%	18%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					23.6	23.6	37.8	37.8	
Effective Green, g (s)					23.6	23.6	37.8	37.8	
Actuated g/C Ratio					0.33	0.33	0.53	0.53	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					1110	535	853	799	
v/s Ratio Prot						c0.11			
v/s Ratio Perm					0.09		0.04	0.08	
v/c Ratio					0.28	0.32	0.08	0.14	
Uniform Delay, d1					17.4	17.7	8.1	8.4	
Progression Factor					1.00	1.00	0.03	0.18	
Incremental Delay, d2					0.1	0.1	0.0	0.0	
Delay (s)					17.5	17.8	0.3	1.6	
Level of Service					B	B	A	A	
Approach Delay (s)	0.0		0.0			17.6		0.9	
Approach LOS	A		A			B		A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	70.9	Sum of lost time (s)	18.5
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	87	0	66	89	341	1368	249		
Future Volume (vph)	87	0	66	89	341	1368	249		
Lane Group Flow (vph)	0	102	78	137	371	1440	262		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1	1		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	22.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		0.72	0.30	0.75	0.11	0.45	0.23		
Control Delay		83.7	4.8	81.9	7.2	13.8	2.0		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		83.7	4.8	81.9	7.2	13.8	2.0		
Queue Length 50th (ft)		88	0	117	21	232	0		
Queue Length 95th (ft)		136	8	#193	68	307	37		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		217	337	209	3458	3193	1117		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		0.47	0.23	0.66	0.11	0.45	0.23		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	87	0	66	0	0	0	37	89	341	0	0	1368	249
Future Volume (vph)	87	0	66	0	0	0	37	89	341	0	0	1368	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.97					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.97	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1611	1403					1581	4600			4988	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1284	1403					1581	4600			4988	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	102	0	78	0	0	0	40	97	371	0	0	1440	262
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	0	0	0	0	94
Lane Group Flow (vph)	0	102	9	0	0	0	0	137	371	0	0	1440	168
Confl. Peds. (#/hr)	10		2	2		10		11		15	15		11
Confl. Bikes (#/hr)			5			1							
Heavy Vehicles (%)	9%	0%	12%	2%	2%	2%	3%	8%	9%	0%	0%	4%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		15.1	15.1					15.8	96.5			87.1	87.1
Effective Green, g (s)		15.1	15.1					15.8	96.5			87.1	87.1
Actuated g/C Ratio		0.11	0.11					0.12	0.71			0.64	0.64
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		142	155					183	3263			3194	1024
v/s Ratio Prot								c0.09	0.08			c0.29	0.10
v/s Ratio Perm		c0.08	0.01										
v/c Ratio		0.72	0.06					0.75	0.11			0.45	0.16
Uniform Delay, d1		58.4	54.1					58.2	6.2			12.4	9.8
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		13.4	0.1					15.4	0.0			0.1	0.1
Delay (s)		71.8	54.1					73.5	6.3			12.5	9.9
Level of Service		E	D					E	A			B	A
Approach Delay (s)		64.2			0.0				24.4			12.1	
Approach LOS		E			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	387	41	0	37
Future Vol, veh/h	0	0	387	41	0	37
Conflicting Peds, #/hr	0	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	88	88	71	71
Heavy Vehicles, %	2	2	8	14	0	19
Mvmt Flow	0	0	440	47	0	52

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	221
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.48
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	4.09
Pot Cap-1 Maneuver	-	0	0	629
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	629
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	11.2
HCM LOS		B

Minor Lane/Major Mvmt	NWTSWLn1
Capacity (veh/h)	- 629
HCM Lane V/C Ratio	- 0.083
HCM Control Delay (s)	- 11.2
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	20	0	0	44	50	32	194	0	0	0	0
Future Vol, veh/h	2	20	0	0	44	50	32	194	0	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	84	84	84	88	88	88	92	92	92
Heavy Vehicles, %	0	20	2	2	18	6	2	13	2	2	2	2
Mvmt Flow	3	25	0	0	52	60	36	220	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	350	302	-	-	302	230	1	0	0
Stage 1	1	1	-	-	301	-	-	-	-
Stage 2	349	301	-	-	1	-	-	-	-
Critical Hdwy	7.1	6.7	-	-	6.68	6.26	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	5.68	-	-	-	-
Critical Hdwy Stg 2	6.1	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.18	-	-	4.162	3.354	2.218	-	-
Pot Cap-1 Maneuver	608	582	0	0	585	799	1622	-	-
Stage 1	-	-	0	0	637	-	-	-	-
Stage 2	671	634	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	512	562	-	-	565	792	1620	-	-
Mov Cap-2 Maneuver	512	562	-	-	565	-	-	-	-
Stage 1	-	-	-	-	615	-	-	-	-
Stage 2	554	612	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.8	11.5	1
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	1620	-	-	557	667
HCM Lane V/C Ratio	0.022	-	-	0.05	0.168
HCM Control Delay (s)	7.3	0	-	11.8	11.5
HCM Lane LOS	A	A	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.6

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	427	1	4	1616
Future Vol, veh/h	1	1	427	1	4	1616
Conflicting Peds, #/hr	0	0	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	91	91	95	95
Heavy Vehicles, %	0	0	9	1	0	4
Mvmt Flow	2	2	469	1	4	1701

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1168	245	0	0	480	0
Stage 1	480	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	259	648	-	-	699	-
Stage 1	501	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	229	642	-	-	692	-
Mov Cap-2 Maneuver	229	-	-	-	-	-
Stage 1	496	-	-	-	-	-
Stage 2	379	-	-	-	-	-

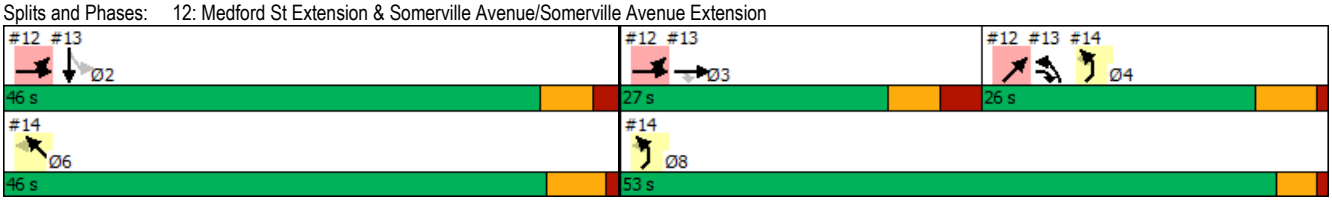
Approach	WB	NB	SB
HCM Control Delay, s	15.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	338	692	-
HCM Lane V/C Ratio	-	-	0.012	0.006	-
HCM Control Delay (s)	-	-	15.8	10.2	0.4
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	222	402				
Future Volume (vph)	222	402				
Lane Group Flow (vph)	387	462				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.33	0.65				
Control Delay	2.8	38.0				
Queue Delay	0.9	0.0				
Total Delay	3.7	38.0				
Queue Length 50th (ft)	20	138				
Queue Length 95th (ft)	28	191				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1264	877				
Starvation Cap Reductn	592	0				
Spillback Cap Reductn	56	8				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.58	0.53				

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 86.5
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	119	222	0	0	0	0	0	402	9	0	0	0
Future Volume (vph)	119	222	0	0	0	0	0	402	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						1.00				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		1763						3550				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		1763						3550				
Peak-hour factor, PHF	0.88	0.88	0.88	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	135	252	0	0	0	0	0	452	10	0	0	0
RTOR Reduction (vph)	0	21	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	366	0	0	0	0	0	460	0	0	0	0
Confl. Peds. (#/hr)	2											
Confl. Bikes (#/hr)									24			
Heavy Vehicles (%)	2%	8%	0%	2%	2%	2%	0%	1%	11%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		56.0						17.6				
Effective Green, g (s)		56.0						17.6				
Actuated g/C Ratio		0.65						0.20				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1146						725				
v/s Ratio Prot		c0.21						c0.13				
v/s Ratio Perm												
v/c Ratio		0.32						0.64				
Uniform Delay, d1		6.6						31.3				
Progression Factor		0.40						1.00				
Incremental Delay, d2		0.1						1.3				
Delay (s)		2.7						32.7				
Level of Service		A						C				
Approach Delay (s)		2.7			0.0			32.7			0.0	
Approach LOS		A			A			C			A	

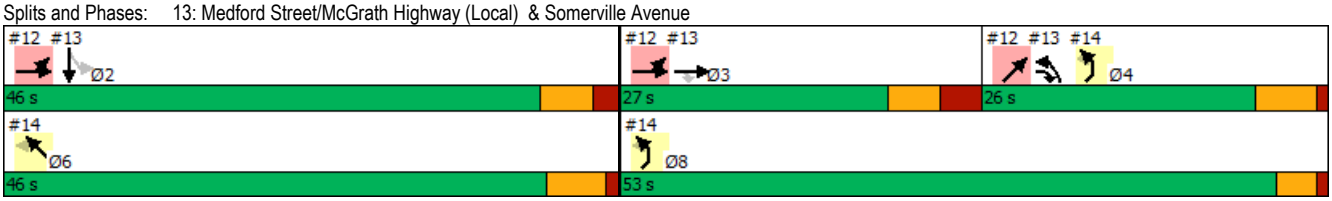
Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	86.1	Sum of lost time (s)	18.5
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	217	46	36	124	278		
Future Volume (vph)	217	46	36	124	278		
Lane Group Flow (vph)	241	51	52	139	431		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.72	0.08	0.14	0.19	0.33		
Control Delay	47.6	4.5	32.7	4.1	16.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	47.6	4.5	32.7	4.1	16.6		
Queue Length 50th (ft)	139	0	27	0	79		
Queue Length 95th (ft)	224	19	46	35	115		
Internal Link Dist (ft)	645				688		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	440	709	445	869	1607		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	2	0	0	8	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.55	0.07	0.12	0.16	0.27		

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 86.5
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	217	46	0	0	0	36	0	0	124	278	106
Future Volume (vph)	0	217	46	0	0	0	36	0	0	124	278	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.98				1.00			1.00	0.97	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.96	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1827	1516				1805			1656	3277	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1827	1516				1805			1656	3277	
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.69	0.69	0.69	0.89	0.89	0.89
Adj. Flow (vph)	0	241	51	0	0	0	52	0	0	139	312	119
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	84	41	0
Lane Group Flow (vph)	0	241	20	0	0	0	52	0	0	55	390	0
Confl. Peds. (#/hr)			12				51					51
Confl. Bikes (#/hr)			5									5
Heavy Vehicles (%)	0%	4%	4%	0%	0%	0%	0%	0%	0%	9%	2%	3%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		16.0	33.6				17.6			34.0	34.0	
Effective Green, g (s)		16.0	33.6				17.6			34.0	34.0	
Actuated g/C Ratio		0.19	0.39				0.20			0.39	0.39	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		339	591				368			653	1294	
v/s Ratio Prot		c0.13	0.01				c0.03				c0.12	
v/s Ratio Perm			0.01							0.03		
v/c Ratio		0.71	0.03				0.14			0.08	0.30	
Uniform Delay, d1		32.9	16.2				28.1			16.3	17.9	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		5.8	0.0				0.1			0.0	0.0	
Delay (s)		38.6	16.2				28.1			16.3	17.9	
Level of Service		D	B				C			B	B	
Approach Delay (s)		34.7			0.0			28.1			17.5	
Approach LOS		C			A			C			B	

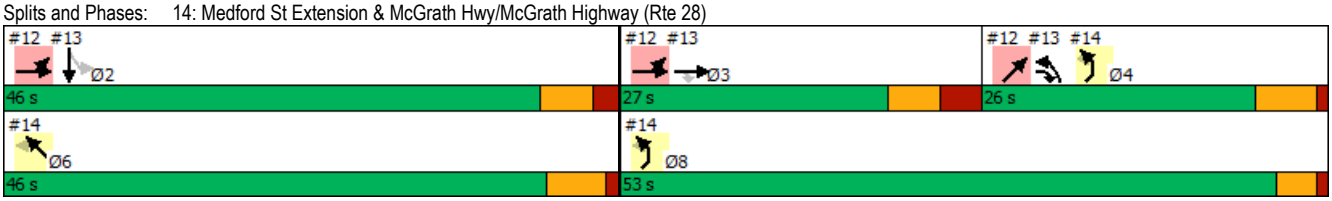
Intersection Summary				
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.36			
Actuated Cycle Length (s)	86.1	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	49.2%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	1006	268	403	118				
Future Volume (vph)	1006	268	403	118				
Lane Group Flow (vph)	1130	301	308	305				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.82	0.43	0.38	0.38				
Control Delay	29.6	22.0	4.4	4.4				
Queue Delay	0.0	0.0	0.9	0.9				
Total Delay	29.6	22.0	5.3	5.3				
Queue Length 50th (ft)	314	132	9	9				
Queue Length 95th (ft)	391	201	23	23				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	1690	865	976	968				
Starvation Cap Reductn	0	0	420	415				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.67	0.35	0.55	0.55				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 86.5
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	1006	268	403	118	0
Future Volume (vph)	0	0	0	0	1006	268	403	118	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	0.99	0.99	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3467	1776	1685	1670	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3467	1776	1685	1670	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	0	1130	301	474	139	0
RTOR Reduction (vph)	0	0	0	0	0	0	17	17	0
Lane Group Flow (vph)	0	0	0	0	1130	301	291	288	0
Confl. Peds. (#/hr)							6		
Heavy Vehicles (%)	2%	2%	2%	2%	1%	7%	1%	3%	2%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					34.5	34.5	42.1	42.1	
Effective Green, g (s)					34.5	34.5	42.1	42.1	
Actuated g/C Ratio					0.40	0.40	0.49	0.49	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					1389	711	823	816	
v/s Ratio Prot						0.17			
v/s Ratio Perm					c0.33		c0.17	0.17	
v/c Ratio					0.81	0.42	0.35	0.35	
Uniform Delay, d1					22.9	18.6	13.6	13.6	
Progression Factor					1.00	1.00	0.22	0.22	
Incremental Delay, d2					3.6	0.1	0.1	0.1	
Delay (s)					26.5	18.8	3.1	3.1	
Level of Service					C	B	A	A	
Approach Delay (s)	0.0		0.0			24.9		3.1	
Approach LOS	A		A			C		A	

Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	86.1	Sum of lost time (s)	18.5
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	269	0	113	101	1040	899	189		
Future Volume (vph)	269	0	113	101	1040	899	189		
Lane Group Flow (vph)	0	309	130	149	1156	967	203		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1 5	1 5		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	24.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		1.34	0.35	0.70	0.44	0.34	0.21		
Control Delay		220.9	10.5	74.6	19.3	16.2	2.2		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		220.9	10.5	74.6	19.3	16.2	2.2		
Queue Length 50th (ft)		~358	0	127	216	161	0		
Queue Length 95th (ft)		#521	52	#216	253	191	35		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		231	376	218	2637	2821	967		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		1.34	0.35	0.68	0.44	0.34	0.21		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 80 (59%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	269	0	113	0	0	0	33	101	1040	0	0	899	189
Future Volume (vph)	269	0	113	0	0	0	33	101	1040	0	0	899	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.95	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1690	1562					1648	4821			5036	1568
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1347	1562					1648	4821			5036	1568
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	309	0	130	0	0	0	37	112	1156	0	0	967	203
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	0	0	0	0	88
Lane Group Flow (vph)	0	309	22	0	0	0	0	149	1156	0	0	967	115
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	6%	1%	4%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		23.4	23.4					17.6	74.0			77.0	77.0
Effective Green, g (s)		23.4	23.4					17.6	74.0			77.0	77.0
Actuated g/C Ratio		0.17	0.17					0.13	0.54			0.57	0.57
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		231	268					213	2623			2851	887
v/s Ratio Prot								c0.09	c0.24			c0.19	0.07
v/s Ratio Perm		c0.23	0.01										
v/c Ratio		1.34	0.08					0.70	0.44			0.34	0.13
Uniform Delay, d1		56.3	47.3					56.7	18.6			15.8	13.8
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		178.3	0.0					9.6	0.1			0.1	0.1
Delay (s)		234.6	47.3					66.3	18.7			15.9	13.9
Level of Service		F	D					E	B			B	B
Approach Delay (s)		179.1			0.0				24.1			15.6	
Approach LOS		F			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	44.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	1205	103	0	69
Future Vol, veh/h	0	0	1205	103	0	69
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	90	90	78	78
Heavy Vehicles, %	2	2	2	5	0	3
Mvmt Flow	0	0	1339	114	0	88

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	670
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.16
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.93
Pot Cap-1 Maneuver	-	0	0	341
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	341
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	19.2
HCM LOS		C

Minor Lane/Major Mvmt	NWT	SWLn1
Capacity (veh/h)	-	341
HCM Lane V/C Ratio	-	0.259
HCM Control Delay (s)	-	19.2
HCM Lane LOS	-	C
HCM 95th %tile Q(veh)	-	1

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	9	0	0	52	136	45	340	1	0	0	0
Future Vol, veh/h	6	9	0	0	52	136	45	340	1	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	54	54	73	73	73	86	86	86	92	92	92
Heavy Vehicles, %	17	33	0	2	4	1	9	5	2	2	2	2
Mvmt Flow	11	17	0	0	71	186	52	395	1	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	629	509	-	-	509	406	0	0	0
Stage 1	0	0	-	-	509	-	-	-	-
Stage 2	629	509	-	-	0	-	-	-	-
Critical Hdwy	7.27	6.83	-	-	6.54	6.21	4.19	-	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	6.27	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.653	4.297	-	-	4.036	3.309	2.281	-	-
Pot Cap-1 Maneuver	374	426	0	0	464	647	-	-	-
Stage 1	-	-	0	0	535	-	-	-	-
Stage 2	446	490	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	234	422	-	-	460	641	-	-	-
Mov Cap-2 Maneuver	234	422	-	-	460	-	-	-	-
Stage 1	-	-	-	-	530	-	-	-	-
Stage 2	274	486	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	17.4	16.1	
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	319	578
HCM Lane V/C Ratio	-	-	-	0.087	0.446
HCM Control Delay (s)	-	-	-	17.4	16.1
HCM Lane LOS	-	-	-	C	C
HCM 95th %tile Q(veh)	-	-	-	0.3	2.3

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	1308	1	0	1087
Future Vol, veh/h	1	0	1308	1	0	1087
Conflicting Peds, #/hr	0	0	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	25	25	94	94	93	93
Heavy Vehicles, %	0	0	3	100	0	3
Mvmt Flow	4	0	1391	1	0	1169

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1872	708	0	0	1404	0
Stage 1	1404	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	112	327	-	-	253	-
Stage 1	138	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	111	323	-	-	250	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	136	-	-	-	-	-
Stage 2	550	-	-	-	-	-

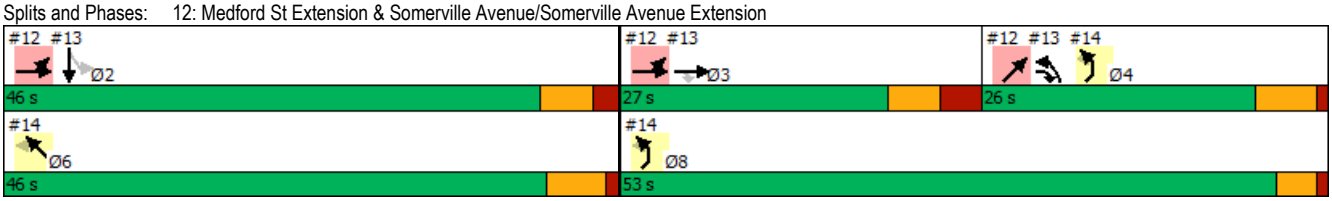
Approach	WB	NB	SB
HCM Control Delay, s	38.6	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	111	250	-
HCM Lane V/C Ratio	-	-	0.036	-	-
HCM Control Delay (s)	-	-	38.6	0	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	232	181				
Future Volume (vph)	232	181				
Lane Group Flow (vph)	291	257				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.27	0.36				
Control Delay	2.0	22.7				
Queue Delay	0.2	0.0				
Total Delay	2.2	22.7				
Queue Length 50th (ft)	11	34				
Queue Length 95th (ft)	14	78				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1397	1242				
Starvation Cap Reductn	546	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.34	0.21				

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



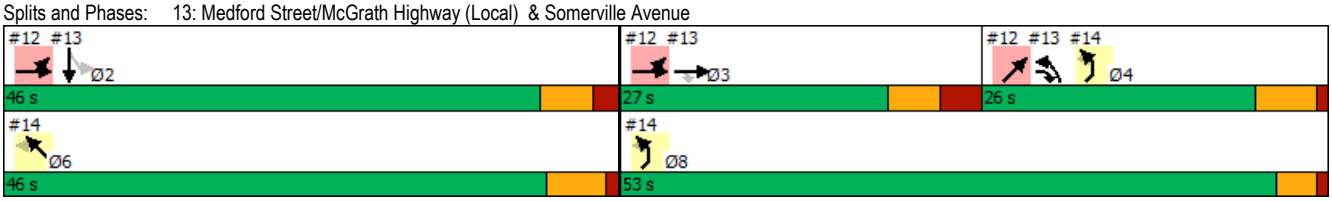
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	41	232	0	0	0	0	0	181	35	0	0	0
Future Volume (vph)	41	232	0	0	0	0	0	181	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1824						3401				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1824						3401				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	44	247	0	0	0	0	0	215	42	0	0	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	279	0	0	0	0	0	241	0	0	0	0
Confl. Peds. (#/hr)	5								1			
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	4%	0%	2%	2%	2%	0%	2%	9%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		34.3						12.8				
Effective Green, g (s)		34.3						12.8				
Actuated g/C Ratio		0.58						0.21				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1049						730				
v/s Ratio Prot		c0.15						c0.07				
v/s Ratio Perm												
v/c Ratio		0.27						0.33				
Uniform Delay, d1		6.3						19.8				
Progression Factor		0.27						1.00				
Incremental Delay, d2		0.0						0.1				
Delay (s)		1.8						19.9				
Level of Service		A						B				
Approach Delay (s)		1.8			0.0			19.9			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	SBL	SBT	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	173	38	100	324		
Future Volume (vph)	173	38	100	324		
Lane Group Flow (vph)	194	43	110	411		
Turn Type	NA	pm+ov	Perm	NA		
Protected Phases	3	4		2	6	8
Permitted Phases		3	2			
Detector Phase	3	4	2	2		
Switch Phase						
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	6.0	6.0		
Lead/Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	None	None	Min	Min	Min	None
v/c Ratio	0.50	0.06	0.21	0.46		
Control Delay	27.4	3.2	6.0	20.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	27.4	3.2	6.0	20.2		
Queue Length 50th (ft)	54	0	0	54		
Queue Length 95th (ft)	144	12	36	125		
Internal Link Dist (ft)	645			688		
Turn Bay Length (ft)		100	70			
Base Capacity (vph)	651	938	1222	2389		
Starvation Cap Reductn	0	0	0	0		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.30	0.05	0.09	0.17		

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	173	38	0	0	0	0	0	0	100	324	50
Future Volume (vph)	0	173	38	0	0	0	0	0	0	100	324	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5							6.0	6.0	
Lane Util. Factor		1.00	1.00							1.00	0.95	
Frpb, ped/bikes		1.00	0.98							1.00	0.99	
Flpb, ped/bikes		1.00	1.00							1.00	1.00	
Frt		1.00	0.85							1.00	0.98	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1845	1543							1687	3387	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1845	1543							1687	3387	
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.69	0.69	0.69	0.91	0.91	0.91
Adj. Flow (vph)	0	194	43	0	0	0	0	0	0	110	356	55
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	81	15	0
Lane Group Flow (vph)	0	194	18	0	0	0	0	0	0	29	396	0
Confl. Peds. (#/hr)	4		8	8		4			33			33
Confl. Bikes (#/hr)			1									11
Heavy Vehicles (%)	0%	3%	3%	0%	0%	0%	0%	0%	0%	7%	3%	6%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		12.6	25.4							15.7	15.7	
Effective Green, g (s)		12.6	25.4							15.7	15.7	
Actuated g/C Ratio		0.21	0.43							0.26	0.26	
Clearance Time (s)		7.0	5.5							6.0	6.0	
Vehicle Extension (s)		2.0	2.0							2.0	2.0	
Lane Grp Cap (vph)		390	657							444	892	
v/s Ratio Prot		c0.11	c0.01								c0.12	
v/s Ratio Perm			0.01							0.02		
v/c Ratio		0.50	0.03							0.07	0.44	
Uniform Delay, d1		20.7	9.9							16.5	18.3	
Progression Factor		1.00	1.00							1.00	1.00	
Incremental Delay, d2		0.4	0.0							0.0	0.1	
Delay (s)		21.1	9.9							16.5	18.4	
Level of Service		C	A							B	B	
Approach Delay (s)		19.1			0.0			0.0			18.0	
Approach LOS		B			A			A			B	

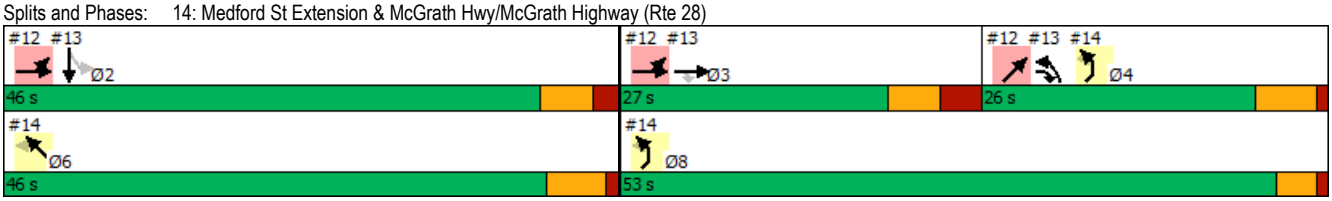
Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	444	181	158	64				
Future Volume (vph)	444	181	158	64				
Lane Group Flow (vph)	463	189	132	132				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.50	0.37	0.14	0.14				
Control Delay	21.4	21.4	0.3	0.6				
Queue Delay	0.0	0.0	0.1	0.1				
Total Delay	21.4	21.4	0.4	0.7				
Queue Length 50th (ft)	63	48	0	1				
Queue Length 95th (ft)	142	131	1	0				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	2452	1357	1422	1416				
Starvation Cap Reductn	0	0	692	675				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.19	0.14	0.18	0.18				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	444	181	158	64	0
Future Volume (vph)	0	0	0	0	444	181	158	64	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3433	1900	1698	1708	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3433	1900	1698	1708	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	0	462	189	188	76	0
RTOR Reduction (vph)	0	0	0	0	0	0	57	22	0
Lane Group Flow (vph)	0	0	0	0	463	189	75	110	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	1%	0%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					16.2	16.2	33.9	33.9	
Effective Green, g (s)					16.2	16.2	33.9	33.9	
Actuated g/C Ratio					0.27	0.27	0.57	0.57	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					933	516	965	971	
v/s Ratio Prot						0.10			
v/s Ratio Perm					c0.13		0.04	0.06	
v/c Ratio					0.50	0.37	0.08	0.11	
Uniform Delay, d1					18.3	17.5	5.8	5.9	
Progression Factor					1.00	1.00	0.00	0.05	
Incremental Delay, d2					0.2	0.2	0.0	0.0	
Delay (s)					18.4	17.7	0.0	0.3	
Level of Service					B	B	A	A	
Approach Delay (s)	0.0		0.0			18.2		0.2	
Approach LOS	A		A			B		A	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	128	0	110	115	496	796	173		
Future Volume (vph)	128	0	110	115	496	796	173		
Lane Group Flow (vph)	0	149	128	177	517	829	180		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1 5	1 5		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	24.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		0.81	0.40	0.84	0.18	0.27	0.17		
Control Delay		88.2	11.8	89.8	13.8	13.5	2.2		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		88.2	11.8	89.8	13.8	13.5	2.2		
Queue Length 50th (ft)		129	0	154	77	124	0		
Queue Length 95th (ft)		192	50	#276	104	161	33		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		229	370	221	2882	3029	1033		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		0.65	0.35	0.80	0.18	0.27	0.17		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 80 (59%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	128	0	110	0	0	0	55	115	496	0	0	796	173
Future Volume (vph)	128	0	110	0	0	0	55	115	496	0	0	796	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.98					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.95	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1704	1559					1673	4821			5036	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1359	1559					1673	4821			5036	1599
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	0	128	0	0	0	57	120	517	0	0	829	180
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	0	0	0	0	71
Lane Group Flow (vph)	0	149	17	0	0	0	0	177	517	0	0	829	109
Confl. Peds. (#/hr)	17					17		14		13	13		14
Confl. Bikes (#/hr)			2										2
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	0%	1%	4%	0%	0%	3%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		18.4	18.4					17.1	80.4			82.5	82.5
Effective Green, g (s)		18.4	18.4					17.1	80.4			82.5	82.5
Actuated g/C Ratio		0.14	0.14					0.13	0.59			0.61	0.61
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		183	210					210	2850			3054	969
v/s Ratio Prot								c0.11	0.11			c0.16	0.07
v/s Ratio Perm		c0.11	0.01										
v/c Ratio		0.81	0.08					0.84	0.18			0.27	0.11
Uniform Delay, d1		57.1	51.4					58.1	12.7			12.6	11.3
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		22.4	0.1					25.2	0.0			0.0	0.1
Delay (s)		79.5	51.5					83.4	12.8			12.6	11.3
Level of Service		E	D					F	B			B	B
Approach Delay (s)		66.6			0.0				30.8			12.4	
Approach LOS		E			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	586	37	0	39
Future Vol, veh/h	0	0	586	37	0	39
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	97	97	81	81
Heavy Vehicles, %	2	2	2	11	0	3
Mvmt Flow	0	0	604	38	0	48

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	302
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.16
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.93
Pot Cap-1 Maneuver	-	0	0	590
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	590
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	11.6
HCM LOS		B

Minor Lane/Major Mvmt	NWT	SWLn1
Capacity (veh/h)	-	590
HCM Lane V/C Ratio	-	0.082
HCM Control Delay (s)	-	11.6
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Future Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	8	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	92	92	92	79	79	79	92	92	92
Heavy Vehicles, %	0	12	0	0	6	7	11	6	0	2	2	2
Mvmt Flow	6	22	0	0	18	34	44	251	15	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	373	362	-	-	355	267	0	0	0
Stage 1	0	0	-	-	355	-	-	-	-
Stage 2	373	362	-	-	0	-	-	-	-
Critical Hdwy	7.1	6.62	-	-	6.56	6.27	4.21	-	-
Critical Hdwy Stg 1	-	-	-	-	5.56	-	-	-	-
Critical Hdwy Stg 2	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.108	-	-	4.054	3.363	2.299	-	-
Pot Cap-1 Maneuver	588	550	0	0	564	760	-	-	-
Stage 1	-	-	0	0	623	-	-	-	-
Stage 2	652	608	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	547	546	-	-	559	754	-	-	-
Mov Cap-2 Maneuver	547	546	-	-	559	-	-	-	-
Stage 1	-	-	-	-	618	-	-	-	-
Stage 2	604	603	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.9	10.8	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	546	671
HCM Lane V/C Ratio	-	-	-	0.051	0.078
HCM Control Delay (s)	-	-	-	11.9	10.8
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	4	619	5	0	968
Future Vol, veh/h	1	4	619	5	0	968
Conflicting Peds, #/hr	16	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	96	96	96	96
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	2	6	645	5	0	1008

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1068	326	0	0	651	0
Stage 1	649	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	291	576	-	-	582	-
Stage 1	398	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	286	575	-	-	581	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	398	-	-	-	-	-
Stage 2	574	-	-	-	-	-

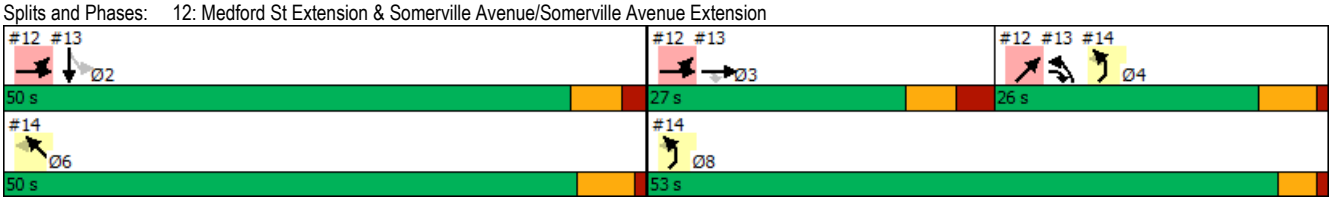
Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	478	581	-
HCM Lane V/C Ratio	-	-	0.017	-	-
HCM Control Delay (s)	-	-	12.7	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	222	169				
Future Volume (vph)	222	169				
Lane Group Flow (vph)	322	199				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	22.5
Total Split (s)		26.0	50.0	27.0	50.0	53.0
Total Split (%)		25.2%	49%	26%	49%	51%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.30	0.28				
Control Delay	2.3	26.6				
Queue Delay	0.3	0.0				
Total Delay	2.6	26.6				
Queue Length 50th (ft)	15	36				
Queue Length 95th (ft)	13	83				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1292	986				
Starvation Cap Reductn	500	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.41	0.20				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 72
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	65	222	0	0	0	0	0	169	10	0	0	0
Future Volume (vph)	65	222	0	0	0	0	0	169	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1724						3218				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1724						3218				
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	73	249	0	0	0	0	0	188	11	0	0	0
RTOR Reduction (vph)	0	13	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	309	0	0	0	0	0	195	0	0	0	0
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	11%	0%	2%	2%	2%	0%	10%	30%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		42.3						16.4				
Effective Green, g (s)		42.3						16.4				
Actuated g/C Ratio		0.59						0.23				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1024						741				
v/s Ratio Prot		c0.18						c0.06				
v/s Ratio Perm												
v/c Ratio		0.30						0.26				
Uniform Delay, d1		7.1						22.5				
Progression Factor		0.25						1.00				
Incremental Delay, d2		0.1						0.1				
Delay (s)		1.9						22.5				
Level of Service		A						C				
Approach Delay (s)		1.9			0.0			22.5			0.0	
Approach LOS		A			A			C			A	

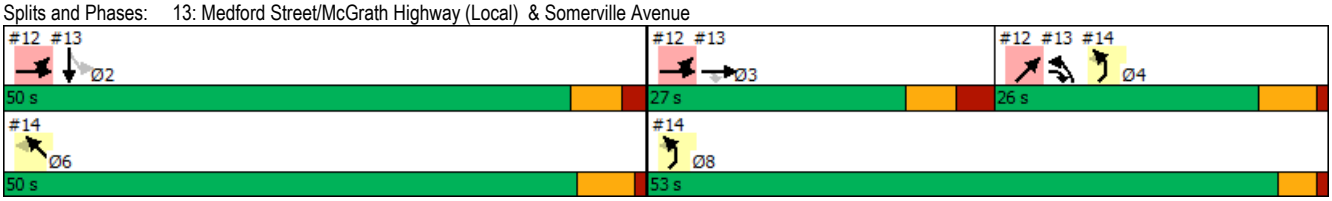
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	71.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	156	60	39	131	583		
Future Volume (vph)	156	60	39	131	583		
Lane Group Flow (vph)	184	71	52	142	730		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	22.5
Total Split (s)	27.0	26.0	26.0	50.0	50.0	50.0	53.0
Total Split (%)	26.2%	25.2%	25.2%	48.5%	48.5%	49%	51%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.56	0.11	0.14	0.25	0.67		
Control Delay	36.5	3.6	27.7	8.7	24.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	36.5	3.6	27.7	8.7	24.4		
Queue Length 50th (ft)	80	0	18	13	147		
Queue Length 95th (ft)	153	19	47	54	233		
Internal Link Dist (ft)	645				688		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	539	779	535	1063	2185		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.34	0.09	0.10	0.13	0.33		

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 72
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





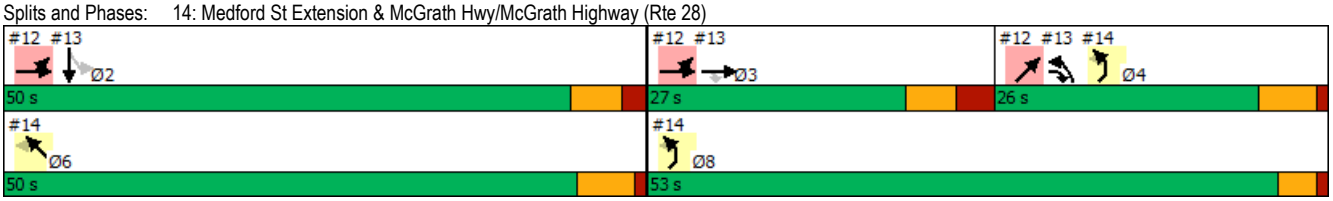
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	156	60	0	0	0	39	0	0	131	583	88
Future Volume (vph)	0	156	60	0	0	0	39	0	0	131	583	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.97				1.00			1.00	0.99	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.98	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1810	1466				1752			1570	3330	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1810	1466				1752			1570	3330	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	0	184	71	0	0	0	52	0	0	142	634	96
RTOR Reduction (vph)	0	0	42	0	0	0	0	0	0	68	13	0
Lane Group Flow (vph)	0	184	29	0	0	0	52	0	0	74	717	0
Confl. Peds. (#/hr)			10				33					33
Confl. Bikes (#/hr)			32									35
Heavy Vehicles (%)	0%	5%	7%	0%	0%	0%	3%	0%	0%	15%	4%	10%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		13.0	29.4				16.4			23.3	23.3	
Effective Green, g (s)		13.0	29.4				16.4			23.3	23.3	
Actuated g/C Ratio		0.18	0.41				0.23			0.33	0.33	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		330	605				403			513	1089	
v/s Ratio Prot		c0.10	0.01				c0.03				c0.22	
v/s Ratio Perm			0.01							0.05		
v/c Ratio		0.56	0.05				0.13			0.14	0.66	
Uniform Delay, d1		26.5	12.5				21.7			16.9	20.5	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		1.2	0.0				0.1			0.0	1.1	
Delay (s)		27.6	12.5				21.8			17.0	21.6	
Level of Service		C	B				C			B	C	
Approach Delay (s)		23.4			0.0			21.8			20.9	
Approach LOS		C			A			C			C	

Intersection Summary				
HCM 2000 Control Delay	21.5	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.47			
Actuated Cycle Length (s)	71.2	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	47.9%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	283	149	157	77				
Future Volume (vph)	283	149	157	77				
Lane Group Flow (vph)	325	171	130	130				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	22.5
Total Split (s)	50.0	50.0			50.0	27.0	26.0	53.0
Total Split (%)	48.5%	48.5%			49%	26%	25%	51%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.29	0.32	0.15	0.17				
Control Delay	19.4	21.2	0.4	2.0				
Queue Delay	0.0	0.0	0.2	0.3				
Total Delay	19.4	21.2	0.6	2.3				
Queue Length 50th (ft)	56	59	1	1				
Queue Length 95th (ft)	94	114	1	2				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	2210	1066	1169	1069				
Starvation Cap Reductn	0	0	597	536				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.15	0.16	0.23	0.24				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 72
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	283	149	157	77	0
Future Volume (vph)	0	0	0	0	283	149	157	77	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	1.00	1.00	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3335	1610	1601	1499	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3335	1610	1601	1499	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	325	171	174	86	0
RTOR Reduction (vph)	0	0	0	0	0	0	61	15	0
Lane Group Flow (vph)	0	0	0	0	325	171	69	115	0
Confl. Peds. (#/hr)							1		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	18%	7%	18%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					23.8	23.8	37.9	37.9	
Effective Green, g (s)					23.8	23.8	37.9	37.9	
Actuated g/C Ratio					0.33	0.33	0.53	0.53	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					1114	538	852	797	
v/s Ratio Prot						c0.11			
v/s Ratio Perm					0.10		0.04	0.08	
v/c Ratio					0.29	0.32	0.08	0.14	
Uniform Delay, d1					17.5	17.7	8.1	8.4	
Progression Factor					1.00	1.00	0.03	0.18	
Incremental Delay, d2					0.1	0.1	0.0	0.0	
Delay (s)					17.5	17.8	0.2	1.5	
Level of Service					B	B	A	A	
Approach Delay (s)	0.0		0.0			17.6		0.9	
Approach LOS	A		A			B		A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	71.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	87	0	66	89	365	1374	249		
Future Volume (vph)	87	0	66	89	365	1374	249		
Lane Group Flow (vph)	0	102	78	137	397	1446	262		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1	1		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	22.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		0.72	0.30	0.75	0.12	0.45	0.23		
Control Delay		83.7	4.8	81.9	7.3	13.9	2.0		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		83.7	4.8	81.9	7.3	13.9	2.0		
Queue Length 50th (ft)		88	0	117	23	234	0		
Queue Length 95th (ft)		136	8	#193	72	309	37		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		217	337	209	3458	3193	1117		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		0.47	0.23	0.66	0.11	0.45	0.23		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	87	0	66	0	0	0	37	89	365	0	0	1374	249
Future Volume (vph)	87	0	66	0	0	0	37	89	365	0	0	1374	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.97					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.97	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1611	1403					1581	4600			4988	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1284	1403					1581	4600			4988	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	102	0	78	0	0	0	40	97	397	0	0	1446	262
RTOR Reduction (vph)	0	0	69	0	0	0	0	0	0	0	0	0	94
Lane Group Flow (vph)	0	102	9	0	0	0	0	137	397	0	0	1446	168
Confl. Peds. (#/hr)	10		2	2		10		11		15	15		11
Confl. Bikes (#/hr)			5			1							
Heavy Vehicles (%)	9%	0%	12%	2%	2%	2%	3%	8%	9%	0%	0%	4%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		15.1	15.1					15.8	96.5			87.1	87.1
Effective Green, g (s)		15.1	15.1					15.8	96.5			87.1	87.1
Actuated g/C Ratio		0.11	0.11					0.12	0.71			0.64	0.64
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		142	155					183	3263			3194	1024
v/s Ratio Prot								c0.09	0.09			c0.29	0.10
v/s Ratio Perm		c0.08	0.01										
v/c Ratio		0.72	0.06					0.75	0.12			0.45	0.16
Uniform Delay, d1		58.4	54.1					58.2	6.3			12.4	9.8
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		13.4	0.1					15.4	0.0			0.1	0.1
Delay (s)		71.8	54.1					73.5	6.3			12.5	9.9
Level of Service		E	D					E	A			B	A
Approach Delay (s)		64.2			0.0				23.5			12.1	
Approach LOS		E			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	18.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	57.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	395	41	0	37
Future Vol, veh/h	0	0	395	41	0	37
Conflicting Peds, #/hr	0	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	88	88	71	71
Heavy Vehicles, %	2	2	8	14	0	19
Mvmt Flow	0	0	449	47	0	52

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	226
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.48
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	4.09
Pot Cap-1 Maneuver	-	0	0	624
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	624
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	11.3
HCM LOS		B

Minor Lane/Major Mvmt	NWTSWLn1
Capacity (veh/h)	- 624
HCM Lane V/C Ratio	- 0.084
HCM Control Delay (s)	- 11.3
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	20	0	0	44	50	32	194	0	0	0	0
Future Vol, veh/h	2	20	0	0	44	50	32	194	0	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	84	84	84	88	88	88	92	92	92
Heavy Vehicles, %	0	20	2	2	18	6	19	13	2	2	2	2
Mvmt Flow	3	25	0	0	52	60	36	220	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	350	302	-	-	302	230	1	0	0
Stage 1	1	1	-	-	301	-	-	-	-
Stage 2	349	301	-	-	1	-	-	-	-
Critical Hdwy	7.1	6.7	-	-	6.68	6.26	4.29	-	-
Critical Hdwy Stg 1	-	-	-	-	5.68	-	-	-	-
Critical Hdwy Stg 2	6.1	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.18	-	-	4.162	3.354	2.371	-	-
Pot Cap-1 Maneuver	608	582	0	0	585	799	1517	-	-
Stage 1	-	-	0	0	637	-	-	-	-
Stage 2	671	634	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	511	560	-	-	563	792	1516	-	-
Mov Cap-2 Maneuver	511	560	-	-	563	-	-	-	-
Stage 1	-	-	-	-	614	-	-	-	-
Stage 2	552	611	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.8	11.5	1.1
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	1516	-	-	555	665
HCM Lane V/C Ratio	0.024	-	-	0.05	0.168
HCM Control Delay (s)	7.4	0	-	11.8	11.5
HCM Lane LOS	A	A	-	B	B
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.6

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	9	427	25	39	1616
Future Vol, veh/h	7	9	427	25	39	1616
Conflicting Peds, #/hr	0	0	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	91	91	95	95
Heavy Vehicles, %	0	0	9	1	0	4
Mvmt Flow	8	10	469	27	41	1701

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1255	258	0	0	506	0
Stage 1	493	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	234	636	-	-	680	-
Stage 1	492	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	630	-	-	674	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	487	-	-	-	-	-
Stage 2	0	-	-	-	-	-

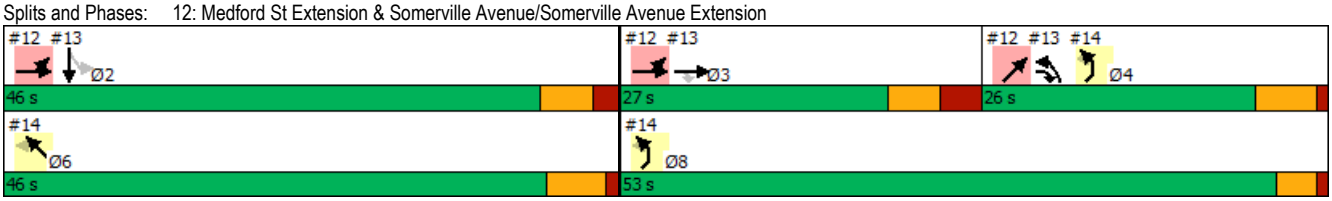
Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	630	674	-
HCM Lane V/C Ratio	-	-	0.028	0.061	-
HCM Control Delay (s)	-	-	10.9	10.7	3.3
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	223	402				
Future Volume (vph)	223	402				
Lane Group Flow (vph)	388	462				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.33	0.65				
Control Delay	2.9	38.2				
Queue Delay	0.8	0.0				
Total Delay	3.7	38.3				
Queue Length 50th (ft)	20	140				
Queue Length 95th (ft)	29	191				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1283	867				
Starvation Cap Reductn	595	0				
Spillback Cap Reductn	56	8				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.56	0.54				

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 87.3
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



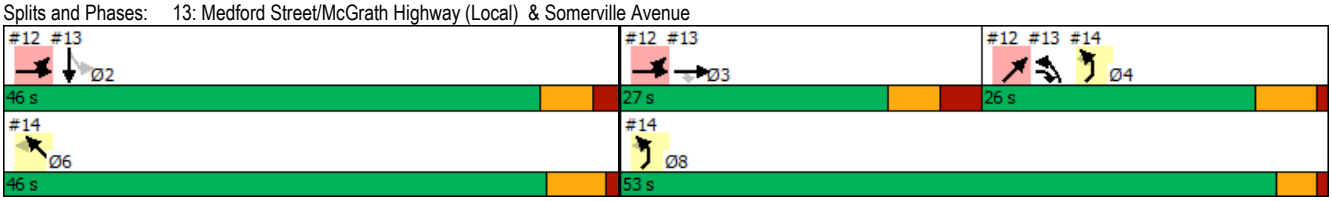
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	119	223	0	0	0	0	0	402	9	0	0	0
Future Volume (vph)	119	223	0	0	0	0	0	402	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						1.00				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		1763						3550				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		1763						3550				
Peak-hour factor, PHF	0.88	0.88	0.88	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	135	253	0	0	0	0	0	452	10	0	0	0
RTOR Reduction (vph)	0	21	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	367	0	0	0	0	0	460	0	0	0	0
Confl. Peds. (#/hr)	2											
Confl. Bikes (#/hr)									24			
Heavy Vehicles (%)	2%	8%	0%	2%	2%	2%	0%	1%	11%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		56.7						17.7				
Effective Green, g (s)		56.7						17.7				
Actuated g/C Ratio		0.65						0.20				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1150						723				
v/s Ratio Prot		c0.21						c0.13				
v/s Ratio Perm												
v/c Ratio		0.32						0.64				
Uniform Delay, d1		6.6						31.7				
Progression Factor		0.41						1.00				
Incremental Delay, d2		0.1						1.4				
Delay (s)		2.8						33.0				
Level of Service		A						C				
Approach Delay (s)		2.8			0.0			33.0			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	19.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	86.9	Sum of lost time (s)	18.5
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	218	46	36	124	278		
Future Volume (vph)	218	46	36	124	278		
Lane Group Flow (vph)	242	51	52	139	431		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.72	0.08	0.14	0.19	0.32		
Control Delay	48.2	4.5	32.8	4.1	16.5		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	48.2	4.5	32.8	4.1	16.5		
Queue Length 50th (ft)	141	0	27	0	79		
Queue Length 95th (ft)	224	19	46	35	115		
Internal Link Dist (ft)	645				688		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	434	703	440	860	1589		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	3	0	0	8	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.56	0.07	0.12	0.16	0.27		

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 87.3
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	218	46	0	0	0	36	0	0	124	278	106
Future Volume (vph)	0	218	46	0	0	0	36	0	0	124	278	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.98				1.00			1.00	0.97	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.96	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1827	1516				1805			1656	3276	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1827	1516				1805			1656	3276	
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.69	0.69	0.69	0.89	0.89	0.89
Adj. Flow (vph)	0	242	51	0	0	0	52	0	0	139	312	119
RTOR Reduction (vph)	0	0	31	0	0	0	0	0	0	83	40	0
Lane Group Flow (vph)	0	242	20	0	0	0	52	0	0	56	391	0
Confl. Peds. (#/hr)			12				51					51
Confl. Bikes (#/hr)			5									5
Heavy Vehicles (%)	0%	4%	4%	0%	0%	0%	0%	0%	0%	9%	2%	3%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		16.0	33.7				17.7			34.7	34.7	
Effective Green, g (s)		16.0	33.7				17.7			34.7	34.7	
Actuated g/C Ratio		0.18	0.39				0.20			0.40	0.40	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		336	587				367			661	1308	
v/s Ratio Prot		c0.13	0.01				c0.03				c0.12	
v/s Ratio Perm			0.01							0.03		
v/c Ratio		0.72	0.03				0.14			0.08	0.30	
Uniform Delay, d1		33.3	16.5				28.4			16.2	17.8	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		6.3	0.0				0.1			0.0	0.0	
Delay (s)		39.6	16.5				28.4			16.2	17.8	
Level of Service		D	B				C			B	B	
Approach Delay (s)		35.6			0.0			28.4			17.5	
Approach LOS		D			A			C			B	

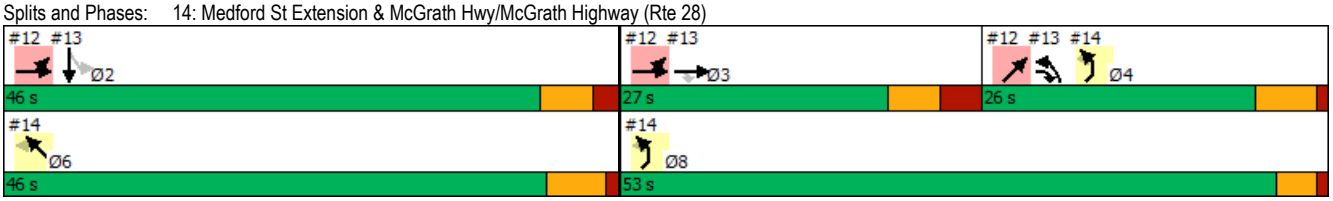
Intersection Summary				
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.36			
Actuated Cycle Length (s)	86.9	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	49.3%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	1040	268	403	118				
Future Volume (vph)	1040	268	403	118				
Lane Group Flow (vph)	1169	301	308	305				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.84	0.42	0.38	0.38				
Control Delay	30.6	21.9	4.4	4.4				
Queue Delay	0.0	0.0	1.0	1.0				
Total Delay	30.6	21.9	5.4	5.4				
Queue Length 50th (ft)	331	132	9	9				
Queue Length 95th (ft)	411	201	23	23				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	1670	855	965	957				
Starvation Cap Reductn	0	0	418	413				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.70	0.35	0.56	0.56				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 87.3
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	1040	268	403	118	0
Future Volume (vph)	0	0	0	0	1040	268	403	118	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	0.99	0.99	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3467	1776	1684	1669	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3467	1776	1684	1669	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	0	1169	301	474	139	0
RTOR Reduction (vph)	0	0	0	0	0	0	17	17	0
Lane Group Flow (vph)	0	0	0	0	1169	301	291	288	0
Confl. Peds. (#/hr)							6		
Heavy Vehicles (%)	2%	2%	2%	2%	1%	7%	1%	3%	2%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					35.2	35.2	42.2	42.2	
Effective Green, g (s)					35.2	35.2	42.2	42.2	
Actuated g/C Ratio					0.41	0.41	0.49	0.49	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					1404	719	817	810	
v/s Ratio Prot						0.17			
v/s Ratio Perm					c0.34		c0.17	0.17	
v/c Ratio					0.83	0.42	0.36	0.36	
Uniform Delay, d1					23.2	18.5	13.9	13.9	
Progression Factor					1.00	1.00	0.22	0.22	
Incremental Delay, d2					4.2	0.1	0.1	0.1	
Delay (s)					27.4	18.7	3.2	3.2	
Level of Service					C	B	A	A	
Approach Delay (s)	0.0		0.0			25.6		3.2	
Approach LOS	A		A			C		A	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	86.9	Sum of lost time (s)	18.5
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	269	0	113	101	1045	922	189		
Future Volume (vph)	269	0	113	101	1045	922	189		
Lane Group Flow (vph)	0	309	130	149	1161	991	203		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1 5	1 5		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	24.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		1.34	0.35	0.70	0.44	0.35	0.21		
Control Delay		220.9	10.5	74.6	19.3	16.4	2.2		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		220.9	10.5	74.6	19.3	16.4	2.2		
Queue Length 50th (ft)		~358	0	127	217	166	0		
Queue Length 95th (ft)		#521	52	#216	254	196	35		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		231	376	218	2635	2819	966		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		1.34	0.35	0.68	0.44	0.35	0.21		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 80 (59%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	269	0	113	0	0	0	33	101	1045	0	0	922	189
Future Volume (vph)	269	0	113	0	0	0	33	101	1045	0	0	922	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.95	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1690	1562					1648	4821			5036	1568
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1347	1562					1648	4821			5036	1568
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	309	0	130	0	0	0	37	112	1161	0	0	991	203
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	0	0	0	0	88
Lane Group Flow (vph)	0	309	22	0	0	0	0	149	1161	0	0	991	115
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	6%	1%	4%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		23.4	23.4					17.6	73.9			77.0	77.0
Effective Green, g (s)		23.4	23.4					17.6	73.9			77.0	77.0
Actuated g/C Ratio		0.17	0.17					0.13	0.54			0.57	0.57
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		231	268					213	2619			2851	887
v/s Ratio Prot								c0.09	c0.24			c0.20	0.07
v/s Ratio Perm		c0.23	0.01										
v/c Ratio		1.34	0.08					0.70	0.44			0.35	0.13
Uniform Delay, d1		56.3	47.3					56.7	18.7			15.9	13.8
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		178.3	0.0					9.6	0.1			0.1	0.1
Delay (s)		234.6	47.3					66.3	18.8			16.0	13.9
Level of Service		F	D					E	B			B	B
Approach Delay (s)		179.1			0.0				24.2			15.6	
Approach LOS		F			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	43.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	1239	103	0	69
Future Vol, veh/h	0	0	1239	103	0	69
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	90	90	78	78
Heavy Vehicles, %	2	2	2	5	0	3
Mvmt Flow	0	0	1377	114	0	88

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	689
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.16
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.93
Pot Cap-1 Maneuver	-	0	0	331
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	331
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	19.8
HCM LOS		C

Minor Lane/Major Mvmt	NWTSWLn1
Capacity (veh/h)	- 331
HCM Lane V/C Ratio	- 0.267
HCM Control Delay (s)	- 19.8
HCM Lane LOS	- C
HCM 95th %tile Q(veh)	- 1.1

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	9	0	0	52	136	45	340	1	0	0	0
Future Vol, veh/h	6	9	0	0	52	136	45	340	1	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	54	54	73	73	73	86	86	86	92	92	92
Heavy Vehicles, %	17	33	2	2	4	1	9	5	2	2	2	2
Mvmt Flow	11	17	0	0	71	186	52	395	1	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	629	509	-	-	509	406	0	0	0
Stage 1	0	0	-	-	509	-	-	-	-
Stage 2	629	509	-	-	0	-	-	-	-
Critical Hdwy	7.27	6.83	-	-	6.54	6.21	4.19	-	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	6.27	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.653	4.297	-	-	4.036	3.309	2.281	-	-
Pot Cap-1 Maneuver	374	426	0	0	464	647	-	-	-
Stage 1	-	-	0	0	535	-	-	-	-
Stage 2	446	490	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	234	422	-	-	460	641	-	-	-
Mov Cap-2 Maneuver	234	422	-	-	460	-	-	-	-
Stage 1	-	-	-	-	530	-	-	-	-
Stage 2	274	486	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	17.4	16.1	
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	319	578
HCM Lane V/C Ratio	-	-	-	0.087	0.446
HCM Control Delay (s)	-	-	-	17.4	16.1
HCM Lane LOS	-	-	-	C	C
HCM 95th %tile Q(veh)	-	-	-	0.3	2.3

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	34	1308	6	7	1087
Future Vol, veh/h	24	34	1308	6	7	1087
Conflicting Peds, #/hr	0	0	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	93	93
Heavy Vehicles, %	0	0	3	100	0	3
Mvmt Flow	26	37	1391	6	8	1169

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1890	711	0	0	1409	0
Stage 1	1406	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	110	326	-	-	252	-
Stage 1	138	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	99	322	-	-	249	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	136	-	-	-	-	-
Stage 2	490	-	-	-	-	-

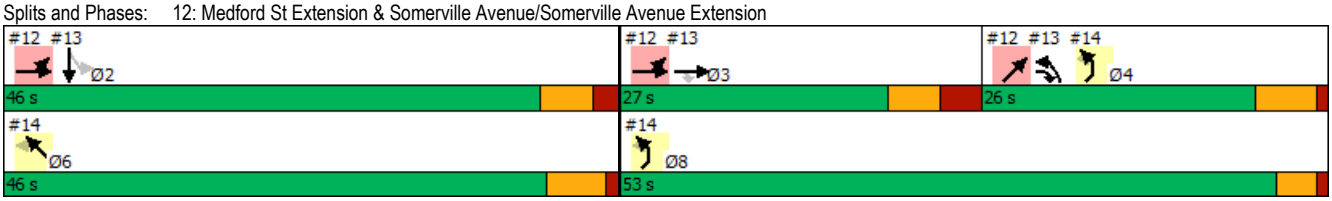
Approach	WB	NB	SB
HCM Control Delay, s	39.1	0	0.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	167	249	-
HCM Lane V/C Ratio	-	-	0.378	0.03	-
HCM Control Delay (s)	-	-	39.1	19.9	0.6
HCM Lane LOS	-	-	E	C	A
HCM 95th %tile Q(veh)	-	-	1.6	0.1	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	233	181				
Future Volume (vph)	233	181				
Lane Group Flow (vph)	292	257				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.27	0.36				
Control Delay	2.0	22.7				
Queue Delay	0.2	0.0				
Total Delay	2.2	22.7				
Queue Length 50th (ft)	11	34				
Queue Length 95th (ft)	14	78				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1397	1241				
Starvation Cap Reductn	547	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.34	0.21				

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



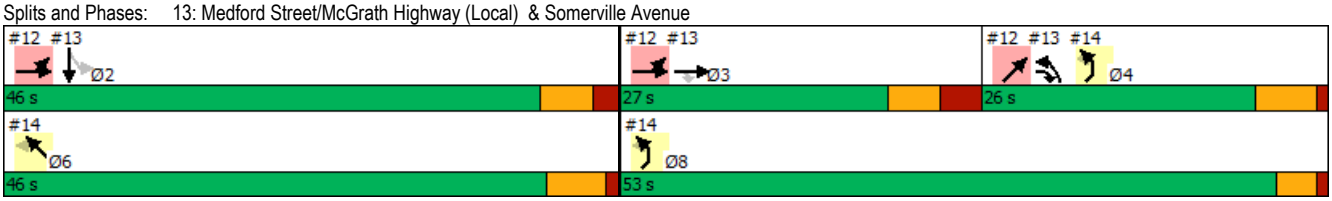
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	41	233	0	0	0	0	0	181	35	0	0	0
Future Volume (vph)	41	233	0	0	0	0	0	181	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1824						3401				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1824						3401				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	44	248	0	0	0	0	0	215	42	0	0	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	280	0	0	0	0	0	241	0	0	0	0
Confl. Peds. (#/hr)	5								1			
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	4%	0%	2%	2%	2%	0%	2%	9%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		34.3						12.8				
Effective Green, g (s)		34.3						12.8				
Actuated g/C Ratio		0.58						0.21				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1049						730				
v/s Ratio Prot		c0.15						c0.07				
v/s Ratio Perm												
v/c Ratio		0.27						0.33				
Uniform Delay, d1		6.3						19.8				
Progression Factor		0.27						1.00				
Incremental Delay, d2		0.0						0.1				
Delay (s)		1.8						19.9				
Level of Service		A						B				
Approach Delay (s)		1.8			0.0			19.9			0.0	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	SBL	SBT	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	174	38	100	324		
Future Volume (vph)	174	38	100	324		
Lane Group Flow (vph)	196	43	110	411		
Turn Type	NA	pm+ov	Perm	NA		
Protected Phases	3	4		2	6	8
Permitted Phases		3	2			
Detector Phase	3	4	2	2		
Switch Phase						
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	6.0	6.0		
Lead/Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	None	None	Min	Min	Min	None
v/c Ratio	0.51	0.06	0.21	0.46		
Control Delay	27.5	3.2	6.0	20.2		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	27.5	3.2	6.0	20.2		
Queue Length 50th (ft)	54	0	0	54		
Queue Length 95th (ft)	146	12	36	125		
Internal Link Dist (ft)	645			688		
Turn Bay Length (ft)		100	70			
Base Capacity (vph)	650	937	1221	2388		
Starvation Cap Reductn	0	0	0	0		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.30	0.05	0.09	0.17		

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	174	38	0	0	0	0	0	0	100	324	50
Future Volume (vph)	0	174	38	0	0	0	0	0	0	100	324	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5							6.0	6.0	
Lane Util. Factor		1.00	1.00							1.00	0.95	
Frpb, ped/bikes		1.00	0.98							1.00	0.99	
Flpb, ped/bikes		1.00	1.00							1.00	1.00	
Frt		1.00	0.85							1.00	0.98	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1845	1543							1687	3387	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1845	1543							1687	3387	
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.69	0.69	0.69	0.91	0.91	0.91
Adj. Flow (vph)	0	196	43	0	0	0	0	0	0	110	356	55
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	81	15	0
Lane Group Flow (vph)	0	196	18	0	0	0	0	0	0	29	396	0
Confl. Peds. (#/hr)	4		8	8		4			33			33
Confl. Bikes (#/hr)			1									11
Heavy Vehicles (%)	0%	3%	3%	0%	0%	0%	0%	0%	0%	7%	3%	6%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		12.6	25.4							15.7	15.7	
Effective Green, g (s)		12.6	25.4							15.7	15.7	
Actuated g/C Ratio		0.21	0.43							0.26	0.26	
Clearance Time (s)		7.0	5.5							6.0	6.0	
Vehicle Extension (s)		2.0	2.0							2.0	2.0	
Lane Grp Cap (vph)		390	657							444	892	
v/s Ratio Prot		c0.11	c0.01								c0.12	
v/s Ratio Perm			0.01							0.02		
v/c Ratio		0.50	0.03							0.07	0.44	
Uniform Delay, d1		20.7	9.9							16.5	18.3	
Progression Factor		1.00	1.00							1.00	1.00	
Incremental Delay, d2		0.4	0.0							0.0	0.1	
Delay (s)		21.1	9.9							16.5	18.4	
Level of Service		C	A							B	B	
Approach Delay (s)		19.1			0.0			0.0			18.0	
Approach LOS		B			A			A			B	

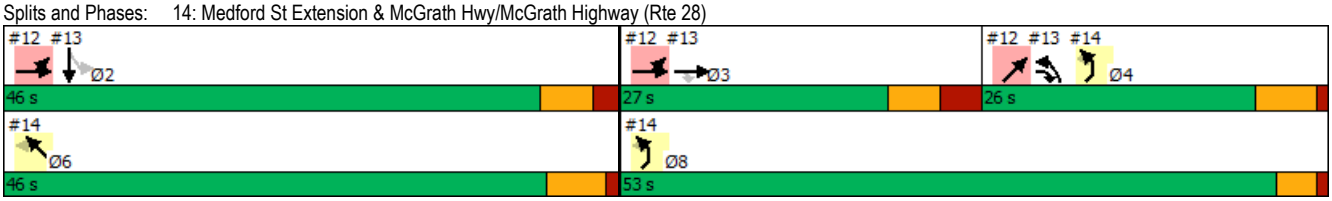
Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	446	181	158	64				
Future Volume (vph)	446	181	158	64				
Lane Group Flow (vph)	465	189	132	132				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.50	0.37	0.14	0.14				
Control Delay	21.4	21.4	0.3	0.6				
Queue Delay	0.0	0.0	0.1	0.1				
Total Delay	21.4	21.4	0.4	0.7				
Queue Length 50th (ft)	63	48	0	1				
Queue Length 95th (ft)	143	131	1	0				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	2451	1356	1422	1416				
Starvation Cap Reductn	0	0	692	675				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.19	0.14	0.18	0.18				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 60.2
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Hwy/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	446	181	158	64	0
Future Volume (vph)	0	0	0	0	446	181	158	64	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.97	1.00	0.95	0.95	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	1.00	0.95	0.95	
Satd. Flow (prot)					3433	1900	1698	1708	
Flt Permitted					0.95	1.00	0.95	0.95	
Satd. Flow (perm)					3433	1900	1698	1708	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	0	465	189	188	76	0
RTOR Reduction (vph)	0	0	0	0	0	0	57	22	0
Lane Group Flow (vph)	0	0	0	0	465	189	75	110	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	1%	0%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					16.2	16.2	33.9	33.9	
Effective Green, g (s)					16.2	16.2	33.9	33.9	
Actuated g/C Ratio					0.27	0.27	0.57	0.57	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					933	516	965	971	
v/s Ratio Prot						0.10			
v/s Ratio Perm					c0.14		0.04	0.06	
v/c Ratio					0.50	0.37	0.08	0.11	
Uniform Delay, d1					18.3	17.5	5.8	5.9	
Progression Factor					1.00	1.00	0.00	0.05	
Incremental Delay, d2					0.2	0.2	0.0	0.0	
Delay (s)					18.4	17.7	0.0	0.3	
Level of Service					B	B	A	A	
Approach Delay (s)	0.0		0.0			18.2		0.2	
Approach LOS	A		A			B		A	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	59.6	Sum of lost time (s)	18.5
Intersection Capacity Utilization	30.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø5
Lane Configurations									
Traffic Volume (vph)	128	0	110	115	502	797	173		
Future Volume (vph)	128	0	110	115	502	797	173		
Lane Group Flow (vph)	0	149	128	177	523	830	180		
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot		
Protected Phases		3		2	1 2	1 5	1 5	1	5
Permitted Phases	3		3						
Detector Phase	3	3	3	2	1 2	1 5	1 5		
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0				6.0	6.0
Minimum Split (s)	22.0	22.0	22.0	22.0				22.0	24.0
Total Split (s)	29.0	29.0	29.0	24.0				56.0	27.0
Total Split (%)	21.3%	21.3%	21.3%	17.6%				41%	20%
Yellow Time (s)	4.0	4.0	4.0	4.0				4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0				2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		6.0	6.0	6.0					
Lead/Lag				Lag				Lead	
Lead-Lag Optimize?				Yes				Yes	
Recall Mode	None	None	None	None				C-Max	None
v/c Ratio		0.81	0.40	0.84	0.18	0.27	0.17		
Control Delay		88.2	11.8	89.8	13.8	13.5	2.2		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay		88.2	11.8	89.8	13.8	13.5	2.2		
Queue Length 50th (ft)		129	0	154	78	124	0		
Queue Length 95th (ft)		192	50	#276	106	161	33		
Internal Link Dist (ft)		130			514	86			
Turn Bay Length (ft)				450			250		
Base Capacity (vph)		229	370	221	2882	3029	1033		
Starvation Cap Reductn		0	0	0	0	0	0		
Spillback Cap Reductn		0	0	0	0	0	0		
Storage Cap Reductn		0	0	0	0	0	0		
Reduced v/c Ratio		0.65	0.35	0.80	0.18	0.27	0.17		

Intersection Summary

Cycle Length: 136
Actuated Cycle Length: 136
Offset: 80 (59%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	128	0	110	0	0	0	55	115	502	0	0	797	173
Future Volume (vph)	128	0	110	0	0	0	55	115	502	0	0	797	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.0	6.0					6.0	6.0			6.0	6.0
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.98					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.95	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1704	1559					1673	4821			5036	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1359	1559					1673	4821			5036	1599
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	0	128	0	0	0	57	120	523	0	0	830	180
RTOR Reduction (vph)	0	0	111	0	0	0	0	0	0	0	0	0	71
Lane Group Flow (vph)	0	149	17	0	0	0	0	177	523	0	0	830	109
Confl. Peds. (#/hr)	17					17		14		13	13		14
Confl. Bikes (#/hr)			2										2
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	0%	1%	4%	0%	0%	3%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	Prot
Protected Phases		3			3		2	2	1 2			1 5	1 5
Permitted Phases	3		3	3									
Actuated Green, G (s)		18.4	18.4					17.1	80.4			82.5	82.5
Effective Green, g (s)		18.4	18.4					17.1	80.4			82.5	82.5
Actuated g/C Ratio		0.14	0.14					0.13	0.59			0.61	0.61
Clearance Time (s)		6.0	6.0					6.0					
Vehicle Extension (s)		2.0	2.0					3.0					
Lane Grp Cap (vph)		183	210					210	2850			3054	969
v/s Ratio Prot								c0.11	0.11			c0.16	0.07
v/s Ratio Perm		c0.11	0.01										
v/c Ratio		0.81	0.08					0.84	0.18			0.27	0.11
Uniform Delay, d1		57.1	51.4					58.1	12.7			12.6	11.3
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		22.4	0.1					25.2	0.0			0.0	0.1
Delay (s)		79.5	51.5					83.4	12.8			12.6	11.3
Level of Service		E	D					F	B			B	B
Approach Delay (s)		66.6			0.0				30.6			12.4	
Approach LOS		E			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	136.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations			↑↑↑			↱
Traffic Vol, veh/h	0	0	588	37	0	39
Future Vol, veh/h	0	0	588	37	0	39
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	97	97	81	81
Heavy Vehicles, %	2	2	2	11	0	3
Mvmt Flow	0	0	606	38	0	48

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	303
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.16
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.93
Pot Cap-1 Maneuver	-	0	0	589
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	589
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	11.7
HCM LOS		B

Minor Lane/Major Mvmt	NWT	SWLn1
Capacity (veh/h)	-	589
HCM Lane V/C Ratio	-	0.082
HCM Control Delay (s)	-	11.7
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.3

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Future Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	8	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	92	92	92	79	79	79	92	92	92
Heavy Vehicles, %	0	12	0	0	6	7	11	6	0	2	2	2
Mvmt Flow	6	22	0	0	18	34	44	251	15	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	373	362	-	-	355	267	0	0	0
Stage 1	0	0	-	-	355	-	-	-	-
Stage 2	373	362	-	-	0	-	-	-	-
Critical Hdwy	7.1	6.62	-	-	6.56	6.27	4.21	-	-
Critical Hdwy Stg 1	-	-	-	-	5.56	-	-	-	-
Critical Hdwy Stg 2	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.108	-	-	4.054	3.363	2.299	-	-
Pot Cap-1 Maneuver	588	550	0	0	564	760	-	-	-
Stage 1	-	-	0	0	623	-	-	-	-
Stage 2	652	608	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	547	546	-	-	559	754	-	-	-
Mov Cap-2 Maneuver	547	546	-	-	559	-	-	-	-
Stage 1	-	-	-	-	618	-	-	-	-
Stage 2	604	603	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.9	10.8	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	546	671
HCM Lane V/C Ratio	-	-	-	0.051	0.078
HCM Control Delay (s)	-	-	-	11.9	10.8
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	6	619	11	10	968
Future Vol, veh/h	2	6	619	11	10	968
Conflicting Peds, #/hr	16	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	96	96	96	96
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	3	10	645	11	10	1008

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1091	329	0	0	657	0
Stage 1	652	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Critical Hdwy	5.7	7.1	-	-	5.3	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	-	-	3.1	-
Pot Cap-1 Maneuver	284	574	-	-	578	-
Stage 1	397	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	573	-	-	577	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	397	-	-	-	-	-
Stage 2	539	-	-	-	-	-

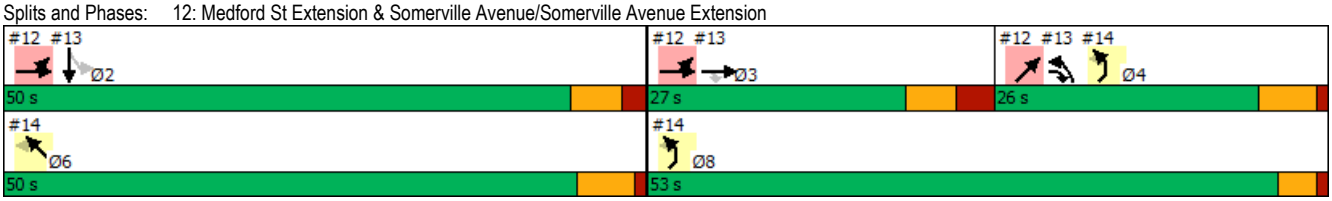
Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	447	577	-
HCM Lane V/C Ratio	-	-	0.028	0.018	-
HCM Control Delay (s)	-	-	13.3	11.4	0.1
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	471	190				
Future Volume (vph)	471	190				
Lane Group Flow (vph)	602	222				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	22.5
Total Split (s)		26.0	50.0	27.0	50.0	53.0
Total Split (%)		25.2%	49%	26%	49%	51%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.51	0.37				
Control Delay	4.2	34.2				
Queue Delay	0.3	0.0				
Total Delay	4.5	34.2				
Queue Length 50th (ft)	32	60				
Queue Length 95th (ft)	53	101				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1262	818				
Starvation Cap Reductn	219	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.58	0.27				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 85.8
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	65	471	0	0	0	0	0	190	10	0	0	0
Future Volume (vph)	65	471	0	0	0	0	0	190	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.99				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1718						3225				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1718						3225				
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.90	0.90	0.90	0.92	0.92	0.92
Adj. Flow (vph)	73	529	0	0	0	0	0	211	11	0	0	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	593	0	0	0	0	0	218	0	0	0	0
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	11%	0%	2%	2%	2%	0%	10%	30%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		56.5						16.2				
Effective Green, g (s)		56.5						16.2				
Actuated g/C Ratio		0.66						0.19				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1139						613				
v/s Ratio Prot		c0.35						c0.07				
v/s Ratio Perm												
v/c Ratio		0.52						0.36				
Uniform Delay, d1		7.4						30.0				
Progression Factor		0.40						1.00				
Incremental Delay, d2		0.2						0.1				
Delay (s)		3.1						30.1				
Level of Service		A						C				
Approach Delay (s)		3.1			0.0			30.1			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	85.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

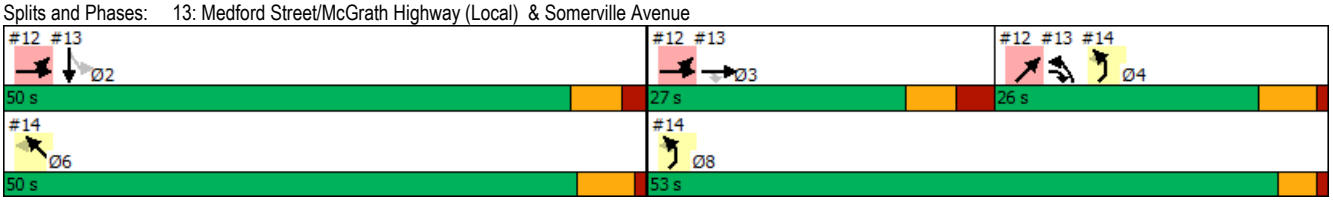
c Critical Lane Group

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	215	81	47	321	739		
Future Volume (vph)	215	81	47	321	739		
Lane Group Flow (vph)	253	95	63	349	899		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	22.5
Total Split (s)	27.0	26.0	26.0	50.0	50.0	50.0	53.0
Total Split (%)	26.2%	25.2%	25.2%	48.5%	48.5%	49%	51%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.73	0.16	0.20	0.48	0.67		
Control Delay	48.9	6.6	35.0	12.2	23.9		
Queue Delay	0.4	0.0	0.0	0.0	0.0		
Total Delay	49.3	6.6	35.0	12.2	23.9		
Queue Length 50th (ft)	145	7	32	74	230		
Queue Length 95th (ft)	228	33	59	151	297		
Internal Link Dist (ft)	645				696		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	446	711	442	929	1823		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	28	0	0	30	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.61	0.13	0.14	0.39	0.49		

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 85.8
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





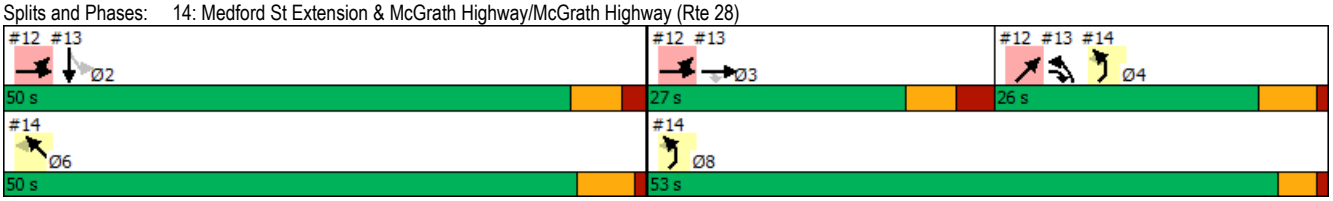
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	215	81	0	0	0	47	0	0	321	739	88
Future Volume (vph)	0	215	81	0	0	0	47	0	0	321	739	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.96				1.00			1.00	0.99	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.98	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1810	1455				1752			1570	3356	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1810	1455				1752			1570	3356	
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.75	0.75	0.75	0.92	0.92	0.92
Adj. Flow (vph)	0	253	95	0	0	0	63	0	0	349	803	96
RTOR Reduction (vph)	0	0	45	0	0	0	0	0	0	102	10	0
Lane Group Flow (vph)	0	253	50	0	0	0	63	0	0	247	889	0
Confl. Peds. (#/hr)			10				33					33
Confl. Bikes (#/hr)			32									35
Heavy Vehicles (%)	0%	5%	7%	0%	0%	0%	3%	0%	0%	15%	4%	10%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		16.3	32.5				16.2			34.2	34.2	
Effective Green, g (s)		16.3	32.5				16.2			34.2	34.2	
Actuated g/C Ratio		0.19	0.38				0.19			0.40	0.40	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		346	555				333			630	1347	
v/s Ratio Prot		c0.14	0.02				c0.04				c0.27	
v/s Ratio Perm			0.02							0.16		
v/c Ratio		0.73	0.09				0.19			0.39	0.66	
Uniform Delay, d1		32.4	16.9				29.0			18.1	20.8	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		6.7	0.0				0.1			0.1	0.9	
Delay (s)		39.1	16.9				29.1			18.3	21.7	
Level of Service		D	B				C			B	C	
Approach Delay (s)		33.0			0.0			29.1			20.8	
Approach LOS		C			A			C			C	

Intersection Summary				
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.56			
Actuated Cycle Length (s)	85.2	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	53.9%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	301	238	176	79				
Future Volume (vph)	301	238	176	79				
Lane Group Flow (vph)	304	316	141	143				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	22.5
Total Split (s)	50.0	50.0			50.0	27.0	26.0	53.0
Total Split (%)	48.5%	48.5%			49%	26%	25%	51%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.48	0.52	0.17	0.20				
Control Delay	22.5	23.7	0.5	2.9				
Queue Delay	0.0	0.0	0.4	0.5				
Total Delay	22.5	23.7	0.9	3.4				
Queue Length 50th (ft)	142	151	0	3				
Queue Length 95th (ft)	211	226	2	11				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	865	816	994	897				
Starvation Cap Reductn	0	0	532	466				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.35	0.39	0.31	0.33				

Intersection Summary
Cycle Length: 103
Actuated Cycle Length: 85.8
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Highway/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	301	238	176	79	0
Future Volume (vph)	0	0	0	0	301	238	176	79	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	11	12	12	12
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.95	0.95	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	1.00	1.00	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	0.99	0.95	0.95	
Satd. Flow (prot)					1579	1491	1601	1505	
Flt Permitted					0.95	0.99	0.95	0.95	
Satd. Flow (perm)					1579	1491	1601	1505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.87	0.87	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	346	274	196	88	0
RTOR Reduction (vph)	0	0	0	0	0	0	73	21	0
Lane Group Flow (vph)	0	0	0	0	304	316	68	122	0
Confl. Peds. (#/hr)							1		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	18%	7%	18%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					34.7	34.7	41.0	41.0	
Effective Green, g (s)					34.7	34.7	41.0	41.0	
Actuated g/C Ratio					0.41	0.41	0.48	0.48	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					643	607	770	724	
v/s Ratio Prot									
v/s Ratio Perm					0.19	0.21	0.04	0.08	
v/c Ratio					0.47	0.52	0.09	0.17	
Uniform Delay, d1					18.5	19.0	12.0	12.5	
Progression Factor					1.00	1.00	0.01	0.20	
Incremental Delay, d2					0.2	0.4	0.0	0.0	
Delay (s)					18.7	19.4	0.2	2.5	
Level of Service					B	B	A	A	
Approach Delay (s)	0.0		0.0			19.1		1.4	
Approach LOS	A		A			B		A	

Intersection Summary				
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio	0.37			
Actuated Cycle Length (s)	85.2	Sum of lost time (s)		18.5
Intersection Capacity Utilization	32.1%	ICU Level of Service		A
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø9
Lane Configurations											
Traffic Volume (vph)	87	12	66	15	4	89	428	111	1099	249	
Future Volume (vph)	87	12	66	15	4	89	428	111	1099	249	
Lane Group Flow (vph)	0	116	78	0	55	137	517	117	1157	262	
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Prot	NA	Prot	
Protected Phases		7			3	5	2	1	6	6	9
Permitted Phases	7		7	3							
Detector Phase	7	7	7	3	3	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	12.0	6.0	12.0	12.0	1.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	11.5	32.5	23.0	32.5	32.5	6.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	21.0	46.0	33.0	58.0	58.0	6.0
Total Split (%)	29.2%	29.2%	29.2%	29.2%	29.2%	17.5%	38.3%	27.5%	48.3%	48.3%	5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0	3.5	3.5	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.5	2.0	3.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.5		6.5	5.5	5.5	6.0	5.5	5.5	
Lead/Lag						Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max	None
v/c Ratio		0.64	0.24		0.24	0.70	0.28	0.59	0.57	0.25	
Control Delay		62.8	1.8		22.0	69.6	14.3	62.7	19.0	3.2	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		62.8	1.8		22.0	69.6	14.3	62.7	19.0	3.2	
Queue Length 50th (ft)		87	0		14	102	89	88	270	3	
Queue Length 95th (ft)		125	0		47	171	188	144	477	53	
Internal Link Dist (ft)		130			65		514		86		
Turn Bay Length (ft)						450		80		250	
Base Capacity (vph)		313	446		378	219	1878	406	2034	1041	
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		0.37	0.17		0.15	0.63	0.28	0.29	0.57	0.25	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	87	12	66	15	4	32	37	89	428	48	111	1099	249
Future Volume (vph)	87	12	66	15	4	32	37	89	428	48	111	1099	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5		6.5			5.5	5.5		6.0	5.5	5.5
Lane Util. Factor		1.00	1.00		1.00			1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes		1.00	0.98		0.98			1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes		0.99	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.91			1.00	0.98		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.99			0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1669	1409		1649			1638	3163		1805	3471	1599
Flt Permitted		0.76	1.00		0.88			0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1321	1409		1480			1638	3163		1805	3471	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	102	14	78	16	4	35	40	97	465	52	117	1157	262
RTOR Reduction (vph)	0	0	67	0	30	0	0	0	5	0	0	0	108
Lane Group Flow (vph)	0	116	11	0	25	0	0	137	512	0	117	1157	154
Confl. Peds. (#/hr)	10		2	2		10		11		15	15		11
Confl. Bikes (#/hr)			5			1							
Heavy Vehicles (%)	9%	0%	12%	2%	2%	2%	3%	8%	9%	0%	0%	4%	1%
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	NA	Prot
Protected Phases		7			3		5	5	2		1	6	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		16.6	16.6		16.6			14.3	69.5		13.1	68.8	68.8
Effective Green, g (s)		16.6	16.6		16.6			14.3	69.5		13.1	68.8	68.8
Actuated g/C Ratio		0.14	0.14		0.14			0.12	0.58		0.11	0.57	0.57
Clearance Time (s)		6.5	6.5		6.5			5.5	5.5		6.0	5.5	5.5
Vehicle Extension (s)		2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		182	194		204			195	1831		197	1990	916
v/s Ratio Prot								c0.08	0.16		0.06	c0.33	0.10
v/s Ratio Perm		c0.09	0.01		0.02								
v/c Ratio		0.64	0.06		0.12			0.70	0.28		0.59	0.58	0.17
Uniform Delay, d1		48.9	44.9		45.3			50.8	12.7		50.9	16.4	12.1
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		5.3	0.0		0.1			10.9	0.4		4.7	1.2	0.4
Delay (s)		54.1	44.9		45.4			61.7	13.1		55.7	17.6	12.5
Level of Service		D	D		D			E	B		E	B	B
Approach Delay (s)		50.4			45.4				23.3			19.7	
Approach LOS		D			D				C			B	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	490	41	0	49
Future Vol, veh/h	0	0	490	41	0	49
Conflicting Peds, #/hr	0	0	0	4	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	88	88	71	71
Heavy Vehicles, %	2	2	8	14	0	19
Mvmt Flow	0	0	557	47	0	69

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	280
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.28
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.49
Pot Cap-1 Maneuver	-	0	0	669
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	669
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	11
HCM LOS		B

Minor Lane/Major Mvmt	NWTSWLn1
Capacity (veh/h)	- 669
HCM Lane V/C Ratio	- 0.103
HCM Control Delay (s)	- 11
HCM Lane LOS	- B
HCM 95th %tile Q(veh)	- 0.3

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	20	0	0	44	50	121	196	0	0	0	0
Future Vol, veh/h	2	20	0	0	44	50	121	196	0	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	84	84	84	88	88	88	92	92	92
Heavy Vehicles, %	0	20	2	2	18	6	19	13	2	2	2	2
Mvmt Flow	3	25	0	0	52	60	138	223	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	557	509	-	-	509	233	1	0	0
Stage 1	1	1	-	-	508	-	-	-	-
Stage 2	556	508	-	-	1	-	-	-	-
Critical Hdwy	7.1	6.7	-	-	6.68	6.26	4.29	-	-
Critical Hdwy Stg 1	-	-	-	-	5.68	-	-	-	-
Critical Hdwy Stg 2	6.1	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.18	-	-	4.162	3.354	2.371	-	-
Pot Cap-1 Maneuver	444	442	0	0	445	796	1517	-	-
Stage 1	-	-	0	0	513	-	-	-	-
Stage 2	519	510	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	340	392	-	-	395	789	1516	-	-
Mov Cap-2 Maneuver	340	392	-	-	395	-	-	-	-
Stage 1	-	-	-	-	456	-	-	-	-
Stage 2	381	453	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	15	13.4	2.9
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	1516	-	-	387	538
HCM Lane V/C Ratio	0.091	-	-	0.072	0.208
HCM Control Delay (s)	7.6	0	-	15	13.4
HCM Lane LOS	A	A	-	C	B
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0.8

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	9	522	25	39	1452
Future Vol, veh/h	7	9	522	25	39	1452
Conflicting Peds, #/hr	0	0	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	91	91	95	95
Heavy Vehicles, %	0	0	9	1	0	4
Mvmt Flow	8	10	574	27	41	1528

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1444	311	0	0	611	0
Stage 1	598	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	125	691	-	-	978	-
Stage 1	518	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	89	684	-	-	969	-
Mov Cap-2 Maneuver	89	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	278	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28	0	1.4
HCM LOS	D		

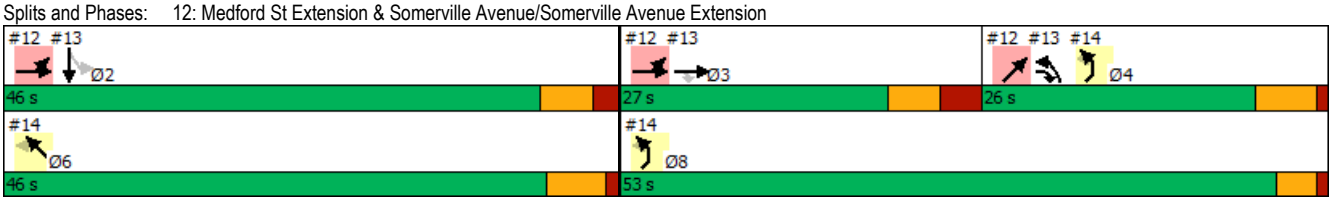
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	174	969	-
HCM Lane V/C Ratio	-	-	0.1	0.042	-
HCM Control Delay (s)	-	-	28	8.9	1.2
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	261	529				
Future Volume (vph)	261	529				
Lane Group Flow (vph)	432	604				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.36	0.82				
Control Delay	4.0	47.1				
Queue Delay	0.9	0.5				
Total Delay	4.9	47.6				
Queue Length 50th (ft)	31	192				
Queue Length 95th (ft)	46	#268				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1253	769				
Starvation Cap Reductn	540	0				
Spillback Cap Reductn	73	23				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.61	0.81				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 95.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	119	261	0	0	0	0	0	529	9	0	0	0
Future Volume (vph)	119	261	0	0	0	0	0	529	9	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						1.00				
Flt Protected		0.98						1.00				
Satd. Flow (prot)		1763						3556				
Flt Permitted		0.98						1.00				
Satd. Flow (perm)		1763						3556				
Peak-hour factor, PHF	0.88	0.88	0.88	0.92	0.92	0.92	0.89	0.89	0.89	0.92	0.92	0.92
Adj. Flow (vph)	135	297	0	0	0	0	0	594	10	0	0	0
RTOR Reduction (vph)	0	9	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	423	0	0	0	0	0	603	0	0	0	0
Confl. Peds. (#/hr)	2											
Confl. Bikes (#/hr)									24			
Heavy Vehicles (%)	2%	8%	0%	2%	2%	2%	0%	1%	11%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		63.0						19.7				
Effective Green, g (s)		63.0						19.7				
Actuated g/C Ratio		0.66						0.21				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1166						735				
v/s Ratio Prot		c0.24						c0.17				
v/s Ratio Perm												
v/c Ratio		0.36						0.82				
Uniform Delay, d1		7.2						36.1				
Progression Factor		0.50						1.00				
Incremental Delay, d2		0.1						7.0				
Delay (s)		3.6						43.0				
Level of Service		A						D				
Approach Delay (s)		3.6			0.0			43.0			0.0	
Approach LOS		A			A			D			A	

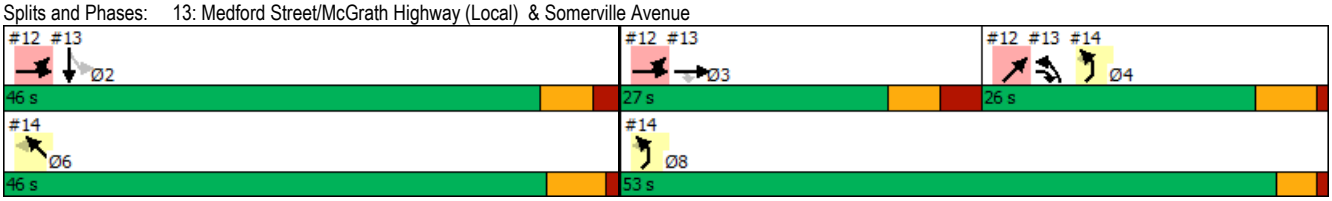
Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	NBL	SBL	SBT	Ø6	Ø8
Lane Configurations							
Traffic Volume (vph)	228	49	84	152	313		
Future Volume (vph)	228	49	84	152	313		
Lane Group Flow (vph)	253	54	122	171	471		
Turn Type	NA	pm+ov	Prot	Perm	NA		
Protected Phases	3	4	4		2	6	8
Permitted Phases		3		2			
Detector Phase	3	4	4	2	2		
Switch Phase							
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	5.5	6.0	6.0		
Lead/Lag	Lead	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	Min	Min	Min	None
v/c Ratio	0.78	0.08	0.33	0.22	0.33		
Control Delay	54.8	4.4	35.8	4.5	17.6		
Queue Delay	0.5	0.0	0.0	0.0	0.0		
Total Delay	55.3	4.4	35.8	4.5	17.6		
Queue Length 50th (ft)	149	0	66	4	92		
Queue Length 95th (ft)	#236	20	88	43	130		
Internal Link Dist (ft)	645				696		
Turn Bay Length (ft)		100		70			
Base Capacity (vph)	385	651	389	790	1417		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	17	0	0	26	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.69	0.08	0.31	0.22	0.33		

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 95.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	228	49	0	0	0	84	0	0	152	313	106
Future Volume (vph)	0	228	49	0	0	0	84	0	0	152	313	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5				5.5			6.0	6.0	
Lane Util. Factor		1.00	1.00				1.00			1.00	0.95	
Frpb, ped/bikes		1.00	0.98				1.00			1.00	0.97	
Flpb, ped/bikes		1.00	1.00				1.00			1.00	1.00	
Frt		1.00	0.85				1.00			1.00	0.96	
Flt Protected		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (prot)		1827	1515				1805			1656	3291	
Flt Permitted		1.00	1.00				0.95			0.95	1.00	
Satd. Flow (perm)		1827	1515				1805			1656	3291	
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.69	0.69	0.69	0.89	0.89	0.89
Adj. Flow (vph)	0	253	54	0	0	0	122	0	0	171	352	119
RTOR Reduction (vph)	0	0	33	0	0	0	0	0	0	93	32	0
Lane Group Flow (vph)	0	253	21	0	0	0	122	0	0	78	439	0
Confl. Peds. (#/hr)			12				51					51
Confl. Bikes (#/hr)			5									5
Heavy Vehicles (%)	0%	4%	4%	0%	0%	0%	0%	0%	0%	9%	2%	3%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		16.9	36.6				19.7			40.1	40.1	
Effective Green, g (s)		16.9	36.6				19.7			40.1	40.1	
Actuated g/C Ratio		0.18	0.38				0.21			0.42	0.42	
Clearance Time (s)		7.0	5.5				5.5			6.0	6.0	
Vehicle Extension (s)		2.0	2.0				2.0			2.0	2.0	
Lane Grp Cap (vph)		324	582				373			697	1386	
v/s Ratio Prot		c0.14	0.01				c0.07				c0.13	
v/s Ratio Perm			0.01							0.05		
v/c Ratio		0.78	0.04				0.33			0.11	0.32	
Uniform Delay, d1		37.4	18.3				32.1			16.7	18.4	
Progression Factor		1.00	1.00				1.00			1.00	1.00	
Incremental Delay, d2		10.7	0.0				0.2			0.0	0.0	
Delay (s)		48.1	18.3				32.3			16.8	18.4	
Level of Service		D	B				C			B	B	
Approach Delay (s)		42.9			0.0			32.3			18.0	
Approach LOS		D			A			C			B	

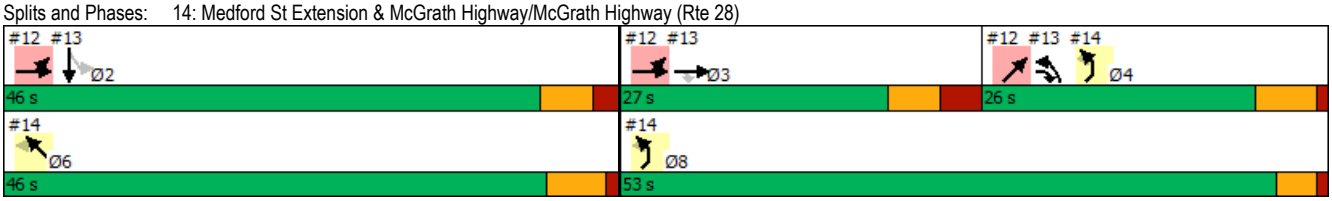
Intersection Summary				
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.42			
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	51.1%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	1135	280	518	130				
Future Volume (vph)	1135	280	518	130				
Lane Group Flow (vph)	790	800	384	378				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	1.13	1.14	0.49	0.48				
Control Delay	103.8	109.8	8.8	8.6				
Queue Delay	0.0	0.0	6.8	6.4				
Total Delay	103.8	109.8	15.6	15.0				
Queue Length 50th (ft)	~631	~646	14	13				
Queue Length 95th (ft)	#854	#870	m80	m77				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	700	699	858	851				
Starvation Cap Reductn	0	0	417	412				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	1.13	1.14	0.87	0.86				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 95.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Medford St Extension & McGrath Highway/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	1135	280	518	130	0
Future Volume (vph)	0	0	0	0	1135	280	518	130	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	11	12	12	12
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.95	0.95	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	0.99	0.99	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	0.97	0.95	0.95	
Satd. Flow (prot)					1641	1638	1683	1670	
Flt Permitted					0.95	0.97	0.95	0.95	
Satd. Flow (perm)					1641	1638	1683	1670	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	0	1275	315	609	153	0
RTOR Reduction (vph)	0	0	0	0	0	0	17	17	0
Lane Group Flow (vph)	0	0	0	0	790	800	367	361	0
Confl. Peds. (#/hr)							6		
Heavy Vehicles (%)	2%	2%	2%	2%	1%	7%	1%	3%	2%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					40.6	40.6	45.1	45.1	
Effective Green, g (s)					40.6	40.6	45.1	45.1	
Actuated g/C Ratio					0.43	0.43	0.47	0.47	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					699	698	797	791	
v/s Ratio Prot									
v/s Ratio Perm					0.48	0.49	c0.22	0.22	
v/c Ratio					1.13	1.15	0.46	0.46	
Uniform Delay, d1					27.3	27.3	16.9	16.8	
Progression Factor					1.00	1.00	0.44	0.43	
Incremental Delay, d2					75.9	82.0	0.1	0.1	
Delay (s)					103.2	109.3	7.5	7.4	
Level of Service					F	F	A	A	
Approach Delay (s)	0.0		0.0			106.2		7.4	
Approach LOS	A		A			F		A	

Intersection Summary			
HCM 2000 Control Delay	74.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	95.2	Sum of lost time (s)	18.5
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø9
Lane Configurations											
Traffic Volume (vph)	269	5	113	51	13	101	963	42	848	189	
Future Volume (vph)	269	5	113	51	13	101	963	42	848	189	
Lane Group Flow (vph)	0	315	130	0	196	149	1090	45	912	203	
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Prot	NA	Prot	
Protected Phases		7			3	5	2	1	6	6	9
Permitted Phases	7		7	3							
Detector Phase	7	7	7	3	3	5	2	1	6	6	
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	12.0	6.0	12.0	12.0	1.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	11.5	32.5	23.0	32.5	32.5	6.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	20.0	51.0	23.0	54.0	54.0	6.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	16.7%	42.5%	19.2%	45.0%	45.0%	5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0	3.5	3.5	2.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.5	2.0	3.0	2.0	2.0	0.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.5	6.5		6.5	5.5	5.5	6.0	5.5	5.5	
Lead/Lag						Lead	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max	C-Max	None
v/c Ratio		0.95	0.22		0.47	0.78	0.71	0.31	0.63	0.27	
Control Delay		80.0	6.3		24.1	77.9	30.5	56.0	30.7	4.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		80.0	6.3		24.1	77.9	30.5	56.0	30.7	4.0	
Queue Length 50th (ft)		234	0		70	113	353	34	295	0	
Queue Length 95th (ft)		#433	43		155	#209	497	68	366	46	
Internal Link Dist (ft)		130			65		514		86		
Turn Bay Length (ft)						450		80		250	
Base Capacity (vph)		331	587		420	206	1541	255	1445	765	
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		0.95	0.22		0.47	0.72	0.71	0.18	0.63	0.27	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1.5 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	269	5	113	51	13	117	33	101	963	18	42	848	189
Future Volume (vph)	269	5	113	51	13	117	33	101	963	18	42	848	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5		6.5			5.5	5.5		6.0	5.5	5.5
Lane Util. Factor		1.00	1.00		1.00			1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes		1.00	0.99		0.97			1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes		0.98	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.91			1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.99			0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1764	1563		1663			1707	3345		1805	3505	1568
Flt Permitted		0.56	1.00		0.69			0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1037	1563		1156			1707	3345		1805	3505	1568
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	309	6	130	55	14	127	37	112	1070	20	45	912	203
RTOR Reduction (vph)	0	0	89	0	52	0	0	0	1	0	0	0	122
Lane Group Flow (vph)	0	315	41	0	144	0	0	149	1089	0	45	912	81
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	6%	1%	4%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	NA	Prot
Protected Phases		7			3		5	5	2		1	6	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		38.3	38.3		38.3			13.5	52.5		8.4	47.9	47.9
Effective Green, g (s)		38.3	38.3		38.3			13.5	52.5		8.4	47.9	47.9
Actuated g/C Ratio		0.32	0.32		0.32			0.11	0.44		0.07	0.40	0.40
Clearance Time (s)		6.5	6.5		6.5			5.5	5.5		6.0	5.5	5.5
Vehicle Extension (s)		2.0	2.0		2.0			3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		330	498		368			192	1463		126	1399	625
v/s Ratio Prot								c0.09	c0.33		0.02	0.26	0.05
v/s Ratio Perm		c0.30	0.03		0.12								
v/c Ratio		0.95	0.08		0.39			0.78	0.74		0.36	0.65	0.13
Uniform Delay, d1		40.0	28.6		31.8			51.8	28.2		53.2	29.3	22.8
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2		37.1	0.0		0.3			17.6	3.5		1.7	2.4	0.4
Delay (s)		77.1	28.6		32.0			69.4	31.6		55.0	31.7	23.3
Level of Service		E	C		C			E	C		D	C	C
Approach Delay (s)		62.9			32.0				36.2			31.1	
Approach LOS		E			C				D			C	

Intersection Summary			
HCM 2000 Control Delay	37.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	2.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	1274	103	0	141
Future Vol, veh/h	0	0	1274	103	0	141
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	90	90	78	78
Heavy Vehicles, %	2	2	2	5	0	3
Mvmt Flow	0	0	1416	114	0	181

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	708
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.33
Pot Cap-1 Maneuver	-	0	0	375
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	23.2
HCM LOS		C

Minor Lane/Major Mvmt	NWTSWLn1
Capacity (veh/h)	- 375
HCM Lane V/C Ratio	- 0.482
HCM Control Delay (s)	- 23.2
HCM Lane LOS	- C
HCM 95th %tile Q(veh)	- 2.5

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	9	0	0	52	136	57	352	1	0	0	0
Future Vol, veh/h	6	9	0	0	52	136	57	352	1	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	54	54	73	73	73	86	86	86	92	92	92
Heavy Vehicles, %	17	33	2	2	4	1	9	5	2	2	2	2
Mvmt Flow	11	17	0	0	71	186	66	409	1	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	671	551	-	-	551	420	0	0	0
Stage 1	0	0	-	-	551	-	-	-	-
Stage 2	671	551	-	-	0	-	-	-	-
Critical Hdwy	7.27	6.83	-	-	6.54	6.21	4.19	-	-
Critical Hdwy Stg 1	-	-	-	-	5.54	-	-	-	-
Critical Hdwy Stg 2	6.27	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.653	4.297	-	-	4.036	3.309	2.281	-	-
Pot Cap-1 Maneuver	350	402	0	0	439	635	-	-	-
Stage 1	-	-	0	0	512	-	-	-	-
Stage 2	422	468	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	216	398	-	-	435	630	-	-	-
Mov Cap-2 Maneuver	216	398	-	-	435	-	-	-	-
Stage 1	-	-	-	-	507	-	-	-	-
Stage 2	255	464	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	18.3	16.7	
HCM LOS	C	C	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	298	561
HCM Lane V/C Ratio	-	-	-	0.093	0.459
HCM Control Delay (s)	-	-	-	18.3	16.7
HCM Lane LOS	-	-	-	C	C
HCM 95th %tile Q(veh)	-	-	-	0.3	2.4

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	34	1343	6	7	1055
Future Vol, veh/h	24	34	1343	6	7	1055
Conflicting Peds, #/hr	0	0	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	93	93
Heavy Vehicles, %	0	0	3	100	0	3
Mvmt Flow	26	37	1429	6	8	1134

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2027	730	0	0	1447	0
Stage 1	1444	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	51	369	-	-	474	-
Stage 1	187	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	48	365	-	-	469	-
Mov Cap-2 Maneuver	48	-	-	-	-	-
Stage 1	185	-	-	-	-	-
Stage 2	503	-	-	-	-	-

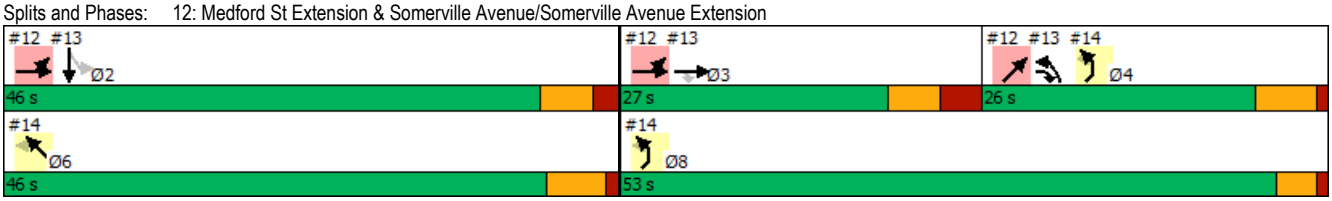
Approach	WB	NB	SB
HCM Control Delay, s	92.2	0	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	98	469	-
HCM Lane V/C Ratio	-	-	0.643	0.016	-
HCM Control Delay (s)	-	-	92.2	12.8	0.3
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	3.1	0	-

Lane Group	EBT	NET	Ø2	Ø3	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	233	181				
Future Volume (vph)	233	181				
Lane Group Flow (vph)	292	257				
Turn Type	NA	NA				
Protected Phases	2 3	4	2	3	6	8
Permitted Phases						
Detector Phase	2 3	4				
Switch Phase						
Minimum Initial (s)		10.0	10.0	6.0	10.0	10.0
Minimum Split (s)		25.5	30.0	27.0	25.5	14.0
Total Split (s)		26.0	46.0	27.0	46.0	53.0
Total Split (%)		26.3%	46%	27%	46%	54%
Yellow Time (s)		4.5	4.0	4.0	4.5	3.0
All-Red Time (s)		1.0	2.0	3.0	1.0	1.0
Lost Time Adjust (s)		0.0				
Total Lost Time (s)		5.5				
Lead/Lag		Lag		Lead		
Lead-Lag Optimize?		Yes		Yes		
Recall Mode		None	Min	None	Min	None
v/c Ratio	0.26	0.37				
Control Delay	1.9	23.9				
Queue Delay	0.3	0.0				
Total Delay	2.2	23.9				
Queue Length 50th (ft)	11	37				
Queue Length 95th (ft)	14	83				
Internal Link Dist (ft)	49	27				
Turn Bay Length (ft)						
Base Capacity (vph)	1398	1199				
Starvation Cap Reductn	600	0				
Spillback Cap Reductn	0	0				
Storage Cap Reductn	0	0				
Reduced v/c Ratio	0.37	0.21				

Intersection Summary
Cycle Length: 99
Actuated Cycle Length: 62.1
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: Medford St Extension & Somerville Avenue/Somerville Avenue Extension



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	41	233	0	0	0	0	0	181	35	0	0	0
Future Volume (vph)	41	233	0	0	0	0	0	181	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						5.5				
Lane Util. Factor		1.00						0.95				
Frpb, ped/bikes		1.00						0.99				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.98				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		1824						3379				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		1824						3379				
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.84	0.84	0.84	0.92	0.92	0.92
Adj. Flow (vph)	44	248	0	0	0	0	0	215	42	0	0	0
RTOR Reduction (vph)	0	12	0	0	0	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	280	0	0	0	0	0	240	0	0	0	0
Confl. Peds. (#/hr)	2											
Confl. Bikes (#/hr)									24			
Heavy Vehicles (%)	0%	4%	0%	2%	2%	2%	0%	2%	9%	2%	2%	2%
Turn Type	Split	NA						NA				
Protected Phases	2 3	2 3						4				
Permitted Phases												
Actuated Green, G (s)		36.2						12.8				
Effective Green, g (s)		36.2						12.8				
Actuated g/C Ratio		0.59						0.21				
Clearance Time (s)								5.5				
Vehicle Extension (s)								2.0				
Lane Grp Cap (vph)		1073						703				
v/s Ratio Prot		c0.15						c0.07				
v/s Ratio Perm												
v/c Ratio		0.26						0.34				
Uniform Delay, d1		6.2						20.8				
Progression Factor		0.27						1.00				
Incremental Delay, d2		0.0						0.1				
Delay (s)		1.7						20.9				
Level of Service		A						C				
Approach Delay (s)		1.7			0.0			20.9			0.0	
Approach LOS		A			A			C			A	

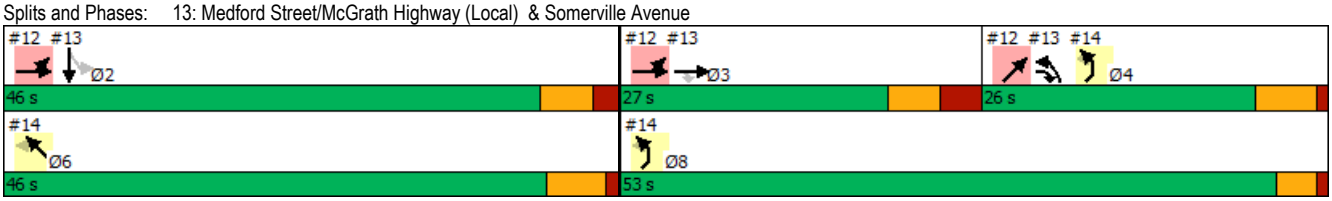
Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	18.5
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBT	EBR	SBL	SBT	Ø6	Ø8
Lane Configurations						
Traffic Volume (vph)	174	38	100	347		
Future Volume (vph)	174	38	100	347		
Lane Group Flow (vph)	196	43	110	436		
Turn Type	NA	pm+ov	Perm	NA		
Protected Phases	3	4		2	6	8
Permitted Phases		3	2			
Detector Phase	3	4	2	2		
Switch Phase						
Minimum Initial (s)	6.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.0	25.5	30.0	30.0	25.5	14.0
Total Split (s)	27.0	26.0	46.0	46.0	46.0	53.0
Total Split (%)	27.3%	26.3%	46.5%	46.5%	46%	54%
Yellow Time (s)	4.0	4.5	4.0	4.0	4.5	3.0
All-Red Time (s)	3.0	1.0	2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		
Total Lost Time (s)	7.0	5.5	6.0	6.0		
Lead/Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	None	None	Min	Min	Min	None
v/c Ratio	0.52	0.06	0.20	0.45		
Control Delay	29.1	3.5	5.6	19.8		
Queue Delay	0.0	0.0	0.0	0.0		
Total Delay	29.1	3.5	5.6	19.8		
Queue Length 50th (ft)	60	0	0	58		
Queue Length 95th (ft)	154	14	34	132		
Internal Link Dist (ft)	645			696		
Turn Bay Length (ft)		100	70			
Base Capacity (vph)	632	909	1190	2315		
Starvation Cap Reductn	0	0	0	0		
Spillback Cap Reductn	0	0	0	0		
Storage Cap Reductn	0	0	0	0		
Reduced v/c Ratio	0.31	0.05	0.09	0.19		

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 62.1
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: Medford Street/McGrath Highway (Local) & Somerville Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	174	38	0	0	0	0	0	0	100	347	50
Future Volume (vph)	0	174	38	0	0	0	0	0	0	100	347	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0	5.5							6.0	6.0	
Lane Util. Factor		1.00	1.00							1.00	0.95	
Frpb, ped/bikes		1.00	0.98							1.00	0.99	
Flpb, ped/bikes		1.00	1.00							1.00	1.00	
Frt		1.00	0.85							1.00	0.98	
Flt Protected		1.00	1.00							0.95	1.00	
Satd. Flow (prot)		1845	1535							1687	3387	
Flt Permitted		1.00	1.00							0.95	1.00	
Satd. Flow (perm)		1845	1535							1687	3387	
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.92	0.92	0.69	0.69	0.69	0.91	0.91	0.91
Adj. Flow (vph)	0	196	43	0	0	0	0	0	0	110	381	55
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	0	79	14	0
Lane Group Flow (vph)	0	196	18	0	0	0	0	0	0	31	422	0
Confl. Peds. (#/hr)			12				51					51
Confl. Bikes (#/hr)			5									5
Heavy Vehicles (%)	0%	3%	3%	0%	0%	0%	0%	0%	0%	7%	3%	6%
Turn Type		NA	pm+ov				Prot			Perm	NA	
Protected Phases		3	4				4				2	
Permitted Phases			3							2		
Actuated Green, G (s)		12.7	25.5							17.5	17.5	
Effective Green, g (s)		12.7	25.5							17.5	17.5	
Actuated g/C Ratio		0.21	0.41							0.28	0.28	
Clearance Time (s)		7.0	5.5							6.0	6.0	
Vehicle Extension (s)		2.0	2.0							2.0	2.0	
Lane Grp Cap (vph)		381	636							480	963	
v/s Ratio Prot		c0.11	c0.01								c0.12	
v/s Ratio Perm			0.01							0.02		
v/c Ratio		0.51	0.03							0.07	0.44	
Uniform Delay, d1		21.7	10.7							16.0	18.0	
Progression Factor		1.00	1.00							1.00	1.00	
Incremental Delay, d2		0.5	0.0							0.0	0.1	
Delay (s)		22.2	10.7							16.1	18.1	
Level of Service		C	B							B	B	
Approach Delay (s)		20.1			0.0			0.0			17.7	
Approach LOS		C			A			A			B	

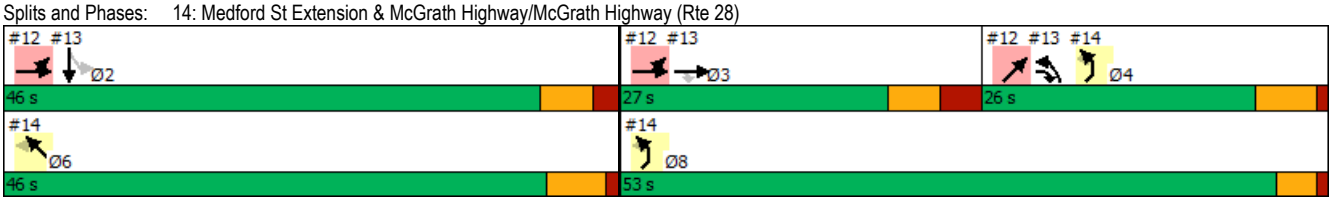
Intersection Summary				
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B	
HCM 2000 Volume to Capacity ratio	0.34			
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	18.5	
Intersection Capacity Utilization	40.9%	ICU Level of Service	A	
Analysis Period (min)	15			
c Critical Lane Group				

Lane Group	NWL	NWT	NEL2	NEL	Ø2	Ø3	Ø4	Ø8
Lane Configurations								
Traffic Volume (vph)	401	181	158	64				
Future Volume (vph)	401	181	158	64				
Lane Group Flow (vph)	301	306	132	132				
Turn Type	Perm	NA	Perm	Prot				
Protected Phases		6		4 8	2	3	4	8
Permitted Phases	6		4 8					
Detector Phase	6	6	4 8	4 8				
Switch Phase								
Minimum Initial (s)	10.0	10.0			10.0	6.0	10.0	10.0
Minimum Split (s)	25.5	25.5			30.0	27.0	25.5	14.0
Total Split (s)	46.0	46.0			46.0	27.0	26.0	53.0
Total Split (%)	46.5%	46.5%			46%	27%	26%	54%
Yellow Time (s)	4.5	4.5			4.0	4.0	4.5	3.0
All-Red Time (s)	1.0	1.0			2.0	3.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0						
Total Lost Time (s)	5.5	5.5						
Lead/Lag						Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	
Recall Mode	Min	Min			Min	None	None	None
v/c Ratio	0.64	0.62	0.14	0.15				
Control Delay	27.2	26.4	0.3	0.6				
Queue Delay	0.0	0.0	0.1	0.1				
Total Delay	27.2	26.4	0.4	0.7				
Queue Length 50th (ft)	89	90	0	1				
Queue Length 95th (ft)	227	227	1	0				
Internal Link Dist (ft)		122		29				
Turn Bay Length (ft)								
Base Capacity (vph)	1127	1178	1376	1368				
Starvation Cap Reductn	0	0	642	623				
Spillback Cap Reductn	0	0	0	0				
Storage Cap Reductn	0	0	0	0				
Reduced v/c Ratio	0.27	0.26	0.18	0.18				

Intersection Summary

Cycle Length: 99
Actuated Cycle Length: 62.1
Natural Cycle: 85
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Medford St Extension & McGrath Highway/McGrath Highway (Rte 28)





Movement	EBL	EBR	SET	SER	NWL	NWT	NEL2	NEL	NER
Lane Configurations									
Traffic Volume (vph)	0	0	0	0	401	181	158	64	0
Future Volume (vph)	0	0	0	0	401	181	158	64	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	11	11	12	12	12
Total Lost time (s)					5.5	5.5	5.5	5.5	
Lane Util. Factor					0.95	0.95	0.95	0.95	
Frpb, ped/bikes					1.00	1.00	1.00	1.00	
Flpb, ped/bikes					1.00	1.00	0.99	0.99	
Frt					1.00	1.00	1.00	1.00	
Flt Protected					0.95	0.98	0.95	0.95	
Satd. Flow (prot)					1625	1699	1688	1698	
Flt Permitted					0.95	0.98	0.95	0.95	
Satd. Flow (perm)					1625	1699	1688	1698	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	0	418	189	188	76	0
RTOR Reduction (vph)	0	0	0	0	0	0	59	23	0
Lane Group Flow (vph)	0	0	0	0	301	306	73	109	0
Confl. Peds. (#/hr)							6		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	0%	1%	0%	0%
Turn Type					Perm	NA	Perm	Prot	
Protected Phases						6		4 8	
Permitted Phases					6		4 8		
Actuated Green, G (s)					18.0	18.0	34.0	34.0	
Effective Green, g (s)					18.0	18.0	34.0	34.0	
Actuated g/C Ratio					0.29	0.29	0.55	0.55	
Clearance Time (s)					5.5	5.5			
Vehicle Extension (s)					2.0	2.0			
Lane Grp Cap (vph)					475	497	933	938	
v/s Ratio Prot									
v/s Ratio Perm					c0.19	0.18	0.04	0.06	
v/c Ratio					0.63	0.62	0.08	0.12	
Uniform Delay, d1					18.9	18.8	6.4	6.6	
Progression Factor					1.00	1.00	0.00	0.04	
Incremental Delay, d2					2.0	1.6	0.0	0.0	
Delay (s)					20.9	20.4	0.0	0.3	
Level of Service					C	C	A	A	
Approach Delay (s)	0.0		0.0			20.6		0.2	
Approach LOS	A		A			C		A	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	18.5
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø9
Lane Configurations										
Traffic Volume (vph)	128	0	110	115	457	733	173			
Future Volume (vph)	128	0	110	115	457	733	173			
Lane Group Flow (vph)	0	149	128	177	476	764	180			
Turn Type	Perm	NA	Perm	Prot	NA	NA	Prot			
Protected Phases		7		5	2	6	6	1	3	9
Permitted Phases	7		7							
Detector Phase	7	7	7	5	2	6	6			
Switch Phase										
Minimum Initial (s)	6.0	6.0	6.0	6.0	12.0	12.0	12.0	6.0	6.0	1.0
Minimum Split (s)	34.5	34.5	34.5	12.0	32.5	33.0	33.0	23.0	34.5	6.0
Total Split (s)	40.0	40.0	40.0	20.0	51.0	54.0	54.0	23.0	40.0	6.0
Total Split (%)	33.3%	33.3%	33.3%	16.7%	42.5%	45.0%	45.0%	19%	33%	5%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.5	3.5	3.5	3.0	3.5	2.0
All-Red Time (s)	3.0	3.0	3.0	2.5	2.0	2.0	2.0	3.0	3.0	0.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)		6.5	6.5	5.5	5.5	5.5	5.5			
Lead/Lag				Lead	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	None	None	None
v/c Ratio		0.72	0.37	0.69	0.20	0.40	0.19			
Control Delay		66.4	9.9	62.6	9.5	18.6	3.5			
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay		66.4	9.9	62.6	9.5	18.6	3.5			
Queue Length 50th (ft)		112	0	130	47	170	0			
Queue Length 95th (ft)		159	44	206	170	295	44			
Internal Link Dist (ft)		130			514	86				
Turn Bay Length (ft)				450			250			
Base Capacity (vph)		387	528	261	2354	1913	954			
Starvation Cap Reductn		0	0	0	0	0	0			
Spillback Cap Reductn		0	0	0	0	0	0			
Storage Cap Reductn		0	0	0	0	0	0			
Reduced v/c Ratio		0.39	0.24	0.68	0.20	0.40	0.19			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 1.5 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	128	0	110	0	0	0	55	115	457	0	0	733	173
Future Volume (vph)	128	0	110	0	0	0	55	115	457	0	0	733	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5					5.5	5.5			5.5	5.5
Lane Util. Factor		1.00	1.00					1.00	0.95			0.95	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.97	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1741	1562					1733	3355			3505	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1388	1562					1733	3355			3505	1599
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	0	128	0	0	0	57	120	476	0	0	764	180
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	0	0	0	0	84
Lane Group Flow (vph)	0	149	19	0	0	0	0	177	476	0	0	764	96
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	0%	1%	4%	0%	0%	3%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA		Prot	NA	Prot
Protected Phases		7			3		5	5	2		1	6	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		18.0	18.0					17.8	77.8			63.9	63.9
Effective Green, g (s)		18.0	18.0					17.8	77.8			63.9	63.9
Actuated g/C Ratio		0.15	0.15					0.15	0.65			0.53	0.53
Clearance Time (s)		6.5	6.5					5.5	5.5			5.5	5.5
Vehicle Extension (s)		2.0	2.0					3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		208	234					257	2175			1866	851
v/s Ratio Prot								c0.10	0.14			c0.22	0.06
v/s Ratio Perm		c0.11	0.01										
v/c Ratio		0.72	0.08					0.69	0.22			0.41	0.11
Uniform Delay, d1		48.6	43.9					48.5	8.6			16.8	14.0
Progression Factor		1.00	1.00					1.00	1.00			1.00	1.00
Incremental Delay, d2		9.4	0.1					7.5	0.2			0.7	0.3
Delay (s)		57.9	43.9					55.9	8.9			17.4	14.2
Level of Service		E	D					E	A			B	B
Approach Delay (s)		51.5			0.0				21.6			16.8	
Approach LOS		D			A				C			B	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	0	0	543	37	0	39
Future Vol, veh/h	0	0	543	37	0	39
Conflicting Peds, #/hr	0	0	0	5	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	97	97	81	81
Heavy Vehicles, %	2	2	2	11	0	3
Mvmt Flow	0	0	560	38	0	48

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	280
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.33
Pot Cap-1 Maneuver	-	0	0	714
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	714
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	NW	SW
HCM Control Delay, s	0	10.4
HCM LOS		B

Minor Lane/Major Mvmt	NWT	SWLn1
Capacity (veh/h)	-	714
HCM Lane V/C Ratio	-	0.067
HCM Control Delay (s)	-	10.4
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.2

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Future Vol, veh/h	5	17	0	0	17	31	35	198	12	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	9	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	92	92	92	79	79	79	92	92	92
Heavy Vehicles, %	0	12	0	0	6	7	11	6	0	2	2	2
Mvmt Flow	6	22	0	0	18	34	44	251	15	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	374	363	-	-	356	269	0	0	0
Stage 1	0	0	-	-	356	-	-	-	-
Stage 2	374	363	-	-	0	-	-	-	-
Critical Hdwy	7.1	6.62	-	-	6.56	6.27	4.21	-	-
Critical Hdwy Stg 1	-	-	-	-	5.56	-	-	-	-
Critical Hdwy Stg 2	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.108	-	-	4.054	3.363	2.299	-	-
Pot Cap-1 Maneuver	587	549	0	0	563	758	-	-	-
Stage 1	-	-	0	0	622	-	-	-	-
Stage 2	651	607	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	546	544	-	-	558	752	-	-	-
Mov Cap-2 Maneuver	546	544	-	-	558	-	-	-	-
Stage 1	-	-	-	-	616	-	-	-	-
Stage 2	603	602	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12	10.8	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	544	670
HCM Lane V/C Ratio	-	-	-	0.051	0.078
HCM Control Delay (s)	-	-	-	12	10.8
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	6	574	11	10	904
Future Vol, veh/h	2	6	574	11	10	904
Conflicting Peds, #/hr	0	0	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	63	63	96	96	96	96
Heavy Vehicles, %	0	0	3	0	0	2
Mvmt Flow	3	10	598	11	10	942

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1107	317	0	0	621	0
Stage 1	616	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	208	685	-	-	969	-
Stage 1	507	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	201	677	-	-	958	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	573	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.2
HCM LOS	B		

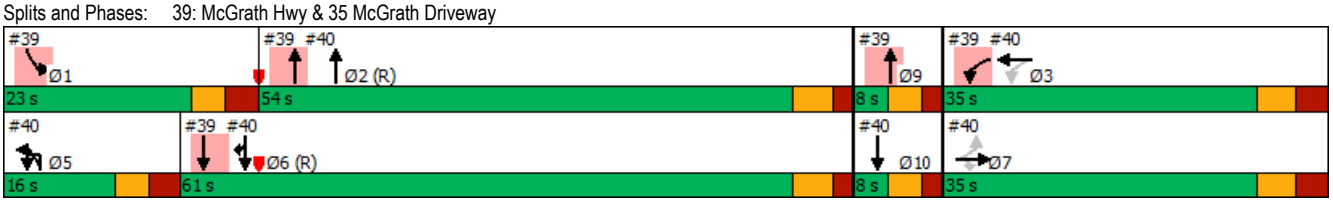
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	425	958	-
HCM Lane V/C Ratio	-	-	0.03	0.011	-
HCM Control Delay (s)	-	-	13.7	8.8	0.1
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø5	Ø7	Ø9	Ø10
Lane Configurations									
Traffic Volume (vph)	7	427	39	1616					
Future Volume (vph)	7	427	39	1616					
Lane Group Flow (vph)	18	496	41	1701					
Turn Type	Prot	NA	Prot	NA					
Protected Phases	3	2 9	1	6	2	5	7	9	10
Permitted Phases									
Detector Phase	3	2 9	1	6					
Switch Phase									
Minimum Initial (s)	6.0		6.0	8.0	8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		23.0	32.5	32.5	12.0	34.5	8.0	8.0
Total Split (s)	35.0		23.0	61.0	54.0	16.0	35.0	8.0	8.0
Total Split (%)	29.2%		19.2%	50.8%	45%	13%	29%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0					
Total Lost Time (s)	6.5		6.0	5.5					
Lead/Lag			Lead	Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes	Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	Min	Min
v/c Ratio	0.08	0.16	0.29	0.95					
Control Delay	26.7	6.1	55.5	41.6					
Queue Delay	0.0	0.2	0.0	0.0					
Total Delay	26.7	6.4	55.5	41.6					
Queue Length 50th (ft)	6	30	31	640					
Queue Length 95th (ft)	25	37	63	#902					
Internal Link Dist (ft)	37	86		1146					
Turn Bay Length (ft)			75						
Base Capacity (vph)	412	3140	255	1786					
Starvation Cap Reductn	0	1840	0	0					
Spillback Cap Reductn	0	0	0	0					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	0.04	0.38	0.16	0.95					

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	9	427	25	39	1616
Future Volume (vph)	7	9	427	25	39	1616
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.93		0.99		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1706		4728		1805	3471
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1706		4728		1805	3471
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.95	0.95
Adj. Flow (vph)	8	10	469	27	41	1701
RTOR Reduction (vph)	9	0	3	0	0	0
Lane Group Flow (vph)	9	0	493	0	41	1701
Confl. Peds. (#/hr)				10	10	
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	0%	0%	9%	1%	0%	4%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	15.3		78.9		8.3	61.8
Effective Green, g (s)	15.3		78.9		8.3	61.8
Actuated g/C Ratio	0.13		0.66		0.07	0.51
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	2.0				3.0	3.0
Lane Grp Cap (vph)	217		3108		124	1787
v/s Ratio Prot	c0.01		c0.10		c0.02	c0.49
v/s Ratio Perm						
v/c Ratio	0.04		0.16		0.33	0.95
Uniform Delay, d1	45.9		7.9		53.2	27.7
Progression Factor	1.00		0.63		1.00	1.00
Incremental Delay, d2	0.0		0.0		1.6	12.6
Delay (s)	46.0		4.9		54.8	40.3
Level of Service	D		A		D	D
Approach Delay (s)	46.0		4.9			40.6
Approach LOS	D		A			D

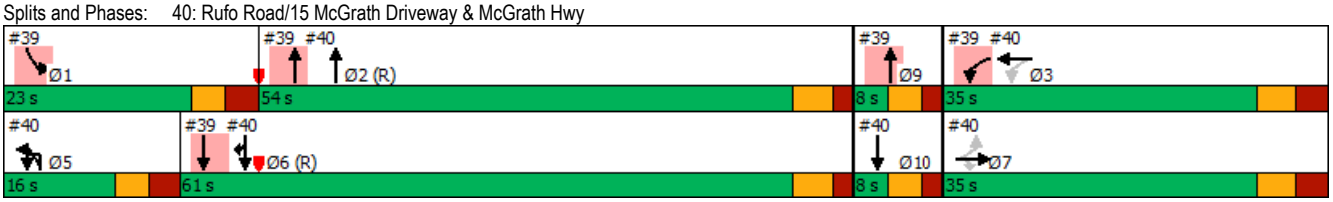
Intersection Summary			
HCM 2000 Control Delay	32.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø9	Ø10
Lane Configurations											
Traffic Volume (vph)	87	0	66	89	365	1374	249				
Future Volume (vph)	87	0	66	89	365	1374	249				
Lane Group Flow (vph)	0	102	78	137	397	1446	262				
Turn Type	Perm	NA	Perm	Prot	NA	NA	custom				
Protected Phases		7		5	2	6 10	6	1	3	9	10
Permitted Phases	7		7								
Detector Phase	7	7	7	5	2	6 10	6				
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	8.0		8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	12.0	32.5		32.5	23.0	34.5	8.0	8.0
Total Split (s)	35.0	35.0	35.0	16.0	54.0		61.0	23.0	35.0	8.0	8.0
Total Split (%)	29.2%	29.2%	29.2%	13.3%	45.0%		50.8%	19%	29%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.5		3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	2.0		2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0				
Total Lost Time (s)		6.5	6.5	6.0	5.5		5.5				
Lead/Lag				Lead	Lag		Lag	Lead			
Lead-Lag Optimize?				Yes	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Min		C-Min	None	None	Min	Min
v/c Ratio		0.61	0.23	0.62	0.14	0.50	0.28				
Control Delay		63.3	1.6	62.0	13.4	0.3	0.4				
Queue Delay		0.0	0.0	0.0	0.0	1.2	3.0				
Total Delay		63.3	1.6	62.0	13.4	1.4	3.4				
Queue Length 50th (ft)		77	0	99	46	0	0				
Queue Length 95th (ft)		112	0	#240	96	m1	m0				
Internal Link Dist (ft)		130			514	86					
Turn Bay Length (ft)				450			250				
Base Capacity (vph)		309	470	222	2744	2899	950				
Starvation Cap Reductn		0	0	0	0	1136	575				
Spillback Cap Reductn		0	0	0	0	0	0				
Storage Cap Reductn		0	0	0	0	0	0				
Reduced v/c Ratio		0.33	0.17	0.62	0.14	0.82	0.70				

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	87	0	66	0	0	0	37	89	365	0	0	1374	249
Future Volume (vph)	87	0	66	0	0	0	37	89	365	0	0	1374	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.5	6.5					6.0	5.5			5.5	5.5
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.98					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.99	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1635	1409					1581	4600			4988	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1303	1409					1581	4600			4988	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	102	0	78	0	0	0	40	97	397	0	0	1446	262
RTOR Reduction (vph)	0	0	68	0	0	0	0	0	0	0	0	0	127
Lane Group Flow (vph)	0	102	10	0	0	0	0	137	397	0	0	1446	135
Confl. Peds. (#/hr)	10		2	2		10		11		15	15		11
Confl. Bikes (#/hr)			5			1							
Heavy Vehicles (%)	9%	0%	12%	2%	2%	2%	3%	8%	9%	0%	0%	4%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	custom
Protected Phases		7			3		5	5	2			6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		15.3	15.3					16.9	70.4			70.3	61.8
Effective Green, g (s)		15.3	15.3					16.9	70.4			70.3	61.8
Actuated g/C Ratio		0.13	0.13					0.14	0.59			0.59	0.51
Clearance Time (s)		6.5	6.5					6.0	5.5				5.5
Vehicle Extension (s)		2.0	2.0					3.0	3.0				3.0
Lane Grp Cap (vph)		166	179					222	2698			2922	823
v/s Ratio Prot								c0.09	0.09			c0.29	0.08
v/s Ratio Perm		c0.08	0.01										
v/c Ratio		0.61	0.06					0.62	0.15			0.49	0.16
Uniform Delay, d1		49.6	46.0					48.5	11.2			14.5	15.4
Progression Factor		1.00	1.00					1.00	1.00			0.00	0.05
Incremental Delay, d2		4.7	0.0					5.0	0.1			0.0	0.1
Delay (s)		54.2	46.0					53.5	11.3			0.1	1.0
Level of Service		D	D					D	B			A	A
Approach Delay (s)		50.7			0.0				22.2			0.2	
Approach LOS		D			A				C			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	58.7%	ICU Level of Service	B
Analysis Period (min)	15		

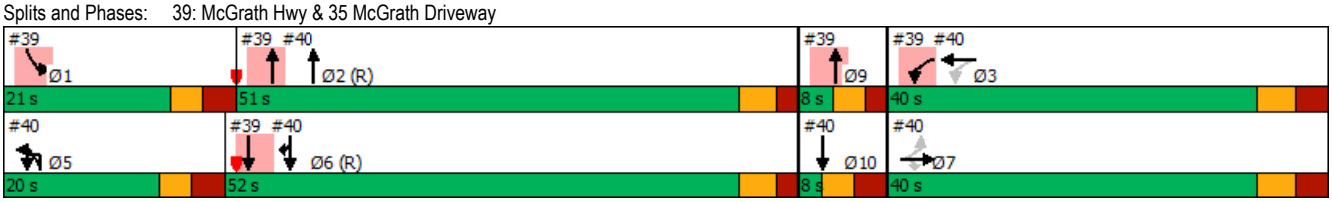
c Critical Lane Group

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø5	Ø7	Ø9	Ø10
Lane Configurations									
Traffic Volume (vph)	24	1308	7	1087					
Future Volume (vph)	24	1308	7	1087					
Lane Group Flow (vph)	63	1397	8	1169					
Turn Type	Prot	NA	Prot	NA					
Protected Phases	3	2 9	1	6	2	5	7	9	10
Permitted Phases									
Detector Phase	3	2 9	1	6					
Switch Phase									
Minimum Initial (s)	6.0		6.0	8.0	8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		21.0	28.5	28.5	12.0	34.5	8.0	9.0
Total Split (s)	40.0		21.0	52.0	51.0	20.0	40.0	8.0	8.0
Total Split (%)	33.3%		17.5%	43.3%	43%	17%	33%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	3.0	3.0	2.0	3.0
Lost Time Adjust (s)	0.0		0.0	0.0					
Total Lost Time (s)	6.5		6.0	5.5					
Lead/Lag			Lead	Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes	Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	Min	Min
v/c Ratio	0.14	0.47	0.07	0.79					
Control Delay	17.2	8.2	51.3	36.0					
Queue Delay	0.0	0.2	0.0	0.0					
Total Delay	17.2	8.4	51.3	36.0					
Queue Length 50th (ft)	15	89	6	432					
Queue Length 95th (ft)	50	100	21	528					
Internal Link Dist (ft)	37	86		1146					
Turn Bay Length (ft)			75						
Base Capacity (vph)	499	2992	225	1478					
Starvation Cap Reductn	0	641	0	0					
Spillback Cap Reductn	0	0	0	0					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	0.13	0.59	0.04	0.79					

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	34	1308	6	7	1087
Future Volume (vph)	24	34	1308	6	7	1087
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.92		1.00		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1693		5011		1805	3505
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1693		5011		1805	3505
Peak-hour factor, PHF	0.92	0.92	0.94	0.94	0.93	0.93
Adj. Flow (vph)	26	37	1391	6	8	1169
RTOR Reduction (vph)	28	0	0	0	0	0
Lane Group Flow (vph)	35	0	1397	0	8	1169
Confl. Peds. (#/hr)				12	12	
Confl. Bikes (#/hr)		10		12		
Heavy Vehicles (%)	0%	0%	3%	100%	0%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	29.6		68.6		4.3	50.6
Effective Green, g (s)	29.6		68.6		4.3	50.6
Actuated g/C Ratio	0.25		0.57		0.04	0.42
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	2.0				3.0	3.0
Lane Grp Cap (vph)	417		2864		64	1477
v/s Ratio Prot	c0.02		c0.28		c0.00	c0.33
v/s Ratio Perm						
v/c Ratio	0.08		0.49		0.12	0.79
Uniform Delay, d1	34.8		15.3		56.0	30.1
Progression Factor	1.00		0.50		1.00	1.00
Incremental Delay, d2	0.0		0.1		0.9	4.4
Delay (s)	34.8		7.7		56.9	34.5
Level of Service	C		A		E	C
Approach Delay (s)	34.8		7.7			34.7
Approach LOS	C		A			C

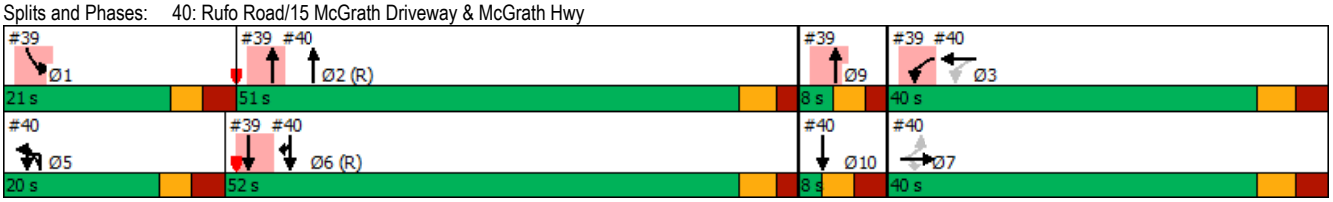
Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø9	Ø10
Lane Configurations											
Traffic Volume (vph)	269	0	113	101	1045	922	189				
Future Volume (vph)	269	0	113	101	1045	922	189				
Lane Group Flow (vph)	0	309	130	149	1161	991	203				
Turn Type	Perm	NA	Perm	Prot	NA	NA	custom				
Protected Phases		7		5	2	6 10	6	1	3	9	10
Permitted Phases	7		7								
Detector Phase	7	7	7	5	2	6 10	6				
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	8.0		8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	12.0	28.5		28.5	21.0	34.5	8.0	9.0
Total Split (s)	40.0	40.0	40.0	20.0	51.0		52.0	21.0	40.0	8.0	8.0
Total Split (%)	33.3%	33.3%	33.3%	16.7%	42.5%		43.3%	18%	33%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.5		3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	2.0		2.0	3.0	3.0	2.0	3.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0				
Total Lost Time (s)		6.5	6.5	6.0	5.5		5.5				
Lead/Lag				Lead	Lag		Lag	Lead			
Lead-Lag Optimize?				Yes	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Min		C-Min	None	None	Min	Min
v/c Ratio		0.90	0.27	0.79	0.45	0.40	0.26				
Control Delay		73.0	6.8	79.9	20.3	0.9	0.6				
Queue Delay		42.8	0.0	0.0	0.0	0.5	1.6				
Total Delay		115.8	6.8	79.9	20.3	1.5	2.2				
Queue Length 50th (ft)		227	0	112	178	4	0				
Queue Length 95th (ft)		#342	42	#221	317	6	m0				
Internal Link Dist (ft)		130			514	86					
Turn Bay Length (ft)				450			250				
Base Capacity (vph)		387	531	197	2558	2460	778				
Starvation Cap Reductn		0	0	0	0	949	415				
Spillback Cap Reductn		97	0	0	0	0	0				
Storage Cap Reductn		0	0	0	0	0	0				
Reduced v/c Ratio		1.07	0.24	0.76	0.45	0.66	0.56				

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	269	0	113	0	0	0	33	101	1045	0	0	922	189
Future Volume (vph)	269	0	113	0	0	0	33	101	1045	0	0	922	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.5	6.5					6.0	5.5			5.5	5.5
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.97	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1741	1563					1648	4821			5036	1568
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1388	1563					1648	4821			5036	1568
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	309	0	130	0	0	0	37	112	1161	0	0	991	203
RTOR Reduction (vph)	0	0	98	0	0	0	0	0	0	0	0	0	117
Lane Group Flow (vph)	0	309	32	0	0	0	0	149	1161	0	0	991	86
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	6%	1%	4%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	custom
Protected Phases		7			3		5	5	2			6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		29.6	29.6					13.8	60.1			58.1	50.6
Effective Green, g (s)		29.6	29.6					13.8	60.1			58.1	50.6
Actuated g/C Ratio		0.25	0.25					0.12	0.50			0.48	0.42
Clearance Time (s)		6.5	6.5					6.0	5.5				5.5
Vehicle Extension (s)		2.0	2.0					3.0	3.0				3.0
Lane Grp Cap (vph)		342	385					189	2414			2438	661
v/s Ratio Prot								c0.09	c0.24			c0.20	0.05
v/s Ratio Perm		c0.22	0.02										
v/c Ratio		0.90	0.08					0.79	0.48			0.41	0.13
Uniform Delay, d1		43.8	34.8					51.7	19.7			19.9	21.2
Progression Factor		1.00	1.00					1.00	1.00			0.03	0.04
Incremental Delay, d2		25.5	0.0					19.2	0.7			0.1	0.2
Delay (s)		69.3	34.8					70.9	20.4			0.7	1.1
Level of Service		E	C					E	C			A	A
Approach Delay (s)		59.1			0.0				26.1			0.7	
Approach LOS		E			A				C			A	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

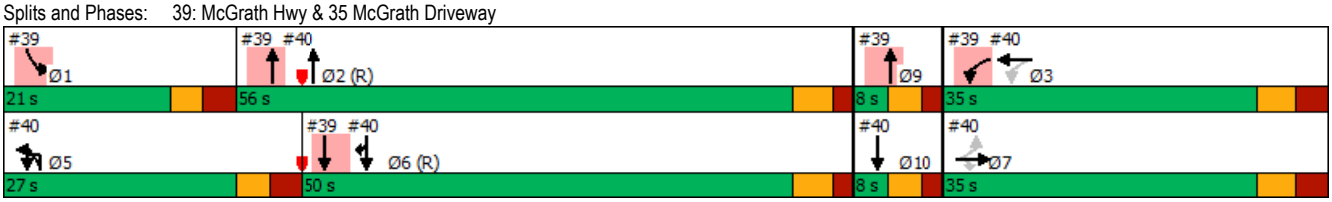
c Critical Lane Group

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø5	Ø7	Ø9	Ø10
Lane Configurations									
Traffic Volume (vph)	2	619	10	968					
Future Volume (vph)	2	619	10	968					
Lane Group Flow (vph)	13	656	10	1008					
Turn Type	Prot	NA	Prot	NA					
Protected Phases	3	2 9	1	6	2	5	7	9	10
Permitted Phases									
Detector Phase	3	2 9	1	6					
Switch Phase									
Minimum Initial (s)	6.0		6.0	8.0	8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		21.0	28.5	28.5	12.0	34.5	8.0	8.0
Total Split (s)	35.0		21.0	50.0	56.0	27.0	35.0	8.0	8.0
Total Split (%)	29.2%		17.5%	41.7%	47%	23%	29%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0					
Total Lost Time (s)	6.5		6.0	5.5					
Lead/Lag			Lead	Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes	Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	Min	Min
v/c Ratio	0.05	0.19	0.08	0.59					
Control Delay	22.1	5.6	51.7	25.9					
Queue Delay	0.0	0.3	0.0	0.0					
Total Delay	22.1	5.9	51.7	25.9					
Queue Length 50th (ft)	2	43	8	283					
Queue Length 95th (ft)	11	53	24	441					
Internal Link Dist (ft)	37	86		1146					
Turn Bay Length (ft)			75						
Base Capacity (vph)	400	3489	225	1710					
Starvation Cap Reductn	0	2111	0	0					
Spillback Cap Reductn	0	0	0	0					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	0.03	0.48	0.04	0.59					

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	6	619	11	10	968
Future Volume (vph)	2	6	619	11	10	968
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.91		1.00	0.95
Frpb, ped/bikes	0.98		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.90		1.00		1.00	1.00
Flt Protected	0.99		1.00		0.95	1.00
Satd. Flow (prot)	1648		5024		1805	3539
Flt Permitted	0.99		1.00		0.95	1.00
Satd. Flow (perm)	1648		5024		1805	3539
Peak-hour factor, PHF	0.63	0.63	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	10	645	11	10	1008
RTOR Reduction (vph)	9	0	1	0	0	0
Lane Group Flow (vph)	4	0	655	0	10	1008
Confl. Peds. (#/hr)	16			1	1	
Confl. Bikes (#/hr)		10				
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	17.9		80.3		4.3	58.0
Effective Green, g (s)	17.9		80.3		4.3	58.0
Actuated g/C Ratio	0.15		0.67		0.04	0.48
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	2.0				3.0	3.0
Lane Grp Cap (vph)	245		3361		64	1710
v/s Ratio Prot	c0.00		c0.13		c0.01	c0.28
v/s Ratio Perm						
v/c Ratio	0.02		0.19		0.16	0.59
Uniform Delay, d1	43.6		7.6		56.1	22.4
Progression Factor	1.00		0.64		1.00	1.00
Incremental Delay, d2	0.0		0.0		1.1	1.5
Delay (s)	43.6		4.8		57.2	23.9
Level of Service	D		A		E	C
Approach Delay (s)	43.6		4.8			24.2
Approach LOS	D		A			C

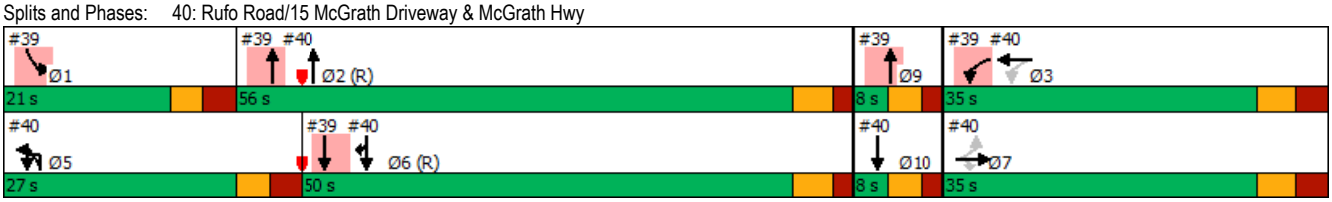
Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø9	Ø10
Lane Configurations											
Traffic Volume (vph)	128	0	110	115	502	797	173				
Future Volume (vph)	128	0	110	115	502	797	173				
Lane Group Flow (vph)	0	149	128	177	523	830	180				
Turn Type	Perm	NA	Perm	Prot	NA	NA	custom				
Protected Phases		7		5	2	6 10	6	1	3	9	10
Permitted Phases	7		7								
Detector Phase	7	7	7	5	2	6 10	6				
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	8.0		8.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	12.0	28.5		28.5	21.0	34.5	8.0	8.0
Total Split (s)	35.0	35.0	35.0	27.0	56.0		50.0	21.0	35.0	8.0	8.0
Total Split (%)	29.2%	29.2%	29.2%	22.5%	46.7%		41.7%	18%	29%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.5		3.5	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	2.0		2.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0				
Total Lost Time (s)		6.5	6.5	6.0	5.5		5.5				
Lead/Lag				Lead	Lag		Lag	Lead			
Lead-Lag Optimize?				Yes	Yes		Yes	Yes			
Recall Mode	None	None	None	None	C-Min		C-Min	None	None	Min	Min
v/c Ratio		0.72	0.38	0.74	0.17	0.30	0.21				
Control Delay		66.6	9.9	66.8	12.1	0.3	0.5				
Queue Delay		0.0	0.0	0.0	0.0	0.2	0.9				
Total Delay		66.6	9.9	66.8	12.1	0.5	1.3				
Queue Length 50th (ft)		112	0	132	46	0	0				
Queue Length 95th (ft)		159	44	204	121	0	0				
Internal Link Dist (ft)		130			514	86					
Turn Bay Length (ft)				450			250				
Base Capacity (vph)		330	468	293	2994	2804	865				
Starvation Cap Reductn		0	0	0	0	1083	457				
Spillback Cap Reductn		0	0	0	0	0	0				
Storage Cap Reductn		0	0	0	0	0	0				
Reduced v/c Ratio		0.45	0.27	0.60	0.17	0.48	0.44				

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	128	0	110	0	0	0	55	115	502	0	0	797	173
Future Volume (vph)	128	0	110	0	0	0	55	115	502	0	0	797	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	10	11	11	12	12	12
Total Lost time (s)		6.5	6.5					6.0	5.5			5.5	5.5
Lane Util. Factor		1.00	1.00					1.00	0.91			0.91	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.98	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1748	1560					1673	4821			5036	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1393	1560					1673	4821			5036	1599
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	0	128	0	0	0	57	120	523	0	0	830	180
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	0	0	0	0	93
Lane Group Flow (vph)	0	149	19	0	0	0	0	177	523	0	0	830	87
Confl. Peds. (#/hr)	17					17		14		13	13		14
Confl. Bikes (#/hr)			2										2
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	0%	1%	4%	0%	0%	3%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA			NA	custom
Protected Phases		7			3		5	5	2			6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		17.9	17.9					17.3	71.0			67.3	58.0
Effective Green, g (s)		17.9	17.9					17.3	71.0			67.3	58.0
Actuated g/C Ratio		0.15	0.15					0.14	0.59			0.56	0.48
Clearance Time (s)		6.5	6.5					6.0	5.5				5.5
Vehicle Extension (s)		2.0	2.0					3.0	3.0				3.0
Lane Grp Cap (vph)		207	232					241	2852			2824	772
v/s Ratio Prot								c0.11	0.11			c0.16	0.05
v/s Ratio Perm		c0.11	0.01										
v/c Ratio		0.72	0.08					0.73	0.18			0.29	0.11
Uniform Delay, d1		48.7	44.0					49.2	11.2			13.9	16.9
Progression Factor		1.00	1.00					1.00	1.00			0.00	0.00
Incremental Delay, d2		9.6	0.1					11.0	0.1			0.0	0.2
Delay (s)		58.2	44.0					60.2	11.4			0.1	0.3
Level of Service		E	D					E	B			A	A
Approach Delay (s)		51.7			0.0				23.7			0.1	
Approach LOS		D			A				C			A	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	23.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

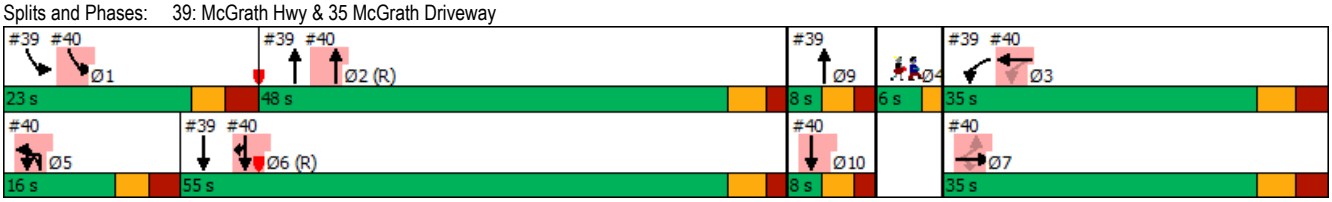
c Critical Lane Group

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø4	Ø5	Ø7	Ø9	Ø10
Lane Configurations										
Traffic Volume (vph)	7	522	39	1452						
Future Volume (vph)	7	522	39	1452						
Lane Group Flow (vph)	18	601	41	1528						
Turn Type	Prot	NA	Prot	NA						
Protected Phases	3	2 9	1	6	2	4	5	7	9	10
Permitted Phases										
Detector Phase	3	2 9	1	6						
Switch Phase										
Minimum Initial (s)	6.0		6.0	8.0	8.0	1.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		23.0	32.5	32.5	6.0	12.0	34.5	8.0	8.0
Total Split (s)	35.0		23.0	55.0	48.0	6.0	16.0	35.0	8.0	8.0
Total Split (%)	29.2%		19.2%	45.8%	40%	5%	13%	29%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	2.0	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	0.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0						
Total Lost Time (s)	6.5		6.0	5.5						
Lead/Lag			Lead	Lag	Lag		Lead			
Lead-Lag Optimize?			Yes	Yes	Yes		Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	None	Min	Min
v/c Ratio	0.07	0.32	0.22	0.91						
Control Delay	26.1	8.5	50.1	37.9						
Queue Delay	0.0	0.3	0.0	18.2						
Total Delay	26.1	8.8	50.1	56.2						
Queue Length 50th (ft)	6	54	29	551						
Queue Length 95th (ft)	25	72	63	#848						
Internal Link Dist (ft)	37	86		1146						
Turn Bay Length (ft)			75							
Base Capacity (vph)	412	1891	248	1679						
Starvation Cap Reductn	0	688	0	0						
Spillback Cap Reductn	0	0	0	195						
Storage Cap Reductn	0	0	0	0						
Reduced v/c Ratio	0.04	0.50	0.17	1.03						

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	9	522	25	39	1452
Future Volume (vph)	7	9	522	25	39	1452
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.93		0.99		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1706		3184		1745	3355
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1706		3184		1745	3355
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.95	0.95
Adj. Flow (vph)	8	10	574	27	41	1528
RTOR Reduction (vph)	9	0	2	0	0	0
Lane Group Flow (vph)	9	0	599	0	41	1528
Confl. Peds. (#/hr)				10	10	
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	0%	0%	9%	1%	0%	4%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	16.6		70.1		13.0	58.5
Effective Green, g (s)	16.6		70.1		13.0	58.5
Actuated g/C Ratio	0.14		0.58		0.11	0.49
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	2.0				3.0	3.0
Lane Grp Cap (vph)	235		1859		189	1635
v/s Ratio Prot	c0.01		c0.19		c0.02	c0.46
v/s Ratio Perm						
v/c Ratio	0.04		0.32		0.22	0.93
Uniform Delay, d1	44.8		12.8		48.9	28.9
Progression Factor	1.00		0.56		1.00	1.00
Incremental Delay, d2	0.0		0.1		0.6	11.3
Delay (s)	44.8		7.3		49.4	40.3
Level of Service	D		A		D	D
Approach Delay (s)	44.8		7.3			40.5
Approach LOS	D		A			D

Intersection Summary			
HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		

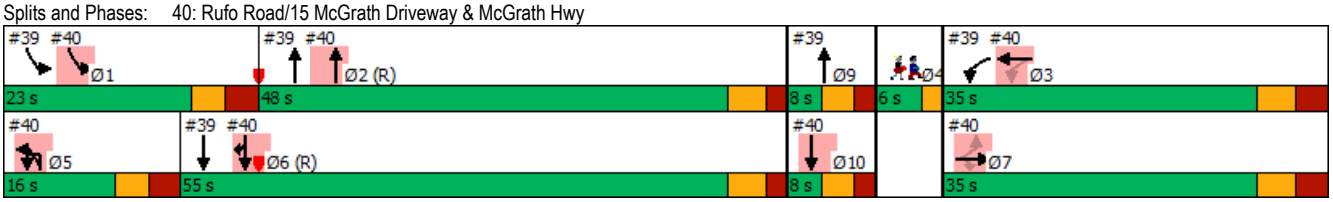
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø4	Ø9	Ø10
Lane Configurations													
Traffic Volume (vph)	87	12	66	15	4	89	428	111	1099	249			
Future Volume (vph)	87	12	66	15	4	89	428	111	1099	249			
Lane Group Flow (vph)	0	116	78	0	55	137	517	117	1157	262			
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Prot	NA	custom			
Protected Phases		7			3	5	2	1	6 10	6	4	9	10
Permitted Phases	7		7	3									
Detector Phase	7	7	7	3	3	5	2	1	6 10	6			
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	8.0	6.0		8.0	1.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	12.0	32.5	23.0		32.5	6.0	8.0	8.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	16.0	48.0	23.0		55.0	6.0	8.0	8.0
Total Split (%)	29.2%	29.2%	29.2%	29.2%	29.2%	13.3%	40.0%	19.2%		45.8%	5%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0		3.5	2.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0		2.0	0.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0			
Total Lost Time (s)		6.5	6.5		6.5	6.0	5.5	6.0		5.5			
Lead/Lag						Lead	Lag	Lead		Lag			
Lead-Lag Optimize?						Yes	Yes	Yes		Yes			
Recall Mode	None	None	None	None	None	None	C-Min	None		C-Min	None	Min	Min
v/c Ratio		0.64	0.21		0.24	0.63	0.31	0.60	0.59	0.28			
Control Delay		62.8	1.3		22.0	62.9	18.7	78.4	0.6	0.5			
Queue Delay		0.0	0.0		0.0	0.0	0.0	23.7	1.2	2.6			
Total Delay		62.8	1.3		22.0	62.9	18.7	102.1	1.8	3.0			
Queue Length 50th (ft)		87	0		14	100	107	98	1	1			
Queue Length 95th (ft)		125	0		47	#236	210	m108	m1	m0			
Internal Link Dist (ft)		130			65		514		86				
Turn Bay Length (ft)						450		80		250			
Base Capacity (vph)		313	484		378	219	1671	257	1969	921			
Starvation Cap Reductn		0	0		0	0	0	128	538	531			
Spillback Cap Reductn		0	0		0	0	37	0	0	0			
Storage Cap Reductn		0	0		0	0	0	0	0	0			
Reduced v/c Ratio		0.37	0.16		0.15	0.63	0.32	0.91	0.81	0.67			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	87	12	66	15	4	32	37	89	428	48	111	1099	249
Future Volume (vph)	87	12	66	15	4	32	37	89	428	48	111	1099	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5		6.5			6.0	5.5		6.0	5.5	5.5
Lane Util. Factor		1.00	1.00		1.00			1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes		1.00	0.98		0.98			1.00	0.99		1.00	1.00	1.00
Flpb, ped/bikes		0.99	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.91			1.00	0.98		1.00	1.00	0.85
Flt Protected		0.96	1.00		0.99			0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1669	1409		1649			1638	3163		1805	3471	1599
Flt Permitted		0.76	1.00		0.88			0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1321	1409		1480			1638	3163		1805	3471	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Adj. Flow (vph)	102	14	78	16	4	35	40	97	465	52	117	1157	262
RTOR Reduction (vph)	0	0	67	0	30	0	0	0	5	0	0	0	124
Lane Group Flow (vph)	0	116	11	0	25	0	0	137	512	0	117	1157	138
Confl. Peds. (#/hr)	10		2	2		10		11		15	15		11
Confl. Bikes (#/hr)			5			1							
Heavy Vehicles (%)	9%	0%	12%	2%	2%	2%	3%	8%	9%	0%	0%	4%	1%
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	NA	custom
Protected Phases		7			3		5	5	2		1	6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		16.6	16.6		16.6			16.1	61.6		13.0	67.0	58.5
Effective Green, g (s)		16.6	16.6		16.6			16.1	61.6		13.0	67.0	58.5
Actuated g/C Ratio		0.14	0.14		0.14			0.13	0.51		0.11	0.56	0.49
Clearance Time (s)		6.5	6.5		6.5			6.0	5.5		6.0		5.5
Vehicle Extension (s)		2.0	2.0		2.0			3.0	3.0		3.0		3.0
Lane Grp Cap (vph)		182	194		204			219	1623		195	1937	779
v/s Ratio Prot								c0.08	c0.16		0.06	c0.33	0.09
v/s Ratio Perm		c0.09	0.01		0.02								
v/c Ratio		0.64	0.06		0.12			0.63	0.32		0.60	0.60	0.18
Uniform Delay, d1		48.9	44.9		45.3			49.1	17.0		51.0	17.6	17.2
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.45	0.00	0.05
Incremental Delay, d2		5.3	0.0		0.1			5.5	0.5		2.0	0.2	0.2
Delay (s)		54.1	44.9		45.4			54.6	17.5		75.9	0.3	1.0
Level of Service		D	D		D			D	B		E	A	A
Approach Delay (s)		50.4			45.4				25.2			6.2	
Approach LOS		D			D				C			A	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

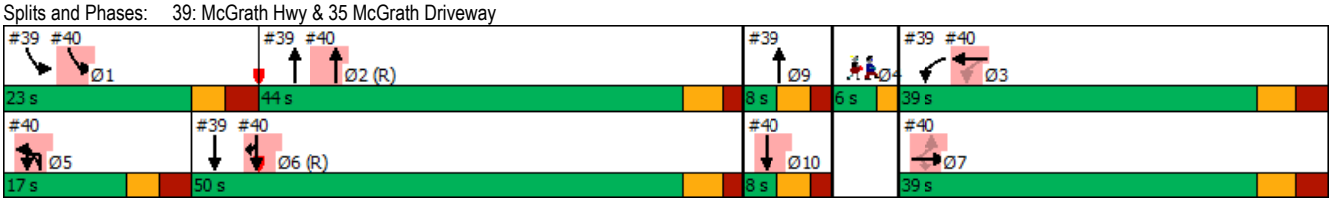
c Critical Lane Group

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø4	Ø5	Ø7	Ø9	Ø10
Lane Configurations										
Traffic Volume (vph)	24	1343	7	1055						
Future Volume (vph)	24	1343	7	1055						
Lane Group Flow (vph)	63	1435	8	1134						
Turn Type	Prot	NA	Prot	NA						
Protected Phases	3	2 9	1	6	2	4	5	7	9	10
Permitted Phases										
Detector Phase	3	2 9	1	6						
Switch Phase										
Minimum Initial (s)	6.0		6.0	8.0	8.0	1.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		23.0	32.5	32.5	6.0	12.0	34.5	8.0	8.0
Total Split (s)	39.0		23.0	50.0	44.0	6.0	17.0	39.0	8.0	8.0
Total Split (%)	32.5%		19.2%	41.7%	37%	5%	14%	33%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	2.0	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	0.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0						
Total Lost Time (s)	6.5		6.0	5.5						
Lead/Lag			Lead	Lag	Lag		Lead			
Lead-Lag Optimize?			Yes	Yes	Yes		Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	None	Min	Min
v/c Ratio	0.11	0.91	0.06	0.90						
Control Delay	16.2	25.6	48.7	46.9						
Queue Delay	0.0	20.2	0.0	0.0						
Total Delay	16.2	45.8	48.7	46.9						
Queue Length 50th (ft)	14	595	6	433						
Queue Length 95th (ft)	51	m#803	21	#564						
Internal Link Dist (ft)	37	86		1146						
Turn Bay Length (ft)			75							
Base Capacity (vph)	552	1581	247	1256						
Starvation Cap Reductn	0	194	0	0						
Spillback Cap Reductn	51	0	0	0						
Storage Cap Reductn	0	0	0	0						
Reduced v/c Ratio	0.13	1.03	0.03	0.90						

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	34	1343	6	7	1055
Future Volume (vph)	24	34	1343	6	7	1055
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.92		1.00		1.00	1.00
Flt Protected	0.98		1.00		0.95	1.00
Satd. Flow (prot)	1695		3372		1745	3388
Flt Permitted	0.98		1.00		0.95	1.00
Satd. Flow (perm)	1695		3372		1745	3388
Peak-hour factor, PHF	0.92	0.92	0.94	0.94	0.93	0.93
Adj. Flow (vph)	26	37	1429	6	8	1134
RTOR Reduction (vph)	25	0	0	0	0	0
Lane Group Flow (vph)	38	0	1435	0	8	1134
Confl. Peds. (#/hr)				12	12	
Confl. Bikes (#/hr)		10		12		
Heavy Vehicles (%)	0%	0%	3%	100%	0%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	37.3		54.0		8.4	42.9
Effective Green, g (s)	37.3		54.0		8.4	42.9
Actuated g/C Ratio	0.31		0.45		0.07	0.36
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	3.0				3.0	3.0
Lane Grp Cap (vph)	526		1517		122	1211
v/s Ratio Prot	c0.02		c0.43		c0.00	0.33
v/s Ratio Perm						
v/c Ratio	0.07		0.95		0.07	0.94
Uniform Delay, d1	29.1		31.6		52.1	37.2
Progression Factor	1.00		0.60		1.00	1.00
Incremental Delay, d2	0.1		7.8		0.2	14.5
Delay (s)	29.2		26.8		52.4	51.8
Level of Service	C		C		D	D
Approach Delay (s)	29.2		26.8			51.8
Approach LOS	C		C			D

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		

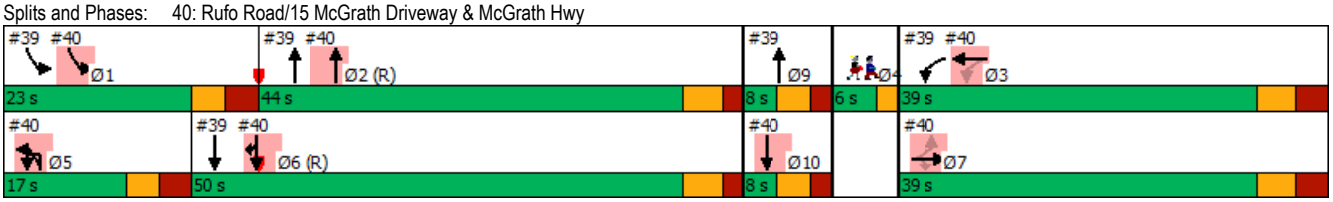
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR	Ø4	Ø9	Ø10
Lane Configurations													
Traffic Volume (vph)	269	5	113	51	13	101	963	42	848	189			
Future Volume (vph)	269	5	113	51	13	101	963	42	848	189			
Lane Group Flow (vph)	0	315	130	0	196	149	1090	45	912	203			
Turn Type	Perm	NA	Perm	Perm	NA	Prot	NA	Prot	NA	custom			
Protected Phases		7			3	5	2	1	6 10	6	4	9	10
Permitted Phases	7		7	3									
Detector Phase	7	7	7	3	3	5	2	1	6 10	6			
Switch Phase													
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	6.0	8.0	6.0		8.0	1.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	34.5	34.5	12.0	32.5	23.0		32.5	6.0	8.0	8.0
Total Split (s)	39.0	39.0	39.0	39.0	39.0	17.0	44.0	23.0		50.0	6.0	8.0	8.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	32.5%	14.2%	36.7%	19.2%		41.7%	5%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.0	3.5	3.0		3.5	2.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.0	3.0		2.0	0.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0		0.0			
Total Lost Time (s)		6.5	6.5		6.5	6.0	5.5	6.0		5.5			
Lead/Lag						Lead	Lag	Lead		Lag			
Lead-Lag Optimize?						Yes	Yes	Yes		Yes			
Recall Mode	None	None	None	None	None	None	C-Min	None		C-Min	None	Min	Min
v/c Ratio		0.98	0.22		0.49	0.96	0.81	0.31	0.59	0.29			
Control Delay		88.7	5.4		25.3	115.8	38.9	82.4	1.4	0.6			
Queue Delay		50.9	0.0		67.2	0.0	0.8	0.6	1.5	3.1			
Total Delay		139.7	5.4		92.6	115.8	39.6	83.0	3.0	3.8			
Queue Length 50th (ft)		238	0		72	117	394	38	6	0			
Queue Length 95th (ft)		#441	37		159	#249	#605	m42	m8	m0			
Internal Link Dist (ft)		130			65		514		86				
Turn Bay Length (ft)						450		80		250			
Base Capacity (vph)		320	583		403	156	1346	255	1533	709			
Starvation Cap Reductn		0	0		0	0	0	79	411	404			
Spillback Cap Reductn		201	0		237	0	73	0	0	0			
Storage Cap Reductn		0	0		0	0	0	0	0	0			
Reduced v/c Ratio		2.65	0.22		1.18	0.96	0.86	0.26	0.81	0.67			

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 145
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	269	5	113	51	13	117	33	101	963	18	42	848	189
Future Volume (vph)	269	5	113	51	13	117	33	101	963	18	42	848	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5		6.5			6.0	5.5		6.0	5.5	5.5
Lane Util. Factor		1.00	1.00		1.00			1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes		1.00	0.99		0.97			1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes		0.98	1.00		1.00			1.00	1.00		1.00	1.00	1.00
Frt		1.00	0.85		0.91			1.00	1.00		1.00	1.00	0.85
Flt Protected		0.95	1.00		0.99			0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)		1764	1563		1663			1707	3345		1805	3505	1568
Flt Permitted		0.56	1.00		0.67			0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)		1031	1563		1130			1707	3345		1805	3505	1568
Peak-hour factor, PHF	0.87	0.87	0.87	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.93	0.93	0.93
Adj. Flow (vph)	309	6	130	55	14	127	37	112	1070	20	45	912	203
RTOR Reduction (vph)	0	0	90	0	52	0	0	0	1	0	0	0	130
Lane Group Flow (vph)	0	315	40	0	144	0	0	149	1089	0	45	912	73
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	6%	1%	4%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA		Prot	Prot	NA		Prot	NA	custom
Protected Phases		7			3		5	5	2		1	6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		37.3	37.3		37.3			11.0	45.5		8.4	51.4	42.9
Effective Green, g (s)		37.3	37.3		37.3			11.0	45.5		8.4	51.4	42.9
Actuated g/C Ratio		0.31	0.31		0.31			0.09	0.38		0.07	0.43	0.36
Clearance Time (s)		6.5	6.5		6.5			6.0	5.5		6.0		5.5
Vehicle Extension (s)		3.0	3.0		3.0			3.0	3.0		3.0		3.0
Lane Grp Cap (vph)		320	485		351			156	1268		126	1501	560
v/s Ratio Prot								c0.09	c0.33		0.02	c0.26	0.05
v/s Ratio Perm		c0.31	0.03		0.13								
v/c Ratio		0.98	0.08		0.41			0.96	0.86		0.36	0.61	0.13
Uniform Delay, d1		41.1	29.3		32.6			54.3	34.3		53.2	26.5	26.0
Progression Factor		1.00	1.00		1.00			1.00	1.00		1.59	0.03	0.05
Incremental Delay, d2		45.7	0.1		0.8			58.2	7.7		0.8	0.3	0.2
Delay (s)		86.8	29.3		33.4			112.5	42.0		85.2	1.0	1.6
Level of Service		F	C		C			F	D		F	A	A
Approach Delay (s)		70.0			33.4				50.5			4.4	
Approach LOS		E			C				D			A	

Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

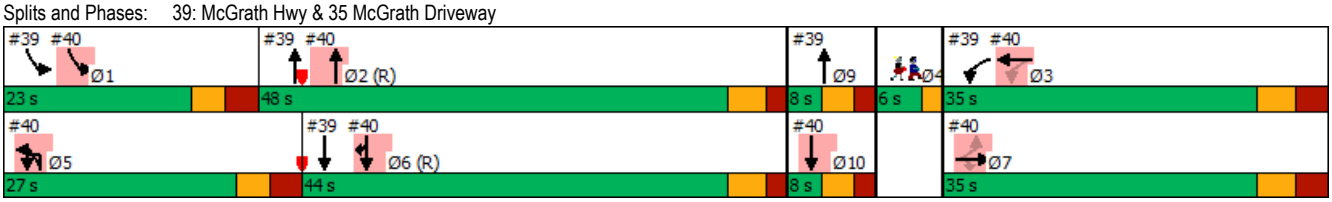
c Critical Lane Group

Lane Group	WBL	NBT	SBL	SBT	Ø2	Ø4	Ø5	Ø7	Ø9	Ø10
Lane Configurations										
Traffic Volume (vph)	2	574	10	904						
Future Volume (vph)	2	574	10	904						
Lane Group Flow (vph)	13	609	10	942						
Turn Type	Prot	NA	Prot	NA						
Protected Phases	3	2 9	1	6	2	4	5	7	9	10
Permitted Phases										
Detector Phase	3	2 9	1	6						
Switch Phase										
Minimum Initial (s)	6.0		6.0	8.0	8.0	1.0	6.0	6.0	3.0	3.0
Minimum Split (s)	34.5		23.0	32.5	32.5	6.0	12.0	34.5	8.0	8.0
Total Split (s)	35.0		23.0	44.0	48.0	6.0	27.0	35.0	8.0	8.0
Total Split (%)	29.2%		19.2%	36.7%	40%	5%	23%	29%	7%	7%
Yellow Time (s)	3.5		3.0	3.5	3.5	2.0	3.0	3.5	3.0	3.0
All-Red Time (s)	3.0		3.0	2.0	2.0	0.0	3.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0	0.0						
Total Lost Time (s)	6.5		6.0	5.5						
Lead/Lag			Lead	Lag	Lag		Lead			
Lead-Lag Optimize?			Yes	Yes	Yes		Yes			
Recall Mode	None		None	C-Min	C-Min	None	None	None	Min	Min
v/c Ratio	0.06	0.27	0.08	0.59						
Control Delay	22.1	7.3	50.8	27.5						
Queue Delay	0.0	0.4	0.0	0.0						
Total Delay	22.1	7.7	50.8	27.5						
Queue Length 50th (ft)	2	63	8	264						
Queue Length 95th (ft)	11	77	23	445						
Internal Link Dist (ft)	37	86		1146						
Turn Bay Length (ft)			75							
Base Capacity (vph)	400	2278	247	1602						
Starvation Cap Reductn	0	1101	0	0						
Spillback Cap Reductn	0	0	0	0						
Storage Cap Reductn	0	0	0	0						
Reduced v/c Ratio	0.03	0.52	0.04	0.59						

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 39: McGrath Hwy & 35 McGrath Driveway





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	6	574	11	10	904
Future Volume (vph)	2	6	574	11	10	904
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width	12	12	11	11	11	11
Total Lost time (s)	6.5		5.5		6.0	5.5
Lane Util. Factor	1.00		0.95		1.00	0.95
Frpb, ped/bikes	0.98		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.90		1.00		1.00	1.00
Flt Protected	0.99		1.00		0.95	1.00
Satd. Flow (prot)	1649		3377		1745	3421
Flt Permitted	0.99		1.00		0.95	1.00
Satd. Flow (perm)	1649		3377		1745	3421
Peak-hour factor, PHF	0.63	0.63	0.96	0.96	0.96	0.96
Adj. Flow (vph)	3	10	598	11	10	942
RTOR Reduction (vph)	8	0	1	0	0	0
Lane Group Flow (vph)	5	0	608	0	10	942
Confl. Peds. (#/hr)				12	12	
Confl. Bikes (#/hr)		10		12		
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2 9		1	6
Permitted Phases						
Actuated Green, G (s)	18.7		76.3		4.7	54.6
Effective Green, g (s)	18.7		76.3		4.7	54.6
Actuated g/C Ratio	0.16		0.64		0.04	0.46
Clearance Time (s)	6.5				6.0	5.5
Vehicle Extension (s)	3.0				3.0	3.0
Lane Grp Cap (vph)	256		2147		68	1556
v/s Ratio Prot	c0.00		c0.18		c0.01	c0.28
v/s Ratio Perm						
v/c Ratio	0.02		0.28		0.15	0.61
Uniform Delay, d1	42.9		9.7		55.7	24.6
Progression Factor	1.00		0.64		1.00	1.00
Incremental Delay, d2	0.0		0.1		1.0	1.8
Delay (s)	42.9		6.3		56.7	26.4
Level of Service	D		A		E	C
Approach Delay (s)	42.9		6.3			26.7
Approach LOS	D		A			C

Intersection Summary			
HCM 2000 Control Delay	18.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

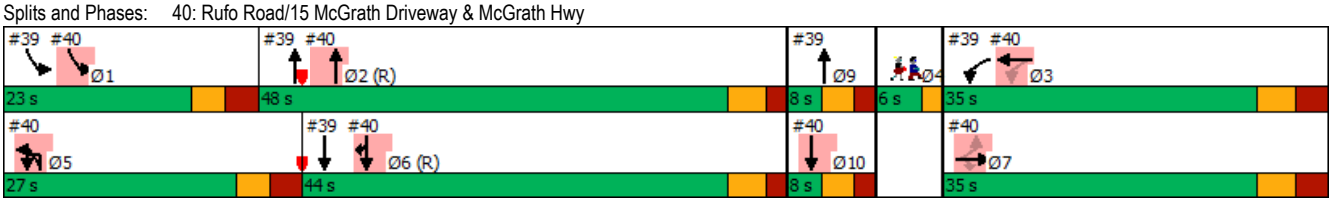
c Critical Lane Group

Lane Group	EBL	EBT	EBR	NBL	NBT	SBT	SBR	Ø1	Ø3	Ø4	Ø9	Ø10
Lane Configurations												
Traffic Volume (vph)	128	0	110	115	457	733	173					
Future Volume (vph)	128	0	110	115	457	733	173					
Lane Group Flow (vph)	0	149	128	177	476	764	180					
Turn Type	Perm	NA	Perm	Prot	NA	NA	custom					
Protected Phases		7		5	2	6 10	6	1	3	4	9	10
Permitted Phases	7		7									
Detector Phase	7	7	7	5	2	6 10	6					
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	8.0		8.0	6.0	6.0	1.0	3.0	3.0
Minimum Split (s)	34.5	34.5	34.5	12.0	32.5		32.5	23.0	34.5	6.0	8.0	8.0
Total Split (s)	35.0	35.0	35.0	27.0	48.0		44.0	23.0	35.0	6.0	8.0	8.0
Total Split (%)	29.2%	29.2%	29.2%	22.5%	40.0%		36.7%	19%	29%	5%	7%	7%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.5		3.5	3.0	3.5	2.0	3.0	3.0
All-Red Time (s)	3.0	3.0	3.0	3.0	2.0		2.0	3.0	3.0	0.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0		0.0					
Total Lost Time (s)		6.5	6.5	6.0	5.5		5.5					
Lead/Lag				Lead	Lag		Lag	Lead				
Lead-Lag Optimize?				Yes	Yes		Yes	Yes				
Recall Mode	None	None	None	None	C-Min		C-Min	None	None	None	Min	Min
v/c Ratio		0.69	0.35	0.72	0.24	0.40	0.21					
Control Delay		63.4	7.8	65.5	14.8	0.6	0.7					
Queue Delay		0.2	0.0	0.0	0.0	0.2	0.9					
Total Delay		63.6	7.8	65.5	14.8	0.8	1.6					
Queue Length 50th (ft)		111	0	132	65	0	0					
Queue Length 95th (ft)		159	35	203	192	1	0					
Internal Link Dist (ft)		130			514	86						
Turn Bay Length (ft)				450			250					
Base Capacity (vph)		329	478	304	2015	1901	844					
Starvation Cap Reductn		0	0	0	0	420	436					
Spillback Cap Reductn		17	0	0	0	0	0					
Storage Cap Reductn		0	0	0	0	0	0					
Reduced v/c Ratio		0.48	0.27	0.58	0.24	0.52	0.44					

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 40: Rufo Road/15 McGrath Driveway & McGrath Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Volume (vph)	128	0	110	0	0	0	55	115	457	0	0	733	173
Future Volume (vph)	128	0	110	0	0	0	55	115	457	0	0	733	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	11	11	11	12	12	12
Total Lost time (s)		6.5	6.5					6.0	5.5			5.5	5.5
Lane Util. Factor		1.00	1.00					1.00	0.95			0.95	1.00
Frpb, ped/bikes		1.00	0.99					1.00	1.00			1.00	1.00
Flpb, ped/bikes		0.97	1.00					1.00	1.00			1.00	1.00
Frt		1.00	0.85					1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00					0.95	1.00			1.00	1.00
Satd. Flow (prot)		1741	1562					1733	3355			3505	1599
Flt Permitted		0.76	1.00					0.95	1.00			1.00	1.00
Satd. Flow (perm)		1388	1562					1733	3355			3505	1599
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	149	0	128	0	0	0	57	120	476	0	0	764	180
RTOR Reduction (vph)	0	0	108	0	0	0	0	0	0	0	0	0	98
Lane Group Flow (vph)	0	149	20	0	0	0	0	177	476	0	0	764	82
Confl. Peds. (#/hr)	20					20		9		17	17		9
Confl. Bikes (#/hr)			1			8							
Heavy Vehicles (%)	1%	0%	2%	0%	0%	0%	0%	1%	4%	0%	0%	3%	1%
Turn Type	Perm	NA	Perm				Prot	Prot	NA		Prot	NA	custom
Protected Phases		7			3		5	5	2		1	6 10	6
Permitted Phases	7		7	3									
Actuated Green, G (s)		18.7	18.7					17.0	66.9			64.0	54.6
Effective Green, g (s)		18.7	18.7					17.0	66.9			64.0	54.6
Actuated g/C Ratio		0.16	0.16					0.14	0.56			0.53	0.46
Clearance Time (s)		6.5	6.5					6.0	5.5				5.5
Vehicle Extension (s)		3.0	3.0					3.0	3.0				3.0
Lane Grp Cap (vph)		216	243					245	1870			1869	727
v/s Ratio Prot								c0.10	0.14			c0.22	0.05
v/s Ratio Perm		c0.11	0.01										
v/c Ratio		0.69	0.08					0.72	0.25			0.41	0.11
Uniform Delay, d1		47.9	43.3					49.2	13.7			16.7	18.8
Progression Factor		1.00	1.00					1.00	1.00			0.00	0.06
Incremental Delay, d2		8.9	0.1					10.1	0.3			0.1	0.3
Delay (s)		56.8	43.5					59.3	14.0			0.2	1.3
Level of Service		E	D					E	B			A	A
Approach Delay (s)		50.6			0.0				26.3			0.4	
Approach LOS		D			A				C			A	

Intersection Summary			
HCM 2000 Control Delay	16.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	25.0
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

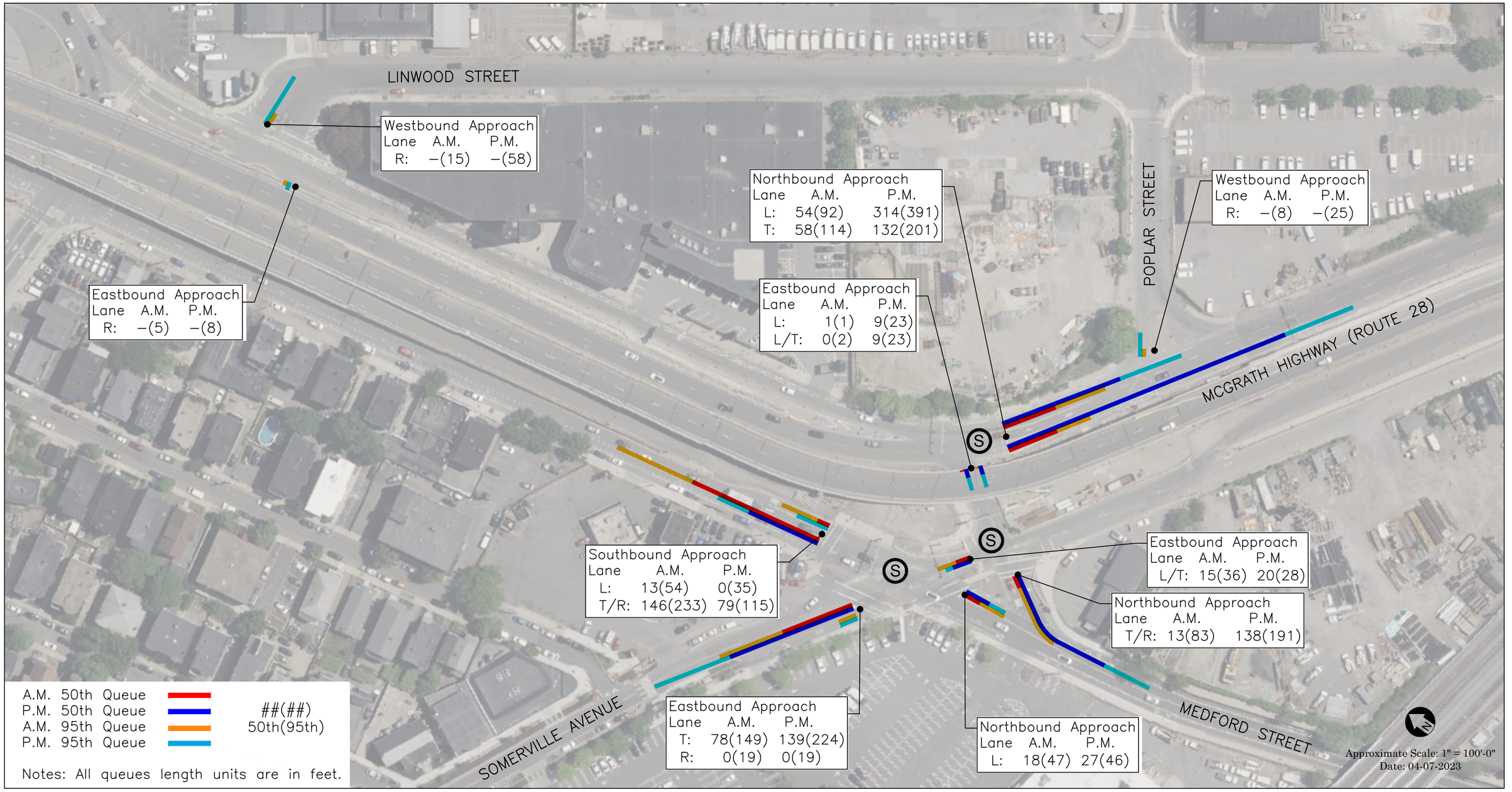
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Appendix J

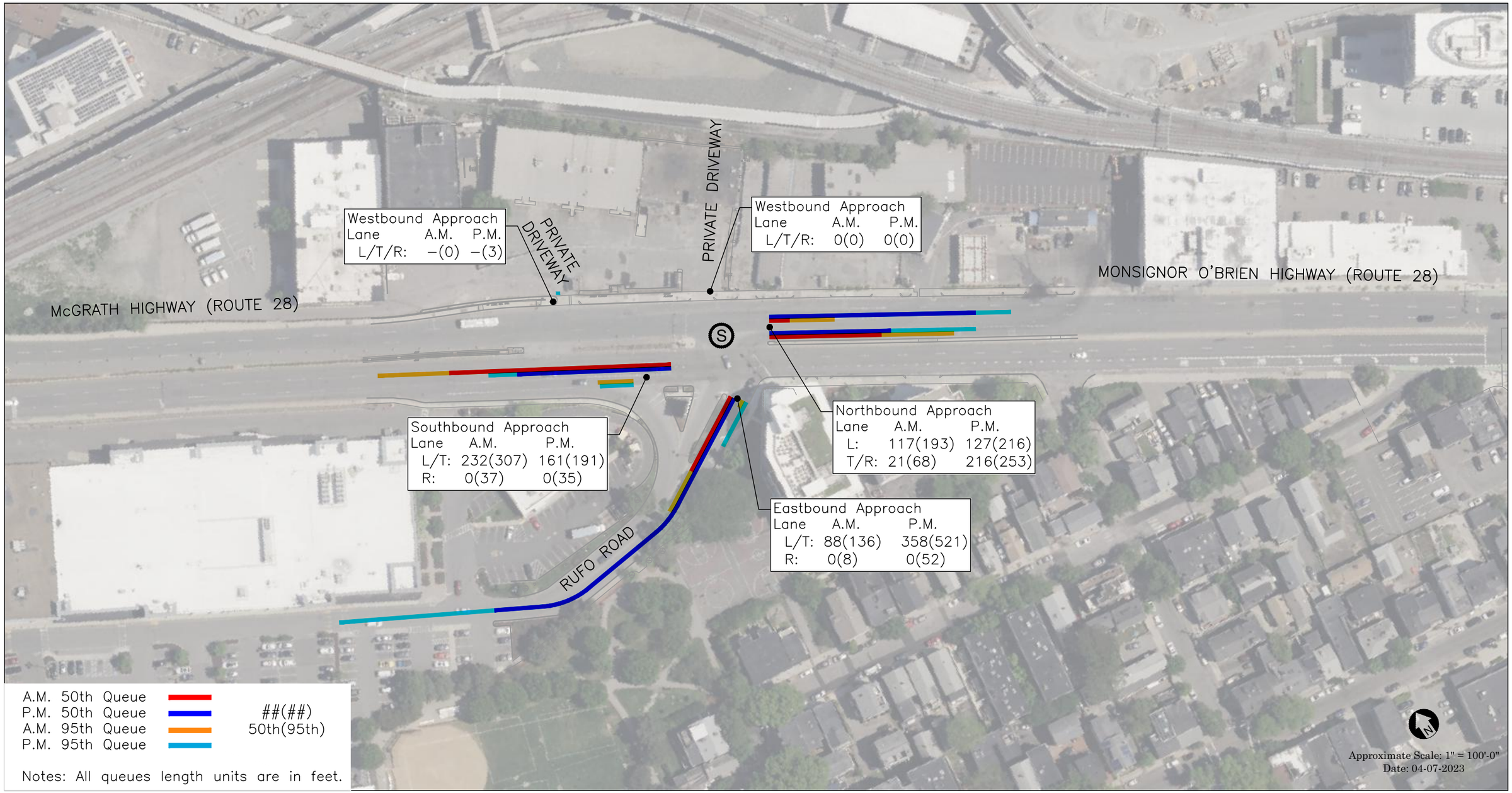
Queue Diagrams

Figure 1. ***Existing (2022) Condition Queues***



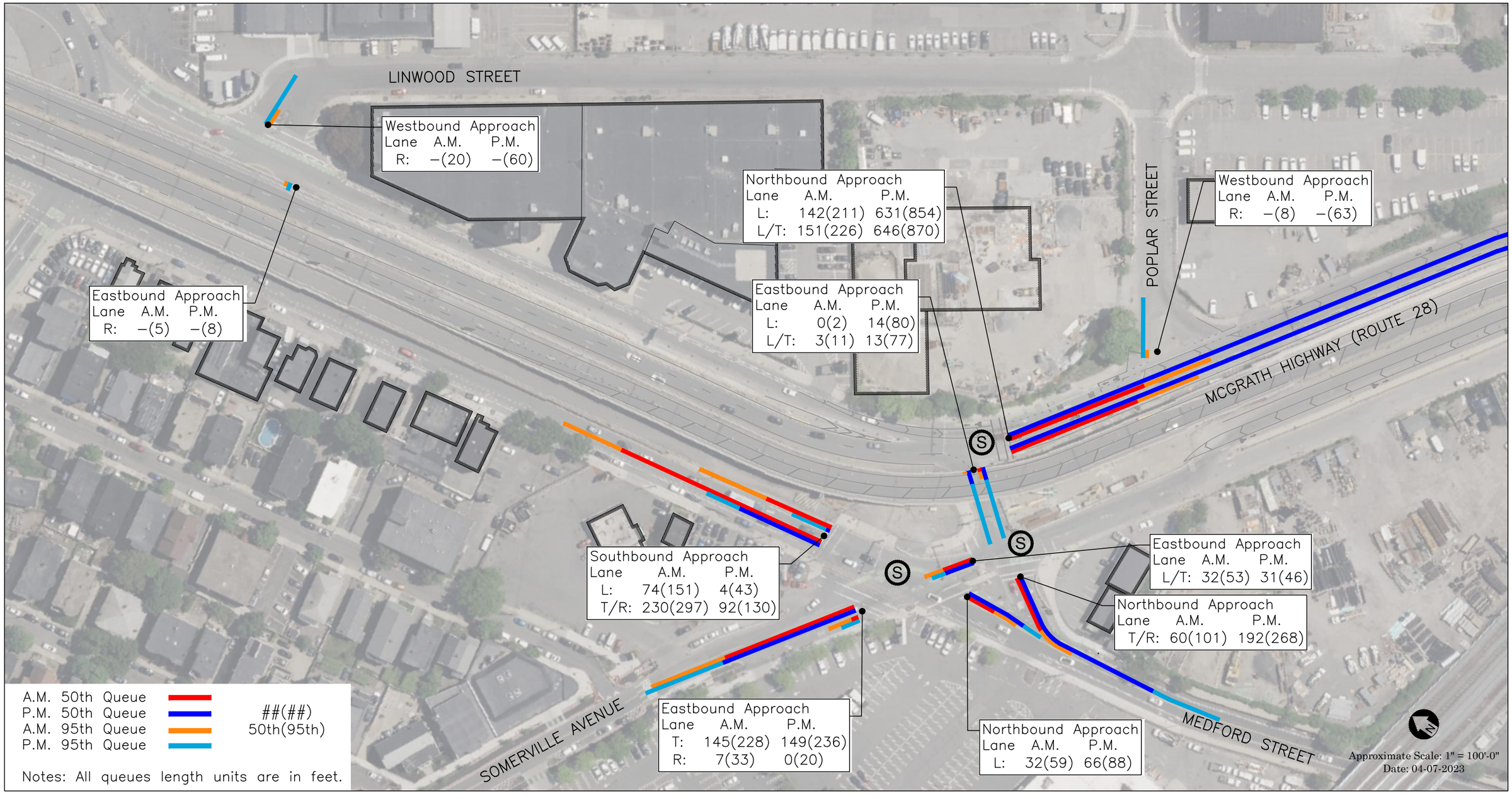
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Last Saved by: VKELLO
Printed by: Vannesa Methoxha

Figure 2. ***Existing (2022) Condition Queues***



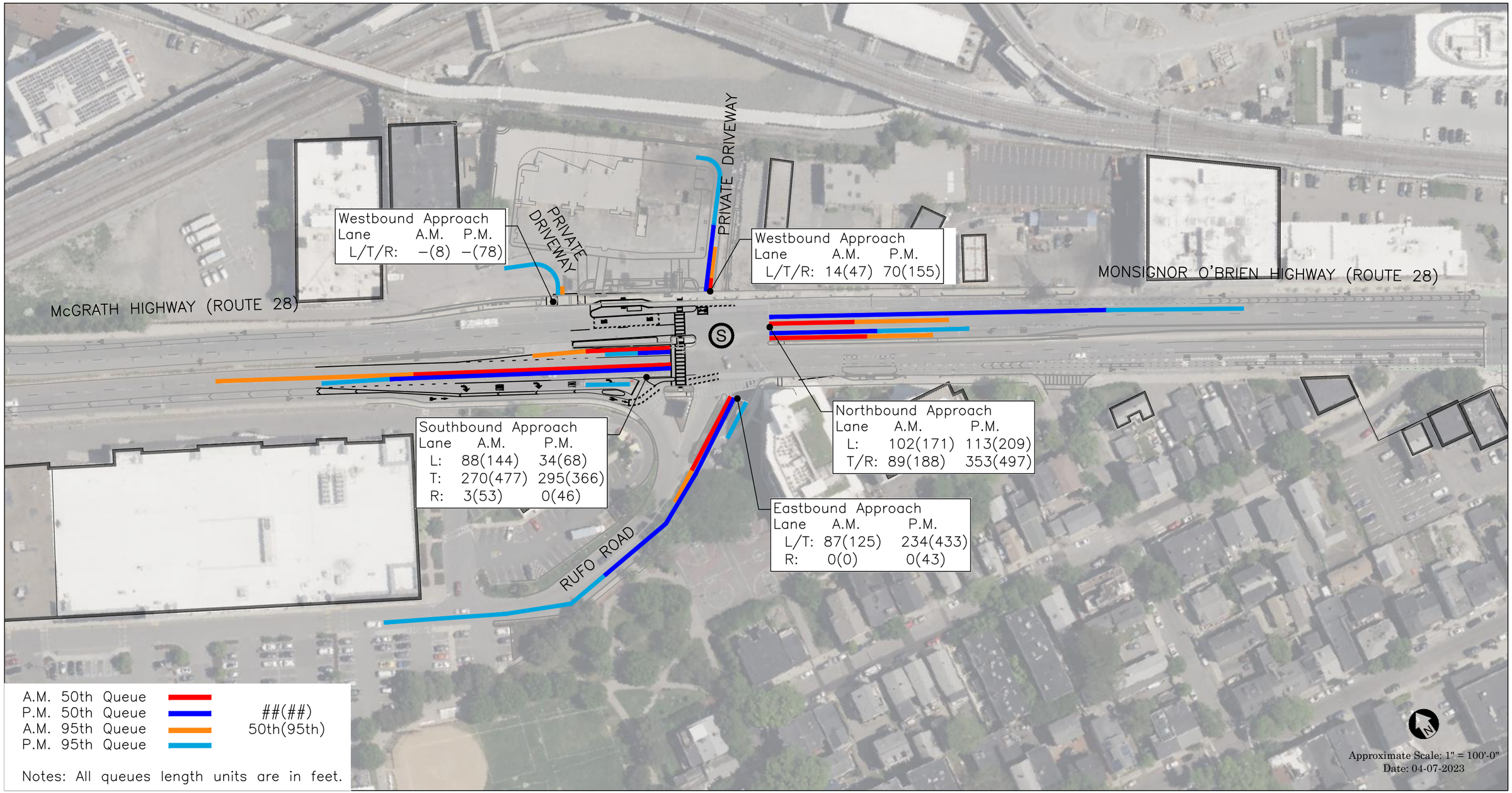
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Last Saved by: VKELLO
Printed by: Vannesa Methoxha

Figure 3. ***Future (2029) Condition Queues***



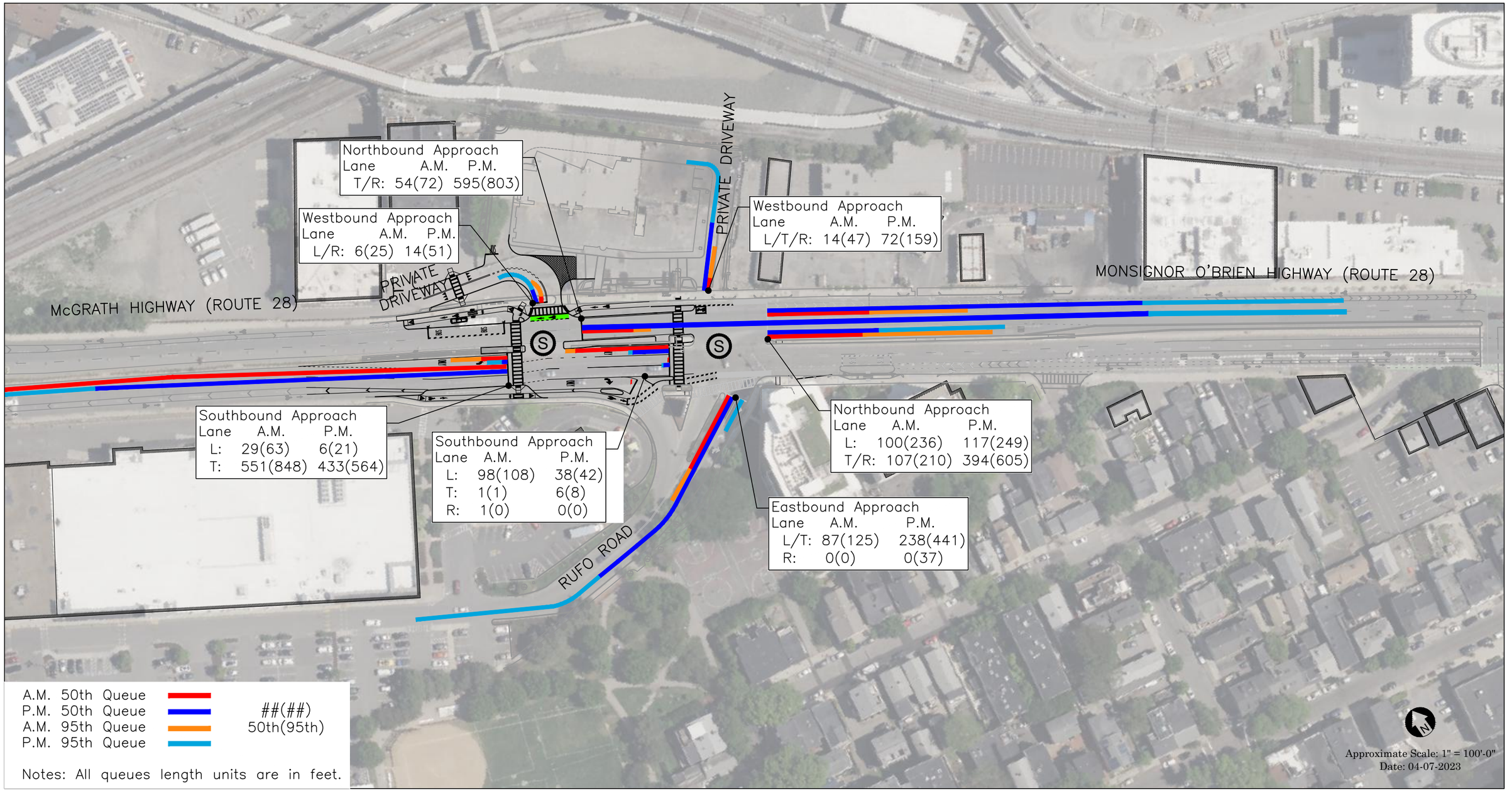
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Figure 4. ***Future (2029) Condition Queues***



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Figure 5. ***Future (2029) Mitigated Condition Queues***



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MOBILITY DIVISION DOCUMENTS

CERTIFICATE OF REQUIRED MATERIALS FROM THE MOBILITY DIVISION

FORM: CRM (August 2022)
Discontinue Prior Editions

CITY OF SOMERVILLE

Inspectional Services • Planning Board • Zoning Board of Appeals

CERTIFICATION OF REQUIRED MATERIALS
BY CITY OF SOMERVILLE MOBILITY DIVISION

Development Site Address: 35 McGrath Highway
Applicant Name: Paul R. Lohness, Trustee, 35 McGrath Highway Realty

As required by the Somerville Zoning Ordinance and/or the City of Somerville's Development Review Submittal Requirements, I certify that I have received and approved the following materials for the development proposal identified above:

☒ Transportation Access Plan

☒ Transportation Impact Study

☒ Mobility Management Plan

Signature: _____ Date: 10/5/2023
Mobility Division Representative

Brad Rawson
Director of Mobility
Mayor's Office of Strategic Planning & Community Development
City of Somerville, Massachusetts