

Mr. Joshua Brandt
Stack + Co.
555 East Second Street
Boston, MA 02127

Dear Mr. Enright,

This letter is the Preliminary Decision of the Director of Mobility for the Mobility Management Plan ('MMP') submitted by Stack + Co., (the 'Applicant') for 125 Lowell Street as required by §11.4 Mobility Management of the Somerville Zoning Ordinance 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 Proposed Project, located at 125 Lowell Street, would redevelop a seven-story building on Lowell Street into 20 residential condominium units within the Neighborhood Residential (NR) zoning district. The Applicant is proposing a surface parking lot that will contain 22 vehicle parking spaces for residents, as well as 12 outdoor bicycle parking spaces.

The total on-site parking count is based on the parameters set forth in the SZO for a project located in an Urban Neighborhood Residence (NR) zone. Based on the current design, Table 3.2.18 of the SZO states that zero (0) vehicle parking spaces are required. The SZO also requires the provision of car share vehicle spaces for residential property owners.

The proposed building will meet the twenty (20) or more total dwelling unit threshold to trigger MMP requirements of the property owner.

Mobility Division Comments

The Mobility Division notes that, while this parking ratio complies with the SZO, the City strongly encourages developers to construct lower amounts of parking to help achieve the City's ambitious mode shift and greenhouse gas reduction goals. Specifically, for a development of this size (between 20 and 50 residential units), the City encourages developers to construct less than or equal to 0.1 parking spaces per unit. The proposed development currently proposes a ratio of 1.1 parking spaces/unit. Extensive studies have determined a relationship between parking and automobile mode share. Given the excessive parking proposed, Mobility will be recommending various mitigation measures to help achieve mandatory mode share performance measures.

The proposed development is located approximately .3 miles from the upcoming Magoun Square Green Line station, approximately one-half mile from Porter Square which is served by the Red Line and Fitchburg Line, as well as four bus routes including Route 77, Route 83, Route 87, and Route 96. The Site is also nearby existing biking and pedestrian amenities. In the coming years, significant

investments are planned in and around Highland Avenue and Spring Hill that will create more efficient and safer streets to enhance our residents' ability to get where they need to go by bus, walking, and biking, rather than personal vehicle. This investment and the corresponding mode shift it will result in is required by our ambitious greenhouse gas reduction goals in Somerville Climate Forward as well as safe mobility goals in the Vision Zero Action Plan.

The Mobility Division supports the proposed closure of the curb cut on the northeast side of the building on Belmont Street and notes that further approval of the exact layout and any proposed changes to on-street parking will be reviewed in the Transportation Access Plan. Further, any changes to on-street parking are subject to approval by the City's Traffic Commission.

The Mobility Division supports the inclusion of six (6) outdoor bicycle racks to accommodate short-term parking for twelve (12) bicycles. The City encourages the provision of long-term located on-site with consideration for clear wayfinding, 24-hour access, secure bicycle racks, location close to entrances and access points, and separate pedestrian entries where possible. In addition, any bicycle parking that is constructed should comply with all design and access requirements in Article 11 of the SZO.

The MMP currently states two conflicting specifications for loading and service operations. The Mobility Division encourages these activities to take place on the surface parking lot instead of on street for improved site circulation.

Plan Commitments

Programs and Services Required by SZO

The Applicant has made the following commitments in relation to the mode share requirements for all mobility management plans:

- To making reasonable efforts 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.

The Applicant must make the following commitments in relation to the programs and services required for the property owner of a residential building with 20 or more dwelling units:

- To post and distribute mobility management information, including information pertaining to pedestrian, cycling and transit access to the Project Site.
- To un-bundle the rental or lease of parking spaces from the rental or lease of floor space.
- To provide Car Share Vehicle Spaces

Additional Commitments

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

1. The Applicant will bring all abutting sidewalks and pedestrian ramps to City of Somerville standards in accordance with the National Association of City Transportation Officials (NACTO) design guidelines. This may include the reconstruction and widening of sidewalks; the installation of new, accessible ramps; improvements to street lighting; planting of street trees; and providing bicycle storage racks surrounding the Project Site, where appropriate.
2. The Applicant will provide 12 short-term bike parking spots.

In addition to the above, the Applicant has committed to marketing and education of transportation demand management programs, including:

- The Applicant will distribute information on travel alternatives to tenants 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 (or more frequent) newsletter or bulletin summarizing travel options.
- The Applicant will post information to a public bulletin board/electronic display/kiosk in the building lobby with similar information to that distributed to all tenants as noted above.
- The Applicant will provide unbundled parking with all rental, lease, or purchase agreements for tenants so that parking is used as an optional amenity instead of a required/allocated benefit.

Approval Conditions

- **CONDITION #1:** 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 #2:** The same mobility management information that must be posted (detailed in Condition #1) must also be provided to residents when they move in. Yearly emails or newsletters with this information must also be sent to residents, with additional emails sent if there are notable changes to public transportation schedules, bicycle/pedestrian infrastructure, or the availability of ride-share, car-share, or bike-share services in the area.
- **CONDITION #3:** Rather than 50%, the Applicant's initial vehicle mode share commitment will be 31% so that it is consistent with and no more vehicle dependent than the existing commuting characteristics in Census Tract 3511. The Applicant will implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.
- **CONDITION #4:** In addition to the mode share commitment of 31% or less trips made by automobile, the Applicant shall make reasonable efforts to control the percentage of trips made by automobile at 25% or less by 2040 in order to meet the city's SomerVision 2040 goals. The Applicant will implement additional mobility management programs and services if annual monitoring and reporting identifies a shortfall in meeting this goal.

- **CONDITION #5:** Provision of at least 2 car share parking spaces on-site provided at no cost to a car share service provider, as required for all property owners of a residential building with 20 or more dwelling units. These spaces must be provided in a way that allows for public access. 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 #7:** At least 25% of the vehicle parking spaces, rounded to the nearest whole number (6 spaces) 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 #8:** The Applicant will provide a stored value MBTA Charlie Card, with the value of a combined bus/subway pass (currently set at \$90 but subject to MBTA fare increases) to each adult member of a new household during the first month of initial occupancy of a new household. Up to two Charlie Cards total per household are required. This requirement renews each time a new household moves in to incentivize new households to use public transportation.
- **CONDITION #9:** The Applicant shall provide a one-month Bluebikes membership (currently set at \$20 but subject to Bluebikes fare increases) to each adult member of a new household during the first month of initial occupancy of a new household. Up to two one-month Bluebikes memberships total per household are required. This requirement renews each time a new household moves in to incentivize new households to use the bikeshare system.
- **CONDITION #10:** Provision of on-site real time transit information is required, consisting of connected TransitScreen displays (or equivalent service), in the building lobby.
- **Condition #11:** Provision of twenty-two (22) bike parking spots, at least 50% must be long-term and comply with all design and access requirements in Article 11 of the SZO. At least one (1) bicycle repair facility must be provided for tenants and employees in a convenient location, such as the long-term bicycle parking area.
- **Condition #12:** The Applicant shall conduct loading and service operations in the surface parking lot and shall prepare a Transportation Access Plan to show how these activities would be carried out.

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 each 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,

A handwritten signature in black ink, appearing to be 'J. B.' with a stylized flourish at the end.

SOMERVILLE, MASSACHUSETTS

125 Lowell Street

Mobility Management Plan

Prepared for
Stack + Co.

Prepared by
Howard Stein Hudson

July 2022



HOWARD STEIN HUDSON

Engineers + Planners



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Appendices

Appendix A - Trip Generation



Project Information

The 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) Mobility Management Plan Submission Requirements. A MMP is required as the building will contain 20 residential units.

Contact Information

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

Project Site:	125 Lowell Street
Developer:	Stack + Co. 555 East Second Street Boston, MA 02127
Contact:	Andrew Enright Associate Principal aenright@stackac.com (617-680-5173)

Project Description

The 125 Lowell Street project site (the "Project" and/or "Site") is in Somerville's Spring Hill neighborhood, within the Neighborhood Residential (NR) zoning district, between Lowell and Belmont Streets. The Project Site is bounded by Lowell Street to the west, Belmont Street to the east, Bailey Park to the south, and existing residential buildings to the north. The Project is located approximately one-half mile from the future Magoun Square Station on the extension of the Massachusetts Bay Transportation Authority (MBTA) Green Line and less than a mile from Porter Square Station on the MBTA Red Line. The Project will consist of the renovation of the existing seven-story building that will be converted from previous use by the Somerville Hospital School of Nursing into 20 residential condominium units. A surface parking lot will contain 22 vehicle parking spaces for residents, as well as 12 outdoor bicycle parking spaces.

Site Circulation

The Project Site will maintain the existing driveway curb cut on Belmont Street along the southeast side of the building to the parking lot. A second existing curb cut on the northeast side of the building on Belmont Street will be closed. Belmont Street is one-way northbound between Summer



Street and Highland Avenue. The Belmont Street driveway will serve as the primary access point to the Project's parking lot.

Loading and service operations are expected to occur on-street at the northeast edge of Belmont Street. The trash room is in the basement level of the building. On the morning of trash-days, building management will bring the trash barrels to ground level, out the doorway on the northern side of the building, and then out to Belmont Street for pick-up.

Three pedestrian entrances will be provided to the building with access via both Lowell Street and Belmont Street. The primary entrance to the lobby will be provided on the west side of the building facing Lowell Street, and two secondary doors will be located on the northern and southern sides of the building with walking paths out to Belmont Street and the on-site parking area.

The site plan is shown in **Figure 1**.

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.

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 approximately within the half-mile walkshed and is therefore subject to parking minimums. Vehicle parking spaces must be unbundled by renting or leasing as an option that requires a separate transaction rather than a requirement of the lease. There are no vehicle parking minimum and/or maximum requirements for residential land uses in a NR zone within a transit area.

The Project will retain approximately 22 parking spaces in the existing surface parking lot. The existing surface parking lot contains 34 spaces; the Project will reduce the parking on-site by 12 spaces.

BICYCLE PARKING

Although the City of Somerville's Zoning Ordinance stipulates the requirements for short-term and long-term bicycle parking at new developments, there are no proposed bicycle parking requirements for residential land uses in a NR zone.



The Project will provide six (6) outdoor bicycle racks to accommodate short-term parking for twelve (12) bicycles. Short-term bicycle parking will be provided on outdoor bicycle racks located on the southwest side of the building near the building's primary entrance.

Loading and Service Operations

Loading and service activity will occur on-site within the surface parking lot and will include trash, recycling, deliveries, and residential move-in/move-out.



Figure 1. *Site Plan*





Existing Local Transportation

The Project will take advantage of the nearby public transportation alternatives and excellent pedestrian and bicycle facilities. The following sections describe the public transportation services, bicycle network, and pedestrian realm in proximity to the Project.

Existing Public Transportation Services

The Project is served by the MBTA Red Line, the Fitchburg Line of the Commuter Rail, and seven MBTA bus routes. The Project Site is located approximately one-half mile from Porter Square which is served by the Red Line and Fitchburg Line, as well as four bus routes including Route 77, Route 83, Route 87, and Route 96. Routes operating closest to the Project Site include Route 88 and Route 90 along Highland Avenue and Route 85 which provides service along Summer Street.

The existing nearby transit services are shown in **Figure 2** and a summary of their service destinations, weekday span of service, peak hour frequency, and weekday ridership is provided in **Table 1**. Descriptions of the services are listed following **Table 1**.



Figure 2. *Public Transportation*

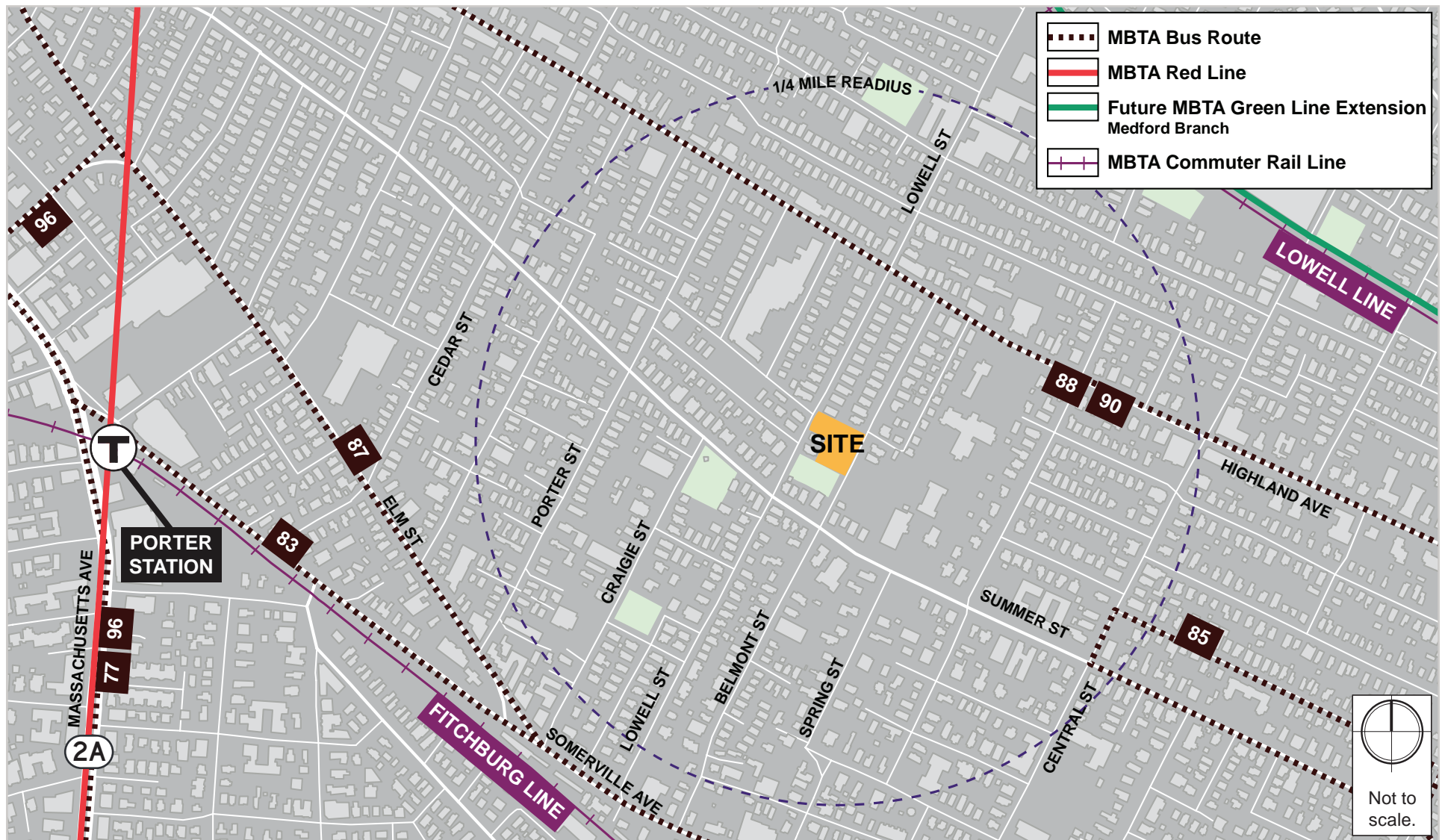




Table 1. Transit Service Summary

Service	Route Description	Weekday Span of Service	Peak Hour Headway (min.)		Weekday Ridership*
			a.m.	p.m.	
Heavy Rail					
Green Line (Medford Branch)	Medford/Tufts – All Branches (B, C, D, E)	Future Service			
Red Line	Alewife – Braintree or Ashmont	5:08 a.m.-1:12 p.m.	9-10	9-10	258,199
Fitchburg Line	Wachusett – North Station	4:25 a.m.-12:32 a.m.	60	60	17,226
Bus					
Route 77**	Arlington Heights – Harvard Station	4:48 a.m.-1:25 a.m.	< 15	< 15	6,652
Route 83	Rindge Avenue – Central Square, Cambridge	5:10 a.m.-1:21 a.m.	20-25	25-35	1,829
Route 85	Spring Hill – Kendall/MIT Station	5:35 a.m.-8:00 p.m.	25-40	40-45	591
Route 87	Arlington Center or Clarendon Hill – Lechmere Station	5:05 a.m.-1:40 a.m.	16-20	20	3,686
Route 88	Clarendon Hill – Lechmere Station	5:15 a.m.-1:39 a.m.	8-18	20-25	3,814
Route 90	Davis Square- Wellington Station	6:30 a.m.-10:26 p.m.	35	35	1,076
Route 96	Medford Square – Harvard Square	5:00 a.m.-1:41 a.m.	30	27-32	2,090

* Ridership is adopted from MBTA Open Data Portal (rail data is from Spring 2018 and bus data is from Fall 2019)

** Route 77 is a “Key Bus Route”, which the MBTA identifies as one of the fifteen most important bus routes with high ridership and higher frequency standards.

- The **Green Line Extension/Medford Branch** is currently under construction and being built parallel to the Lowell Line Commuter Rail tracks north of the Project Site. The future Green Line service will have a stop at Magoun Square, which will be located off Lowell Street approximately one-half mile from the Project Site.
- The **Red Line** is a branch of the MBTA subway system that stops at Porter Square, approximately 4,100 feet (18-minute walk) to the west. The Red Line travels between Alewife



Station to the north and Ashmont Station or Braintree Station to the south. Both Red Line branches pass through Porter Station. The Red Line provides convenient access to downtown Boston as well as Dorchester, Mattapan, Cambridge, Quincy, and Braintree. The Red Line also provides access to South Station, with connections to regional rail lines, a bus terminal, and Logan Airport via the MBTA Silver Line.

- The ***Fitchburg Line*** is a commuter rail route that operates between Wachusett and North Station. The Fitchburg Line serves Porter Square, approximately 4,100 feet (18-minute walk) to the west. The Fitchburg Line provides single-ride service to North Station in approximately 10-12 minutes.
- ***Route 77*** is a key bus route that operates between Arlington Heights and Harvard Station. Route 77 primarily operates along Massachusetts Avenue and provides connection opportunities with the Red Line at Porter Station and Harvard Station. The closest stop to the Project Site is approximately 4,200 feet (18-minute walk) at Porter Station for the inbound and outbound direction.
- ***Route 83*** is a local bus route that operates between North Cambridge and Central Square. Route 83 primarily operates along Rindge Avenue, Massachusetts Avenue, Somerville Avenue, Park Street, Beacon Street, and Prospect Street. Route 83 provides connection opportunities with the Red Line at Porter Station and Central Station. The closest stop to the Project Site is approximately 1,700 feet (8-minute walk) at Somerville Avenue at Lowell Street for the inbound and outbound directions.
- ***Route 85*** is a local, weekday only, bus route operating between Spring Hill in Somerville and Kendall Square in Cambridge. Route 85 primarily operates along Summer Street, Webster Avenue, Highland Street, Broadway, and Main Street. Route 85 provides a connection opportunity to the Red Line at the Kendall/MIT Station and will provide a future connection opportunity to the new Green Line at Union Square Station. The closest stop to the Project Site is approximately 1,600 feet (7-minute walk) at Avon Street at Central Street in the inbound direction, which is the first stop of the route, and Summer Street opposite Carter Terrace in the outbound direction.
- ***Route 87*** is a local route that operates between Arlington Center or Clarendon Hill and Lechmere Station. Route 87 primarily operates along Broadway, Holland Street, Elm Street, Somerville Avenue, and McGrath Highway. Route 87 provides connection opportunities to the Red Line at Davis Station and Porter Station and the Green Line at Lechmere Station. In the future, the route will provide a connection opportunity to the new Green Line at Union Square Station. The closest stop to the Project Site is approximately 1,700 feet (8-minute walk) at Somerville Avenue at Lowell Street for the inbound and outbound directions.



- **Route 88** is a local bus route that operates between Clarendon Hill and Lechmere Station. Route 88 primarily operates along Broadway, Holland Street, Highland Avenue, and McGrath Highway. Route 88 provides connection opportunities to the Red Line at Davis Station and the Green Line at Lechmere Station. The closest stop to the Project Site is approximately 700 feet (3-minute walk) at Highland Avenue at Lowell Street for the inbound and outbound directions.
- **Route 90** is a local bus route that operates between Davis Square in Somerville and Wellington Station in Medford via Sullivan Square and Assembly Row. Route 90 primarily operates along Highland Avenue, Cross Street, Broadway, and Fellsway. Route 90 provides connection opportunities to the Red Line at Davis Station and the Orange Line at Sullivan Square Station and Wellington Station. The closest stop to the Project Site is approximately 700 feet (3-minute walk) at Highland Avenue at Lowell Street for the inbound and outbound directions.
- **Route 96** is a local bus route that operates between Medford Square and Harvard Square via Medford Hillside and Davis Square. Route 96 primarily operates along Main Street, George Street, Boston Avenue, College Avenue, Elm Street, Beech Street, and Massachusetts Avenue. Route 96 provides connection opportunities to the Red Line at Davis Station, Porter Station, and Harvard Station. The closest stop to the Project Site is approximately 4,200 feet (18-minute walk) at Porter Station for the inbound and outbound direction.

Existing Bicycle Network

In recent years, bicycle use has increased dramatically throughout the region. The Project is conveniently located close to several bicycle facilities. A green painted bicycle lane adjacent to on-street parking is provided along Somerville Avenue. Lowell Street is one-way northbound with a bicycle lane along the left side of the roadway, opposite the on-street parking. Central Street is one-way northbound with a bicycle lane along the right side of the roadway, opposite the on-street parking. A dashed advisory bicycle lane is painted in the westbound direction with shared lane markings in the eastbound direction along Summer Street east of Spring Street. A green painted bicycle lane is provided in the eastbound direction with shared lane markings in the westbound direction along Summer Street west of Spring Street. Cedar Street is one-way southbound with a buffered bicycle lane along the right side of the roadway, opposite the on-street parking. Also, the eastern most end of the Somerville Community Path is located approximately 0.4 miles north of the Project Site which can be reached directly by traveling along Lowell Street.

The Project Site is located near to bicycle sharing stations provided by Bluebikes, the bicycle sharing system which was launched in 2011 and currently consists of over 400 stations and over 4,000



bicycles in 11 municipalities throughout the metro-Boston area including Arlington, Boston, Brookline, Cambridge, Chelsea, Everett, Revere, Somerville, and Watertown. There are two stations within a quarter mile (5-minute walk) of the Project Site. The existing bicycle facilities and the nearby Bluebikes stations are shown in **Figure 3**.

Existing Pedestrian Network

All segments within the study area generally have sidewalks on both sides of the roadway. The sidewalks adjacent to the Project Site are generally in good condition, constructed with concrete material, and vertical granite curbing. Driveways are constructed at sidewalk elevation to maintain a level pedestrian walkway, with the driveway apron located within the furnishing zone. Baily Park to the south has pedestrian paths that connect Belmont Street and Lowell Street.

Along Lowell Street to the west of the Site, crosswalks, and Americans with Disabilities Act (ADA)-compliant wheelchair ramps are provided across the side streets. At the nearby intersection of Summer Street and Lowell Street, crosswalks and perpendicular ADA-compliant wheelchair ramps are provided across all approaches. At the intersection of Summer Street and Belmont Street, crosswalks are provided across all approaches except the Summer Street west leg. Perpendicular ADA-compliant wheelchair ramps are provided at the Summer Street east leg and on the west side of the north crosswalk. All other wheelchair ramps at this intersection are not ADA compliant.

At the nearby signalized intersection on Highland Avenue at Lowell Street, crosswalks are provided across all approaches and apex style ADA-compliant wheelchair ramps are provided at all corners of the intersection. Pedestrian signal equipment is provided on all approaches of the intersection. At the T-intersection of Highland Avenue at Belmont Street, a crosswalk is only provided across the Belmont Street approach, and non-compliant ADA wheelchair ramps are provided at this crosswalk.



Figure 3. *Existing Bicycle Facilities Map*





Transportation Assumptions

Determining the future trip generation of a project is a complex, multi-step process that produces an estimate of vehicle trips, transit trips, walk trips, and bicycle trips associated with a proposed development and a specific land use program. A project's location and proximity to different travel modes determines how people will travel to and from a project site.

Land Use

To estimate the number of trips expected to be generated by the Project, data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual, 10th edition*, were used. ITE provides data to estimate the total number of unadjusted vehicular trips associated with a project. In a setting well-served by transit, adjustments are necessary to account for other travel mode shares such as walking, bicycling, and transit. To estimate the trip generation for the Project, the following ITE land use code (LUC) was used:

- **Land Use Code 221 - Multifamily Housing (Mid-Rise).** Mid-rise multifamily housing includes apartments, townhouses, and condominiums that have 3-10 levels (floors). They are likely to have one or more elevators. Calculations of the number of vehicle trips use ITE's average rate per dwelling unit.

The Project Site was formerly occupied by the Somerville Hospital School of Nursing which officially closed in 1997; the hospital used some of the space as offices until 2017. To provide a conservative estimate, the MMP does not take credit for the trip generation of the prior use and calculates the trip generation for the proposed development project only. The detailed trip generation table is provided in **Appendix A**.

Trip Generation Rates

The average trip generation rate for LUC 221 was used to estimate the trip generation during the weekday, the weekday a.m. peak hour, and the weekday p.m. peak hour. The average trip rates and directional distribution are summarized in **Table 2**.



Table 2. ITE Vehicle Trip Generation Rates

LUC	Time Period	ITE Average Rate (per unit)	Directional Distribution	
			Enter	Exit
Residential (LUC 221)	Weekday Daily	5.44 per unit	50%	50%
	Weekday, Peak Hour of Adjacent Street Traffic One Hour Between 7 – 9 a.m.	0.36 per unit	26%	74%
	Weekday, Peak Hour of Adjacent Street Traffic One Hour Between 4 – 6 p.m.	0.44 per unit	61%	39%

Travel Mode Share

A travel 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 shares were determined using the 2019 American Community Survey (ACS) Means of Transportation to Work (data table B08301) for Census Tract 3511, published by the U.S. Census Bureau. The mode shares are shown in **Table 3**.

Table 3. Existing Mode Shares

Mode Type	Mode Share*
Non-Vehicle Modes	
Public Transportation	30%
Walking	15%
Biking	12%
Vehicle Modes	
Personal Vehicle	42%
Taxi	2%

* Based on U.S. Census 2019: ACS 1-Year Estimates for Means of Transportation to Work for Census Tract 3511 (Table B08301).



Person Trips

The unadjusted vehicular trips calculated using the rates in **Table 2** were converted to person trips by using a vehicle occupancy rate (VOR) of 1.18 for home-to-work based trips, published by the Federal Highway Administration (FHWA)¹. The person trips were then distributed to different travel modes according to the mode shares shown in **Table 3**. The person trips by travel mode are shown in **Table 4**.

Table 4. Project-generated Person Trips by Travel Mode

Time Period	Direction	Person Trips					
		Transit	Walk	Bike	Vehicle	Taxi	Total
Daily	In	19	10	8	26	1	64
	Out	<u>19</u>	<u>10</u>	<u>8</u>	<u>26</u>	<u>1</u>	<u>64</u>
	Total	38	20	16	52	2	128
Weekday a.m. Peak Hour	In	1	0	0	1	0	2
	Out	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>6</u>
	Total	3	1	1	3	0	8
Weekday p.m. Peak Hour	In	2	1	1	2	0	6
	Out	<u>1</u>	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>4</u>
	Total	3	2	1	4	0	10

Project-generated Vehicle Trips

The vehicle person trips were distributed to the different automobile modes of personal vehicle trips and taxi trips. The trips were then adjusted by a VOR of 1.18 for personal vehicles and 1.20 for taxis and Transportation Network Company (TNC) vehicles, such as Uber or Lyft. It is anticipated that trips generated by a person arriving in a taxi/TNC would also include the taxi/TNC exiting empty (deadhead trip) and the trip of a person departing in a taxi/TNC would include the entering deadhead taxi/TNC trip. The Project-generated vehicle trips are shown in **Table 5**.

¹ Summary of Travel Trends: 2017 National Household Travel Survey; FHWA; Washington, D.C.; July 2018



Table 5. Project-generated Vehicle Trips

Time Period	Direction	Vehicle Trips		
		Personal Vehicle VOR* = 1.18	Taxi/TNC VOR* = 1.20	Total
Daily	In	22	1	23
	Out	<u>22</u>	<u>1</u>	<u>23</u>
	Total	44	2	46
a.m. Peak Hour	In	1	0	1
	Out	<u>2</u>	<u>0</u>	<u>2</u>
	Total	3	0	3
p.m. Peak Hour	In	2	0	2
	Out	<u>2</u>	<u>0</u>	<u>2</u>
	Total	4	0	4

*VOR = Vehicle Occupancy Rate

Vehicle Trip Distribution

The vehicle trip distribution identifies the various travel paths for vehicles entering and exiting the Project Site. Trip distribution patterns for the Project were based on Longitudinal Employer-Household Dynamics (LEHD) and Longitudinal Origin-Destination Employer Statistics (LODES). The LODES data specifies the percentage of trips between Somerville and other communities within the region. The trip distribution for entering and exiting vehicles is shown in **Figure 4**.



Figure 4. *Vehicle Trip Distribution*





Mobility Management Commitments

The Proponent will work with the City of Somerville to create a Project that improves the pedestrian environment, encourages transit and bicycle usage, and efficiently serves vehicle trips at the Project Site. The Proponent is committed to controlling the percentage of trips made to the Site by motor vehicle at 50% or less, consistent with SomerVision, the City's Comprehensive Plan.

The Proponent will bring all abutting sidewalks and pedestrian ramps to City of Somerville standards in accordance with the National Association of City Transportation Officials (NACTO) design guidelines. This may include the reconstruction and widening of sidewalks; the installation of new, accessible ramps; improvements to street lighting; 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.

The following section identifies the Transportation Demand Management (TDM) program to reduce the use of single occupancy vehicles.

Transportation Demand Management (TDM) Summary

The Proponent will provide the following TDM programs:

- Post mobility management information;
- Distribute mobility management information; and
- Unbundle parking.

More detailed explanations of the Project's MMP measures are presented below.

- The Proponent will ***distribute information*** on travel alternatives to tenants 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 (or more frequent) newsletter or bulletin summarizing travel options.



- The Proponent will *post information* to a public bulletin board/electronic display/kiosk in the building lobby with similar information to that distributed to all tenants as noted above.
- The Proponent will provide *unbundled parking* with all rental, lease, or purchase agreements for tenants so that parking is used as an optional amenity instead of a required/allocated benefit.

Monitoring and Annual Reporting

The City of Somerville Zoning Ordinance requires MMPs to be updated annually. These updates require the property owner and employers 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 meeting the goals set out in the MMP and identifies any shortfall in meeting the MMP's commitments. The report must include, but is not limited to, the following:

- **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.
- **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 fulfil the MMP goals 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 exiting the parking garage. 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 based on the previous year's performance and trends over time.



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Appendix A

Trip Generation

125 Lowell St, Somerville
Trip Generation Assessment

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										Assumed National Vehicle Occupancy Rate ¹										Assumed Local Auto Occupancy Rate ⁵		Assumed Local Auto Occupancy Rate for Taxis ⁶		Total Adjusted Auto (Private + Taxi) Trips		
Land Use	Size	Category	Directional Split	Average Trip Rate	Unadjusted Vehicle Trips	Unadjusted Person-Trips	Primary Person-Trips	Transit Share ³	Transit Person-Trips	Walk Share ³	Walk Person-Trips	Bike Share ³	Bike Person-Trips	Auto Share ³	Auto Person-Trips	% Taxi ⁴	Private Auto Person-Trips	Taxi Person-Trips	Private Auto Trips	Total Adjusted Taxi Trips	Total Adjusted Trips					
Daily Peak Hour																										
Multifamily Housing (Mid Rise) ⁸	20 units	Total		5.440	108	1.18	128	128	30%	38	15%	20	12%	16	43%	54	2%	52	2	1.18	1.20	44	2	46		
		In	50%	2.720	54	1.18	64	64	30%	19	15%	10	12%	8	43%	27	2%	26	1	1.18	1.20	22	1	23		
		Out	50%	2.720	54	1.18	64	64	30%	19	15%	10	12%	8	43%	27	2%	26	1	1.18	1.20	22	1	23		
Total		Total			108		128	128	38	20	16	54	52	2	44	2	46									
		In			54		64	64	19	10	8	27	26	1	22	1	23									
		Out			54		64	64	19	10	8	27	26	1	22	1	23									
AM Peak Hour																										
Multifamily Housing (Mid Rise) ⁸	20 units	Total		0.360	7	1.18	8	8	3	1	1	3	2%	3	0	1.18	1.20	3	0	3						
		In	26%	0.094	2	1.18	2	2	30%	1	15%	0	12%	0	43%	1	2%	1	0	1.18	1.20	1	0	1		
		Out	74%	0.266	5	1.18	6	6	30%	2	15%	1	12%	1	43%	2	2%	2	0	1.18	1.20	2	0	2		
Total		Total			7		8	8	3	1	1	3	3	0	3	0	3									
		In			2		2	2	1	0	0	1	1	0	1	0	1									
		Out			5		6	6	2	1	1	2	2	0	2	0	2									
PM Peak Hour																										
Multifamily Housing (Mid Rise) ⁸	20 units	Total		0.440	8	1.18	10	10	3	2	1	4	2%	4	0	1.18	1.20	4	0	4						
		In	61%	0.268	5	1.18	6	6	30%	2	15%	1	12%	1	43%	2	2%	2	0	1.18	1.20	2	0	2		
		Out	39%	0.172	3	1.18	4	4	30%	1	15%	1	12%	0	43%	2	2%	2	0	1.18	1.20	2	0	2		
Total		Total			8		10	10	3	2	1	4	4	0	4	0	4									
		In			5		6	6	2	1	1	2	2	0	2	0	2									
		Out			3		4	4	1	1	0	2	2	0	2	0	2									

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 means of transportation to work from Census data for census tract project falls within
4. Vehicle Trips = 42% Private Auto and 2% Taxi. Taxi trip rate based on Census Data journey to work.
5. Local vehicle occupancy rates based on 2009 National vehicle occupancy rates
6. For taxi cabs, 1.2 passengers per cab. (2.2 minus 1 driver equals 1.2)
8. ITE Trip Generation Manual, 10th Edition, LUC 221 (Multifamily Housing Mid-Rise (3-10 floors)), average rate



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