

Transportation Demand Management Plan

Proposed Mixed-Use Development
140 Haverhill Street
Andover, MA

June 9, 2025

Prepared for:
Town of Andover

Applicant:
140 Medico LLC

FUSS & O'NEILL

600 Unicorn Park Drive
Woburn, MA 01801

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1 Introduction

Transportation Demand Management (TDM) is a combination of services, incentives, facilities, and actions that reduce single-occupant vehicle (SOV) trips to help relieve traffic congestion, parking demand, and air pollution problems. The purpose of TDM is to promote more efficient utilization of existing transportation facilities, and to ensure that new developments are designed to maximize the potential for sustainable transportation usage. This TDM Plan has been prepared for the proposed development at 140 Haverhill Street in Andover, MA. This plan has been prepared with the goal of reducing weekday morning and weekday evening peak hour trips. In order to propose effective and appropriate TDM measures, this Plan has been developed based on the project's size, location, and land use.

1.1 Project Description

The site is in the northwest corner of the intersection of Haverhill Street (Route 133) and High Street. Currently, the site consists of Doctors Park I and Doctors Park II. Two driveways currently serve the site, one from Haverhill Street and one from High Street. Doctors Park I, approximately 25,000 square feet (sf) of medical office space, is currently a vacant.

The current development proposal consists of construction of two buildings. The first building, consisting of 19,200 gross square feet of space will be a new medical office building. The second building, the Gardner School, will consist of a 17,688 square foot (sf) childcare center. The childcare center is expected to have a maximum enrollment of 195 students and a maximum staff of thirty-two (32) employees. A total of 149 parking spaces will be provided for the site.

The two buildings will replace the existing Doctors Park I building. Access would continue to be provided by way of the driveways to Haverhill Street and High Street. During the peak hours, left turns will be prohibited from the Haverhill Street driveway. Figure 1 shows the site location in relation to the surrounding area.



Figure 1
Site Location Map

1.2 TDM Goals

This TDM Plan includes a broad range of TDM measures designed to reduce single-occupant vehicle trips through a combination of appropriate measures to promote alternative forms of transportation. The objective of the TDM Plan is to encourage employees and parents to walk, bike, or use existing transit services. The trip generation rates published in the Institute of Transportation Engineers' (ITE) manual entitled *Trip Generation manual*¹, for Land Use Code (LUC) 565 – Day Care Center and LUC 720 – Medical-Dental Office Building were reviewed.

Before TDM reductions, the proposed project is estimated to generate a total of 1,516 vehicle trips (758 vehicles entering and 758 vehicles exiting). During the weekday morning peak hour, a total of 192 vehicle trips (116 vehicles entering and 76 vehicles exiting) would be expected. During the weekday evening peak hour, a total of 206 vehicle trips (85 vehicles entering and 121 vehicles exiting) would be expected. These trips are shown in Table 1.

¹*Trip Generation*, Eleventh Edition; Institute of Transportation Engineers; Washington, DC; 2021.

TABLE 1
TRIP ESTIMATES FOR 140 HAVERHILL STREET

Proposed Land Uses	Size	Weekday Daily Trips ^b	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
			Enter Trips	Exit Trips	Total Trips	Enter Trips	Exit Trips	Total Trips
Day Care	195 Students	798	73	64	137	62	69	131
Medical Office	19,200 sf	718	43	12	55	23	52	75
TOTAL		1,516	116	76	192	85	121	206

1.3 Report Organization

The remainder of this report is divided into two chapters. Section 2 describes the transportation facilities and services near the proposed project. Section 3 presents the recommended TDM measures for the proposed project.

2 Transportation Facilities and Services

Transportation facilities and services that support sustainable modes of transportation include commuter rail, buses and shuttle buses, high-occupancy vehicle (HOV) lanes, bicycle facilities, and pedestrian facilities. This chapter describes existing facilities and services near the project site that will support the TDM measures contained in this plan. The existing transit service in the project vicinity is described below and shown on Figure 3. Information on nearby roadways is also included in order to provide a more comprehensive description of the nearby transportation network.

2.1 Roadway Network

Regional access to the project site is provided by way of Boston Providence Highway (east of the project site) and Washington Street (west of the site, Route 1A). Local access to the site is provided on Everett Street. These roadways are described below. For the purposes of this study, Boston Providence Highway and Washington Street are considered to run north-south, and Everett Street is considered to run east-west.

Haverhill Street (Route 133)

Haverhill Street is an Urban Principal Arterial under the jurisdiction of the Town of Andover. Haverhill Street traverses the study area in a general east/west direction. Haverhill Street is a two-lane roadway. Travel lanes are generally separated by a double yellow centerline. Sidewalks are provided on the south side of Haverhill Street. Marked shoulders are also provided. The posted speed limit on Haverhill Street in the vicinity of the site is 35 miles per hour (mph). Land use along Haverhill Street in the study area is primarily residential.

High Street

High Street is an Urban Minor Arterial under the jurisdiction of the Town of Andover. High Street traverses the study area in a general north/south direction. High Street is a two-lane roadway. Travel lanes are generally separated by a double yellow centerline. Sidewalks are provided on the east side of High Street, south of Haverhill Street. Marked shoulders are also provided. The posted speed limit on High Street in the vicinity of the site is 30 mph. Land use along High Street in the study area is primarily residential.

2.2 Bicycle Facilities

Bicycle facilities are typically an important component of the local transportation network. Bikeways are generally classified follows:

- Bicycle Path – bike paths within an exclusive right-of way, sometimes shared with pedestrians,

- Bicycle Lane – bike lanes for bicycle use only that are striped within the paved area of roadways, and
- Bicycle Route – bike routes are shared with motor vehicles on the street. Class III bikeways may also be defined by a wide curb lane and/or use of a shared use arrow stencil marking on the pavement, known as a “sharrow.

Currently, there are no bicycle facilities in the vicinity of the subject site.

2.3 Pedestrian Facilities

The pedestrian facilities within the study area include a sidewalk along the south side of Haverhill Street and along the west side of High Street, south of Haverhill Street. In the vicinity of the project site, a crosswalk is provided across the High Street northbound approach at the signalized intersection of Haverhill Street and High Street. Figure 2 presents the existing pedestrian facilities in the area around the site.

2.4 Public Transportation Facilities

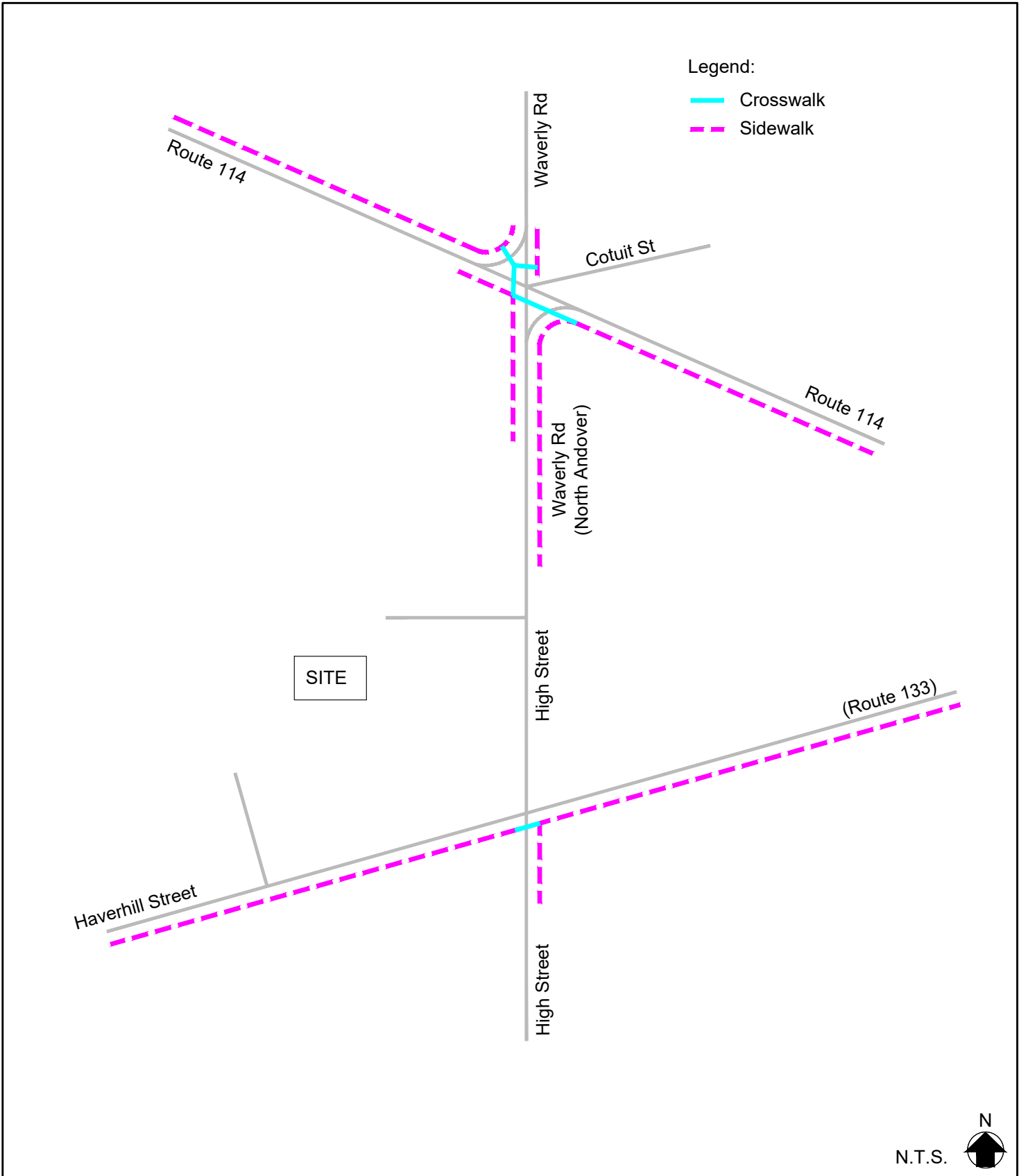
The Merrimack Valley Regional Transportation Authority (MEVA) was reviewed for available public transportation services. Bus Route 21, the Andover Shuttle, provides service along Haverhill Street and to the existing Doctors Park. The route runs between the Andover Senior Center and the Andover/North Andover YMCA. Currently, this bus route has stops within the existing Doctors Park. Route 21 bus service is provided Monday through Friday from 9:20 AM to 4:07 PM. There is no Saturday or Sunday service.

Bus Route 3 provides service from the McGovern Transportation Center in Lawrence to the North Andover Mall. Currently, this bus route has stops within the existing Doctors Park. Route 3 bus service is provided Monday through Friday from 5:00 AM to 7:45 PM. Saturday service is provided from 7:00 AM to 6:45 PM. There is no Sunday service.

Bus Route 9 provides service from McGovern Transportation Center in Lawrence to Merrimack College in North Andover. The route runs along Winthrop Avenue/Turnpike Street (Route 114) which is approximately 0.3 miles northeast of the site. Route 9 bus service is provided Monday through Friday from 5:15 AM to 10:00 PM. Saturday Service is provided 7:15 AM to 7:00 PM. Sunday service is provided from 7:35 AM to 7:00 PM.

Bus Route 2 provides service from the McGovern Transportation Center in Lawrence to the intersection of School Street and Main Street in Andover. This route travels along North Main Street (Route 28) which is approximately 3/4 miles west of the site. Route 2 bus service is provided Monday through Friday from 5:00 AM to 9:45 PM. Saturday service is provided from 7:00 AM to 6:45 PM. Sunday service is provided from 8:20 AM to 5:45 PM.

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FUSS & O'NEILL

600 UNICORN PARK DR, SUITE 17
WOBURN, MA 01801
781.932.3201
www.fando.com

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Figure 2
Existing Pedestrian Facilities

The MBTA commuter rail also provides service to Andover on the Haverhill Line. The closest stop is at 17 Railroad Street is approximately two (2) miles from the site. Service is provided Monday through Friday from 4:51 AM to 1:06 AM and Saturday and Sunday from 5:20 AM to 12:56 AM.

Figure 3 presents the existing public transportation facilities.

2.5 Existing Shuttle Services

There are several private shuttle services that currently serve the area.

AYS Shuttle Service

A shuttle for Middle School youth, requires preregistration and is scheduled to pick up students from Wood Hill and West Middle Schools. The shuttle service is free for youth with memberships and \$5/ride for non-members.

Shuttle services is offered Monday through Friday with Wood Hill pickup scheduled around 3:00 PM at the horseshoe, and West Middle pickup scheduled around 3:15 PM by the horseshoe by the gym entrance.

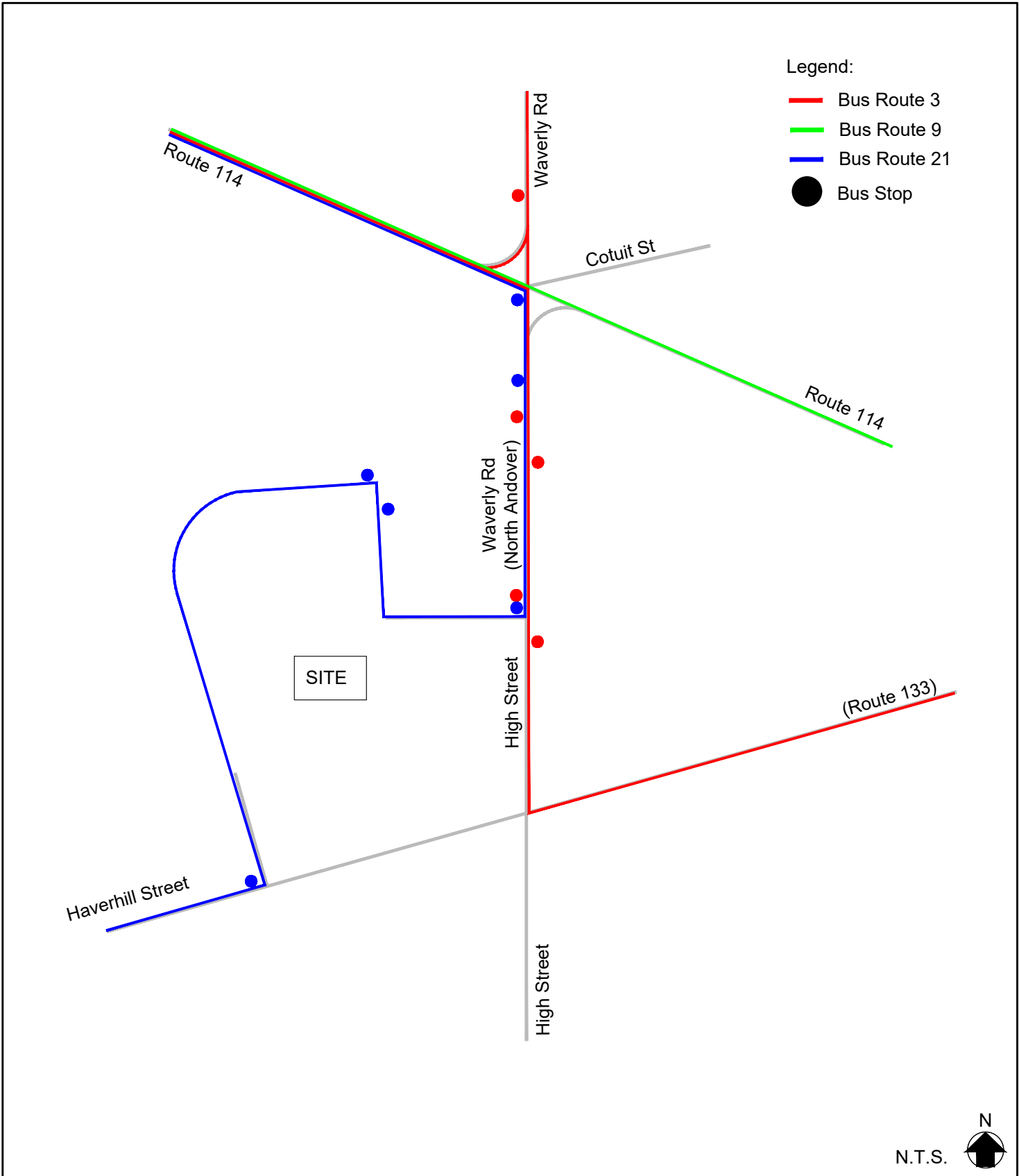
Andover Senior Center

The Andover Senior Center (The Robb Center) offers medical transportation to seniors and those with disabilities within Andover and surrounding communities, including Greater Boston. This program provides free bus or train transportation for medical appointments, requiring riders to schedule rides in advance and meet specific criteria. They also offer information about other transportation resources.

Specific details include:

- **Eligibility:** Primarily serves seniors and those with disabilities who need transportation for medical appointments.
- **Service Area:** Andover and surrounding communities, including Greater Boston.
- **Transportation Options:** Includes bus or train transportation.
- **Scheduling:** Requires advance scheduling, typically a few days before the appointment.
- **Payment:** Rides may be free, or payment may be required in cash.
- **Curb-to-Curb Service:** Offers curb-to-curb transportation for convenience.
- **Other Resources:** Provides information about other transportation resources available in the area.

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Legend:

- Bus Route 3
- Bus Route 9
- Bus Route 21
- Bus Stop

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Figure 3
Existing Transit Facilities

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3 Recommended TDM Measures

This chapter describes Transportation Demand Management (TDM) measures that are recommended for the proposed project. The TDM measures recommended to be implemented by the project include services, incentives, actions, and planning and design measures related to the attributes of the site design and site amenities. Such design measures encourage walking, biking, use of transit, and internalization of trips. Some of the recommended TDM measures are programs that would be created and implemented by the building manager.

3.1 TDM Administration and Promotion

Transportation Coordinator

A Transportation Coordinator should be assigned to provide information regarding alternative modes of transportation to employees of the project, as well as the parents of the children associated with the day care component of the project. The Transportation Coordinator should be designated by the building developer, the property manager, or any subsequent building owner. The Transportation Coordinator's responsibilities will include updating information on the online information board/kiosk, providing trip planning assistance and/or ride-matching assistance to the employees and parents who are considering an alternative mode for their commute, and managing the annual surveys. The Transportation Coordinator should maintain a supply of up-to-date transit schedules and route maps for the MEVA transit facilities and be knowledgeable enough to answer employees and parents TDM program-related questions. The Transportation Coordinator should distribute a carpool/vanpool matching application to all employees as part of the New Employee Information packets. The application will match employees who live at the project site who may wish to carpool or vanpool.

Promotional Programs

The Transportation Coordinator should undertake additional marketing activities to encourage employees to try alternative travel modes. Additional promotional activities might include email blasts of flyers, brochures or other materials on commute alternatives, ridesharing incentive programs, and transit benefits. These websites: <https://mevatransit.com/>, <https://massridematch.org/>, <https://baystatecommute.com/>, and <https://merrimackvalleytma.com/> contain information that may be useful for marketing programs.

Online Transportation Kiosk

This TDM plan recommends establishing an "online kiosk" with transportation information that employees and parents could access from their smart phones, their homes, or anywhere else. This online kiosk can be available on the project website. By allowing someone to have all the information about transportation alternatives and TDM programs available to them in

a single online location, people will be more likely to refer to this information from home. The project developer or property manager should have responsibility for setting up and maintaining this online information center. This website should include site-specific information about all the measures, services, and facilities discussed in this plan.

In addition, this online information center should include:

- A summary of MEVA transit schedules and nearby shuttle services and links to further information about their routes and schedules.
- Information about ride matching services (MassRideMatch.org, BayStateCommute.com, etc.) and the incentive programs available to carpools and vanpools.
- Information about services such as Uber, Lyft, and other on-demand transportation services will also be included.
- A local bikeways map and bicycling resources as available.
- A link to the any other resources available in the area that provides real-time traffic conditions, etc.

Employee and Parent Orientation (Welcome) Packet

New employees and parents should be provided transportation information welcome packets. This packet should include information about transit maps/schedules (MEVA and available shuttle services), location of bus stops, bike maps, ride matching services, transit planning resources, and bicycle parking on site. Also included in the packet should be information regarding how to contact the Transportation Coordinator, who can provide information regarding alternative modes of transportation to employees and parents. The packet should provide a quick, easy-to-read announcement of the most important features of the TDM program for employees and parents to let them know about the program and a message that the property owner values alternative modes of transportation and takes their commitment to supporting alternative transportation options seriously.

Bicycle Parking

Providing secure bicycle parking encourages bicycle commuting and reduces vehicle trips. The project is providing eight (8) bicycle parking spaces within the site. There are six (6) bicycle spots in the front of the medical office building and two (2) bicycle storage spots for the day care building. The Transportation Coordinator should monitor the usage of the bicycle parking facilities and should also tabulate the mode share for bicycles based on survey results. Additional bicycle parking could be provided if and when it is warranted by demand.

Bicycle Resources

The following resources are available to bicycle commuters through MassDOT (<https://www.mass.gov/bicycle-and-pedestrian-transportation>). These resources should be noted on the project's online information center, in order to make employees and parents

aware of them.

- Bay State Bike Month promotional material
- Statewide Bicycle Facility Map
- Mass Trails information
- Mass in Motion (a statewide movement that promotes opportunities for healthy eating and active living in the places people live, learn, work and play)
- Safe Routes to School programs
- Bicycle laws

Pedestrian Design Elements

The project will provide enhanced pedestrian facilities on site. Clearly defined walkways will be incorporated to enable employees to walk to the building's amenities.

Passenger Loading for Rideshare Vehicles

Providing a convenient passenger parking space near the entrance of the building would encourage employees and parents to utilize rideshare services/programs (e.g., Uber, Lyft, Scoop, Waze Carpool, etc.) and reduce parking demand. Therefore, the property owner will encourage the medical office building tenant to provide a designated curbside passenger space near the building entrance for these services. For the Day Care component, all of the parking spaces are considered to be drop-off and pick-up.

Onsite Amenities

High-Bandwidth Internet Connection

The buildings will have the option for high-bandwidth internet connections to facilitate telecommunicating. Access to high-bandwidth internet connection will allow employees and parents to communicate effectively.

Carpool and Vanpool Programs

On-Site Ride Matching Assistance

The Transportation Coordinator should distribute a carpool/vanpool matching application to all employees and parents as part of the welcome packets. The application should match employees and parents who work in the same area who wish to carpool or vanpool together. Some employees and parents who may be reluctant to reach out to find carpool partners via the MassRidesMatch.com service may be more likely to fill out a form that will be administered by their Transportation Coordinator. Furthermore, employees and parents may be more likely to try ridesharing with a neighbor than with an unknown person who lives nearby.

MassRideMatch Matching Assistance

MassRideMatch

The MassRideMatch service provides an interactive, on-demand system that helps commuters find carpools or vanpools. The Transportation Coordinator, in conjunction with the future building manager contacts, will promote the on-line MassRideMatch service to employees and parents. This free car and vanpool ride matching service helps commuters find others with similar routes and travel patterns with whom they may share a ride. Registered users are provided with a list of other employees and parents near their home along with the closest cross street, email, phone number, and hours they are available to commute to and from work. Participants are then able to select and contact others with whom they wish to commute. The service also provides a list of existing car and vanpools in their residential area that may have vacancies.

Transit Elements

Proximity to MBTA Station

The MBTA commuter rail also provides service to Andover on the Haverhill Line. The closest stop is at 17 Railroad Street, approximately two (2) miles from the site. Service is provided Monday through Friday from 5:43 AM to 11:45 PM and Saturday and Sunday from 5:51 AM to 11:45 PM.

Closer yet is the MEVA's Bus Route 21, the Andover Shuttle. Route 21 provides service along Haverhill Street and to the existing Doctors Park. The route runs between the Andover Senior Center and the Andover/North Andover YMCA. Currently, this bus route has stops at the MBTA commuter rail station on Railroad Avenue and within the existing Doctors Park. Route 21 bus service is provided Monday through Friday from 9:20 AM to 4:07 PM.

Transit Subsidies

Transit subsidies promote sustainable modes of transportation. The building developer should implement these programs. Fuss & O'Neill recommends the following programs and services that promote sustainable modes of transportation:

One Time Transit Subsidy The building developer will encourage the medical practice to offer new employees with a one-time, \$100 credit, when the employee shows proof of ownership of a Charlie Card used for MBTA ridership. This measure would incentivize new employees who are unfamiliar with the area to explore alternative commuting options.

Andover Council on Aging/Senior Center Shuttle

The Transportation Coordinator, as part of his/her duties will provide information about the Andover Council on Aging shuttle service. The Andover Senior Center (The Robb Center)

offers medical transportation to seniors and those with disabilities within Andover and surrounding communities, including Greater Boston. This program provides free bus or train transportation for medical appointments, requiring riders to schedule rides in advance and meet specific criteria.