

NOTICE OF PROJECT CHANGE

MBTA Green Line Extension

to Mystic Valley Parkway
Somerville and Medford, Massachusetts

OCTOBER 2017



**Green Line Extension to Mystic Valley Parkway
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Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs ■ MEPA Office

For Office Use Only
Executive Office of Environmental Affairs

MEPA Analyst:
 Phone: 617-626-

Notice of Project Change

The information requested on this form must be completed to begin MEPA Review of a NPC in accordance with the provisions of the Massachusetts Environmental Policy Act and its implementing regulations (see 301 CMR 11.10(1)).

EEA # 13886		
Project Name: Green Line Extension – College Avenue to Mystic Valley Parkway		
Street Address: Adjacent to Boston Avenue		
Municipality: Somerville, Medford	Watershed: Boston Harbor	
Universal Transverse Mercator Coordinates:	Latitude: 42.417° (Mystic Valley Parkway Station) Longitude: -71.128° (Mystic Valley Parkway Station)	
Estimated commencement date: TBD	Estimated completion date: TBD	
Project Type: Transportation (Light Rail)	Status of project design:	0 %complete
Proponent: Massachusetts Department of Transportation (MassDOT)		
Street Address: 10 Park Plaza, Suite 4150		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person: Holly Palmgren, MBTA		
Firm/Agency: Massachusetts Bay Transportation Authority (MBTA)	Street Address: 10 Park Plaza, Suite 6720	
Municipality: Boston	State: MA	Zip Code: 02116
Phone: (617) 222-1580	Fax:	E-mail: HPalmgren@mbta.com

With this Notice of Project Change, are you requesting:

a Single EIR? (see 301 CMR 11.06(8))	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
a Special Review Procedure? (see 301CMR 11.09)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
a Phase I Waiver? (see 301 CMR 11.11)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?
301 CMR 11.03(6)(b)(10) – “Construction of a New rail or rapid transit line for transportation of passengers or freight.”

Which State Agency Permits will the project require?

- **Determination of Effect to Historic or Archaeological Resources – Commonwealth of Massachusetts Historical Preservation Officer;**
- **National Pollution Discharge Elimination System General Permit, U.S. Environmental Protection Agency, Massachusetts Department of Environmental Protection;**
- **Massachusetts Department of Transportation (MassDOT) State Highway access permits; and**
- **Department of Conservation Resources (DCR) access permits.**

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

All land transfers will be further identified in the EIR. Funding is expected to be provided by Commonwealth Transportation Funds; no federal funds are anticipated at this point in time, though this determination may change if it appears that the project would qualify for federal funding. All land to be used by the project is owned by the MBTA or private land owners. No land transfers are anticipated from agencies of the Commonwealth.

PROJECT INFORMATION

In 25 words or less, what is the project change?
MassDOT and the MBTA propose to initiate additional MEPA review to extend Green Line light rail service to Mystic Valley Parkway in Somerville and Medford.

See full project change description beginning on page 3.

Date of publication of availability of the ENF in the Environmental Monitor: (Date: **10/10/2006**)

Was an EIR required? Yes No; if yes,
was a Draft EIR filed? Yes (Date: **10/15/2009**) No
was a Final EIR filed? Yes (Date: **6/15/2010***) No
was a Single EIR filed? Yes (Date:) No

Have other NPCs been filed? Yes (Date(s): **1/31/2017***) No

* Green Line Extension from College Avenue to Mystic Valley Parkway was considered part of the Green Line Extension’s Preferred Alternative, but was not evaluated beyond the October 2009 Draft EIR due to fiscal constraints. The NPC filed 1/31/17 addressed the larger Green Line Extension project vicinity from a relocated Lechmere Station to College Avenue in Medford with a branch to serve Union Square in Somerville.

If this is a NPC solely for lapse of time (see 301 CMR 11.10(2)) proceed directly to **ATTACHMENTS & SIGNATURES**.

PERMITS / FINANCIAL ASSISTANCE / LAND TRANSFER

List or describe all new or modified state permits, financial assistance, or land transfers not previously reviewed: dd w/ list of State Agency Actions (e.g., Agency Project, Financial Assistance, Land Transfer, List of Permits)

No new or modified state permits, financial assistance, or land transfers are anticipated.

Are you requesting a finding that this project change is insignificant? A change in a Project is ordinarily insignificant if it results solely in an increase in square footage, linear footage, height, depth or other relevant measures of the physical dimensions of the Project of less than 10% over estimates previously reviewed, provided the increase does not meet or exceed any review thresholds. A change in a Project is also ordinarily insignificant if it results solely in an increase in impacts of less than 25% of the level specified in any review threshold, provided that cumulative impacts of the Project do not meet or exceed any review thresholds that were not previously met or exceeded. (see 301 CMR 11.10(6))
Yes No; if yes, provide an explanation of this request in the Project Change Description below.

FOR PROJECTS SUBJECT TO AN EIR

If the project requires the submission of an EIR, are you requesting that a Scope in a previously issued Certificate be rescinded?
Yes No; if yes, provide an explanation of this request.

MassDOT and the MBTA request that the scope of the EIR be adapted to address only those issues that involve this segment of the project, i.e., GLX from College Avenue to Mystic Valley Parkway.

If the project requires the submission of an EIR, are you requesting a change to a Scope in a previously issued Certificate?

Yes No; if yes, provide an explanation of this request.

MassDOT and the MBTA request the Secretary issue a Scope for further evaluation of the Green Line Extension from College Avenue to Mystic Valley Parkway, to allow public review of potential impacts and mitigation measures associated with the recent station design changes.

SUMMARY OF PROJECT CHANGE PARAMETERS AND IMPACTS

Summary of Project Size & Environmental Impacts	Previously reviewed (in the 2009 DEIR, Mystic Valley Parkway Station)	Net Change (since 2009 DEIR)	Currently Proposed (Proposed Redesign of Mystic Valley Parkway Station)
LAND			
Total site acreage * (excludes railroad right-of-way)	6.3 acres	(3.1) acres*	3.2 acres
Acres of land altered *		0	
Acres of impervious area	5.6 acres	(2.6) acres	3.0 acres
Square feet of bordering vegetated wetlands alteration		0	
Square feet of other wetland alteration		0	
Acres of non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage (excludes substation)	7,000 sq ft (2-story building)	(5,000) sq ft	2,000 sq ft (1-story building)
Number of housing units	0	0	0
Maximum height (in feet)	Approx. 40 feet	(15) feet	Approx. 25 feet
TRANSPORTATION			
Vehicle trips per day	Up to 100 trips per day	0	Up to 100 trips per day
Parking spaces **	0 spaces	0	0 spaces
WATER/WASTEWATER			
Gallons/day (GPD) of water use	N/A	N/A	N/A
GPD water withdrawal	N/A	N/A	N/A
GPD wastewater generation/ treatment	N/A	N/A	N/A
Length of water/sewer mains (in miles)	N/A	N/A	N/A

* It is assumed that all work will be conducted within previously altered areas.

** Approximately 84 surface parking spaces will be impacted by the proposed improvements, which will be replaced at a location yet to be determined.

“TBD” indicates that impacts will be determined at a later date when design plans are further advanced.

N/A = Not Available

Does the project change involve any new or modified:

1. conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97? Yes No

2. release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction? Yes No

3. impacts on Rare Species? Yes No

4. demolition of all or part of any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes No

5. impact upon an Area of Critical Environmental Concern? Yes No

If you answered ‘Yes’ to any of these 5 questions, explain below:

PROJECT CHANGE DESCRIPTION (attach additional pages as necessary). The project change description should include:

(a) a brief description of the project as most recently reviewed

(b) a description of material changes to the project as previously reviewed,

(c) if applicable, the significance of the proposed changes, with specific reference to the factors listed 301 CMR 11.10(6), and

(d) measures that the project is taking to avoid damage to the environment or to minimize and mitigate unavoidable environmental impacts. If the change will involve modification of any previously issued Section 61 Finding, include a draft of the modified Section 61 Finding (or it will be required in a Supplemental EIR).

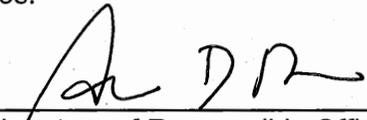
See attached narrative and figures.

ATTACHMENTS & SIGNATURES

Attachments:

1. Secretary's most recent Certificate on this project
2. Plan showing most recent previously-reviewed proposed build condition
3. Plan showing currently proposed build condition
4. Original U.S.G.S. map or good quality color copy (8-1/2 x 11 inches or larger) indicating the project location and boundaries
5. List of all agencies and persons to whom the proponent circulated the NPC, in accordance with 301 CMR 11.10(7)

Signatures:

9.6.17		9/6/17	
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing NPC (if different from above)

Andrew D. Brennan	Kristen P. Bergassi
Name (print or type)	Name (print or type)
MBTA	VHB
Firm/Agency	Firm/Agency
10 Park Plaza, Suite 6720	99 High Street, 10 th Floor
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**Green Line Extension to Mystic Valley Parkway
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Attachment 1 – Project Change Description

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Introduction

Through the current Green Line Extension Project, the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA) have been pursuing enhancements to transit services to improve mobility and regional access for residents in the communities of Cambridge, Somerville, and Medford. The Green Line Extension Project was conceived to deliver a range of regional environmental, economic, and other benefits, including improved transit options for this dense and underserved area. While the current Green Line Extension Project consists of extending the Green Line from Lechmere Station to College Avenue at Tufts University (as discussed in the January 2017 Notice of Project Change [NPC],¹ provided in Attachment 2), MassDOT and the MBTA wish to explore the extension of the Green Line to Mystic Valley Parkway (Route 16) in Somerville and Medford (the subject of this NPC). MassDOT and the MBTA are managing the planning and environmental review for the Project.

This NPC discusses the one-mile extension of the Green Line along the MBTA Lowell Line commuter rail right-of-way from the planned terminus at College Avenue in Medford to Mystic Valley Parkway in Somerville and Medford (Attachment 3). The 2009 Draft Environmental Impact Report (DEIR)² evaluated and identified the extension to Mystic Valley Parkway as part of the Preferred Alternative; however, due to fiscal constraints, MassDOT deferred this extension to a future phase. The purpose of this NPC is to initiate additional MEPA review for the extension to Mystic Valley Parkway, as well as provide an opportunity for public input on proposed station design changes for Mystic Valley Parkway Station, from a two-level station (previously reviewed) to an at-grade, one-level station (currently proposed).

This document provides:

- A brief description of the Project as previously reviewed in the 2009 DEIR;
- A description of the material changes proposed for Mystic Valley Parkway Station since the 2009 DEIR;³
- An overview of potential environmental resource areas that may be impacted by the Project;
- Areas identified for further environmental review as well as a description of how that analysis will be performed; and
- A discussion of measures the Project is taking to avoid damage to the environment, to minimize and mitigate unavoidable environmental impacts.

Project Change Description

As previously reviewed in the 2009 DEIR,⁴ this approximately one-mile segment from the planned terminus at College Avenue to Mystic Valley Parkway would include the relocation of existing commuter rail tracks, construction of new light rail tracks and a new terminal station at Mystic Valley Parkway (Route 16), reconstruction of two bridges, and construction of retaining walls in some locations. The Mystic Valley Parkway Station is proposed east of the intersection of Boston Avenue and Mystic Valley Parkway in the vicinity of the Somerville and Medford city line.

¹ In January 2017, MassDOT and the MBTA submitted a NPC for the redesign of the core Green Line Extension Project to reduce Project costs while maintaining Project functionality and benefits. On March 10, 2017, MEPA issued a Certificate determining that those material changes would not require the preparation of a Supplemental EIR (see Attachment 2).

² U.S. Federal Transit Administration and Executive Office of Transportation and Public Works, *Green Line Extension Project, Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Statement*. October 2009. Available at: <http://www.greenlineextension.org>

³ *Ibid.*

⁴ *Ibid.*

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The previously reviewed station at Mystic Valley Parkway consisted of the following elements:

- A single center-island station platform with overhead canopies.
- A two-story terminal station headhouse to serve a low-level platform at the same elevation as the Commuter Rail tracks, with restrooms, ticketing vending machines, an information booth, a communication room, an electrical room, an employee lounge, bicycle storage, MBTA system maps, signage, lighting, landscaping, tactile/braille identification signs, and platform furniture.
- Access to the platform was proposed via elevators, escalators, and stairs.
- Station access for pedestrians from Boston Avenue and Mystic Valley Parkway.
- A pick-up/drop-off area via Boston Avenue, with a curb cut onto Mystic Valley Parkway.
- No parking spaces were proposed at this station.⁵
- Bicycle parking (50 spaces) was proposed at this station.

In addition to the station, the Project previously proposed the following infrastructure modifications and upgrades:

- Relocation of commuter rail tracks to accommodate the proposed light rail tracks and proposed Mystic Valley Parkway Station.
- Construction of new light rail tracks and an overhead catenary system (OCS) along the MBTA Lowell Line right-of-way up to Mystic Valley Parkway.
- Construction of retaining walls and noise mitigation walls in some locations.
- Reconstruction of the Winthrop Street and North Street bridges (highway/roadway overhead bridges).

MassDOT and the MBTA recently reevaluated the conceptual design of the proposed Mystic Valley Parkway Station to match the recent design changes proposed for the Green Line Extension from Lechmere Station to College Avenue, as well as to minimize property impacts. As described in the January 2017 NPC for the core Project, many of the station design elements were modified to reduce anticipated costs while maintaining core functionality and benefits. MassDOT and the MBTA propose the following changes to the conceptual design of Mystic Valley Parkway Station:

- Lower Green Line tracks from Commuter Rail level to street level to provide full platform access via a single-story terminal station. This redesign would eliminate the need for elevators, escalators, and stairs in this location, and reduce long-term station life-cycle and maintenance costs.
- Replace the canopy with multiple pre-fabricated weather shelters along the station platform.
- Construct pedestrian grade crossings for access to the low-level platforms.
- Increase capacity for bicycle parking to 120 spaces in a secure storage enclosure (a “pedal & park” facility.)
- Remove all customer parking from the station design.
- Add an electrical substation (location to be determined) to provide additional traction power capacity, identified by the Green Line Extension Project since the 2009 DEIR.
- Shift station access drive north to reduce impacts to an adjacent business located at 200 Boston Avenue in Medford.⁶

⁵ This station was evaluated both with and without 300 parking spaces in a multi-level parking garage; however, the DEIR Preferred Alternative did not include parking at this station.

⁶ Approximately 84 surface parking spaces at 196 and 200 Boston Avenue could be impacted by the proposed improvements, which would be replaced at a location to be determined.

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Areas Identified for Further Evaluation

Although the changes proposed for the Green Line Extension to Mystic Valley Parkway may not meet or exceed significance thresholds defined in 301 CMR 11.10(6), MassDOT and the MBTA believes that an EIR would be appropriate due to the anticipated public interest in the recent design changes proposed for the Mystic Valley Parkway Station. In addition, a significant period of time has elapsed since this component of the Project was reviewed in MEPA (the 2009 DEIR) and as such, MassDOT and the MBTA have concluded that there should be a new and a full environmental review of the Project using up-to-date analysis and more informed methods of impact assessment and mitigation, and that the public should have a full opportunity to comment on the Project in light of this lapse in time. Additionally, MassDOT and the MBTA have made significant improvements to the way it mitigates impacts to projects since the DEIR and those new approaches should be presented in a publicly reviewed environmental document. MassDOT and the MBTA request, therefore, that MEPA issue a Certificate which includes a scope for a DEIR to be prepared by MassDOT and the MBTA at a later date.

Because the Proponent is a State Agency and is anticipated to receive Financial Assistance, MEPA jurisdiction for this Project is anticipated to be broad and extend to all aspects of the Project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

The following sections summarize existing conditions and potential impacts of the environmental resources present at or in vicinity of the Project site (Attachment 3). The information contained herein is based on analyses presented in the 2009 DEIR and supplemented by updated or new information where readily available. Information presented in *italics* has been updated to reflect 2016 conditions. A full update of potential impacts and proposed mitigation will be conducted in the EIR, as noted herein.

Table 1 Summary of Existing Conditions and Environmental Impacts

Resource	Existing Conditions	Impact Summary
Land Use and Zoning	Land use consistent with proposed Project	<i>Will require land from two full and two partial commercial/industrial properties, potential business relocations, potential economic impacts; consistent with zoning regulations.</i>
Threatened and Endangered Species	No federal- or state-listed species on or in the vicinity of the Project site.	No impact.
Wetlands, Waterways, and Tidelands	No wetlands, waterways, or tidelands present on the Project site. Proposed Project is located within 100 feet of the Mystic River.	No impact.
Water Quality, Stormwater, Wastewater	Developed areas connected to municipal water and wastewater systems; railroad right-of-way areas infiltrate.	No impact.
Transportation	Estimated 29,000 average daily traffic on Mystic Valley Parkway (Route 16), and 11,000 average daily traffic on Boston Avenue (2010 data). MBTA Lowell Line commuter rail runs within Project site.	Estimated 100 additional vehicle trips per day (estimated 25 average daily trips on Mystic Valley Parkway, 75 daily trips on Boston Avenue). Possible reduction in bus service, relocation of the MBTA Lowell Line commuter rail with short-term construction impacts. Analysis will be reevaluated in a

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Resource	Existing Conditions	Impact Summary
Air Quality	<i>The area is designated as a CO maintenance area and as a PM attainment area.</i>	future EIR. Prior to opening, the MBTA will reevaluate service plans for nearby MBTA bus routes to best support multimodal connections at the new station. No impact. Air quality benefits resulting from the diversion of trips from automobile to transit will be assessed in the travel demand analysis. Traffic analysis will be reevaluated in a future EIR.
Noise and Vibration	Primary noise and vibration sources are commuter line trains and vehicular traffic.	Potential for noise and vibration impact, per FTA's guidance manual <i>Transit Noise and Vibration Impact Assessment</i> (Report FTA-VA-90-1003-06, May 2006), Analysis will be reevaluated in a future EIR.
Hazardous Materials	Subsurface contamination is likely present; buildings may contain lead paint or asbestos-containing material; the Project is not a designated National Priorities List (NPL) site and U.S. Environmental Protection Agency (USEPA) involvement is unlikely to be required.	No impact with mitigation (for example, pre-construction testing and construction Best Management Practices). Analysis will be reevaluated in a future EIR.
Cultural Resources	<i>There are three National Register listed historic properties (two historic and one archaeological) and one National Register eligible historic property in the study area.</i>	<i>Potential for direct impacts to one potentially historic resource (surface parking area and small, vacant portion of Russell Box Company property at 196 Boston Avenue) and one archaeological resource (Middlesex Canal Historic District crosses Project site/rail right-of-way).</i> Analysis will be reevaluated in a future EIR.
Environmental Justice	The Project occurs in the vicinity of environmental justice populations due to minority populations and income status.	No disproportionate impacts anticipated. Potential beneficial impact. Analysis will be reevaluated in a future EIR to reflect changes in demographics since the prior analysis.

Alternatives Analysis

MassDOT conducted an extensive alternatives analysis for the Green Line Extension Project, as documented in the 2009 DEIR and the June 2010 FEIR, which included the consideration of numerous station options for the Mystic Valley Parkway Station. MassDOT also evaluated the feasibility and advisability of locating additional stations at Winthrop Street and at a location between Winthrop Street and College Avenue. Based on a ridership evaluation, it was concluded that the Winthrop Street area would be served by both the College Avenue Station and the Mystic Valley Parkway Station, and was not warranted. MassDOT and the MBTA continue to believe that this station is not warranted and will not be performing any further assessment on this station site.

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MassDOT and the MBTA recently evaluated two conceptual design alternatives for the proposed Mystic Valley Parkway Station, in order to match the recent design changes proposed for the Green Line Extension from Lechmere Station to College Avenue, and to minimize property impacts.⁷

The existing MBTA Lowell Line commuter rail right-of-way in this area is elevated and on structure within the Project site. The track alignment for the two alternatives would remain identical, between College Avenue and the approach to Mystic Valley Parkway Station. Both assume two Green Line tracks would be separated from but adjacent to the commuter rail tracks. The overhead bridges at Winthrop Street and North Street are each replaced under both alternatives to accommodate the new Green Line tracks. Table 2 presents a comparison of the two alternatives specific to the proposed Mystic Valley Parkway Station:

- **Alternative 1 (Street Level)** – assumes the Mystic Valley Parkway Station is one level, at-grade with Route 16, and lower than the commuter rail tracks.
- **Alternative 2 (Commuter Rail Level)** – assumes the Mystic Valley Parkway Station is two levels, such that the platform is at the same grade as the commuter rail tracks.

In response to concerns and ideas raised by the City of Medford and Medford-area stakeholders, MassDOT and the MBTA explored revisions to the Mystic Valley Parkway Station alternative to avoid full acquisition of the commercial property at 200 Boston Avenue. It was determined that it would be possible to avoid a full acquisition of that parcel, though partial acquisition, including portions of surface parking areas at 196 Boston Avenue and 200 Boston Avenue, would be required to accommodate emergency service vehicles and the relocated access driveway for the station. The approximately 84 surface parking spaces impacted by the proposed improvements would be relocated on-site (location to be determined). MassDOT and the MBTA will continue to coordinate with the cities of Medford and Somerville, and their emergency service officials during the next phase of Project development (conceptual design and environmental review) to refine the design⁸ and explore opportunities to further minimize property impacts.

This evaluation considered operations and maintenance; safety; real estate acquisition; order-of-magnitude capital cost; environmental impacts; and transit-oriented development potential. MassDOT and the MBTA selected the “Alternative 1 – Street Level Alternative” as its Currently Proposed Build Condition (Attachment 3) to advance for further evaluation in the next phase of Project development. Differentiating factors that led to this recommendation include:

- **Cost** – The construction cost of Alternative 1 would be less than Alternative 2 as it would not require construction of a two-story station building with stairs, escalators, and elevators.
- **Operations and Maintenance** – Alternative 2 with a two-story station building would require more maintenance, including maintenance of the elevator, which would lead to additional life-cycle costs for maintenance activities over Alternative 1.

MassDOT and the MBTA recommend advancing Alternative 1 (the one-level station) as it provides the best balance of cost, environmental impacts, and is consistent with the design principles of the redesigned Green Line Extension Project from Lechmere Station to College Avenue. This alternative was designed to minimize impacts to the communities by reducing the footprint of the Project and maximizing the use of the existing railroad rights-of-way. The current conceptual design would not preclude a future extension north of the Mystic River, if desired in the future. The alternative meets the Project goals and

⁷ Approximately 84 surface parking spaces at 196 and 200 Boston Avenue could be impacted by the proposed improvements, which would be relocated on-site (location to be determined).

⁸ Base information used for the redesign of the Mystic Valley Parkway Station is out-of-date and limited to publicly available information. More accurate assessments of impacts will be conducted after a detailed investigation for the impacted properties and structures.

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would provide additional regional benefits. MassDOT and the MBTA welcome public input on the recommendation of this alternative.

MassDOT and the MBTA have received a concept illustration that would retain the existing structure at 600 Mystic Valley Parkway and reuse it to support transit-oriented development (concept site plan figure and rendering developed and provided by the Medford Green Line Neighborhood Alliance [MGNA] are included in this NPC). The feasibility of adaptive reuse of this structure has not been determined. MassDOT and the MBTA have agreed to review its feasibility, as well as its benefits and impacts, in the future EIR. Members of the MGNA Working Group have also requested that MassDOT and the MBTA consider design elements in the future EIR, which may include additional open space, vehicular and bus pick-up/drop-off areas on Boston Avenue, and pedestrian paths from Boston Avenue to the new station mixed use development.

Table 2 Summary of Recent Alternatives Analysis

Decision Factor	Green Line Platform at:		Criteria Favors	Description
	ALTERNATIVE 1 Street Level	ALTERNATIVE 2 Commuter Rail Track Level		
Station Elements	1-Story Station	2-Story Station, with elevator, escalator, stairway, and Elevator Control Room	ALTERNATIVE 1	ALT 1 provides smaller station; easier to maintain. Consistent with core Green Line Extension Project.
Platform Access	2 At-grade crossings	End-loaded platform; Grade separated crossing	NEUTRAL	ALT 1 consistent with core Green Line Extension Project program. ALT 2 eliminates at-grade pedestrian crossings.
Property Impacts	2 Full Properties, 2 Partial Properties	2 Full Properties, 2 Partial Properties	NEUTRAL	Property impacts same under both alternatives.
Construction Impacts	Medium	Medium/Low	ALTERNATIVE 2	ALT 2 requires less impacts to commuter rail operations during retaining wall construction.
Environmental Impacts	Comparable to DEIR	Comparable to DEIR	NEUTRAL	Potential impacts/mitigation measures similar to DEIR findings under both alternatives.
Development Potential	High	High	NEUTRAL	Transit-oriented development potential same under both alternatives.
Cost	Lower	Higher	ALTERNATIVE 1	ALT 1 has smaller station building, lower total cost. ALT 2 has additional cost for station/platform improvements and site work.

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Areas Identified for Further Evaluation

MassDOT and the MBTA anticipate the DEIR for the Project will consider the following alternatives:

- No Build Alternative
- Two Mystic Valley Parkway Station design alternatives:
 - A station design which incorporates the existing structure located at 600 Mystic Valley Parkway and incorporates some form of productive reuse including housing, commercial, etc.
 - A station design which eliminates the structure at 600 Mystic Valley Parkway and builds a standalone station with no mixed-use component.

MassDOT and the MBTA anticipate the No Build Alternative would consist of the existing transportation facilities and services and all future committed transportation improvement projects within the extension of the Green Line from College Avenue to Mystic Valley Parkway. It is anticipated that the No Build Alternative would provide insufficient mobility improvements for study area residents and would fail to improve environmental conditions and promote smart growth and economic development in the corridor.

Transportation

Summary of Previous Findings

Traffic volumes and intersection level-of-service (LOS) were previously analyzed within the study area surrounding the Project site. Traffic impacts are expected to be limited. The primary impacts of the proposed Project relate to mobility to/from the proposed station for non-motorized transportation (for example, pedestrians and bicyclists). An existing unsignalized intersection on Boston Avenue across from Stoughton Street will serve as the main entrance to the proposed Mystic Valley Parkway Station and provide an exclusive left-turn lane southbound from Boston Avenue. The Project includes substantive improvements to crosswalks, pedestrian crossing times, and pedestrian amenities (such as countdown pedestrian timers) to facilitate and encourage non-motorized access to the proposed station. The Project will also include an active curbside zone to accommodate pick-up/drop-off activity without adversely affecting adjacent local roadways. The curbside zone is sized so that it could accommodate MBTA's TheRide vehicles and standard 40-foot buses, though no determination has been made whether buses will enter the station facility or remain on Boston Avenue. There are community concerns regarding transit riders parking on residential streets throughout the day. MassDOT and the MBTA have committed to working with the community to develop acceptable parking enforcement plans for the areas within 0.5-mile of the station.

The proposed Project would cause temporary construction impacts to the operation of the MBTA Lowell commuter rail line. The Project will require the relocation of the double track MBTA Lowell commuter rail line within the right-of-way to make room for two Green Line tracks between the current planned terminus at College Avenue and Mystic Valley Parkway.

It is expected that the Project will involve modifications to the existing right-of-way in order to accommodate four tracks. This will involve the reconstruction of two bridges (North Street and Winthrop Street) and replacement and/or construction of retaining walls along the perimeter of the right-of-way. Additional track design work is necessary to determine the extent of the required modifications. During the EIR, MassDOT and the MBTA will look for opportunities to further minimize impacts to these two bridges.

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Areas for Further Evaluation

The transportation analysis will be fully updated and re-evaluated in the EIR for this Project. The EIR will summarize the overall Project transportation goals and describe the anticipated ridership and operations. The transportation analysis proposed for the EIR will focus on traffic associated with the new Mystic Valley Parkway Station. MassDOT and the MBTA will analyze and document existing and future traffic volumes and intersection LOS. These estimates will be prepared for future No Build and Build Conditions. The EIR will also provide vehicle, pedestrian, and bicycle data in the vicinity of the new Mystic Valley Parkway Station for both morning and evening peak hours. The EIR will include all bicycle and pedestrian pathways in the area as well as any planned pathways that are in the general vicinity of the Project. Mitigation for potential Project impacts, including roadway improvements, will be identified.

The Central Transportation Planning Staff (CTPS) will develop ridership projections for the Project using the latest version of the regional travel demand model. Specific attention will be paid to further calibrate the study area transit and roadway networks to replicate existing conditions. Results from the base year model will be summarized to provide certain system-wide statistics, as well as study area specific data, such as daily boardings, new transit trips, reduction in vehicle miles travelled and associated air quality savings, as well as access mode shares (bicycle, pedestrian, transit or automobile access to the station).

CTPS will need to develop a horizon year for the Project in which to present all of the findings. The MBTA has not yet made a determination as to when this Project will open for revenue service, so the horizon year will be for informational purposes only. When an actual revenues service date is developed, all travel demand statistics will be updated to reflect the new horizon year. The horizon year will be presented as the opening year forecast.

Model inputs (socioeconomic data, congested highway travel times, auto operating costs, parking costs, transit fares, and travel times) will be consistent with the currently adopted land use and background transportation projects assumed by the Metropolitan Planning Organization (MPO), Metropolitan Area Planning Council (MAPC), City of Medford and City of Somerville as well as any other relevant agencies. The City of Medford and the City of Somerville will be consulted about the best demographic and land use assumptions to use in this planning effort for conducting travel demand forecasts.

The assumptions used in CTPS' travel demand model will also be described in the EIR.

Based on the existing traffic data collected by the Project team, CTPS will calibrate the current regional travel demand model and provide ridership estimates for the proposed service and modal split information that identifies how riders will reach the station. The Project team will apply the modal split data to CTPS' ridership projections to convert riders (person trips) to the appropriate pedestrian, bicycle, and vehicle trips. Existing available Journey to Work data and current travel patterns in the study area will be used to determine the distribution of these trips, which will be layered on the No Build trip networks provided by CTPS. Specifically, MassDOT and the MBTA will request CTPS provide station boardings by mode (pick-up/drop-off and pedestrian/bicycle) by census tract (or Transportation Analysis Zone) for the catchment area surrounding the proposed station. Vehicle trips will be assigned to the appropriate roadways by the Project team. Pedestrian and bicycle trips will be separately quantified based on the latest available American Community Survey data (U.S. Census Bureau) for each census tract (or similar, more current data if available from the municipality). Bicycles will be routed to the site based on the roadways. Pedestrians will be routed to the site based on logical pedestrian paths of travel. Deficiencies

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(if any) in the pedestrian or bicycle network serving the station will be identified and improved based on the level of potential impact. This includes possible modifications to sidewalks, crosswalks, pedestrian traffic signal phases, dedicated bicycle accommodations, and bicycle traffic signal phases if/as appropriate.

Using the model work done for the region, CTPS will create No Build networks for the forecast year. Forecast year model runs will be conducted for the No Build scenario to act as a basis against which CTPS can compare the results of the forecast year.

Potential construction period impacts to nearby bus routes and general traffic patterns will be evaluated in the EIR for this Project. Prior to opening, the MBTA will reevaluate service plans for nearby MBTA bus routes to best support multimodal connections at the new station.

Land Use and Zoning

Summary of Previous Findings

The predominant land use within the 0.5-mile study area is residential, with two- and three-family dwellings south of the Mystic River in Somerville and Medford, and single-family residential dwellings north of the Mystic River in Medford. The West Medford Square area to the north and the Whole Foods supermarket to the east support most businesses in the study area.

The Mystic River serves as the boundary between Medford and Arlington, and is partially the boundary between Somerville and Medford; the Alewife Brook is the boundary between Arlington and Somerville. The Massachusetts Department of Conservation and Recreation (DCR) regulates this area as designated parkland reservation on both banks of the Mystic River and on the east bank of Alewife Brook Parkway.

The Project site includes the U-Haul rental and self-storage facility (600 Mystic Valley Parkway, Medford) classified as an industrial use. The Project site also includes use of portions of commercial properties located at 196 and 200 Boston Avenue in Somerville/Medford, which support various office and research and development facilities, Tufts University laboratories, as well as a health club facility. Immediately west of the Project site is the intersection of Mystic Valley Parkway (Route 16) and Boston Avenue, which supports a gas station classified as a commercial use. There are five detached residential houses on Boston Avenue.

North of the Project site, the surrounding residential uses are primarily developed as one and two-family dwellings; there are some institutional uses, such as St. Raphael's Church and the West Medford Congregational Church. City of Medford land uses to the east of the proposed station consist of one and two-family homes. Walking Court is a 144-unit Medford Housing Authority senior housing development located adjacent to the Whole Foods supermarket and immediately adjacent to the commuter rail tracks, across the right-of-way from the parking garage at 200 Boston Avenue. The Elizabeth Grady Company office building is located at 222 Boston Avenue, adjacent to 200 Boston Avenue. Land uses to the south of the proposed station consist of a shopping area at Winthrop Street and Boston Avenue known as the Hillside neighborhood shopping district. Land uses to the south and west of the Project site include Capen Court, a 99-unit assisted living facility managed by the Visiting Nurses Association of Somerville, and a 95-unit affordable housing development managed by the Somerville Housing Authority.

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The regional land use policy plan for the study area is *Metro Future, 2030 Regional Plan* adopted in 2008 by the MAPC. The plan emphasizes efficient public transportation as a means to reduce auto travel, traffic congestion, air pollution, fuel consumption, and encourage healthier communities.

Somerville and Medford have each enacted land use plans and open space plans intended to foster compact development and revitalization of lands around the study corridor: the Somerville *SomerVision: Comprehensive Plan 2010-2030* (2012), the Somerville *2008-2013 Open Space and Recreation Plan* (2009), the City of Medford *Open Space and Recreation Plan* (2011) and the City of Medford *2016 Medford Square Master Plan* (currently in development).

In 2012, MAPC, in partnership with MassDOT, analyzed the potential for future land use, zoning, and economic development benefits associated with a Green Line Extension to Mystic Valley Parkway.⁹ According to this community process, the vision set for this station area includes a “well-connected, walkable, bike-able, neighborhood scale, transit-oriented development node that provides new opportunities for mixed-income housing, job creation, increased tax revenue, and access to quality public transit.”

The Project is consistent with, and supportive of, the municipal zoning and the land use and open space plans applicable to the study area; the Project is consistent with the economic development components of these plans. The potential benefits of the Project are aligned with the goals and objectives of these plans, and will benefit transportation access, mobility, and air quality.

The proposed Project requires the acquisition of:

- 600 Mystic Valley Parkway, Somerville (full acquisition of UHaul Commercial storage business)¹⁰
- 200R/0 Boston Avenue, Somerville and Medford (full acquisition of surface parking areas)
- 200 Boston Avenue, Medford (partial acquisition abutting railroad right-of-way)
- 196 Boston Avenue, Medford (partial acquisition of surface parking area and vacant portion of commercial property)

Areas Identified for Further Evaluation

The EIR will quantify the amount of land altered, the amount of earthwork involved in meeting final grades and the amount of impervious surfaces created. All land to be used by the Project is owned by the MBTA or private land owners. The EIR will investigate all feasible methods to further avoid, reduce or minimize impacts to land. The potential for the occupants of these properties to relocate, the potential economic impact of the loss of these properties, and the potential job loss of these properties will be analyzed in the EIR to evaluate the potential land use impact of the proposed Project.

Environmental Justice

Summary of Previous Findings

The Environmental Justice Executive Order Number 552 requires agencies to consider impacts to environmental justice communities and comply with the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Environmental Justice Policy. At the time of the 2009 DEIR, in

⁹ Metropolitan Area Planning Council, *Mystic Valley Parkway Green Line Extension Community Visioning Process*. Final Report, February 2012.

¹⁰ In the future EIR, MassDOT and the MBTA will evaluate the potential for adaptive reuse of the existing structure at 600 Mystic Valley Parkway to support future transit-oriented development.

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Massachusetts, environmental justice communities were recognized based on annual median household income, minority status, and English proficiency.¹¹ In January 2017, EEA issued a revised environmental justice policy.¹² The following is a summary of the findings of the 2009 DEIR, updated to reflect the 2010 Census. This analysis will be fully updated and reevaluated, using the most current environmental justice policy, during a future EIR for this Project.

The characteristics of the study area were compared to the larger municipalities and the state in order to determine whether the study area characteristics were consistent with the surrounding area and region. The study area consists of five census tracts, two of which are in Somerville (3506, 3507) and three of which are in Medford (3393, 3394, 3395). The study area exhibits environmental justice characteristics; the percentage of the population below the poverty level in the study area is higher than that of the municipalities and the state by approximately four percent, and the percentage of minority persons is higher than that of the municipalities and the state by approximately five percent.

At the time of this analysis, the MassGIS Environmental Justice Populations layer represented environmental justice populations compiled from Census 2010 block groups and from the ACS 2006-2010 5-Year Estimates tables based on household income, minority status, and English proficiency. The MassGIS Environmental Justice Populations layer indicated that the census block groups in the study area were classified as environmental justice communities based on minority populations and income.¹³

The Project occurs in the vicinity of environmental justice populations. The potential effects of the proposed Project on land use, noise and vibration, air quality, and traffic will be evaluated to determine whether the proposed Project causes a disproportionate effect on environmental justice communities. It is anticipated that, with mitigation, the proposed Project will not cause a disproportionate effect to environmental justice communities, and will cause a beneficial effect to transportation by enhancing access to the MBTA Green Line.

Areas Identified for Further Evaluation

MassDOT and the MBTA will update the inventory of environmental justice communities in the vicinity of the proposed track improvements and Mystic Valley Parkway Station using the most current environmental justice policy and MassGIS Environmental Justice Populations data layer derived from the most up-to-date U.S. Census. The EIR will disclose the anticipated effects (positive or adverse) to determine the potential for disproportionate adverse impact to specific environmental justice communities. Consistent with the 2009 DEIR, MassDOT and the MBTA do not anticipate that the Green Line Extension to Mystic Valley Parkway will have disproportionate impacts to environmental justice communities.

¹¹ Executive Office of Energy and Environmental Affairs. Massachusetts Department of Environmental Protection Environmental Justice Website: <http://www.mass.gov/eea/agencies/massdep/service/justice/>.

¹² Executive Office of Energy and Environmental Affairs. Environmental Justice Policy. January 31, 2017. <http://www.mass.gov/eea/docs/eea/ej/2017-environmental-justice-policy.pdf>

¹³ MassGIS. 2010 U.S. Census – Environmental Justice Populations. Website: <http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/cen2010ej.html>. Accessed October 2016.

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Noise and Vibration

Summary of Previous Findings

This section presents the findings from the noise and vibration analysis conducted during prior planning studies, in accordance with Federal Transit Administration's (FTA's) guidance manual *Transit Noise and Vibration Impact Assessment*.¹⁴ This analysis will be fully updated and reevaluated during a future EIR for this Project. Noise and vibration-sensitive receptors in the study area between the proposed College Avenue Station and Mystic Valley Parkway Station include single-family and multi-family residences, the New Life Baptist Church, a Tufts University building on Boston Avenue including the Nanoscale Integrated Sensors and Systems laboratory and the Mystic River Reservation parkland north of the MBTA Lowell Line and west of Fortunado Drive.

The predominant existing noise sources in the study area include MBTA Lowell Line commuter rail trains and vehicular traffic on Mystic Valley Parkway and local roads. Long-term ambient noise measurements were conducted in 2008 at locations of outdoor frequent human use near first-row receptors on Burret Avenue (LT-8) and Orchard Street (LT-9). The day-night average noise level (Ldn) at first-row receptors was measured to be 71 dBA due primarily to the contribution of noise from existing commuter train operations.

Commuter train operations are the predominant source of existing vibration in the study area. Vibration measurements of existing MBTA commuter train operations and of the vibration propagation characteristics of the soil were conducted at Tufts University. Commuter trains operating at 50 mph on ballast and tie track with continuous welded rail were found to generate maximum vibration levels of 74 to 87 VdB at a distance of 50 feet from the track centerline.

The introduction of new sources of noise and vibration including Green Line train operations and the proposed station at Mystic Valley Parkway, as well as changes to existing noise and vibration sources including shifting the commuter tracks, have the potential to change noise and vibration conditions. If noise and vibration levels were to increase significantly, there is the potential to cause human annoyance and impact nearby receptors.

The previous noise assessment determined that prior to mitigation there will be potential moderate noise impacts and potential severe noise impacts (2009 DEIR Table 5.7-1, page 5-110). Noise impact on the east side of the corridor is due to the shifting of existing commuter trains closer to sensitive receptors. Impact on the west side of the corridor will occur where future Green Line trains will be in close proximity to noise-sensitive residential land uses.

Noise mitigation such as noise barriers, special hardware at track turnouts, relocating special trackwork, using continuous-welded rail and/or building sound insulation improvements (replacing windows and doors with ones that improve outdoor-to-indoor sound attenuation) will be considered for moderate and severe noise impacts where existing noise levels are 65 dBA Ldn or greater. With mitigation, it is anticipated that no residential or institutional buildings will experience moderate nor severe noise impact.

¹⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Report FTA-VA-90-1003-06, May 2006.

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Based on the current concept, it is anticipated that potential noise impact will be similar to that determined in prior planning studies. The actual track alignment, location of special trackwork, train speed, and the number of operations may affect the potential noise impact, the need for mitigation and the type of mitigation. With mitigation, it is anticipated that no residential or institutional buildings will experience moderate nor severe noise impact.

The previous vibration assessment determined that prior to mitigation there will be a total of nine buildings projected to experience vibration impact (two buildings east of the right-of-way on Brookings Street, and seven buildings west of the right-of-way on Piggot Road near North Street). Mitigation measures for vibration may include:

- Resilient rail fasteners designed to reduce vibration;
- Ballast mats between ballast and sub-grade or ground;
- Resiliently supported ties with rubber or other material between ties and ballast;
- Special hardware for special trackwork like turnouts and crossovers, including flange-bearing, moveable-point frogs, or continuous welded rail; and/or
- Maintenance programs for wheel/rail profile.

Based on the latest conceptual designs, it is anticipated that potential vibration impact will be similar to that determined during prior planning studies. The actual track alignment, location of special trackwork and train speed may affect potential vibration impact, the need for mitigation and the specific mitigation that will be needed.

Areas Identified for Further Evaluation

The FTA's *Transit Noise and Vibration Impact Assessment* Guidelines will be used to reevaluate potential impacts for the Green Line Extension to Mystic Valley Parkway. Given the considerable lapse in time since the baseline ambient noise measurements were taken, and the changes to the site layout, the MBTA will perform new noise and vibration measurements to establish a new baseline ambient noise level that is inclusive of any changes in land use, activity in the area or other changes that affect the ambient noise levels. The EIR will describe the methodology used for conducting the study including the land use categories of the receivers. The EIR will detail compliance with the MBTA noise mitigation policy to ensure consistent treatment to all noise impacted locations. Mitigation measures will be detailed, where needed.

Cultural Resources

Summary of Previous Findings

The Green Line Extension area of potential effects (APE) for historic resources is defined as an area extending approximately 125 feet or one assessor's lot on either side of the proposed Medford and Union Square Branch routes, associated proposed station locations, and maintenance and/or interim train storage facilities. This area encompasses the direct APE, defined as the construction limits of the Project, as well as the indirect APE. The Green Line Extension APE for archaeological resources was defined as the direct APE where ground disturbances are planned for the construction of Project elements. These elements include the active and inactive railroad right-of-way segments, new station locations, the new layover/maintenance facility, and any other ancillary work areas and land takings identified as part of the alternatives refinement.

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There are three National Register listed historic properties and one National Register eligible historic property in the study area (see Figures).

Three historic properties listed in the National Register of Historic Places are located within the study area: Mystic Valley Parkway, B & M Railroad Bridge, and Middlesex Canal Historic and Archaeological District.

- Mystic Valley Parkway is an approximately five-mile-long roadway paralleling the Mystic River through Arlington, Medford, Somerville, and Winchester, Massachusetts. The parkway is part of the Metropolitan Park System of Greater Boston. The roadway passes below the MBTA Lowell Line, which is carried by the Boston & Maine (B&M) Railroad Bridge over Mystic Valley Parkway (see below). The Mystic Valley Parkway District was listed in the National Register in 2006 as part of the Metropolitan Parks System of Greater Boston Multiple Property Submission, which was listed in the National Register in 2003.
- The B&M Railroad Bridge is a reinforced concrete arch bridge with a 56-foot span carrying the two-track MBTA Lowell Line over the Mystic Valley Parkway. The bridge was listed in the National Register in 2006 as a contributing element in the Mystic Valley Parkway National Register Historic District, as part of the Metropolitan Parks System of Greater Boston MPS, which was listed in the National Register in 2003.
- The Middlesex Canal is an archaeological site where it intersects the Green Line Extension Project site at a skewed angle approximately 400 feet south of the Mystic Valley Parkway in Somerville. The Middlesex Canal Historic and Archaeological District was listed in the National Register of Historic Places in 2009 (after publication of the DEIR) with district boundaries extending from Lowell to Charlestown (Boston).

There is one historic property potentially eligible for listing in the National Register within the Project site. The Russell Box Company property at 196 Boston Avenue, Medford was recommended National Register eligible in a prior planning study. A portion of the surface parking area and vacant portion at the rear of the property is located within the Project site.

The Project has the potential to have direct impacts to two historic properties within the Project site. A portion of the surface parking area and vacant portion at the rear of the former Russell Box Company property at 196 Boston Avenue, Medford will be required to accommodate the proposed station access driveway. In addition, the Middlesex Canal Historic and Archaeological District crosses a small portion of the rail right-of-way. Subsurface testing as part of an intensive (locational) archaeological survey, under state archaeological permit, will be warranted to locate and identify any potentially significant archaeological resources associated with the Middlesex Canal that may be impacted by the Project.

Two historic properties are located in close proximity to the Project site (Mystic Valley Parkway and B&M Railroad Bridge). Direct and indirect impacts to these resources could include visual, auditory, or other environmental effects. However, indirect impacts from the addition of new rail infrastructure elements adjacent to existing, active rail, are anticipated to be low on the setting or other character-defining features of historic properties.

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Areas Identified for Further Evaluation

During preparation of the EIR, MassDOT and the MBTA will document the presence and significance of historic properties and consult with the Massachusetts Historical Commission (MHC). The inventory of historic properties will be reviewed and updated if necessary to reflect any changes to the properties in the APE. The EIR will include an assessment of the impacts to historic and cultural resources in the APE. The EIR will also include the results of additional studies undertaken to determine the presence or absence of significant archaeological resource areas associated with the Middlesex Canal. The EIR will document all coordination with the MHC.

Currently, there is no federal activity involved in this Project, and as such, no review pursuant to Section 106 of the National Historic Preservation Act is anticipated. The Project will be seeking historic review by the Massachusetts Historical Commission pursuant to MGL Ch. 9 Sections 27-32.

Air Quality/Greenhouse Gas

Summary of Previous Findings

The Commonwealth's existing State Implementation Plan (SIP) includes a Green Line Extension to Medford Hillside that will serve the Cities of Somerville and Medford. Both the USEPA and the Massachusetts Department of Environmental Protection (MassDEP) have determined that the GLX Project to College Avenue meets the requirement of the SIP as found at 310 CMR 7.36 (Attachment 5). This Project represents an extension to the original core Green Line Extension Project SIP requirement. It still provides service to the corridor that is called for in the existing SIP; however, this Project would expand service from College Avenue to Mystic Valley Parkway. The monies allocated to the portion of the Green Line Extension from College Avenue to Mystic Valley Parkway (not required by the SIP) were recently transferred to the core Green Line Extension Project (extending to Medford Hillside). Because the GLX Mystic Valley Parkway Project is no longer included in the Boston Region MPO's Transportation Improvement Plan (TIP), it is not incorporated into the MPO's air quality model.

As reported in prior planning studies, the study area was designated as a carbon monoxide (CO) moderate maintenance area and continues to be a moderate maintenance area. The area was also designated as a moderate non-attainment area under the 8-hour Ozone Standard (1997- Revoked). All other criteria pollutants were in attainment. This analysis will be fully updated and reevaluated during a future EIR for this Project.

Prior planning studies evaluated air quality through microscale and mesoscale analyses for the following emissions (volatile organic compounds (VOCs), oxides of nitrogen (NO_x), greenhouse gas carbon dioxide (CO₂), carbon monoxide (CO), and particulate matter (PM)).

Areas Identified for Further Evaluation

The analyses used traffic and emissions data derived from the intersection LOS analysis and USEPA's MOBILE 6.2 emissions factor model. The EIR will include an updated analysis of air quality impacts, in the context of the National Ambient Air Quality Standards (NAAQS). As part of the EIR, new emissions analysis will be modeled with MOBILE 6.2's successor MOVES 2014. Emission factors from MOVES 2014 will be expected to be substantially lower than those of MOBILE 6.2 and thus, the overall emissions calculated in the prior planning studies are likely conservative. Due to the fact that the Project includes no new parking and provides a transit alternative to single occupant vehicles, the Project is not expected to

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cause or contribute to any violation of the National Ambient Air Quality Standards (NAAQS). The EIR will include a greenhouse gas analysis, as well as an evaluation of climate change adaptation and resiliency. MassDOT and the MBTA plan to incorporate sustainable design elements into the station design.

The EIR will document construction mitigation measures. Recent changes to the MBTA standard specifications require construction contractors to use ultra-low sulfur diesel fuel for all off-road construction vehicles and require engine-idling restriction signs on the premises as well as a series of other measures to minimize construction period impacts. Other mitigation measures may include use of dust control measures of water spraying and sweeping roadway surfaces.

Hazardous Materials

Summary of Previous Findings

Based on the results of prior planning studies, no known Massachusetts Contingency Plan (MCP, 310 CMR 40.0000) sites were located within the Project site. However, based on prior industrial use of the Project site and nearby properties, historical undocumented releases are suspected. Urban fill is likely present within the Project site, which typically contains contaminants such as metals and polycyclic aromatic hydrocarbons (PAHs).

Areas Identified for Further Evaluation

This analysis will be updated and reevaluated during the EIR. During preparation of the EIR, MassDOT and the MBTA will conduct an updated computer database review of federal, state, and local files to identify reported releases of oil and/or hazardous materials (OHM) at or adjacent to the Project site. This assessment will identify potential contaminated properties and allow MassDOT and the MBTA to make recommendation for any additional investigations that may be required.

After the completion of the MEPA process, but prior to construction, ASTM Phase I and Phase II Environmental Site Assessments (ESAs) will be performed in order to identify environmental concerns (MCP sites, hazardous waste generators, etc.) and perform subsurface investigations to evaluate potential source contamination. Notification to the MassDEP will be required if a reporting condition is identified per the MCP such as when OHM are detected in soil and/or groundwater above the applicable standards, referred to as the Reportable Concentrations.

Soil and groundwater handling and management during construction will be conducted in accordance with the appropriate submittals (i.e. Release Abatement Measures, Immediate Response Actions, and/or Soil Management Plans), including appropriate permits and permissions as appropriate. Should impacted soil or groundwater be generated during Project-related excavation that requires export or on-site reuse, this material will be properly characterized and managed in accordance with applicable regulations.

Hazardous building materials (i.e. those containing asbestos, lead-based paint, mercury, polychlorinated biphenyls, etc.) will be assessed prior to demolition. If these hazardous materials are present in the structures, they will be removed and properly disposed by a licensed contractor in accordance with state and federal regulations.

All construction workers involved in performing the response actions must be appropriately health and safety trained in accordance with the applicable provisions of Occupational Safety and Health Administration (OSHA), which mandates specific procedures that must be followed to be protected from exposure to contaminated media.

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The spill or release of OHM in the process of constructing the Project is an unlikely event, and measures will be required to prevent and control any such spills. The construction contractors will implement a spill control plan in compliance with the MCP.

Several state and federal regulatory programs govern the requirements for site remediation, transport of regulated hazardous materials, and potential spills during construction. In the Commonwealth of Massachusetts, the management of hazardous substance and petroleum products when released into the environment is generally governed by the MCP also known as 310 CMR 40.0000. This Project is not a designated National Priorities List (NPL) site; therefore, USEPA involvement is unlikely to be necessary in regard to hazardous waste.

MassDOT and the MBTA will incorporate recycling activities as a sustainable measure for the extension to Mystic Valley Parkway, to the extent consistent with MassDEP solid waste and waste site cleanup regulations and policies. Recent changes to the MBTA's standard specifications include requirements for the tracking and recycling of construction debris and the use of recycled content in building and construction period activities. The EIR will demonstrate Project compliance with federal, state, and local laws regarding hazardous materials and/or solid waste, involvement of a contaminated site, potential to produce hazardous waste, potential to generate a quantity of solid waste or exceed local capacity, or potential to adversely affect human health and the environment.

Threatened and Endangered Species

Summary of Previous Findings

No threatened or endangered species were identified on the proposed Project site during the 2009 DEIR; therefore no potential impacts are anticipated. Portions along the MBTA Lowell Line provide habitat for urban wildlife species.

Areas Identified for Further Evaluation

This analysis will be updated in the EIR. MassDOT and the MBTA will confirm with the Massachusetts Natural Heritage and Endangered Species Program (NHESP) there are no state-listed endangered and threatened species documented within the study area.

Wetlands, Waterways, and Tidelands

Summary of Previous Findings

No local, state or federally regulated wetlands, waterways, or tidelands were identified within the Project site during the DEIR, and therefore no potential impacts.

Areas Identified for Further Evaluation

MassDOT and the MBTA will review and update this evaluation, and document findings in the EIR.

Water Quality, Stormwater, Wastewater

Summary of Previous Findings

The proposed Project occurs within an existing active MBTA right-of-way and on currently developed and paved property with existing drainage infrastructure. The Project will maintain drainage patterns consistent with the existing development, and therefore have no effect on water quality or stormwater.

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The Project is not anticipated to increase water consumption compared to the existing uses. The Project is not located within a medium or high stress basin as established by the Massachusetts Water Resources Commission. The Project is located within the Mystic River watershed, and is adjacent to the Mystic River. The Mystic River is the largest waterway in both Somerville and Medford, and is impaired by a number of environmental hazards.

Between Lower Mystic Lake and the Amelia Earhart Dam, the Mystic River is a Class B warm-water fishery, which designates waterways that are not used for drinking water but should have adequate quality for aquatic life, recreational uses, and fish consumption. This section of the Mystic River is listed on the Massachusetts 303(d) list as impaired (and therefore not supporting its intended uses) due to metals, excess nutrients, and pathogens. Downstream of the dam, the Mystic River is listed as a Class SB water, which applies to saltwaters intended to support aquatic life, recreational uses, and fish/shellfish consumption. This section of the Mystic River is impaired due to priority organics, metals, unionized ammonia, low dissolved oxygen, pathogens, oil and grease, aesthetic issues such as taste, odor, and color, and unspecified inorganics.¹⁵ The numerous urban stormwater discharges into the Mystic River have been cited as the main source of its existing impairments.

Alewife Brook is tributary to the Mystic River and is listed on the Massachusetts 303(d) list as impaired due to metals, excess nutrients, low DO, pathogens, oil and grease, and aesthetic issues such as taste, odor, and color.¹⁶

Somerville and Medford are part of the National Pollutant Discharge Elimination System (NPDES) Small Municipal Separate Storm Sewer System (MS4) General Permit, which includes numerous requirements to improve stormwater management through public education, upgraded infrastructure, and municipal bylaws. Currently, stormwater is handled in both closed and open systems in the study area. In the existing railroad right-of-way, no stormwater conveyance or treatment infrastructure is present; on the proposed station site, stormwater is handled in a closed collection and conveyance system.

Approximately two-thirds of Somerville's streets use a combined sewer system in which both stormwater and domestic sewage are conveyed in the same pipe and treated at the Massachusetts Water Resource Authority's (MWRA's) Deer Island wastewater facility.¹⁷ The remainder of the city has a separate stormwater system that discharges to the Mystic River.¹⁸ Physical controls to manage stormwater and improve its quality in Somerville include street sweeping and annual catch basin maintenance.

In Medford, all stormwater discharges directly to the Mystic River and its tributaries such as the Malden River via nearly 100 separate stormwater outfalls. The Mystic River flows from the west to the southeast through Medford. The City has a separate stormwater system and no CSOs. Physical controls to manage stormwater and improve its quality in Medford include street sweeping and annual catch basin maintenance.

¹⁵ Massachusetts Department of Environmental Protection. *Massachusetts Year 2014 Integrated List of Waters*.

¹⁶ *Ibid*.

¹⁷ U.S. Federal Transit Administration and Executive Office of Transportation and Public Works, *Green Line Extension Project, Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Statement*. October 2009. Available at: <http://www.greenlineextension.org>

¹⁸ City of Somerville, Massachusetts. *Developing an Innovative Model for Cost Effective Asset Management and Pollution Prevention in a Municipal Storm Water System*. 2005. Page 9.

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Areas Identified for Further Evaluation

The construction of the station elements (platform, pavement and roadway) will result in a small increase in impervious surfaces. In the design phase, predevelopment conditions will be assessed and post development conditions will be designed to meet or improve the predevelopment conditions. A stormwater management plan will be developed in accordance with MassDEP's Stormwater Management Policy.

The EIR will include an overall drainage plan and proposed stormwater management measures at the proposed Mystic Valley Parkway Station and will demonstrate how the Project will meet MassDEP's Stormwater Management Standards. The EIR will identify any stormwater discharge points. The EIR will evaluate all feasible measures of reducing impervious surfaces.

Stakeholders have also asked MassDOT and the MBTA to provide information on the degree to which air quality improvements (due to the Project's potential to reduce automobile vehicle miles travelled) will benefit area water bodies and surface waters. The MBTA will consult with the MassDEP to determine how such an assessment can be done. The EIR will include the results of this investigation, perhaps in the form of a qualitative assessment of water quality benefits.

Indirect and Cumulative Effects

Summary of Previous Findings

The DEIR included an analysis of potential indirect effects (both beneficial and adverse).

Areas Identified for Further Evaluation

The EIR will evaluate changes in the potential indirect and cumulative impacts in each resource category.

Summary of Impact Avoidance and Mitigation

Avoidance and minimization of impacts to environmental and social resources has been an integral part of the Green Line Extension Project throughout the MEPA and NEPA process. This phase of the Project has been developed to maximize the use of the existing transportation infrastructure corridor, thereby avoiding or minimizing impacts to undeveloped lands and natural resources. Where possible, grading and track design will incorporate elements to avoid or minimize impacts to residential areas and businesses. Assessments will be conducted to determine the need for any additional noise or vibration mitigation. The location of the new station at Mystic Valley Parkway was selected to minimize traffic impacts and land acquisitions.

Any new unavoidable impacts will require mitigation. All mitigation required to support impacts associated with this phase will be included in the EIR for the Project. Mitigation for new impacts will be added to the mitigation package developed for the Project. Section 61 findings will be provided in the EIR, to include additional mitigation requirements for new unavoidable impacts.

Green Line Extension to Mystic Valley Parkway Notice of Project Change

List of Permits

The Project is anticipated to require the following State Agency permits and approvals:

Table 3 Anticipated State Agency Permits and Approvals

Issuing Agency or Authority	Permit or Approval
Massachusetts Historical Commission (MHC)	Determination of Effect to Historic or Archaeological Resources
Massachusetts Department of Environmental Protection (MassDEP)	National Pollution Discharge Elimination System General Permit, issued on behalf of the U.S. Environmental Protection Agency (USEPA) under the Clean Water Act (Section 402)
Massachusetts Department of Conservation and Recreation (DCR)	Access and construction permit
Massachusetts Department of Transportation (MassDOT), Highway Department	Access permit(s)

Public and Agency Outreach

MassDOT and the MBTA continue to have an extensive outreach process for the Green Line Extension Project. MassDOT and the MBTA will continue to provide regular updates on the Project to public agencies, community representatives, advocacy groups, and other interested parties. After filing this NPC, MassDOT will post a notice of the proposed Project Change on its website:

<http://www.greenlineextension.org>

The circulation list for this NPC is provided in Attachment 4. A summary of meetings with state agencies and stakeholders will be provided in the EIR.

Reference Documents

Green Line Extension Project – Mystic Valley Parkway/Route 16 Draft Conceptual Station Modifications – May 7, 2009. Available at:

<http://www.greenlineextension.org/documents/about/Topics/MitigateStaTakingsMysticValley.pdf>

Medford Green Line Neighborhood Alliance. *Mystic Valley Parkway Green Line Station Concept Site Plan and Concept Rendering*. September 1, 2015. (provided in Attachment 3 – Figures)

Medford Green Line Neighborhood Alliance. *Route 16 Alternative Station Design*. November 17, 2009.

Available at: http://www.medfordgreenline.org/MGNA-EIRA/MGNA_Rt16_Design.pdf

Metropolitan Area Planning Council. *Mystic Valley Parkway, Green Line Extension, Community Visioning Process, Final Report*. February 2012. Available at: http://www.greenlineextension.org/docs_MAPC.html

Mystic River Watershed Association. *Mystic Greenways Vision Map*. Available at:

<https://mysticriver.org/mystic-greenways/>

U.S. Federal Transit Administration and Executive Office of Transportation and Public Works, *Green Line Extension Project, Draft Environmental Impact Report/Environmental Assessment and Section 4(f) Statement*. October 2009. Available at: <http://www.greenlineextension.org>

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Attachment 2 – Secretary’s Certificates:

- January 2017 Notice of Project Change
- October 2009 Draft Environmental Impact Report

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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March 10, 2017

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
NOTICE OF PROJECT CHANGE

PROJECT NAME : Green Line Extension
PROJECT MUNICIPALITY : Cambridge, Somerville, Medford
PROJECT WATERSHED : Boston Harbor
EEA NUMBER : 13886
PROJECT PROPONENT : Massachusetts Department of Transportation /
Massachusetts Bay Transportation Authority
DATE NOTICED IN MONITOR : February 8, 2017

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and Section 11.10(6) of the MEPA regulations (301 CMR 11.00), I hereby determine that this project change does not require the preparation of a Supplemental Environmental Impact Report (EIR). This Certificate sets forth the issues that must be addressed by the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA) during permitting and discusses recommendations that were submitted on the project change during MEPA review.

Project Change

The project change consists of the redesign of the Green Line Extension (GLX) to reduce project cost while maintaining project functionality and benefits. Project modifications include:

- Redesign of stations which will be scaled back in size and amenities (e.g. open-air platforms rather than enclosed structures)
- Green Line maintenance facility will be smaller
- Preservation and/or reduced reconstruction of some bridges along the project corridor;
- Redesign of the multi-use Community Path Extension (CPX);
- Construction of an alternative version of the Lechmere viaduct structure;
- Modifications to retaining walls to reduce height and simplify construction;
- Modifications to traction power substations at Red Bridge, Gilman Square, and Ball Square;
- An alternative construction plan and schedule that will provide the construction contractor greater flexibility to access the work area; and
- A reduced construction scope, which, if pursued, could reduce the overall project schedule and risk profile.

Project Description

The GLX involves the extension of the existing Massachusetts Bay Transportation Authority (MBTA) Green Line north of its current terminus at Lechmere Station to further service the communities of Cambridge, Somerville and Medford. The project includes the relocation of the existing commuter rail tracks, the construction of 4.3 miles of new Green Line tracks and systems, one relocated station and six new stations, construction of multi-span viaducts and reconstruction of bridge structures, and a new vehicle maintenance facility.

The project is one of the most significant remaining transit commitments arising out of the Central Artery/Tunnel Project (CA/T), and will significantly reduce vehicle trips and related air emissions while increasing access to fast and reliable public transit service in historically under-served areas. The project will support anticipated ridership of over 50,000 trips per day once completed. The project represents a major investment by the Commonwealth in urban mass transit in an effort to provide critical transportation, air quality, greenhouse gas (GHG) reduction and urban redevelopment benefits along the project corridor.

Two service branches are proposed:

- The Medford Branch - Extending Green Line service 3.4 miles to Medford within the existing MBTA Lowell Line commuter railroad right-of-way (ROW), from a relocated Lechmere Station terminating at College Avenue with intermediate stations at Washington Street (formerly known as Brickbottom Station, proposed to be called East Somerville Station), Lowell Street (proposed to be called Magoun Square Station), Gilman Square, and Ball Square; and
- The Union Square Branch – Extending Green Line Service 0.9 miles to Union Square in Somerville, within the existing MBTA Fitchburg Line commuter rail ROW, with a station at Union Square.

The project also includes construction and/or implementation of measures to mitigate potential operational and construction period impacts associated with, but not limited to: noise

and vibration, traffic (vehicle, pedestrian, bicycle), air quality, stormwater, hazardous materials management, historical and cultural resources, land use, and ongoing public involvement.

Procedural History

The Expanded Environmental Notification Form (EENF) was submitted for MEPA review and noticed in the Environmental Monitor. On December 1, 2006, a Certificate was issued on the EENF which provided the scope for the DEIR. The DEIR was subject to a 75-day comment period. A Certificate on the DEIR was issued on January 5, 2010 outlining a limited scope for the FEIR which included ongoing evaluation siting alternatives for the maintenance facility, identification of potential impacts at College Avenue and Lechmere Stations, and clarification of mitigation and community participation commitments.

The FEIR was filed with the MEPA office and noticed in the Environmental Monitor on June 23, 2010. The FEIR received a 30-day comment period, concluding on July 23, 2010. The Certificate on the FEIR was issued on July 30, 2010 indicating that the FEIR adequately and properly complied with the MEPA regulations. Construction of the project commenced in 2013 with bridge reconstruction along the project corridor.

The project was approved for funding through the FTA's New Starts project. In January a Full Funding Grant Agreement (FFGA) was issued which awarded nearly \$1 billion in federal funds to the project. This grant amounted to a 50% share of the estimated project cost at the time of the FFGA. In late 2015, MassDEP reassessed projected costs for the GLX and concluded that project costs could reach \$3 billion based on a continuation of trends. The GLX was suspended by the MBTA Fiscal and Management Control Board and MassDOT to allow for the creation of a multidisciplinary interim project management team (IPMT) to redesign the project to reduce cost while maintaining core functionality, benefits, and environmental mitigation commitments. The project presented in the NPC is reflective of redesign of GLX in response to the IPMT evaluation. The total revised GLX program cost is estimated at \$2.3 billion (including costs already incurred). According to the NPC, FTA correspondence to the MBTA concluded that the redesigned project was consistent with the FFGA and would continue to receive federal funding.

In light of the significant benefits of the project and the concern that cost issues would threaten its construction, the cities of Somerville and Cambridge committed funds (\$50 million and \$25 million, respectively). In August 2016 the MBTA Fiscal and Management Control Board authorized the MBTA to commence the process of procuring a new GLX construction team using a Design-Build method. A Request for Qualifications (RFQ) was issued on December 15, 2016 and a Draft Request for Proposal (RFP) is scheduled to be issued this month. The procurement schedule anticipates award notification in November 2017 and construction from February 2018 through December 2021.

Project Corridor

The project corridor consists of existing commuter rail rights-of-way (ROW) and passes through a wide cross-section of land uses: industrial, commercial, institutional, and residential. These ROWs extend from Cambridge near the existing Lechmere Station to College Avenue

(Lowell Commuter Rail line) in Medford with a separate branch extending to Union Square in Somerville (Fitchburg Commuter Rail line). These ROWs are spanned by numerous bridges associated with local and regional roadways.

Permits and Jurisdiction

The project was subject to review and mandatory preparation of an EIR pursuant to Sections 11.03 (1)(a)(1) and (6)(a)(5) of the MEPA regulations because it will be undertaken by a State Agency and it will alter more than 50 acres of land and consists of a new rail or rapid transit line along a new, unused or abandoned right-of-way for transportation of passengers or freight, respectively. The project will require Access Permits from MassDOT and 8(m) Permits, a Sewer Connection Permit and a Sewer Discharge Permit from the Massachusetts Water Resources Authority (MWRA).

The MBTA will continue consultation with the Massachusetts Historical Commission (MHC) in accordance with a 2013 Memorandum of Agreement (MOA) for the project in compliance with M.G.L. c.9, ss.26-27C (950 CMR 70-71) and Section 106 of the National Historic Preservation Act (NHPA).

The project will also require a Determination of Effect to Historic or Archaeological Resources (per Section 106 of the NHPA) and has received a Section 4(f) Finding of No Significant Impact (FONSI) determination by the FTA. Finally, it will require a National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities, a Remediation General Permit for Contaminated Groundwater Discharges, and modification to an existing Individual NPDES Permit for discharges associated with an industrial activity from the United States Environmental Protection Agency (U.S. EPA).

Because the Proponent is a State Agency and will receive Financial Assistance, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

Review of the NPC

The NPC discussed the proposed project changes, the outcome of the project's fiscal review, and compared the revised design to the FEIR design. The NPC included sample graphics of station redesign, comparative tables of station elements and amenities, a discussion of modifications to the CPX, and potential environmental consequences of the project changes. The NPC also provided an update on public meetings and open houses held in conjunction with the fiscal assessment and redesign of the GLX.

I received comments from U.S. Representative Michael Capuano, State Representative Denise Provost, State Agencies, the City of Somerville, environmental, transportation and bicycle advocacy groups, and numerous citizens on the project change. These comments were generally supportive of the project and cognizant of the significant fiscal concerns driving the changes. The comments continue to identify the significant benefits GLX will provide, particularly in regard to transit mobility and air quality. Many comments focused on the

completion of a CPX connection to the Lechmere Station area and noise mitigation commitments. Notably, numerous comments request that I condition approval of the NPC on a requirement that MassDOT incorporate certain mandates regarding the design and construction of the CPX in its design-build RFP.

The NPC summarized project changes to stations, the maintenance facility and proposed mitigation measures. As noted previously, the project will continue to meet the basic functionality and benefits as the project described in the FEIR. The primary factors that affect ridership - station locations, platform sizes, span of service and service frequency – have been retained. The NPC compared features for each station, noting that all stations will be open-air platforms with weather shelters (in lieu of canopies), fare vending, station lighting and CCTV, emergency access routes (as required), bike storage, and equipment rooms. All stations will meet requirements of the Americans with Disabilities Act (ADA). Gilman Square and Magoun Square stations will include an elevator and access stairs. Lechmere and College Avenue stations will include redundant elevators and stairs. Overall station area will be reduced from 118,443 square feet (sf) to 11,247 sf.

The vehicle maintenance facility (VMF) design included a 94,000-sf building, outdoor storage for 88 Green Line vehicles, and associated maintenance areas and equipment (e.g. a wash bay, three cranes, four service and inspection bays, HVAC shop and storage, a truck shop, etc.). The redesigned VMF consists of a 55,000-sf maintenance building, outdoor storage for 44 Green Line vehicles, a 1,200-sf modular transportation building, surface-level parking, four service tracks, a 7-ton and 10-ton crane, and two inspection bays. All other features of the VMF identified in the FEIR have been eliminated from programming. Certain foundation and structural elements have been sized to support expansion in the event funding is available. Light maintenance work will be performed at the proposed VMF; heavy maintenance for Green Line cars will continue to be conducted at the Riverside Maintenance facility.

Community Path

The Certificate on the FEIR directed MassDOT to consider how connections to North Point could be achieved and demonstrate that final design would not preclude future connections. MassDOT was encouraged to continue to work with the City of Somerville and advocates for CPX to identify sufficient funding for the ultimate construction of the Path. Subsequent to and independent of MEPA review, MassDOT and the MBTA committed to construct the path from Magoun Square to Lechmere (North Point). In light of budgetary constraints, MassDOT has reconsidered the design and cost of the CPX.

The GLX project includes construction of a 1.4-mile off-street extension of the Community Path at a cost of approximately \$20 million. MassDOT will construct the section of the path along the railroad cut from the existing terminus at Lowell Street to Washington Street. At Washington Street cyclists will transition to the existing street system (including McGrath Highway) to continue east towards the Charles River park system and the originally planned terminus (estimated at 3,100 feet). The NPC indicated that the redesign was developed to minimize the need for additional retaining walls between Lowell Street and Washington Street,

which was a costly element of the original design. Furthermore, the elevated viaduct to span the industrialized and heavy rail-centric Inner Belt was determined to be too expensive to retain.

The CPX presents a significant opportunity to expand a multi-use path through one of the densest cities in the country to the Charles River. The previous design would provide more direct and more desirable access. Its construction in conjunction with the GLX would reduce CPX construction costs compared to constructing it independently. MassDOT has acknowledged these significant benefits and emphasized that redesign of the GLX has resulted in scaling back many highly desirable aspects of the project – the ability to repair Green Line trains at the VMF, bridge reconstruction, and station design. Further, MassDOT is committed to evaluate opportunities in the design-build procurement process which may provide flexibility to contractors to improve the CPX design within the project budget. Key concerns that may be addressed by the design-build contractors include: designing a more cost-effective connection to North Point and constructing it; re-evaluating connections to the CPX at Medford Street, Walnut Street, and Cross Street; and maintaining a south-side alignment for the CPX between Central Street and School Street.

The purpose of MEPA review is to ensure that a Proponent identifies and discloses potential environmental impacts associated with its project, examines alternatives to avoid impacts and, in the event that impacts cannot be avoided, incorporates measures to minimize and mitigate Damage to the Environment to the maximum extent practicable. MassDOT met the commitment identified in its Final Section 61 Findings by completing the planning, design, and engineering of the extension of the Somerville Community Path between Lowell Street (Magoun Square Station) and Inner Belt Road. As noted above, MassDOT independently included construction of the CPX in the previous GLX design and has retained a portion of its construction within the redesigned project. Many commenters have requested that the NPC be conditioned on a requirement that MassDOT construct the full alignment, including a direct connection to North Point. MassDOT has thoroughly assessed alternatives for the GLX and CPX and associated benefits and impacts consistent with MEPA review and the NPC does not identify new or additional impacts that would warrant such a requirement.

I am confident that MassDOT will continue to work with the community to consider how construction of the CPX can be maximized. In addition, I encourage MassDOT to consider how the McGrath Boulevard Project may provide safe and effective connections for users of the CPX between Washington Street and North Point. As the design-build process proceeds, MassDOT should remain mindful that final design and/or operations of the GLX do not physically preclude completion of an off-street connection of the CPX to North Point.

Noise

As part of the redesign process, the MBTA evaluated the cost-effectiveness of noise barriers. Two options were presented in the FEIR to provide noise mitigation consistent with FTA Guidelines: noise barriers or sound insulation. Noise control may be provided at the source, along the sound path, and at the receiver. According to the NPC, specific noise mitigation measures were refined and modified during the Preliminary and Final Design of the GLX project. These modifications were identified in the NPC and are typical of projects that proceed to advance design post-MEPA review. As part of the redesign process, all noise barriers

were subjected to a cost-effective analysis. The NPC indicated that two noise walls (N-5 on the Medford Branch between Cross Street and McGrath Highway and N-13 located on the Medford Branch between Cedar Street and Broadway) are not cost-effective and have been eliminated in lieu of sound insulation to meet FTA standards. Where noise walls are not cost effective, the MBTA will provide sound insulation as an alternative noise mitigation measure, not to exceed \$50,000 per dwelling unit and the MBTA will directly contact property owners to allow selection of preferred measures (e.g., acoustical windows, acoustical doors, wall/ceiling insulation, etc.). Several comments express concerns about quality of living in these areas where noise barriers were previously proposed and the process by which appropriate mitigation will be provided. The MBTA must continue to work with impacted properties to ensure that the FTA Guidelines for noise mitigation will be met and that property owners have a clear understanding of their options and future MBTA responsibilities, if any. The MBTA will monitor noise after service starts (with proposed mitigation in place) to evaluate whether the actual noise levels correspond with the modeled values and take corrective action if actual values are higher than the projections.

Public Involvement Plan

The MBTA held meetings with local officials, interest groups, abutters and the general public regarding the project redesign, to provide project updates and to solicit input. The MBTA will continue to implement its Public Involvement Plan (PIP) as set forth during prior MEPA review. The four principal goals of the project's PIP are as follows:

- To provide an interactive, collaborative, and credible public process;
- To equip the design team with ideas and recommendations from the public that would inform the design of the Green Line Extension;
- To solicit input from local residents and businesses, local and regional government agencies and interest groups; and
- To provide methods to keep residents, business owners and municipal officials informed about construction, its potential impacts and schedule, and to lessen those impacts as much as possible.

The MBTA will be responsible for implementing the overall Community Outreach Program (as described in the PIP) during both engineering and construction phases. The PIP should be updated periodically to assess successes and/or challenges of plan implementation and modified accordingly to achieve effective outreach.

Mitigation and Section 61 Findings

The NPC included a comparative analysis of project mitigation commitments identified in the FEIR and those proposed in conjunction with the revised project. Generally, these mitigation commitments remain unchanged. The information on mitigation provided in the NPC is appended to this decision.

Conclusion

The NPC has sufficiently defined the nature and general elements of the project for the purpose of MEPA review. It identifies changes to the project that have been necessary to reduce costs and has demonstrated that changes will not significantly increase associated environmental impacts or require additional mitigation compared to the project previously presented. I am confident that the revised draft Section 61 Findings; compliance with established criteria set forth in Federal, State and municipal regulations and guidelines pertaining to noise, vibration, stormwater, hazardous materials, air quality, and traffic; and the establishment and adherence to Best Management Practices (BMPs) during the construction and operations period, will ensure that the project will avoid, minimize and mitigate Damage to the Environment. MassDOT will continue to work with the affected communities and project stakeholders on the redesign and construction of GLX. MassDOT should review comments on the NPC to inform the project's design-build RFP and final design process, to guide collaborative efforts with Federal, State and municipal permitting agencies, and to inform project mitigation along the corridor.

Comments from State Agencies did not request additional MEPA review and I am satisfied that any outstanding issues can be addressed by State Agencies during permitting. Draft Section 61 Findings presented in the NPC should be updated, as necessary, to incorporate additional or modified mitigation measures that may be identified during the State permitting process. MassDOT and permitting agencies should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12. MassDOT should consult with the MEPA Office regarding changes to the project that may warrant a NPC; however, funding or design changes that would facilitate the addition of previously identified and reviewed project elements (e.g. original station design, VMF design) would not require a NPC. Finally, the second, future phase (Phase II) extending the Medford Branch to Mystic Valley Parkway/Route 16 was not the subject of the FEIR or this NPC. When the second phase of the project is advanced, MassDOT will need to file a NPC in accordance with 310 CMR 11.10 to initiate additional MEPA review. I expect that this NPC will present additional (and updated) information on the potential environmental impacts of this segment for review by interested parties. This NPC will be required to address how this portion of the project avoids, minimizes, and mitigates Damage to the Environment as defined by the MEPA regulations and present additional station design alternatives and existing and proposed conditions data on potential environmental impacts along this section of the corridor.

March 10, 2017

Date

signature on original

Matthew A. Beaton

Comments received:

2/1/2017 Nicholas Borch-Rote
2/1/2017 Howard H. Kranz
2/2/2017 Thomas W. Lincoln
2/17/2017 U.S. Representative Michael E. Capuano, 7th District Massachusetts
2/21/2017 Livable Streets Alliance
2/21/2017 Massachusetts Historical Commission
2/23/2017 350MA Transportation Working Group
2/24/2017 Conservation Law Foundation
2/24/2017 Sierra Club Massachusetts
2/27/2017 WalkBoston
2/27/2017 BPJ LLC
2/27/2017 Mary Alexandra Agner
2/27/2017 Cynthia Snow
2/27/2017 Solh Zendeheh
2/27/2017 Anthony Genco
2/27/2017 Nathanael Fillmore
2/27/2017 Miranda Henne
2/27/2017 Jason Stockmann
2/27/2017 Ted Clausen
2/27/2017 Rachel Gordon
2/27/2017 Nina Garfinkle
2/27/2017 Kathleen Hornby
2/27/2017 David Marcus
2/27/2017 Laura Beretsky
2/27/2017 Ryan "Fritz" Holznagel
2/27/2017 Lori Segall and Fred Berman
2/27/2017 Alan Moore
2/27/2017 Friends of the Community Path
2/28/2017 Karl Alexander
2/28/2017 Karen Molloy
2/28/2017 Christopher Cassa
2/28/2017 Ruthann Rudel
2/28/2017 Robin Hazard Ray
2/28/2017 Christian Farrar
2/28/2017 Dick Bauer
2/28/2017 Jeffrey Morrow
2/28/2017 Jane Katz
2/28/2017 Gabriel S. Distler
2/28/2017 Mike Korczynski
2/28/2017 John Roland Elliott
2/28/2017 Mark Chase
2/28/2017 Laurel Ruma
2/28/2017 Colin Durrant
2/28/2017 Nicholas Matsakis

2/28/2017 Elisabeth Bayle
2/28/2017 Bob Nesson
2/28/2017 Heather Van Aelst
2/28/2017 Josiah Lee Auspitz
2/28/2017 Mark Boswell
2/28/2017 William Messenger
2/28/2017 Alex and Ami Feldman
2/28/2017 Mark Adams
2/28/2017 Katharine Sackton
2/28/2017 Michael Davidson
2/28/2017 Theresa Racicot
2/28/2017 Anne Tuan
2/28/2017 Wig Zamore
2/28/2017 Kenneth J. Krause
2/28/2017 Somerville Bicycle Advisory Committee
2/28/2017 City of Somerville, Mayor's Office of Strategic Planning & Community
Development
2/28/2017 State Representative Denise Provost, 27th Middlesex District
2/28/2017 Massachusetts Water Resources Authority
2/28/2017 Somerville Transportation Equity Partnership
2/28/2017 Mass Central Rail Trail
2/28/2017 Mystic River Watershed Association
2/28/2017 Boston Cyclists Union
2/28/2017 Brickbottom Condominium Trustees
3/1/2017 Lynn Weissman

MAB/HSJ/hsj

Appendix

TABLE 5.1: COMPARISON OF PROJECT MITIGATION COMMITMENTS

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
Traffic and Transportation Systems	
<p>Provide roadway and signal modifications at the following intersections in order to prevent adverse traffic impacts from the project:</p> <p><u>City of Medford</u></p> <ul style="list-style-type: none"> • Boston Avenue at Winthrop Street • Boston Avenue at College Avenue <p><u>City of Somerville</u></p> <ul style="list-style-type: none"> • Washington Street at McGrath Highway • Prospect Street at Somerville Avenue • Washington Street at Somerville Avenue/Webster Street • Medford Street at Pearl Street <p><u>City of Cambridge</u></p> <ul style="list-style-type: none"> • Monsignor O'Brien Highway/Route 28 at Third Street • Monsignor O'Brien Highway/Route 28 at Water Street • Monsignor O'Brien Highway/Route 28 at North First Street/East Street/Cambridge Street • Cambridge Street at First Street 	<p>No change in the locations or mitigation elements resulting from the redesign.</p> <p><u>City of Medford</u> No change to commitment Boston Avenue at College Avenue will be modified to provide a right hand turn lane on College Avenue on the existing bridge, instead of widening the bridge. A sidewalk will be provided on a new pedestrian bridge to be located adjacent to the existing College Avenue Bridge. Construction of a pedestrian bridge is less costly than widening the existing bridge.</p> <p><u>City of Somerville</u> No change to commitment. , Improvements to the intersection of Washington Street and Tufts Street have been added as a mitigation measure. The intersection will be signalized and sidewalks improved. Washington Street will be widened to four lanes between McGrath Highway and Tufts Street. The City of Somerville to implement these mitigation measures instead of the MBTA.</p> <p><u>City of Cambridge</u> No change to commitment. Intersection improvements to be completed by the NorthPoint Development.</p>
<p>Optimize traffic signal timing and phasing to maximize the efficiency of signalized intersections in the Proposed Action.</p>	<p>No change; work is incorporated with intersections listed above.</p>
<p>Work with cities to develop station-area parking enforcement plans. No public parking proposed at any station</p>	<p>No change. No public parking proposed at any station. MBTA will continue to coordinate with municipalities on parking enforcement off site.</p>

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
<p>Work with the MBTA to evaluate opportunities to improve connections between the new stations and existing bus connections.</p>	<p>No change</p>
<p>Work with cities and applicable emergency personnel during design of intersection mitigation measures, including the development of construction management and detour plans.</p>	<p>No change. Construction management and detour plans to be developed as needed.</p>
<p>Provide pedestrian improvements at the following specific locations to improve pedestrian flow and safety:</p> <p><u>City of Medford</u></p> <ul style="list-style-type: none"> • Boston Avenue at North Street • Boston Avenue at Winthrop Street • Boston Avenue between Winthrop Street and College Avenue (mid-block) • Boston Avenue at Harvard Street <p><u>City of Somerville</u></p> <ul style="list-style-type: none"> • Powder House Rotary • Boston Avenue at Broadway • College Avenue between Boston Street and Frederick Avenue (mid-block) • College Avenue at George Street • Main Street at George Street • Main Street at Harvard Street • Medford Street at Broadway • Main Street at Mystic Valley Parkway Ramps • Main Street at Mystic Avenue • Medford Street at Lowell Street • Medford Street at Central Street • Medford Street at School Street • Medford Street at Pearl Street • Medford Street at Walnut Street • Medford Street at Highland Avenue • Highland Avenue at Lowell Street • Highland Avenue at Central Street • Washington Street at McGrath Highway • Washington Street at Tufts Street • Washington Street at Inner Belt Road • Medford Street at Somerville Avenue/McGrath Highway • Washington Street at Somerville Avenue/Prospect Street 	<p>No change in the locations or mitigation elements resulting from the redesign. Implementation in Cambridge and Somerville will be done by other entities.</p> <p><u>City of Medford</u></p> <p>No change to commitment.</p> <p><u>City of Somerville</u></p> <p>No change to commitment, but City of Somerville to implement instead of MBTA.</p>

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
<ul style="list-style-type: none"> • Washington Street at Somerville Avenue/Webster Street • Washington Street at Kirkland Street • Prospect Street at Webster Avenue 	
<p><u>City of Cambridge</u></p> <ul style="list-style-type: none"> • O'Brien Highway at Third Street • O'Brien Highway at Water Street • O'Brien Highway at North First Street • Cambridge Street at First Street 	<p><u>City of Cambridge</u></p> <p>No change to commitment. Pedestrian improvements to be completed by the NorthPoint Development as in EA FONSI.</p>
<p>Noise</p>	
<p>Provide noise mitigation in the form of noise barriers or sound insulation to mitigate severe noise impacts. Provide mitigation for moderate noise impact where existing day-night sound levels (Ldn) are above 65 dBA. Provide mitigation for impacts with no significant outdoor land use if interior noise levels are above 45 dBA from project sources or single-event maximum noise levels (Lmax) are above 65 dBA. Provide noise barriers at the following locations:</p> <ul style="list-style-type: none"> • N1 -Glass Factory Condominiums and Hampton Inn Hotel • N4 -Alston Street 	<p>There is no change in the levels of noise mitigation being provided. At some locations, the MBTA has determined that residential sound proofing is a more cost-effective measure than building noise walls, as is provided for in the FTA Noise and Vibration Assessment Guidance document. The mitigation however, will continue to provide the necessary level of noise reductions and will continue to meet the mitigation requirements in the EIR.</p> <ul style="list-style-type: none"> • No change to commitment. Sound insulation will be implemented for the 6th and 7th floor of the Hampton Inn, as noise wall is not effective at this height. • N2 – Northeast façade Brickbottom Artist building Noise barrier added as project design advanced. • N3 -South façade Brickbottom Artist building Noise barrier added as project design advanced. • No change to commitment. Mitigation measure changed to sound insulation prior to redesign. Commitment to mitigate noise impacts made in the EIR will continue to be met.

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
<ul style="list-style-type: none"> • N5 -Between Cross Street and McGrath Highway (Avon Place) • N6 -Between McGrath Highway and Walnut Street (Gilman Street) • N7 -Between School Street and Sycamore Street (Richdale Avenue) • <i>Willoughby Street (Medford Branch)</i> • N8 -Sycamore Street near Richdale Avenue (historic Susan Russell house) • <i>Woodbine Street near Centre Street (Medford Branch)</i> • N9 -Vernon Street • N10 -Nashua Street/Henderson Street/Hinckley Street • <i>Murdock Street near Cedar Street (Medford Branch)</i> • N11 -Trum Playground • N12 -Cedar Street and Wilson Avenue • N13 -Between Cedar Street and Broadway (Boston Avenue) • N14-Newbern Ave/Morton Ave/Granville Ave • N15 -Burget Avenue 	<ul style="list-style-type: none"> • No change to commitment. Mitigation measure changed to sound insulation prior to redesign. Commitment to mitigate noise impacts made in the EIR will continue to be met. • No change to commitment • No change to commitment • No longer required because the impact was eliminated due to relocation of special trackwork as design advanced. • No change to commitment. Mitigation measure changed to sound insulation prior to redesign. New mitigation proposed as part of Section 106 consultation process and approved by the consulting parties. • No longer required due to the noise reduction expected from the retaining wall. • No change to commitment • No change to commitment • No longer required because the impact was eliminated due to relocation of special trackwork as design advanced. • No change to commitment • No change to commitment • No change to commitment. Mitigation measure changed to sound insulation prior to redesign. Commitment to mitigate noise impacts made in the EIR will continue to be met. • No change to commitment • No change to commitment

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
<ul style="list-style-type: none"> N16 -Horace Street N17 -Walnut Street Center 	<ul style="list-style-type: none"> No change to commitment. Barrier has been constructed. No change to commitment. Noise barrier reduced in length due to change in use at Walnut Street Center, which eliminated the sensitive receptor at that location.
<p>Provide sound insulation improvements at the following locations:</p> <ul style="list-style-type: none"> Pearl Street Apartment building Outside the Lines Studio Tufts University Science and Technology Center 	<ul style="list-style-type: none"> No change to commitment No change to commitment No change to commitment. Tufts University completed sound insulation.
<p>Monitor Noise after service starts with the proposed mitigation in place) to evaluate whether the actual noise levels correspond with the modeled values and take appropriate corrective actions if the actual values are found to be higher than the projections.</p>	<p>No change to commitment</p>
Vibration	
<p>Provide vibration mitigation in the form of ballast mats or resilient rail fasteners and relocated or specially-engineered special tract to mitigate vibration impacts at the following locations:</p> <ul style="list-style-type: none"> V1: Glassfactory Condominiums V2: Brickbottom Artists Building (Northeast Façade) V3: Brickbottom Artists Building (South Façade) V4: Alston Street (south of Cross Street) V5: Tufts Street/Avon Pl/ Auburn Ave South of Cross to McGrath Highway V6: Gilman Street (McGrath Highway to Walnut) V7: Medford Street (North of Walnut) V8: Pearl Street Apartment V9: Richdale Avenue <i>Jerome Court (near Sycamore Street)</i> 	<p>There are no changes in commitments for vibration mitigation.</p> <ul style="list-style-type: none"> No change No change Added as design advanced. No change No change No change No change No change No change No longer needed as impact eliminated due to due to advanced design.

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
<ul style="list-style-type: none"> • V10 -Lowell Street/Nashua Street/Hinckley Street/Berwick Street (Lowell Street to Charles E Ryan Road) • V11 -Murdock Street (south of Cedar Street) • V12 -Cedar Street (north of Cedar Street) • V13 -Newbern Avenue/Morton Avenue/Granville Avenue/Winchester Place/Wareham Street (Broadway to Warren Street) • V14 -Tufts University Science and Technology Center • V15 -Tufts Bacon Hall • V16 -Outside the Lines Artist Studio • V17 -Tufts Bray Laboratory • V18 -Tufts Curtis Hall • <i>Brooking Street</i> • V19 -Horace Street 	<ul style="list-style-type: none"> • No change • Combined with V17 – Tufts Bray Laboratory • No change
Hazardous Materials	
<p>Consult with MassDEP during design and construction to ensure planning and implementation of demolition and management of contaminated soils is consistent with applicable MassDEP regulations and recommendations.</p>	<p>No change</p>

Land Use	
<p>Work with the community in the area of the future Mystic Valley/Route 16 to consider land use and station design elements.</p>	<p>No change. Not included in the current project. To be completed by next phase of the GLX.</p>
<p>Complete the final design for the proposed Somerville Community Path between Lowell Street and the Inner</p>	<p>Final design for a revised community path to be</p>

Environmental Mitigation Measures Identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation Measures for the GLX Redesign
Belt area. Work with City of Somerville to identify opportunities for state and Federal funding for construction of Community Path.	completed by Design-Build contractor.
Water Quality/Stormwater	
Implement all aspects of the SWPPP including recommendations in annual updates based on new or improved procedures or changes to operations.	No change
Visual Environment	
Provide vegetation on and/or above retaining walls to minimize visual changes.	Loam and seed on private property. Compensate for damaged shrubbery.
Work with affected communities on design of noise barriers and vegetated walls.	Walls will meet criteria agreed to with the community.
Cultural Resources and Section 4(f) Resources	
Perform archival photographic and written documentation of historic structures to be removed or altered. (Lechmere Station/Lechmere Viaduct, Somerville Automobile Company Building)	Photography and documentation has been completed.
Submit design plans and construction specifications for project elements that affect above-ground historic properties for review by MHC, local historical commissions, and the Design Working Group.	No change. Design review by the Section 106 consulting parties was completed. The re-design needs to be resubmitted to the parties. The DB contractor will be required to provide the MBTA with 30%, 60% and 90% design plans that will be resubmitted to the Section 106 parties as required by the Section 106 MOA.

Construct noise barrier adjacent to historic Susan Russell House with context-sensitive materials and colors.	No change in commitment to mitigate noise impacts. Noise barrier was changed to sound insulation as owner request. Massachusetts Historical Commission has approved
Public Involvement	
Continue civic engagement opportunities during the design process. Provide transparent public information and outreach process through construction.	No change.
Engage interested parties through the Design Working Group.	The Design Working Group was engaged during the redesign process and will continue to be engaged throughout the project. It will transition to a Construction Working Group as the project progresses. The MBTA will be appointing a new GLX Community and Stakeholder Engagement person to focus full time on the issues surrounding GLX.
Conduct land use workshops with affected communities to further identify community needs and issues near the proposed station areas.	Station area workshops have been completed.
Design	
As design advances, facilitate future transit/transportation projects such as light rail expansion or connections to existing infrastructure to the extent possible.	Future transit/ transportation projects not precluded by GLX redesign.
Implement "green" design elements (recycled or recyclable materials or incorporate vegetation) in design of proposed retaining walls, stations and maintenance and storage facility.	A Sustainability Plan will be developed for the redesign.
During design, refine project designs to further minimize temporary and permanent impacts on local neighborhoods and property owners.	No change to commitment
Design all stations in compliance with ADA standards, Massachusetts AAB standards; MBTA's settlement agreement with the Boston Center for Independent Living (BCIL) and applicable National Fire Protection Association standards.	No change. The project will be designed in compliance with all applicable standards

5.2 COMPARISON OF CONSTRUCTION MITIGATION COMMITMENTS

Environmental Mitigation identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation for the GLX Redesign
General	
Prior to construction, prepare a detailed plan to address various construction period impacts to various environmental resources (vehicular traffic, pedestrian and bicycle, on-street parking, public access, emergency access to local businesses and residences, dust, noise, odor, rodents, construction-related nuisance conditions) through coordination with cities and appropriate emergency personnel.	No change. DB contractor will be required to prepare construction management plan (CMP) and mitigation plan which will be shared with communities. The CMP will address all of the construction period related issues articulated in the EIR. The re-design does not change these requirements, nor is the MBTA seeking to change any of them.
Traffic and Transportation Systems	
Establish temporary detours to minimize traffic disruptions due to construction.	No change
Stage bridge construction to ensure that adjacent bridges are not closed simultaneously.	No change
Work with cities and applicable emergency personnel to ensure that appropriate safety measures are incorporated throughout construction.	No change
Air Quality	
Apply water to dry soil to prevent dust production. Use water for compaction in the fill areas and as a dust retardant in both the soil cut areas and haul roads.	No change
Comply with MassDEP's idling regulations. Post idling restriction signage on project construction sites.	No change
Follow existing MassDEP's Solid Waste and Air Quality Control regulations and MBTA retrofit procedures for construction equipment to reduce emissions.	No change
Noise	
Prepare a Noise Control Plan in conjunction with the contractor's specific equipment and methods of construction.	No change

Environmental Mitigation identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation for the GLX Redesign
Use specially quieted equipment with enclosed engines and/or high-performance mufflers.	No change
Perform construction equipment noise certification testing.	No change
Avoid nighttime construction in residential neighborhoods.	In order to expedite construction, nighttime work may occur only with full coordination with the communities and abutting neighborhoods.
Require ambient-adjusting or manually adjusted backup alarms set to 5dBA over background levels.	No change
Keep truck idling to a minimum.	No change
Set acoustic shield requirement for jackhammers, chainsaws, and pavement breakers.	No change
Develop methods for projecting construction noise levels.	No change
Develop methods for responding to community complaints.	No change
Establish a protocol for reporting noise monitoring results, noise reduction measures used, and responses to the community.	No change
Use shields, shrouds, or intake and exhaust mufflers to control construction noise level.	No change
Apply noise deadening materials to chutes or storage bins.	No change
Install temporary noise barriers.	No change
Apply acoustic enclosures.	No change
Implement specialized back-up alarms.	No change
Limit the size of generators and the duration of their use.	No change
Develop truck routes that minimize exposure to noise-sensitive sites.	No change
Develop other detailed engineering noise control measures, as appropriate.	No change

Environmental Mitigation identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation for the GLX Redesign
Route construction equipment and vehicles through areas that would cause the least disturbance to nearby receptors where possible.	No change
Fit any air-powered equipment with pneumatic exhaust silencers.	No change
Locate stationary construction equipment as far as possible from noise-sensitive sites.	No change
Construct noise barriers, such as temporary walls or piles or excavated material, between noisy activities and noise-sensitive receivers.	No change
Monitor noise after service starts (with the proposed mitigation in place) to evaluate whether the actual noise levels correspond with the modeled values and take appropriate corrective actions if the actual values are found to be higher than the projections.	No change
Vibration	
Configure truck routes that minimize exposure to vibration sensitive receptors and maintain smooth roadway surfaces.	No change
Avoid nighttime construction in residential neighborhoods.	In order to expedite construction, nighttime work may occur only with full coordination with the communities and abutting neighborhoods.
Use alternative construction methods to minimize the use of impact and vibratory equipment (e.g., pile drivers and compactors).	No change
Monitor vibration after service starts (with the proposed mitigation in place) to evaluate whether the actual vibration levels correspond with the modeled values and take appropriate corrective actions if the actual values are found to be higher than the projections.	No change

Water Quality/Stormwater	
Install detention and infiltration systems to infiltrate peak runoff and to prevent any increase in peak flows to municipal stormwater drainage systems and to remove TSS from stormwater runoff prior to discharge.	No change
Install hydrodynamic particle separators to treat pavement runoff.	No change

Environmental Mitigation identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation for the GLX Redesign
Use Low Impact Development practices, where feasible, to maintain natural hydrology (e.g., raingardens to treat disconnected roof drainage and/or parking runoff).	No change
Develop and implement a SWPPP in accordance with NPDES and MassDEP standards.	No change
Stabilize any highly erosive soils with erosion control blankets and other stabilization methods, as necessary.	No change
Reinforce slopes using a hydroseed mix with a resin base, native vegetation, or other approved methods.	No change
Use dewatering controls, if necessary.	No change
Install a gravel entrance at construction sites to prevent sediment from being tracked onto roadways and potentially discharged to surface waters.	No change
Maintain construction equipment to prevent oil and fuel leaks and install catch basin protection as needed.	No change
Hazardous Materials	
Consult with MassDEP to ensure planning and implementation of demolition and management of contaminated soils is consistent with applicable MassDEP regulations and recommendations.	No change
Follow all protocols to adequately characterize, stockpile and dispose of materials encountered during construction.	No change

Outreach	
Establishing a project construction office.	No change
Establishing a Green Line Extension project Ombudsman position that would field all construction-period comments and complaints, coordinate with the cities, and respond to public concerns.	No change
Establish a Construction Working Group to advise MassDOT and the MBTA.	No change
Establish a project email address and 24-hour phone hotline for public concerns.	No change

Environmental Mitigation identified in the Final Environmental Impact Report	Comparison to the Environmental Mitigation for the GLX Redesign
Provide frequent website updates of construction activities at www.mass.gov/greenlineextension	No change
Host neighborhood construction kick-off meetings.	No change
Produce quarterly construction updates.	No change
Develop a business outreach plan to assist local businesses during construction.	No change

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January 15, 2010

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Green Line Extension
PROJECT MUNICIPALITY : Cambridge, Medford and Somerville
PROJECT WATERSHED : Boston Harbor
EOEA NUMBER : 13886
PROJECT PROPONENT : Massachusetts Department of Transportation (MassDOT)
DATE NOTICED IN MONITOR : October 26, 2009

As Secretary of Energy and Environmental Affairs, I hereby determine that the Draft Environmental Impact Report (DEIR) submitted on this project adequately and properly complies with the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62I) and with its implementing regulations (301 CMR 11.00). However, I am declining to allow this DEIR to be considered the Final Environmental Impact Report (FEIR) (as permitted under 301 CMR 11.08(8)(b)(2)). The Proponent must prepare and submit for review a Final Environmental Impact Report (FEIR) in response to the Scope provided below.

At the outset, I would like to commend the proponent, the Massachusetts Department of Transportation (MassDOT), for its commitment to fund and build this critically important public transportation project. The project is the most significant remaining transit commitment arising out of the Central Artery/Tunnel Project (CA/T) in terms of reducing vehicle emissions and is emblematic of the type of public transportation investment needed to meet the Commonwealth's greenhouse gas reduction mandates. The Green Line Extension Project will finally provide light rail transit beyond Lechmere Station, serving the densely populated communities of Cambridge, Somerville and Medford that today are substantially under-served by public transit. The project is also a reflection of the Commonwealth's public transportation goals and commitment to the principles and practices of sustainable growth. The Commonwealth has committed to a significant

investment in urban mass transit in an effort to provide critical transportation, air quality and urban redevelopment benefits along the project corridor. The project is required by the State Implementation Plan (SIP) and fulfills a longstanding Commonwealth commitment to increase public transit in the greater Boston area. It will reduce regional emissions of nitrous oxides (NO_x) volatile organic compounds (VOCs), the chief precursors of smog, and of carbon dioxide (CO₂), the principal greenhouse gas responsible for global warming. The project also provides opportunity for new public and private investments to revitalize the social and environmental fabric of the corridor.

This project has received significant public input including hundreds of comment letters representing a range of views about numerous aspects of the project. I have received comment letters from elected officials and municipal representatives including U.S. Representative Capuano, Senator Jehlen, Representative Provost, Representative Sciortino, Representative Toomey, Medford Mayor McGlynn, Somerville Mayor Curtatone and the City of Cambridge. I have received comments from multiple city, State and regional agencies, from environmental, bicycle and pedestrian advocacy groups, from neighborhood groups, from groups that represent the disabled and environmental justice populations, and from businesses and residents.

The extension of any light rail service through an urban corridor such as Cambridge, Somerville and Medford is a challenging task and the range of views expressed in the comment letters reflect this challenge. I will note however, that despite the variety of comments received, comment letters generally expressed overall support in expanding light rail along the corridor. Expansion of light rail service is a unique opportunity for the region and I appreciate the time, effort, and thoughtfulness exhibited by residents of the Commonwealth through their ongoing attendance at public meetings and preparation of comment letters for consideration during the MEPA process. I anticipate that participation in these types of forums for the project will continue to be strong as the project proceeds to design and construction.

Comments on the DEIR reflect a unified desire to protect and enhance the character and vitality of this corridor and its neighborhoods and business centers. However, recommendations for how the project can achieve these goals most successfully vary widely among project constituents. The MEPA process has provided a valuable forum for the collection of all relevant points of view, but reconciling all of the identified (and sometimes competing) concerns is beyond the scope of the MEPA. The MEPA process occurs early in the design process to identify key environmental concerns and challenges associated with a project and therefore necessarily takes place in advance of final project design. It does not generally address issues commensurate with those often reviewed at the local site plan review or zoning board review levels within each municipality. Resolution of the final project planning details will therefore fall primarily to MassDOT, the affected communities, and to the various project stakeholders who I expect will continue to be actively engaged in this project going forward.

MEPA is also not a zoning process, and it does not proscribe to a Proponent what, where or how a project should be designed or built. MEPA review is limited by statute to those aspects of the project that may cause Damage to the Environment as defined in the MEPA regulations. I note that many of the environmental issues traditionally associated with expanded transit service are minimized in the current project by using an existing right-of-way (ROW); however, there are

many environmental impacts associated with the project that remain squarely within the scope of MEPA. For example, although the use of existing ROW dramatically decreases certain environmental impacts, this ROW will be altered both physically and operationally due to increased service and these impacts will need to be mitigated. Similarly, air quality and transportation impacts are at the heart of the proposed project, and are therefore a primary area of concern under MEPA. Thus, while many of the issues identified in comment letters are beyond the scope of review under MEPA, my decision today ensures that the environmental impacts of the proposed project have been thoroughly considered.

As set forth in greater detail herein, I acknowledge the continued concerns raised by many commenters regarding: the siting of the project's maintenance and vehicle storage facility (Maintenance Facility); the details of MassDOT's two-phased plan to provide service the Mystic Valley Parkway/Route 16 area; integration of stations into the neighborhood landscape; establishment of a robust public participation process during the final design and construction phase; and commitments to various environmental and construction period mitigation measures (notably noise and vibration mitigation). In order to address these concerns to the greatest extent possible and to ensure that the project adequately and properly complies with MEPA, I have provided a limited Scope for a FEIR below. The FEIR Scope requires MassDOT to further evaluate alternative locations for the Maintenance Facility in order to address the widespread opposition to the DEIR's preferred location at Yard 8. Specifically, MassDOT will be required to provide additional quantitative assessment of the environmental and operational impacts associated with the alternative Maintenance Facility locations under consideration (known as "Option L" and "Mirror H"). The Scope also requires MassDOT to provide further clarification concerning its air quality modeling assumptions, to clarify and confirm impacts associated with the College Avenue Station operating as a terminus station, and to explore ways to improve integration of the Lechmere Station into the surrounding neighborhood.

In order for this project to reach its maximum potential, MassDOT must continue to, and in some ways enhance or expand, project design and coordination efforts in a collaborative manner with State and city agencies, citizens, local businesses, and other stakeholders during all aspects of the project – planning, design and construction. The FEIR will therefore also need to present a Public Involvement Plan to facilitate robust community participation beyond the conclusion of the MEPA process. Once a comprehensive plan has been developed, I am confident that MassDOT can and will address those issues that are beyond the scope of MEPA responsibly and thoroughly. I note that as project design advances, the Massachusetts Bay Transportation Authority (MBTA) will become the lead agency on the project and will ultimately be responsible for the construction and operation of the service. MassDOT and the MBTA must forge a collaborative relationship and make a strong commitment to continuing civic engagement opportunities during the design process as well as a transparent public information and outreach process once construction commences.

Project Description

As described in the DEIR, the project consists of the extension of Green Line light rail service from a relocated Lechmere Station through Cambridge, Somerville, and Medford. The “proposed project” (Alternative 1) in the DEIR includes:

- The Medford Branch - Extending Green Line service to Medford within the existing MBTA Lowell Line commuter railroad ROW, from a newly relocated Lechmere Station terminating at Medford Hillside in the vicinity of College Avenue with intermediate stations at Brickbottom, Lowell Street, Gilman Square, and Ball Square;
- The Union Square Branch – Extending Green Line Service to Union Square in Somerville, within the existing MBTA Fitchburg Line commuter rail ROW, with a station at Union Square.

Given the fiscal constraints that have been introduced since the commencement of MEPA review, MassDOT has proposed constructing the Green Line Extension project in two phases. The DEIR therefore also included an analysis of an extension of the Medford Branch to Mystic Valley Parkway/Route 16, with no parking at Mystic Valley Parkway/Route 16 Station, and extension of the Union Square Branch to Union Square (using commuter rail ROW) (Alternative 2). The DEIR states that while this alternative also meets all of the stated project goals and provides additional regional benefits with regard to air quality and increased ridership, fiscal constraints prevent MassDOT from committing to this alternative within the 2014 timeframe mandated by the SIP. The DEIR indicated that ‘flex funding’ allocated by the Boston Area Metropolitan Planning Organization may be available sometime between 2016 and 2020 to assist in funding the construction of the Green Line Medford Hillside to Mystic Valley Parkway/Route 16 segment. MassDOT proposes to construct Alternative 1 as the first phase of the project and Alternative 2 as the second.

The majority of anticipated environmental impacts along the corridor for both phases are largely similar, with the exception of additional impacts introduced in Alternative 2 with the extension of the project beyond Medford Hillside to Mystic Valley Parkway/Route 16. As it is not anticipated that construction of the Medford Hillside to Mystic Valley Parkway/Route 16 segment will commence within the applicable MEPA or NEPA timeframes, reassessment of Alternative 2 will be required in the form of a Notice of Project Change (NPC). I expect that this NPC would present additional (and updated) information on the potential environmental impacts of this segment for review by interested parties, as the DEIR presented a ‘worst case scenario’ of possible environmental impacts based on currently available conceptual designs. This NPC will be required to address how this portion of the project avoids, minimizes, and mitigates Damage to the Environment as directed by the MEPA regulations and present additional station design alternatives and existing and proposed conditions data on potential environmental impacts along this section of the corridor. I encourage MassDOT to consider the thoughtful comments and design suggestions submitted in response to the DEIR when preparing the NPC.

The project corridor passes through a wide cross-section of land uses: industrial, commercial, institutional, and residential. The project will provide access to a dense population of potential and existing transit riders currently serviced primarily by bus service along 15

established routes. Several of the station locations provide unique opportunities for transit-oriented redevelopment, potentially spurring economic development within the corridor. The corridor lends itself well to increasing the multi-modal transportation experience, with connections to the existing street and neighborhood network, as well as the conceptually designed Community Path (described in further detail below).

The proposed project includes the construction of new tracks and stations, relocation of existing commuter rail tracks, potential relocation, removal and/or elimination of freight tracks, reconstruction of bridges, construction of a new Maintenance Facility, construction of retaining walls, and the construction of traffic, pedestrian and bicycle improvements along the project corridor. The DEIR stated that the project is expected to increase the MBTA's anticipated daily ridership at the project's seven stations (boardings and alightings) by approximately 52,000 by 2030, with approximately 90% of these trips to take place in the project's opening year of 2014. The DEIR estimates that Alternative 1 will generate new systemwide transit ridership of 7,900 boardings per day and a reduction of 25,018 vehicle miles traveled (VMT) per day (projected to the year 2030). The project cost for Alternative 1 is estimated at \$804.8 million (in 2008 dollars) and includes the \$76 million cost estimate for purchase of additional vehicles.

Procedural History

The Expanded Environmental Notification Form (EENF) was submitted for MEPA review and noticed in the Environmental Monitor on October 10, 2006. On December 1, 2006, Secretary Gollidge issued a Certificate on the EENF outlining the scope for the DEIR.

As part of the EENF, MassDOT requested in accordance with 301 CMR 11.05(7) that it fulfill its EIR obligations under MEPA with a Single EIR, rather than the usual process of a Draft and Final EIR. The Secretary declined to grant this request for reasons discussed in the Certificate on the EENF. The DEIR received an extended comment period of 75 days, commencing on October 26, 2009 and concluding on January 8, 2010. On December 9, 2009, MassDOT issued supplemental information regarding the potential location of the Green Line vehicle storage and maintenance facility (Maintenance Facility), presenting a qualitative analysis of two additional Maintenance Facility sites (Mirror H and Option L) beyond the preferred alternative presented in the DEIR.

Within the DEIR, MassDOT requested that the DEIR be considered as the FEIR in accordance with 301 CMR 11.08(8)(b)(2). I have determined that while the DEIR is generally responsive to the requirements of 301 CMR 11.07 and the Scope, the ongoing evaluation of maintenance facility siting alternatives, the need for additional discussion of impacts at College Avenue and Lechmere Stations, and a requirement for clarification of the future mitigation and community participation commitments, preclude me from exercising my rights to declare that the DEIR will be considered an FEIR.

Project Permitting and Jurisdiction

The project is subject to review and mandatory preparation of an EIR pursuant to Sections 11.03 (1)(a)(1) and (6)(a)(5) of the MEPA regulations because it will require a State permit and will alter more than 50 acres of land and consists of a new rail or rapid transit line along a new, unused or abandoned right-of-way for transportation of passengers or freight. The project will require Access Permits from MassDOT. The project will require an 8(m) Permit from the Massachusetts Water Resources Authority (MWRA). It will require a Determination of Effect to Historic or Archaeological Resources (Section 106 of the National Historic Preservation Act) and a Section 4(f) Determination by the Federal Transit Administration (FTA). It will require review by the Massachusetts Historical Commission (MHC). Also, it will require a National Pollutant Discharge Elimination System (NPDES) industrial permit and a Multi-Sector General Permit for Stormwater Discharges Associated with an Industrial Activity (MSGP) from the United States Environmental Protection Agency (U.S. EPA).

Because the proponent is a State Agency and will use State funding, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

It should be noted that the project will also review under the National Environmental Policy Act (NEPA) because MassDOT is seeking federal funding for the project. The DEIR also serves as the Environmental Assessment (EA) in accordance with NEPA. MassDOT has indicated in the DEIR that because the proposed project would be primarily located within the existing active commuter rail ROW and would be beneficial to communities, it anticipates that the FTA will issue a Finding of No Significant Impact (FONSI) at the conclusion of the NEPA process.

Review of the DEIR

General

The DEIR provided a response to the Secretary's Certificate on the EENF and included additional information as necessary to respond to the Scope and respond to comments received on the EENF.

Project Description and Permitting

The DEIR provided a detailed description of the proposed project and each alternative, identifying an anticipated project schedule, project costs and funding sources. The DEIR contained a substantial number of existing and proposed conditions plans and graphics to support the report narrative. Conceptual station and maintenance facility plans were included in the DEIR to illustrate project context and identify general circulation plans for motor vehicles, buses, pedestrians, and cyclists to each station location.

The DEIR discussed proposed track modifications, station locations, bridge replacements, and proposed operating plans and requirements for each project alternative. The DEIR identified

the need for new or modified electrical systems or support structures, including extended catenary lines and new signals, for each alternative. As noted later in this document, the DEIR and supplemental review materials described the proposed location, operations, and components of the Maintenance Facility at Yard 8, as well as a qualitative review of the potential Mirror H and Option L locations. The DEIR contained a list of required permits and approvals, the status of each permit and/or approval, and a discussion of project consistency with federal, State and local planning.

Smart Growth/Land Use

An overall policy goal of the Commonwealth is to direct public infrastructure investments to spur revitalization of previously developed urban sites over undeveloped greenfield sites. This project provides an opportunity to achieve this goal and must be actively pursued through ongoing collaboration between MassDOT and the affected communities. The success of this project continues to be dependent not only on MassDOT's ability to plan effectively, but the ability of Cambridge, Medford and Somerville to respond with appropriate zoning changes and complementary regulations. MassDOT should work with these communities to coordinate land use planning activities and new transit operations.

If this project is designed with the proactive participation of communities and on a foundation of solid and innovative land-use planning, it has the opportunity to maximize economic development and long-term ridership potential. As discussed later in this Certificate, MassDOT must continue to engage interested parties in the form of a Citizens Advisory Group (CAG) which should include representatives of regional planning agencies, local government, business interests, community groups, representatives of environmental justice areas and the disabled community, abutters, and bicyclist and pedestrian groups.

The DEIR characterized existing land uses and provided population, housing density, and employment density data within a ½-mile radius of each proposed station site. The DEIR also described recent land use plans, studies, and design guidelines that may affect development near proposed station sites in each community. Proposed transportation projects that may have potential impacts on the Green Line Extension project were also discussed in the DEIR, noting their relationship to the expansion of light rail. The DEIR summarized direct land use impacts for each alternative, in the form of full or partial land takings.

The DEIR included data on current socioeconomic conditions in Cambridge, Somerville and Medford based upon available U.S. Census data, focusing on employment and income in each city. The DEIR characterized general socioeconomic conditions for each affected community along the project corridor. To evaluate direct socioeconomic impacts, the DEIR evaluated the local impacts of acquisition and demolition of existing homes and businesses for each alternative through loss of property taxes and estimated job displacement or relocations. I note that under Alternative 1, no homes and five businesses will be displaced and I commend the efforts put forth by MassDOT to propose a project that limits property takings to the maximum extent possible.

According to the DEIR, the project is expected to decrease low intensity commercial and light industrial uses in the project corridor and increase mixed-use, high-density transit-oriented

development, particularly in Union Square, and at Brickbottom and Lechmere Stations. The DEIR concluded that the project would provide socioeconomic benefits due to increased transit access, which increases both the potential for local commerce and the potential for area residents to commute to jobs elsewhere. The DEIR conceded that the precise economic benefit of increased transit access cannot be quantified based on existing data.

In accordance with federal and MEPA regulations, the DEIR included an assessment of short-term and long-term impacts and cumulative impacts of the project, any other projects, and other work or activity in the immediate surroundings and region (301 CMR 11.07). I acknowledge the difficulty in predicting future growth patterns and development pace, as future development will be greatly influenced by factors outside the control of MassDOT. This assessment described indirect effects as those effects resulting from possible redistribution of growth and changes in development densities. Federal guidance was used to evaluate the project's cumulative effects, specifically, CEQ's *Considering Cumulative Effects under the National Environmental Policy Act* (CEQ 1997). The assessment strived to analyze cumulative effects covering both known effects of the past, commencing in 1980, and predict those of the future, between present day and 2030.

The DEIR characterized and discussed corridor-wide indirect effects, noting that the various development alternatives will affect where growth occurs, the form of the growth, and the pace of development. The DEIR discussed potential for transit-oriented development (TOD) at proposed station sites, presented comparative data on impacts to property values, and characterized potential land use impacts within ½ mile radius of station sites. The cumulative impact analysis explored the potential influence of present and reasonably foreseeable actions (i.e., background population growth and development projects). Finally, the DEIR included a qualitative discussion of the indirect and cumulative effects of the project, comparing the various project alternatives to a no-build alternative, for several review areas including: land use; traffic and transportation; property values; economy; neighborhoods; environmental justice; and historic, archaeological and cultural resources.

I note that MassDOT has committed to perform land use workshops with affected communities to further identify community needs and issues regarding land use and redevelopment. The data and analysis presented in the DEIR should be used as the foundation for these workshops, driving the discussion on key issues surrounding how to best integrate anticipated changes from the project into the existing community fabric. Information gathered at these workshops could be helpful for community leaders and elected officials in determining how to best revise zoning regulations, affordable housing policies and parking management measures to reflect the anticipated transit-oriented landscape. I urge the communities of Cambridge, Medford and Somerville to take direct action to build on the State's efforts and information in order to facilitate sustainable development and land use to the greatest extent possible.

Consistency and Coordination with Planning and Projects

The DEIR discussed preliminary project coordination, identified key project features and described the Green Line Extension's relationship to proposed regional projects such as: the Urban Ring; reconstruction of Route 28/McGrath Highway; the North Point development and relocation

of Lechmere Station; the Community Path; and the Minuteman to Mystic Valley Parkway Path. I have received several comments requesting MassDOT to redesign and reconstruct the elevated portion of Route 28/McGrath Highway into a boulevard layout. Although this is beyond the scope of the proposed project, it is important that as project design advances, MassDOT accommodate identified future projects into project layout and design, or at a minimum, not preclude their construction. I encourage MassDOT to design the project to facilitate future transit projects such as light rail expansion or connections to existing infrastructure such as Porter Square and the Red Line, the Urban Ring, other commuter rail service expansion, or roadway, bicycle and pedestrian path networks as much as possible.

The Community Path

The intent of the Somerville Community Path (the Community Path) is to extend the Minuteman Bikeway/Linear Park multi-use path from its current terminus at Cedar Street in Somerville to the Charles River Path network in Cambridge and Boston, a distance of approximately 2.5 miles. The proposed route follows the edge of the MBTA Lowell Line ROW, generally located at street level while existing commuter rail trains and proposed light rail trains will run below grade, in a cut section. The DEIR presented ten-percent design plans for the Community Path to demonstrate the feasibility to construct the Community Path alongside the project. The DEIR identified where the Community Path could be accommodated within the ROW, identified potential pinch points and obstacles to including it within the ROW, and recommended solutions in instances where the Community Path could not be accommodated in the ROW (i.e. cantilevering the trail or narrowing the path). The DEIR also evaluated the viability of extending the Community Path to Route 16 to create a connection with the Mystic River Parkway based upon the feasibility of sufficient ROW widths or alternative on-street routes. The results of this study concluded that extending the path to Route 16 is not feasible at this time.

I have received many thoughtful comments received from bicycle and pedestrian advocates, and commenters in general, regarding the unique multi-modal transit opportunities afforded by effectively integrating the Community Path with proposed Green Line stations and overall neighborhood character. The Community Path could provide an additional avenue to access public transit, and thereby enhance and increase ridership potential. MassDOT has committed to the 100-percent design of the Community Path as part of the final design of the Green Line Extension. As station designs are refined, an emphasis should be placed on bicycle access to stations, as well as the provision of adequate bicycle parking. Based upon additional review of the location of the Maintenance Facility, the route of the Community Path through the Inner Belt and Brickbottom areas from Washington Street to Lechmere may become more feasible and should be re-evaluated for integration into project design. Lastly, I strongly encourage MassDOT and the City of Somerville to work together to seek State and federal funding opportunities to facilitate construction of the Community Path concurrently with the project.

Environmental Justice

Cambridge, Somerville, and Medford all have substantial State-defined environmental justice (EJ) areas, classified as areas with substantial foreign-born, minority, or low-income populations. As part of the Certificate on the EENF, I required MassDOT to identify EJ areas and

other sensitive populations, provide relevant socio-economic data, describe how the project is designed to provide fair access to stations and economic development opportunities and avoid any disproportionate share of impacts. The DEIR was generally responsive to this directive, identifying EJ populations along the corridor, describing changes in transit access to EJ and disability populations, tabulating the number of buildings to be acquired within EJ census blocks, estimating project-related job losses, and identifying the number of sensitive receptors affected by noise in EJ areas for each project alternative. The DEIR concluded that according to transit modeling for the project, the Build Alternatives would substantially increase transit access for EJ and disability populations and would thereby provide increased access to jobs, housing, and public services.

In response to the requirement to take affirmative measures to ensure full public participation in the MEPA process by all affected communities, particularly those with a high percentage of minority, low-income, non-English-speakers and the disabled, the DEIR included a summary of the ongoing public involvement and agency coordination process, with a specific discussion of outreach efforts to EJ populations. MassDOT has established a public involvement process that included a Project Advisory Group, open public meetings, and coordination with the staff and elected officials of Cambridge, Somerville, and Medford, as well as other stakeholders along the corridor. MassDOT identified key issues such as ridership modeling, maintenance facility location and operations, station siting, tunnel alignment alternatives, and construction impacts that were discussed during the course of the public involvement process. MassDOT established a Project Advisory Group consisting of municipal officials, community representatives, and other interested individuals to help guide the public process, build consensus, and advise MassDOT on issues of concern. MassDOT also conducted tutorial sessions for Advisory Group members, held general project public meetings, and station workshops. MassDOT created a project website that acts as a portal to access project documents, studies, and meeting minutes.

Alternatives Analysis

The DEIR included a discussion of a total of eight (8) project alternatives. The alternatives analysis evaluated the following scenarios:

- No Build – existing transportation facilities and services and all future committed transportation improvements projects without the extension of the Green Line;
- Baseline – No-Build conditions plus enhanced MBTA Route 80 bus service between Lechmere Station and Mystic Valley Parkway/Route 16 and shuttle service between Lechmere Station and Union Square;
- Alternative 1 – Green Line Extension to Medford Hillside and Union Square (via commuter rail ROWs);
- Alternative 2 – Green Line Extension to Mystic Valley Parkway/Route 16 and Union Square (via commuter rail ROWs);
- Alternative 3 – Green Line Extension to Medford Hillside (via commuter rail ROW) and Union Square (in-street running);
- Alternative 4 – Green Line Extension to Mystic Valley Parkway/Route 16 (via commuter rail ROW) and Union Square (in-street running);

- Alternative 5 – Green Line Extension to Mystic Valley Parkway/Route 16 (via commuter rail ROW); and
- Alternative 6 – Green Line Extension to Union Square (via commuter rail ROW).

The alternatives presented in the DEIR were a result of years of study, creation of planning documents, work with State Agencies and advisory groups, and operational and design criteria requirements. The selection of Alternative 1, and Alternative 2 at a later date, were based on consideration of ridership, project costs, and community impacts. For each alternative, the DEIR described proposed operations, station locations, vehicle equipment requirements, anticipated new transit boardings and VMT reductions, estimated travel times, headways, fares, capital improvement requirements, and conceptual capital and operating and maintenance costs. The DEIR also provided data on noise, vibration, air quality, traffic, land acquisition, stormwater, historic and archaeological assets, hazardous materials and EJ population impacts for each project alternative for comparative purposes.

As directed in the Certificate on the EENF, the DEIR evaluated extending the project to Mystic Valley Parkway/Route 16. As I noted earlier, this project element, although part of MassDOT's "Preferred Alternative" (Alternative 2), is not being pursued at this time due to budgeting constraints and will be required to be reevaluated as part of an NPC review with the MEPA office.

Additionally, the DEIR evaluated design alternatives (Alternatives 3 and 4) that would bring light rail service closer to Union Square by diverting from the Fitchburg commuter rail ROW to an in-street running single-loop corridor. Alternatives 3 and 4 would result in increased construction costs due to roadway and bridge reconstruction and reconfiguration and would present challenges to extending service beyond Union Square in the future. Therefore the DEIR concluded that Alternative 1 provided a better balance of cost, ridership and environmental impacts than an option that included an in-street running of the Union Square branch.

Finally, the Certificate on the EENF requested that the DEIR explore alternatives that could provide a connection between light rail and commuter rail service including a new commuter rail stop at Tufts University or Gilman Square. Studies and conceptual design plans prepared in coordination with the DEIR concluded that to meet accessibility design requirements and maintain commuter rail, light rail and freight service along this portion of the ROW an additional track for freight service would be necessary, thereby increasing environmental impacts at either the College Avenue or Gilman Square Stations. MassDOT has therefore dismissed introduction of a commuter rail link along the Green Line Extension as a viable option at this time. The existing connection between the Green Line and the Lowell Commuter Rail Line will remain at North Station in Boston. Although not evaluated in the DEIR because it was not part of the Scope for that document, I note Congressman Capuano's recent comments regarding the possibility of providing commuter rail service at Union Square and ask that MassDOT consider whether such a measure would be possible in the future. While there may be similar challenges to integrating the commuter rail, freight and light rail networks in this area, MassDOT should consider possibilities for expansion of commuter rail service in the area during its ongoing transit planning efforts.

Maintenance Facility

The DEIR indicated that the capacity of the MBTA's Green Line system is constrained by the need for layover and maintenance facilities. Under existing conditions, there are no maintenance facilities located on the north side of the transit system in proximity to the proposed Green Line Extension. The preferred location for the Maintenance Facility presented in the DEIR is at a location known as Yard 8 with Adjacent Parcel (or simply, Yard 8), located in the Innerbelt/Brickbottom area of Somerville. The DEIR provided a general discussion of purpose and need for the facility, siting and program criteria, previous evaluations of potential facility locations, and a discussion of use of the MBTA Boston Engine Terminal (BET) Commuter Rail Maintenance Facility site in lieu of Yard 8.

During the public comment period on the DEIR, MassDOT issued a supplemental technical memorandum entitled, *Green Line Extension Project – Additional Maintenance Facility Alternatives Analysis*, dated December 9, 2009. This memorandum contained a preliminary analysis of two additional Maintenance Facility locations, the so-called "Mirror H" and "Option L" sites, and qualitatively compared them to Yard 8. The Mirror H site, proposed by the City of Somerville, straddles the InnerBelt area of Somerville and the North Point area of Cambridge. Option L, conceived by MassDOT, is located immediately adjacent to the MBTA's Commuter Rail Maintenance Facility at BET. The technical memorandum outlined the Maintenance Facility program and requirements (developed in consultation with MBTA operations and vehicle maintenance staff), provided a brief discussion of system operational impacts associated with each location, and qualitatively evaluated each location with regard to a set of evaluation criteria. Evaluation criteria included: ability to meet MBTA program requirements; cost; property impacts; operation impacts to the Green Line Extension and railroads; compatibility with other transportation proposals in the project area; compatibility with existing land use planning; future economic development opportunities; ability to meet project schedule; natural, physical, and social/cultural impacts to neighborhoods; and future vision transportation access.

Both MassDOT and I acknowledge the broad-sweeping opposition from elected representatives, municipal officials, and abutting residences and businesses to locating the Maintenance Facility at Yard 8. Concerns range from noise, vibration and air quality impacts, to potential reduction of economic development potential in the area, and the equitable distribution of transit system impacts. Therefore, as part of the FEIR, MassDOT will be required to provide an expanded analysis of potential Maintenance Facility locations as further outlined later in this Certificate.

Impacts to Land/Stormwater

The DEIR indicated that impacts to land were minimized through the placement of the project primarily within the existing MBTA Lowell Line and Fitchburg Line ROWs, avoiding larger acquisitions of buildings or open space. The DEIR identified anticipated land acquisition parcels (and therefore areas of land alteration) along the corridor, the cause of impact to each parcel, the acquisition area, and whether the parcels would be acquired partially or in full. Alternative 1 is estimated to require the acquisition of 10.1 acres of land along the Medford Branch and 1.4 acres of land along the Union Square Branch. The DEIR also calculated the

anticipated increase in impervious surfaces along the project corridor for each alternative. Alternative 1 will result in a total of 6.8 acres of new impervious area associated with the Medford Branch, Union Square Branch and Maintenance Facility.

The existing ROW ranges from 55 to 110 feet in width. The project will not alter any wetlands although the ROW will be modified significantly and vegetated banks will be replaced with retaining walls in some locations. Proposed retaining walls will include a “green” design component, which means that efforts will be made to use recycled or recyclable materials and to incorporate vegetation as part of the wall system. Landscape treatments will also be proposed on the slopes above the walls and to the greatest extent practicable at each station. Estimated amounts of earthwork could not be determined at this time based upon the level of design. Temporary land takings to facilitate the construction process may also be required and should be determined as planning and design advance. The MassDOT has committed that as the project progresses through preliminary engineering and final design to refine project designs to further minimize temporary and permanent property acquisitions (via reductions in earthwork, land alteration, etc.) to have the least possible impact on local neighborhood and property owners.

The DEIR included an overall conceptual drainage plan, identifying the major connection points to the existing stormwater system and anticipated stormwater management measures. The DEIR indicated that a Stormwater Pollution Prevention Plan (SWPPP) will be prepared prior to construction. MassDOT has committed to preparing a detailed long-term operations and maintenance plan for the stormwater management system. MassDEP has made several recommendations regarding station area and maintenance facility stormwater drainage design, which I encourage MassDOT to consider as design plans advance. I remind MassDOT that the project will contribute flows to existing stormwater discharges to Category 5 impaired waterbodies (Mystic and Charles Rivers) and stormwater management systems should be designed to address any applicable Total Maximum Daily Load (TMDL) requirements. MassDOT has committed to designing the drainage system to meet the MassDEP Stormwater Standards to the extent practical. The project will be required to achieve requisite NPDES permit obligations, including MS4 requirements to implement construction site runoff controls, post-construction runoff controls, and pollution prevention/good housekeeping measures.

Station Design and Locations

The DEIR proposed specific station locations selected based upon siting criteria consisting of, but not limited to, station access (including to identified EJ populations), transit operations and ridership goals, land use compatibility, and costs. Station locations and general design were also based upon input from the public at station workshops, and from public officials and federal and State code requirements on accessibility, level of service (LOS), passenger circulation, and safety requirements. None of the new station locations in Alternative 1 have park-and-ride facilities and therefore the ridership market for these stations are almost wholly defined as persons capable of accessing the station by non-vehicular means. Walk-access transit catchment areas of a one-mile radius were evaluated based on FTA’s requirements.

The DEIR included a discussion of the feasibility and advisability of location stations at Winthrop Street in Medford, and a location between Winthrop Street and College Avenue.

MassDOT evaluated both the physical environmental impacts stations at these locations may impose, but also the ridership market potential given the project and the Preferred Alternative. MassDOT concluded that based on their understanding of the ridership market, the Winthrop Street area could best be served by the proposed College Avenue Station and the future Mystic Valley Parkway/Route 16 station, while minimizing the impacts on area residents.

I acknowledge the MBTA comment letter which indicates that efforts will be made to properly size stations to limit overall environmental impacts. The MBTA has indicated that all stations will meet Americans with Disabilities Act (ADA), Massachusetts Architectural Access Board (MAAB) standards and the MBTA's settlement agreement with the Boston Center for Independent Living (BCIL); meet the applicable National Fire Protection Association (NFPA) standards; and be designed and built to be the most efficient and sustainable stations possible that function well and are integrated into the community.

The DEIR provided conceptual layout design plans and cross-section renderings of the stations that generally identified platform locations, access points, circulation patterns, bicycle storage areas, proximity to bus stops and crosswalks, and payment turnstiles. According to the DEIR, each station is envisioned to provide: a headhouse as a shelter for paid and unpaid lobbies with automated fare lines; vending machines; an information booth; and restrooms. Stations will also include: landscaping; bike racks; MBTA direction and spider maps; uniformly lit station platforms; tactile/Braille Station identification signs; and trash receptacles. Due to steep grade changes along the project route, many station platforms will be located at a different elevation than station access points. Entry to and exit from the platforms will be provided by elevators, escalators, and stairs. Finally, MassDOT has proposed a variety of "green" design elements to be incorporated into station design including high performance lighting, recycling stations, recycled content site and building materials as practicable, water efficiency measures, and where possible, maximization of building energy performance and implementation of an indoor air quality management plan.

As MassDOT refines project design plans, I encourage it to consider the many thoughtful comments I have received regarding station design, neighborhood integration, and station access. I note comments related to facilitating bus route/light rail station connections with bus pull-out areas, the potential advantages (or disadvantages) of kiss and ride drop offs, and bus route modifications to better integrate light rail stations with bus stops. As part of the Advisory Group process, station design issues germane to specific station locations, neighborhoods, and ridership needs should be collaboratively explored.

Air Quality

The DEIR included a mesoscale analysis to estimate area-wide emissions of VOCs, NO_x, CO₂, carbon monoxide (CO), and particulate matter (PM₁₀). The mesoscale analysis evaluated the changes in emissions levels based upon changes in the average daily traffic volumes, roadway lengths, and vehicle emissions rates. An evaluation of air toxics was also conducted. The DEIR also included a microscale analysis of CO, PM₁₀ and PM_{2.5} emissions. The microscale analysis estimated project related emission based on traffic and emissions data including, traffic volumes, VMT, signal cycle timing, physical roadway improvements, years of analysis and roadway speeds.

MassDOT consulted with MassDEP prior to conducting the analysis to develop appropriate modeling protocols. The air quality analysis compared the 2007 No-Build conditions with 2030 Build conditions, analyzing area-wide VMT reductions based upon new ridership projections for each alternative. The DEIR concluded that by 2030, ridership for Alternative 1 will generate 7,900 new transit trips per day, resulting in an area-wide reduction in daily VMT of 25,018.

In support of the air quality analysis, the DEIR included a discussion of the study methodology, National Ambient Air Quality Standards (NAAQS), and summary data for both the microscale and mesoscale studies for each alternative. The DEIR concluded that the 1-hour and 8-hour CO concentrations are below the CO NAAQS, the 24-hour PM₁₀ concentrations are below the PM₁₀ NAAQS, and the 24-hour PM_{2.5} concentrations are below the PM_{2.5} NAAQS. The DEIR also evaluated the potential PM_{2.5} air quality impacts associated with the relocation of the existing commuter rail tracks. While PM_{2.5} emissions will increase at both the nearest property line and residential building, the annual and 24-hour PM_{2.5} concentrations will remain below the NAAQS standards. The DEIR mesoscale analysis results indicate that Alternative 1 will result in an area wide emissions decrease of 17,115 kilograms per day (kg/day) for CO₂, 7.6 kg/day for VOCs, 4.4 kg/day for NO_x, and 0.8 kg/day for PM₁₀ when compared to the 2030 No Build condition.

The DEIR described the air quality benefits associated with this project and described its consistency with the State Implementation Plan (SIP) and MassDEP's Transit Regulations. The construction of the Green Line Extension from Lechmere Station to Medford Hillside and the construction of the Union Square spur of the Green Line before December 31, 2014 are codified in MassDEP's Transit System Improvement Regulations (310 CMR 7.36). These regulations do not include a specific geographic terminus of the Green Line within the Medford Hillside neighborhood. MassDOT has presented air quality data in the DEIR that, as confirmed by the comments submitted by MassDEP, are consistent with and meet the emission reduction requirements required under 310 CMR 7.36(8), *Determination of Air Quality Emission Reductions*. These requirements are also part SIP, which was approved in 2008 by the U.S. EPA.

I note comments received from the Conservation Law Foundation (CLF) indicating its belief that MassDOT has not demonstrated consistency with the SIP due to perceived errors in the air quality modeling methodology. After consulting with MassDEP and MassDOT, I respectfully disagree with this assertion. Transportation modeling is inherently fluid and dynamic; data inputs and modeling refinements are constantly integrated into updated modeling runs with an end goal of providing the most accurate and up to date predictions of actual transportation impacts possible. In acknowledgement of the anticipated evolution of modeling techniques and data inputs, the SIP provides a provision (310 CMR 7.36(9)) whereby upon substantial completion of a project, MassDOT shall complete an analysis of the total air quality benefits of such projects and such analysis shall be performed in accordance with U.S. EPA requirements in effect at the time of the analysis. Thus, the predictive modeling provided at this stage of project development is back-stopped by the use of actual data upon substantial completion of the project. This provides further support for the understanding that air quality data evolves over time through the use of updated modeling assumptions. However, I acknowledge that the air quality modeling methodology can be difficult for the average project reviewer to understand without the benefit of direct access to modeling experts. Therefore, as noted later in this Certificate, I have required MassDOT to

provide a narrative clarifying the relationships of air quality modeling data to MassDEP and EPA requirements for SIP consistency as part of the FEIR.

Transit Ridership

The DEIR estimated ridership methodologies, associated reductions in VMT (based on both new and diverted trips), operating parameters, vehicle requirements, headways, and travel times for each alternative. The model developed to calculate ridership provides projections for a forecast year of 2030 and assumes that a number of proposed transportation projects, including segments of the Urban Ring project Phase II and Silver Line Phase III projects and other area highway transportation projects consistent with the Regional Transportation Plan, will be implemented by this time. Operating plans were developed as an extension of the existing Green Line D and E Branch services, so as to minimize impact to the Central Subway system operations. Analyses conducted by the Central Transportation Planning Staff (CTPS) have concluded that all segments of the Green Line branches are capable of accommodating the peak transit loads in both the AM and PM peak hours and will not exceed the MBTA's maximum load service policy. The project does not propose to reduce bus service or bus operations within the service area. As requested by commenters, I encourage MassDOT to evaluate how existing bus service within the service area may be modified to provide improved or direct access to proposed light-rail stations in an effort to maximize ridership. This topic should be explored further in the context of the Advisory Group process. Construction activities should be structured to avoid or minimize any delays in service along the Lowell or Fitchburg commuter rail lines.

Traffic and Transportation

The DEIR analyzed existing and proposed conditions at a series of project area intersections selected subsequent to input from MassDOT, CTPS, MEPA, the City of Cambridge, the City of Somerville, and the City of Medford. The proposed 2030 traffic volume networks were developed by CTPS using its regional travel demand model and the model was run for each alternative at each selected project area intersection.

The DEIR analyzed traffic for existing, build and no-build conditions to evaluate the implications of the project for intersection LOS, pedestrian and bicycle circulation, intersection safety, and parking. The traffic analysis included the following areas:

- Mystic Valley Parkway/Route 16 and its intersections with Alewife Brook Parkway, Auburn Street and Winthrop Street;
- Boston Avenue and its intersections with High Street, Mystic Valley Parkway/Route 16, North Street, Winthrop Street, College Avenue, and Harvard Street;
- Broadway and its intersections with Boston Avenue and Winchester Street/Albion Street;
- College Avenue at its intersections with Powderhouse Boulevard/Broadway/Warner Street and George Street;
- Main Street at its intersections with High Street/Salem Street/Forest Avenue/Riverside Avenue, South Street and Mystic Valley Parkway/Route 16

eastbound ramps, Mystic Valley Parkway/Route 16 westbound ramps, Mystic Avenue, Harvard Street, and George Street;

- Medford Street and its intersections with Broadway, Lowell Street, Central Street, School Street, Pearl Street, Walnut Street, Highland Avenue, and Somerville Avenue;
- Highland Avenue and its intersections with Lowell Street, Central Street, School Street, and McGrath Highway;
- Washington Street and its intersections with Innerbelt Road, McGrath Highway/Route 28, Somerville Avenue/Webster Street and Beacon Street;
- Prospect Street and its intersections with Somerville Avenue, Webster Avenue, Cambridge Street and Hampshire Street;
- O'Brien Highway and its intersections with Third Street, Water Street, North First Street, Mid-Block Pedestrian Crossing, Land Boulevard/Gilmore Bridge; and Museum Way; and
- Cambridge Street at First Street.

According to the DEIR, future build model runs for Alternatives 1 through 6 were prepared by including the extended Green Line as a mode choice and quantifying the number of vehicle trips expected to change mode from passenger car to transit service. Using additional model runs, peak hour turning movements, estimates of pick-up/drop-off and park-and-ride trips were generated, and peak hour volumes were determined and incorporated into LOS analyses. These LOS analyses and model data were then used to identify potential mitigation measures into the roadway network and evaluate their effectiveness. The DEIR proposed mitigation measures for intersections where LOS E/F conditions resulted because of the Build Alternative and where LOS E/F conditions under the No-Build Alternative were notably worsened (generally an increase in control delay of more than ten seconds). Pedestrian LOS is not expected to change and in many cases will be improved. Currently-designated and future bicycle facilities will not be negatively impacted under Alternative 1.

Proposed vehicular, bicycle and pedestrian mitigation includes: traffic signal timing and phasing modifications; new traffic signal equipment; geometric modifications at intersections; new pavement markings; addition of 270 bicycle parking spaces; and pedestrian signal improvements at 29 locations. Traffic mitigation is proposed at six intersections:

- Boston Avenue at Winthrop Street;
- Boston Avenue at College Avenue;
- Washington Avenue at McGrath Highway;
- Prospect Street at Somerville Avenue;
- Washington Street at Somerville Avenue/Webster Street; and
- Medford Street at Pearl Street.

Design of these intersection mitigation measures, as well as the establishment of construction management and detour plans, should be reviewed and designed collaboratively with MassDOT, the City of Cambridge, City of Somerville, City of Medford, and respective Police and Fire Departments to ensure conformance with applicable standards and regulations.

The DEIR also discussed the project's relationship to O'Brien Highway reconstruction plans from Third Street to Museum Way associated with the Full-Build North Point development. While the traffic analysis assumes that all mitigation associated with North Point will be in place by 2030, delays in project development require that certain mitigation measures be implemented by MassDOT to mitigate impacts of the Green Line Extension. These intersection improvements have been incorporated into the list of traffic-related mitigation measures proposed by MassDOT in the DEIR.

As part of the project's mitigation package, MassDOT has pledged to work with cities to develop station-area parking enforcement plans. While parking enforcement is ultimately the responsibility of each municipality, I encourage an open dialogue between MassDOT and each city to establish parking management and enforcement plans that effectively mitigate illegal parking within one-half mile of the stations. Additionally, as station designs are advanced, I encourage MassDOT to revisit opportunities to reduce vehicular traffic associated with the introduction of new stations through strong emphasis on bus route, pedestrian, and bicycle connections.

Freight Service

As indicated in the DEIR, the project will operate adjacent to operating rail lines, including the MBTA Lowell Line, the MBTA Fitchburg Line, and Pan Am Railway's (PAR) Yard 8. Freight rail operations in the project area are provided by two railroads: CSX and PAR's Springfield Terminal Railway. The DEIR described existing rail operations and routes along the project corridor. With the exception of impacts within Yard 8, the expansion of Green Line service along the Lowell Line ROW is not anticipated to negatively impact freight rail service along the corridor. Freight rail service will be maintained throughout the construction period.

According to the DEIR, the main impact to freight operations will be the use of Yard 8 for the Maintenance Facility. All PAR movements arriving or departing via the MBTA Lowell Line pass through Yard 8. As currently proposed, the project would include the reconstruction of the adjacent Yard 10 lead track, to allow PAR to continue through operations or temporarily store freight cars. I note comments received from PAR on the DEIR and concerns raised regarding the potential impact of MassDOT's use of Yard 8 on PAR operations. These comments should be addressed as part of the Maintenance Facility portion of the FEIR scope outlined later in this Certificate.

Noise/Vibration

The DEIR presented an analysis of existing and proposed noise and vibration conditions along the project corridor, prepared based upon methodology defined in the FTA guidance manual *Transit Noise and Vibration Impact Assessment* (Report FTA-VA-90-1003-06, May 2006). The DEIR included a description of background information on the subject matter, a description of FTA sensitive land-use categories, identified sensitive locations along the corridor, and contained measurement results of the existing noise conditions for both noise and vibration impacts.

The DEIR states that the project corridor's existing noise environment is generally dominated by trains on the MBTA commuter rail lines. Existing noise measurements included nine long-term (24-hour) and seven short-term (1-hour) locations and calculated: Existing Day-Night Average Sound Levels (Ldn); Existing Peak-Transit Hour Sound Level (Leq); Commuter Train Noise Level (Lmax); and Distance to Nearest Track. These measurements were taken to characterize the existing noise environment along various segments of the project route. The DEIR measured reference vibration levels of the commuter and Amtrak trains at Tufts University Alumni Field and performed measurements of the vibration propagation characteristics of the soil at three locations along the proposed corridor (200 Innerbelt Road, 20 Vernon Street, and Tufts University Alumni Field). Measurements were conducted of train passbys at several distances from the track centerline (50 to 250 feet).

Proposed noise and vibration impacts were analyzed for the various Build Alternatives and the type and location of mitigation measures required to mitigate potential significant noise and vibration impacts were presented in the DEIR. The DEIR acknowledges that the project will add a new noise and vibration source to the environment along the project corridor. While there is an existing noise and vibration source along the ROW, relocating the commuter rail lines and adding new light rail lines have the potential to increase future noise at some noise-sensitive and vibration-sensitive receptors. The DEIR summarized noise level projections for sensitive receptors without mitigation and identified their location, distance from the tracks, existing noise levels, moderate and severe noise impact criteria, future predicted noise levels, increases in noise levels over existing conditions, and the number of "moderate" and "severe" impacted buildings. Alternative 1, without mitigation, would result in moderate noise impact to 120 residential buildings and three institutional buildings, and severe noise impact to 41 residential buildings and one institutional building. The DEIR stated that vibration impact from the commuter trains generally occurs within 60 feet of the future commuter rail near track centerline and within 40 feet of the proposed Green Line near track centerline. The DEIR summarized vibration level projections for sensitive receptors without and mitigation and identified their location, distance from the near track, maximum vibration velocities, the total number of impacted buildings, and which rail line was the cause of impact. For Alternative 1, without mitigation, vibration impact is projected at 90 residential buildings and three institutional buildings.

The DEIR stated that based upon the FTA guidance document, the project would mitigate both moderate and severe noise impacts wherever practical and wherever existing noise levels are above 65 dBA. The DEIR concluded that noise mitigation including noise barriers, sound insulation treatments, and rail lubrication would be feasible, reasonable, and effective in mitigating all potential noise impacts due to the project for all alternatives. The DEIR presented a goal for mitigating potential vibration impact below the impact criteria of 72 VdB for Green Line trains and 75 VdB for commuter trains. The DEIR concluded the vibration mitigation, including up to 19,700 track-feet of vibration mitigation such as ballast masts or resilient fasteners on the Green Line and relocated commuter rail tracks and the relocation or use of specially-engineered trackwork (flange-bearing or moveable-point frogs) for 12 crossovers and turnouts, would be effective in keeping future vibration levels at or below existing levels for commuter trains and below impact criterion for Green Line trains.

I received several comments questioning the validity of noise and vibration assessments at certain locations given that individual properties were not physically inspected. The level of noise and vibration assessment included with the DEIR is commensurate with the level of detail anticipated given the 10% design status of the project and effectively serves the MEPA process in identifying areas where mitigation will be necessary. The amount, type and specifics of noise and vibration mitigation appropriate for individual properties and structures will be refined during the ongoing design process in accordance with FTA guidance and standards. I have required MassDOT, as part of the scope for the FEIR, to provide a conceptual plan for evaluating, monitoring and compensating affected parties along the corridor with respect to noise and vibration.

Open Space and Historic Resources

As required, the DEIR included a discussion of the potential impact of the project on cultural resources including open spaces, historic properties and archaeological resources. This information was also prepared to fulfill the FTA's obligations under Section 106 of the National Historic Preservation Act and the Section 4(f) provisions of the U. S. Department of Transportation Act of 1966.

The DEIR identified and described public parks, recreation areas and conservation lands within an area of potential effect (APE) that extends approximately 100 feet on either side of the proposed rail corridors, station locations and maintenance and/or interim train storage facilities. It noted that none of the five areas identified within the APE will be directly affected by the project. It indicated that there would be an indirect effect on one site (Trum Playground) associated with an increase in noise levels. The DEIR indicated that expansion of the existing 5-foot noise barrier within the right-of-way to 10 feet would effectively mitigate associated impacts.

The DEIR summarized the historic and archaeological reconnaissance survey conducted within the APE; defined as an area extending 125 feet or one assessor's lot on either side of the proposed routes, station locations and maintenance and/or interim train storage facilities. It indicated that a total of 423 individual properties, two railroad corridor landscapes and 15 areas/districts were identified within the APE. Of these properties, four are individually listed in the National Register, 16 are recommended eligible for listing and 52 were previously recorded in the Inventory of Historic and Archaeological Resources of the Commonwealth. The DEIR noted direct impacts associated with removal of the existing Lechmere Station and re-construction of the station on the opposite side of O'Brien Highway. Indirect impacts associated with noise, vibration and changes to the visual setting may affect several properties identified in the DEIR.

The DEIR identified five areas where potentially significant archaeological resources may be located. It noted that previous activity within the corridor, including extensive earth moving and substantial filling, limit the possibility of finding intact archaeological deposits within the majority of the APE.

The DEIR indicated that mitigation will be provided for historic resources that are listed or eligible for listing in the National Register and that will be adversely affected by the Project. Mitigation for Lechmere Station will include archival documentation, consideration of salvage of

architectural elements of the Station and, potentially, interpretive signage. Other mitigation will include construction of noise walls and sound insulation. The DEIR indicates that design of the rail bed, ballast and track will incorporate measures to avoid impacts associated with vibration. To the extent that archaeologically sensitive areas are not avoided through project design, then the proponent will consult with MHC and FTA regarding the necessity of an intensive (locational) archaeological survey. MHC, in its role as the State Historic Preservation Officer (SHPO) will continue consultations with MassDOT and FTA regarding the development and refinement of project mitigation through the Section 106 process.

Hazardous Waste/Contaminated Soils

The Green Line Extension will traverse areas with a long-standing industrial and commercial history. As such, the project corridor contains numerous locations where impacted soil may be present and will require soil and/or groundwater remediation prior to or as part of project design or construction. Remediation will likely include removing contaminated soils and pumping contaminated groundwater in accordance with the provisions of the Massachusetts Contingency Plan (MCP), M.G.L. c.21E and c.21C, and the Resource Conservation and Recovery Act (RCRA).

The DEIR indicated that a Phase I Environmental Site Assessment (ESA) has been conducted for all the properties that are part of the land acquisitions for the project. As part of the Phase I ESA process, sites with Recognized Environmental Conditions (RECs) are evaluated. The DEIR included a description of each REC and its relative impact on proposed station sites and the Maintenance Facility site for each project alternative, along with respective Release Tracking Numbers (RTNs). The DEIR presented a general discussion of how the project will manage contaminated media and comply with applicable hazardous materials regulations for both soil and groundwater oil and hazardous materials (OHM).

The project will be required to comply with the MCP. The DEIR has indicated that at the completion of response actions for which an RTN has been obtained, but a closure report consisting of a Response Action Outcome (RAO) has not yet been submitted, a condition of No Significant Risk must exist as defined by the MCP. The MassDOT has indicated that a preferred outcome is a Class 1-A RAO in which contamination is reduced to background levels. In situations where a Class 1-A RAO cannot be supported, MassDOT should evaluate alternatives to a Class 1-A RAO designation. Proposed mitigation measures during construction may include special handling, dust control, and management and disposal of contaminated soil and groundwater.

MassDEP has indicated that if there is no pre-characterization of soils along the ROW, sampling of every 200 cubic yards of soils is recommended, including both the excavation piles and in-situ sampling. MassDEP notes that issues related to soil sampling, as further discussed in its comment letter, should be addressed prior to the 50-percent design stage of the project. MassDOT should consult with the MassDEP as project design proceeds and construction commences to ensure that planning and implementation of demolition and management of contaminated soils is performed consistent with applicable regulations and the recommendations made in the MassDEP comment letter.

Construction Period Impacts

MassDOT has acknowledged the challenges associated with the construction period impacts of such a complex project including: narrow roadways; traffic volumes; continuous access requirements to a variety of land uses; limited staging areas; and maintaining existing rail operations along the project corridor. Construction period mitigation measures must seek to minimize impacts to vehicular traffic, pedestrian and bicycle traffic, on-street parking, public access, and emergency access to local businesses and residences.

The DEIR included a conceptual construction sequencing and staging plan. Existing commuter rail and freight rail service will be maintained throughout the construction period. Alternative 1 will require the replacement of seven highway bridges and four railroad bridges, as well as the reconstruction of the Lechmere viaduct and the construction of two new viaducts at Red Bridge Junction to serve the Union Square Branch. The DEIR states that bridge reconstruction will be staged whenever possible to maintain traffic over respective bridges during construction; however, two bridges, Medford Street and Broadway Street in Somerville, will need to be closed during construction and detours established.

The project will also include numerous intersection upgrades to accommodate new transit stations, new traffic patterns and volumes, pedestrians, and bicycles. The DEIR outlined general criteria to be required for traffic management and construction staging along roadways and rail corridors. Blasting is not anticipated for construction of the project. Construction procedures will comply with MassDEP's Solid Waste and Air Quality Control regulations, rodent control policies will be implemented, and construction policies will require that all diesel construction equipment used on-site will be fitted with after-engine emission controls such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs). The project will comply with MassDEP's idling regulations (310 CMR 7.11) and MassDOT has committed to posting idling restriction signs on project construction sites. MassDOT should work with contractors to establish protocols to alleviate dust, noise, odor and nuisance conditions which may occur during construction.

Final identification of effective construction period mitigation measures requires advancement of project design. MassDOT must prepare a detailed plan to address myriad construction period impacts through coordination with the City of Cambridge, City of Somerville and City of Medford, and their respective Police and Fire Departments. I encourage MassDOT to also engage the broader community in the development of these plans as part of the mandated community outreach as project design is refined and prior to construction. As noted above, such a plan should seek to avoid, minimize and mitigate potential impacts to vehicular traffic, pedestrian and bicycle traffic, on-street parking, public access, emergency access to local businesses and residences, dust, noise, odor, rodents and construction-related nuisance conditions.

SCOPE

As discussed above, I am providing the following Scope for the preparation of a FEIR, limited to the topics outlined below. Although I recognize that this Scope will not address every issue raised by project commenters, I am confident that resolution of these remaining details will allow MassDOT to demonstrate that the project has fully complied with the requirements of MEPA. Additional topics will be addressed through the state and local permitting process and through MassDOT's ongoing community involvement processes.

The FEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Certificate. The FEIR should identify, describe and assess environmental impacts of any changes in the project that have occurred between the preparation of the DEIR and FEIR.

Maintenance Facility

Comment letters on the DEIR express a widespread lack of support for location of the Maintenance Facility at Yard 8 in Somerville. As part of the FEIR, MassDOT must expand upon the December 9, 2009 technical memorandum and provide a quantitative environmental analysis of both the Mirror H and Option L locations and include for comparative purposes the existing analysis of Yard 8. I note that comments submitted on the DEIR express preferences for both Mirror H and Option L, but based on the information and comments submitted to date, it appears that Option L may be the most feasible alternative location and the one with the fewest potential conflicts and impacts.

The analysis should expand upon the evaluation criteria presented in the technical memorandum (summarized on Page 4-1 of the report). The FEIR should provide a comprehensive analysis of Maintenance Facility siting and operations for not only these previously explored criteria but also on: land uses (including EJ populations), impervious area, parking, stormwater, hazardous materials, traffic, land acquisition, noise, vibration, air quality, open space, historic and archaeological resources, the Community Path, and construction period impacts.

The FEIR should provide a detailed assessment of Maintenance Facility sizing, and in exploring alternatives seek to minimize the project footprint and potentially reduce land acquisitions through innovative design (e.g., consolidating employee parking areas, shifting MBTA offices out of the Cobble Hill area property as suggested by Congressman Capuano, splitting storage and maintenance operations, etc.). The FEIR should evaluate impacts to freight operations for each design alternative, noting operational or deed restrictions that may hinder flexibility in Maintenance Facility siting or operations.

Air Quality

The FEIR should include a narrative discussion clarifying the air quality modeling assumptions, challenges associated with the inherent evolution of modeling programs and input data, and how the air quality modeling results were conducted in a manner that sufficiently demonstrated consistency with the SIP.

College Avenue Station

The DEIR presented a two phased approach to the Green Line Extension, with the initial phase terminating at College Avenue in Medford. In prior MEPA reviews and public meetings, the environmental impacts associated with College Avenue were reviewed within the context of functioning as an intermediate station along the project route. I have received numerous comments concerned about how the College Avenue Station will function for an undefined period as a terminus and the associated environmental impacts.

While MassDOT evaluated the College Avenue Station in the DEIR, it is unclear how modeling assumptions (pick-ups/drop offs, pedestrian trips, etc.) considered the unique attributes of a station acting as the terminus of a light rail line. The FEIR should revisit the DEIR models, revise as necessary to accurately assess the predicted function of the station, and describe differences in operations and mitigation measures between the DEIR and the FEIR, if any. The FEIR should clarify how College Avenue Station, functioning as a terminus, will impact traffic, parking, pedestrian, and bicycle operations within the study area and outline sufficient mitigation measures to offset identified negative impacts. The FEIR should describe Green Line operations at the proposed terminus (i.e. train reversals, temporary train storage, movement of personnel, etc.) and how the facility has been designed to accommodate terminal station ridership demand. The FEIR should clarify how train operations in Alternative 1 at this location may impact sensitive noise and vibration receptors, and present appropriate mitigation measures.

Lechmere Station

The project requires the relocation of the existing Lechmere Station in Cambridge. Lechmere Station presently functions as a northern terminus for Green Line operations, but will be transformed into an intermediate station for both the Medford and Union Square branches of the Green Line Extension. Lechmere Station is a hub for both Green Line light rail and MBTA bus routes and is currently integrated into the urban fabric, located between Cambridge Street and O'Brien Highway. The project will require the relocation of the station to the north side of O'Brien Highway, adjacent to a new street grid proposed as part of the North Point development project.

The FEIR should explore ways to reduce the proposed parking program (in light of the station no longer functioning as a terminus) and consider other design refinements to reduce impacts of the relocated Lechmere Station on abutting land uses (notably the Glass Factory Condominiums). I acknowledge the concerns regarding noise and vibration impacts and the potential for MBTA operational conflicts with residences closest to the station. Furthermore, I note concerns regarding pedestrian and bicycle safety in and around the new station location and

bus circulation routes. The FEIR should clarify modeling assumptions, and proposed station layout and mitigation measures that will be implemented to effectively and safely convey bus passengers, pedestrians and cyclists from the neighborhood to the relocated Lechmere Station. I do not expect MassDOT to present final station design and architectural drawings in the FEIR, as this is a level of detail that goes beyond the current design phase. Final station design should be explored further, as I have requested with other stations, during the public involvement process. However, the level of information presented in the FEIR should be of sufficient conceptual design to reflect anticipated station layout and operations, relationships to the broader transportation network, existing and permitted buildings, and where mitigation measures would be implemented.

Public Involvement Plan

As noted previously, a key to the overall success of the Green Line Extension project is the effective integration of light rail service into the existing urban landscape. To facilitate collaborative land use planning, review of advanced project design elements (notably station design), and implementation of mitigation measures, I am directing MassDOT to develop a Public Involvement Plan (PIP) for the project. The FEIR should present a PIP that clearly outlines how a broad range of participants (i.e., representatives of regional planning agencies, local government, business interests, community groups, representatives of EJ areas and the disabled community, abutters, and bicyclist and pedestrian groups) will continue to provide meaningful community involvement throughout the duration of the entire project, including detailed design, engineering, construction phases. This PIP should build on the lessons learned from the previous Advisory Groups convened in association with the project, consider ideas presented as part of the Community Corridor Planning Project, reflect comments received on the DEIR, and represent a serious commitment by both MassDOT and the MBTA to actively engage the public upon completion of MEPA review. I also expect that the PIP presented in the FEIR will provide not only a plan for procedural engagement of the various participants, but that it will also outline the primary substantive topics that are anticipated to be addressed through the PIP process.

Mitigation/Section 61 Findings

The FEIR should include a separate chapter on mitigation measures. This chapter on mitigation should include distinct draft Section 61 findings for each State Agency action. The draft Section 61 Findings should contain a clear commitment to mitigation, a schedule for implementation, an estimate of the individual costs of the proposed mitigation and the identification of the parties responsible for implementing the mitigation.

In response to the extensive comments received regarding future mitigation commitments on behalf of MassDOT and the MBTA, the FEIR should include a conceptual plan for evaluating, monitoring, and compensating affected parties along the corridor with a specific emphasis on, but not limited to, noise, vibration, and land acquisition impacts. This conceptual plan should address not only mitigation associated with the future ongoing operations of the Green Line Extension, but impacts uniquely limited to the construction period. I encourage MassDOT to integrate the components of this plan into the broader framework of the PIP to provide a forum for information sharing between future MassDOT studies and data and interested and affected parties.

Comments/Circulation

The FEIR should contain a copy of this Certificate and a copy of each comment letter received. The FEIR should respond fully to each substantive comment received to the extent that it is within MEPA jurisdiction. This directive is not intended to and shall not be construed to enlarge the Scope of the FEIR beyond what has been expressly identified in this Certificate.

In accordance with Section 11.16 of the MEPA Regulations and as modified by this Certificate, the MassDOT should circulate a hard copy of the FEIR to each State and city agency from which MassDOT will seek permits or approvals and to each of the City agencies that submitted comments. The MassDOT should also circulate a copy of the FEIR to those submitting individual written comments. To save paper and other resources, MassDOT may circulate the FEIR in CD-ROM format, although MassDOT should make available a reasonable number of hard copies, to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. MassDOT should send a notice of availability of the FEIR (including relevant comment deadlines and appropriate addresses) to those who signed the petition and for which addresses are available. In addition, a copy of the FEIR should be made available for public review at the Cambridge, Medford and Somerville public libraries.

January 15, 2010

Date



Ian A. Bowles

IAB/HSJ/hsj

Comments received:

10/26/2009	Dorie Clark
11/06/2009	Donald Burgess
11/11/2009	Charles Marquardt
11/12/2009	Diane Georgopoulos
11/16/2009	Frances Donovan
11/16/2009	Bob Nesson
11/16/2009	Alec Wysoker
11/16/2009	Juliette Rooney-Varga
11/16/2009	Charles Fineman
11/16/2009	John Paul
11/17/2009	Donna Keefe
11/17/2009	Bette Skandalis
11/18/2009	Massachusetts Historical Commission
11/18/2009	Brian McCarthy
11/18/2009	W. Scott Cooledge
11/19/2009	Adam Whelan

11/19/2009 K. McCarte
11/23/2009 Kevin Oliver
11/23/2009 Conservation Law Foundation
11/24/2009 John Read
11/30/2009 MassDOT November 18, 2009 Green Line Extension Hearing Transcript
12/02/2009 City of Medford Office of Human Diversity and Compliance
12/04/2009 Anthony Guarciariello & Bernie Costanzo
12/09/2009 Arnold Reinhold
12/11/2009 Keelin Deasy
12/14/2009 State Senator Patricia Jehlen, 2nd Middlesex District
12/15/2009 Cynthia Maurice
12/22/2009 William Uricchio
12/23/2009 David Tonnesen
12/23/2009 Terri Anderson
12/23/2009 William Bennett
12/23/2009 Rebecca Altepeter
12/23/2009 Cheryl Bakey
12/23/2009 Alden Zecha
12/23/2009 Cynthia Pellegrini
12/23/2009 Sam Smiley
12/23/2009 Ulandt Kim
12/23/2009 William Gilligan
12/23/2009 Lana Hermann
12/23/2009 Linda Goulet
12/23/2009 Pamela Su
12/23/2009 Jeff Altepeter
12/23/2009 Max Fine
12/23/2009 Matthew Fallon
12/23/2009 Debra Olin
12/23/2009 Dan Berman
12/23/2009 Jill Slosburg-Ackerman
12/23/2009 Bonnie Borthwick
12/23/2009 Chris Mesarch
12/23/2009 David Sholl
12/23/2009 Sherry Autor
12/23/2009 Beverly Sky
12/23/2009 Caroline Traugott
12/23/2009 Lois Bennett
12/23/2009 Kyle Grady
12/23/2009 Gina Kamentsky
12/23/2009 Lanna Grady
12/23/2009 City of Medford Energy and Environment Office
12/24/2009 Sierra Club
12/28/2009 Medford Fire Department
12/28/2009 Raymond Nagem
12/28/2009 Laurel R.T. Ruma

12/28/2009 Michael Korczynski
12/29/2009 Raymond Nagem – 2nd letter
12/29/2009 Samantha Butler
12/29/2009 Julia Shepley
12/29/2009 Brendan Driscoll
12/30/2009 City of Medford Office of Veterans' Services
12/30/2009 Alisa Wolf
12/30/2009 Marc Davidson
12/30/2009 Pauline Lim
12/30/2009 April Evans
12/31/2009 David Douglas
12/31/2009 Kevin Costello & Bethany Morris
12/31/2009 Alan Greene
01/01/2010 Michael Adamian
01/01/2010 Matthew Alford
01/01/2010 Christopher Bader
01/01/2010 Len Brault
01/02/2010 Chris Braiotta
01/02/2010 bovamarie@comcast.net
01/02/2010 Lois Grossman
01/02/2010 Jill Richard
01/03/2010 David Anderson
01/03/2010 Connie Blaszczyk
01/03/2010 Alan Brody
01/03/2010 Bathsheba Grossman
01/03/2010 Kevin Mitchell
01/03/2010 Mini Ann Polumbaum
01/03/2010 Marsha Goldberg
01/03/2010 David & Jane Dahlbacka
01/03/2010 Margaret Weigel
01/03/2010 Jessica Zeigler
01/04/2010 City of Medford Department of Public Works
01/04/2010 Robert G. Martel, Property Manager Brickbottom Condominium Trust
01/04/2010 Rebecca Didier
01/04/2010 Gerry Cronin
01/04/2010 Deborah Davidson
01/04/2010 Phyllis Ewen
01/04/2010 Steve Gottlieb
01/04/2010 Kevin White
01/04/2010 Robin Severino
01/04/2010 Lynn Rosenbaum
01/04/2010 Jeff Reese
01/04/2010 Cummings Foundation, Inc.
01/04/2010 Cummings Properties, LLC
01/04/2010 Martha Stone
01/04/2010 Justine Kahn

01/05/2010 City of Medford Office of Community Development
01/05/2010 City of Medford Office of the Building Commissioner
01/05/2010 Craig Kelley, Cambridge City Councilor
01/05/2010 Mayor Michael J. McGlynn, City of Medford
01/05/2010 K. Tracy Munn
01/05/2010 Keith Fallon
01/05/2010 Lois Fiore
01/05/2010 Priscilla Lamb Kennedy
01/05/2010 Lana Hermann – 2nd letter
01/05/2010 Mark Jaquith
01/05/2010 Damien DiBona
01/05/2010 Adelaide Smith
01/05/2010 Stuart & Lana Camiel
01/05/2010 Connie Blaszczyk – 2nd letter
01/05/2010 Norman Fine
01/05/2010 Chris Leary
01/05/2010 Dan Tremitiere
01/05/2010 Stephen Paul Linder
01/05/2010 Bill Kipp
01/05/2010 Dennis Dunn
01/05/2010 Elissa Katler
01/05/2010 M. Susanna Darling
01/05/2010 Lisa Gordon
01/05/2010 Ramon Bueno
01/05/2010 Joelle Bueno
01/05/2010 Andres Bueno
01/05/2010 Steven Troian
01/05/2010 Patrick Chasse
01/05/2010 Catherine Truman
01/05/2010 Ally Hines
01/05/2010 Debra Weisberg
01/05/2010 Paula Brody
01/05/2010 George Gabin
01/05/2010 Susan Strauss – Fitchburg Street, Somerville
01/05/2010 Pauline Lim – 2nd letter
01/05/2010 Jayme Lacour
01/05/2010 Lee Busch
01/05/2010 Jim McGinnis
01/05/2010 Chris and Taco Matthews
01/06/2010 United States Congressman Michael Capuano, 8th District Massachusetts
01/06/2010 Stephanie Muccini Burke, Medford City Councilor
01/06/2010 Livable Streets Alliance
01/06/2010 Union Square Main Streets
01/06/2010 Karen Holtzman & Thomas Gardon
01/06/2010 Dina Rudick
01/06/2010 Jessica Straus

01/06/2010 Felice Regan
01/06/2010 Tara Urspruch
01/06/2010 James Campen
01/06/2010 Sylvie Vincent
01/06/2010 Erik Jacobs
01/06/2010 Walter Gilbert
01/06/2010 Tom Devlin
01/06/2010 Irving Camiel and Lawrence E. Johnson
01/06/2010 David Filimon
01/06/2010 Carla Wilbur
01/06/2010 Brian Flynn
01/06/2010 Jeffrey Davis
01/06/2010 Kate Snodgrass
01/06/2010 Don Walker & Vicki Halal
01/06/2010 Shuba Rajashri Iyengar
01/06/2010 Celia Gilbert
01/06/2010 W. Scott Cooledge – 2nd letter
01/06/2010 Kay Canavino & Patricia Lyga
01/06/2010 Rob Kassel
01/06/2010 Robin Johnson
01/06/2010 Fernando Colina
01/06/2010 Vaughan Rees
01/06/2010 Anthony Espy
01/06/2010 Shriram Nallamshetty
01/06/2010 John Baehrend
01/06/2010 Paul Cote
01/07/2010 State Representative Timothy J. Toomey, Jr., 26th Middlesex District
01/07/2010 Brickbottom Artists Building/Condominium Trust
01/07/2010 Green Line Advisory Group for Medford (GLAM)
01/08/2010 Kimberly Wolfram
01/07/2010 Doug Carr
01/07/2010 Laurinda Bedingfield
01/07/2010 Francis Brown
01/07/2010 John Bay
01/07/2010 Peter Gee
01/07/2010 Rita Donnelly
01/07/2010 Sarah Bapst
01/07/2010 Robert Mantell
01/07/2010 Jenny Bauer
01/07/2010 Jurgen Weiss
01/07/2010 Rex Gonsalves
01/07/2010 John Harding
01/07/2010 Donna Laquidara – Carr
01/07/2010 Jordana Psiloyenis
01/07/2010 Tom Meek
01/07/2010 Barry Rafkind

01/07/2010 Rolando Carrera
01/07/2010 Lucy Chen
01/07/2010 Sara Rosenfeld
01/07/2010 Carolyn Ross
01/07/2010 Jared Ingersoll
01/07/2010 Christopher DesAutels
01/07/2010 Jennifer DeAutels
01/07/2010 Jack Beusmans
01/07/2010 Nicholas Watson
01/07/2010 Melissa Glenn Haber
01/07/2010 Alex & Ami Feldman
01/07/2010 Elaine Krohn
01/07/2010 Kate Zebrose
01/07/2010 Steve Mulder
01/07/2010 Phil Goff
01/07/2010 Eve Melnechuk
01/07/2010 Max Malaret
01/07/2010 Susan Strauss – Willoughby Street, Somerville
01/07/2010 Jennifer Mazer
01/07/2010 Adam Chiavoli
01/07/2010 Lynn Sahaida
01/07/2010 Peter Ungaro
01/07/2010 George Perkins
01/07/2010 Susan Barry & Seth Boyd
01/07/2010 Alex Epstein
01/07/2010 Naomi Slagowski
01/07/2010 Ellin Reisner
01/07/2010 Charles Marquardt – 2nd letter
01/07/2010 Bathsheba Grossman – 2nd letter
01/07/2010 James O’Keefe
01/07/2010 Samir Charnalia
01/07/2010 Umair Khan
01/07/2010 Grace Karg
01/07/2010 Charles McNeil
01/07/2010 Florence Gates
01/07/2010 Marc Mcharo
01/07/2010 Loudes Esparragoza
01/07/2010 Chandace Arledge
01/07/2010 Neil Fennessey
01/07/2010 Edward Batista, Jr.
01/07/2010 Jose Borges
01/07/2010 Sotiris Stefanopoulos
01/07/2010 Lena Matranga
01/07/2010 Dr. William Wood
01/07/2010 Patricia Mason
01/07/2010 Harpreet Pall

01/07/2010 Kenneth Krause
01/07/2010 Betty Lee Saccoccio
01/07/2010 Trustees of University Place Condominiums
01/08/2010 Arlington Transportation Committee
01/08/2010 Wachusett Greenways
01/08/2010 Walk Boston
01/08/2010 Massachusetts Department of Conservation and Recreation
01/08/2010 Somerville Transportation Equity Partnership (STEP)
01/08/2010 Conservation Law Foundation – 2nd letter
01/08/2010 Metropolitan Area Planning Council
01/08/2010 William A. White, Jr., City of Somerville, Alderman at Large
01/08/2010 Glass Factory Condominium Trust
01/08/2010 Medford Green Line Neighborhood Alliance (MGNA)
01/08/2010 Massachusetts Department of Environmental Protection - Boston
01/08/2010 Somerville Chamber of Commerce
01/08/2010 Frederick N. Dello Russo, Jr., Medford City Councilor
01/08/2010 Tufts University
01/08/2010 Jeffery L. Roelofs, P.C. (on behalf of the Brickbottom Condominium Trust)
01/08/2010 Friends of the Community Path
01/08/2010 State Senator Patricia Jehlen, 2nd Middlesex District (2nd letter)
01/08/2010 Pan Am Railways
01/08/2010 State Representative Carl M. Sciortino, Jr., 34th Middlesex District
01/08/2010 State Representative Denise Provost, 27th Middlesex District
01/08/2010 Massachusetts Bay Transportation Authority
01/08/2010 Mayor Joseph A. Curtatone, City of Somerville
01/08/2010 City of Somerville Office of Strategic Planning and Community Development
01/08/2010 Medford Police Department
01/08/2010 Professional Services Corporation, PC (on behalf of Brickbottom Condominiums)
01/08/2010 Massachusetts Department of Environmental Protection - NERO
01/08/2010 Mass Central Rail Trail Coalition
01/08/2010 City of Somerville Board of Aldermen
01/08/2010 City of Cambridge Executive Department
01/08/2010 East Cambridge Planning Team
01/08/2010 Barbara Boussard
01/08/2010 Lee Auspitz
01/08/2010 Stephen H. Kaiser, PhD.
01/08/2010 Josh Smift
01/08/2010 Sam Crosbie
01/08/2010 Peter Bronk
01/08/2010 Stephanie Rubino
01/08/2010 Brian Hilliard
01/08/2010 Taeshin Park
01/08/2010 Lisa Hodsdon
01/08/2010 Joel Weber
01/08/2010 Anne Tate
01/08/2010 David Tremblay

01/08/2010 Patty Caya
01/08/2010 Amy Semmes
01/08/2010 Anita Suhanin
01/08/2010 David Crosbie
01/08/2010 Michael Quinn
01/08/2010 Sarah McClellan
01/08/2010 Sheila Gilmartin
01/08/2010 Daniel Hamalainen
01/08/2010 Michael Bernstein
01/08/2010 Marwa Elsabbahy
01/08/2010 Chadi Chemaly
01/08/2010 Jason Baklavas
01/08/2010 Ayesha Tariq
01/08/2010 Derek Arledge
01/08/2010 Chantel & Gregory Kosmidis
01/08/2010 Ellen Young
01/08/2010 Maggie Villiger
01/08/2010 Peter Hill
01/08/2010 Scott Clark
01/08/2010 Lynne Weiss
01/08/2010 Stephen & Gail King
01/08/2010 Satish Katpally
01/08/2010 Robert Feigin
01/08/2010 Tami Kaplan
01/08/2010 John Shayeb
01/08/2010 Kimberly Rzepecki
01/08/2010 Carole Samworth
01/08/2010 Sallyann Roth
01/08/2010 KyAnn Anderson
01/08/2010 Stephanie Geuns-Meyer
01/08/2010 Hans Geuns-Meyer
01/08/2010 Somerville Community Corporation
01/08/2010 Somerville Climate Action
01/08/2010 Alan Moore
01/08/2010 Stephanie Zawacki
01/08/2010 Groundwork Somerville
01/08/2010 Jimmy Zhang
01/08/2010 Jonathan Herzog
01/08/2010 Natasha Burger
01/08/2010 Christopher Park
01/08/2010 Linda Tamulaites
01/08/2010 Jay Wasserman
01/08/2010 John Howe
01/08/2010 David Zawacki
01/08/2010 Alice Grossman
01/08/2010 Jennifer Harris

01/08/2010 Sharman Gingrich and Christopher Harris
01/08/2010 Roberta Cameron
01/08/2010 Sandra Kosta
01/08/2010 Roger Johnsen
01/08/2010 Christopher Kaneb
01/08/2010 Laurel Siegel
01/08/2010 Maria Simoneau
01/08/2010 David Adriaansen
01/08/2010 Patricia Lyga
01/08/2010 Somerville Community Health Agenda
01/08/2010 Mystic River Watershed Association
01/08/2010 Karen Molloy
01/08/2010 Ivy Turner
01/08/2010 Jeff Levine
01/08/2010 Tai Dinnan
01/08/2010 Bhupesh Patel
01/08/2010 Mary Anne Adduci
01/08/2010 Maria Daniels
01/08/2010 Michael & Jacqueline Heath
01/08/2010 Ravi and Stephanie Kamath
01/08/2010 Diolinda Vaz
01/08/2010 Kevin Guiney
01/08/2010 Jane Fair Bester
01/08/2010 Fred Berman
01/08/2010 Mary Regan
01/08/2010 Chip Olson
01/08/2010 Chris Dewing
01/08/2010 Adam Chamberlin
01/08/2010 Olivia Huval
01/08/2010 Tania Ahamed
01/08/2010 Anthony Lorenzo
01/08/2010 Cvetiva Popu
01/08/2010 Elias El-Wadi
01/08/2010 Gerry Cronin – 2nd letter
01/08/2010 Suzanne Lipsky
01/08/2010 Jennifer Lawrence
01/08/2010 Gail McCormick
01/08/2010 Richard Nilsson
01/08/2010 Peter Marquez
01/08/2010 Elizabeth Bayle
01/08/2010 Marc Verhagen & Ann Gallagher
01/08/2010 John Roland Elliott
01/08/2010 Charles Cameron
01/08/2010 Piotr Parda
01/08/2010 Marilyn Pappas
01/08/2010 Cornelia Davis

01/08/2010 Margery Hamlen
01/08/2010 Margaret Webster
01/08/2010 Thomas Lincoln
01/08/2010 Susan Schmidt
01/08/2010 Donna Brallier
01/08/2010 Heather Hoffman
01/08/2010 Christopher Beland
01/08/2010 Krogen Carreno
01/08/2010 Barbara Steiner
01/08/2010 Roy Rudolph
01/08/2010 Heather Van Aelst
01/08/2010 John Dieckmann
01/08/2010 Michael Sandler
01/08/2010 Randal Thurston
01/08/2010 James Feldman
01/08/2010 Loius Geppetti
01/08/2010 Maia Mamulashuili
01/08/2010 Jane Owen
01/08/2010 Sarah Bapst
01/08/2010 Alyson Schultz
Petition with 232 signatures opposing Yard 8
Petition with 143 signatures from the Community Corridor Planning Project
175 form letters/signatures from Change.org
9 comment letters with no signature or illegible signatures

Late Comments:

01/11/2010 Institute for Human Centered Design
01/11/2010 Stephen H. Kaiser, PhD. (2nd comment)
01/11/2010 Massachusetts Water Resources Authority
01/12/2010 Gabrielle Rossmer Gropman
01/12/2010 Breanna Lungo-Koehn, Medford City Councilor
01/13/2010 Rachel Rockenmacher

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Attachment 3 – Figures

- USGS Project Boundary and Location
- Previously Reviewed Build Condition – Mystic Valley Parkway Station Layout
- Currently Proposed Build Condition – Mystic Valley Parkway Station Layout
- Currently Proposed Build Condition – Transportation
- Currently Proposed Build Condition – Historic Properties
- Medford Green Line Neighborhood Alliance (MGNA) Concept Rendering for Mystic Valley Parkway Station (dated September 1, 2015)
- MGNA Concept Site Plan for Mystic Valley Parkway Station (dated September 1, 2015)

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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PROPOSED MYSTIC VALLEY PARKWAY STATION

Terminus of current Green Line Extension Project

COLLEGE AVENUE

massDOT

Massachusetts Bay Transportation Authority

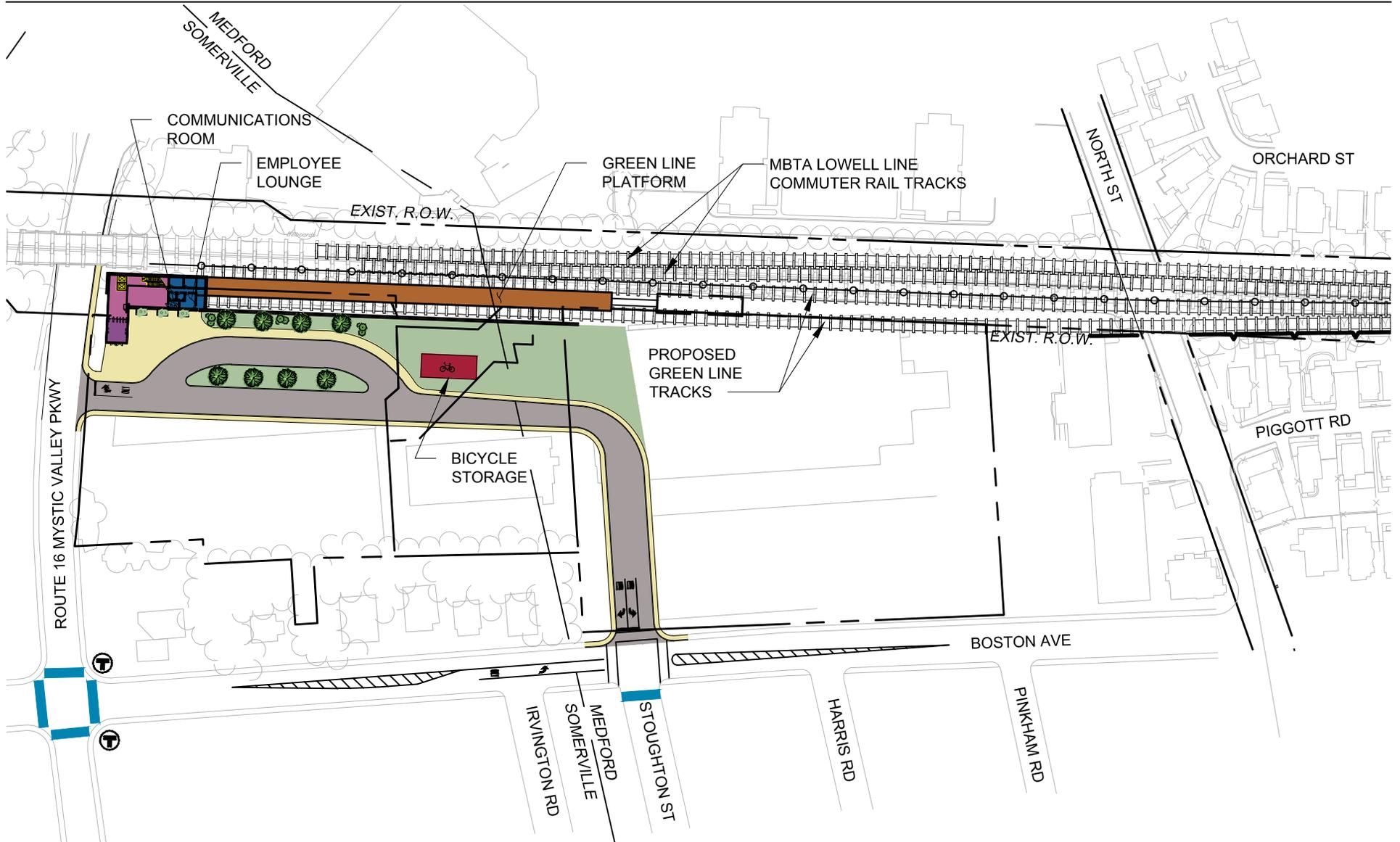
- Legend
- MBTA Station
 - Project Area
 - Municipal Boundary

Green Line Extension Project

USGS Project Boundary and Location Somerville and Medford, Massachusetts



Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs



T Massachusetts Bay Transportation Authority

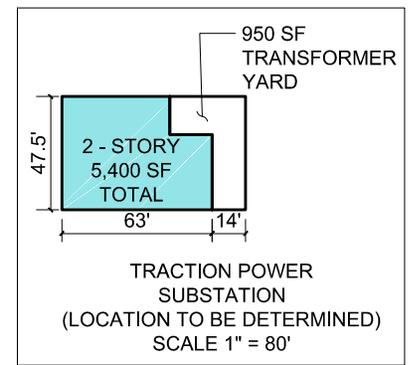
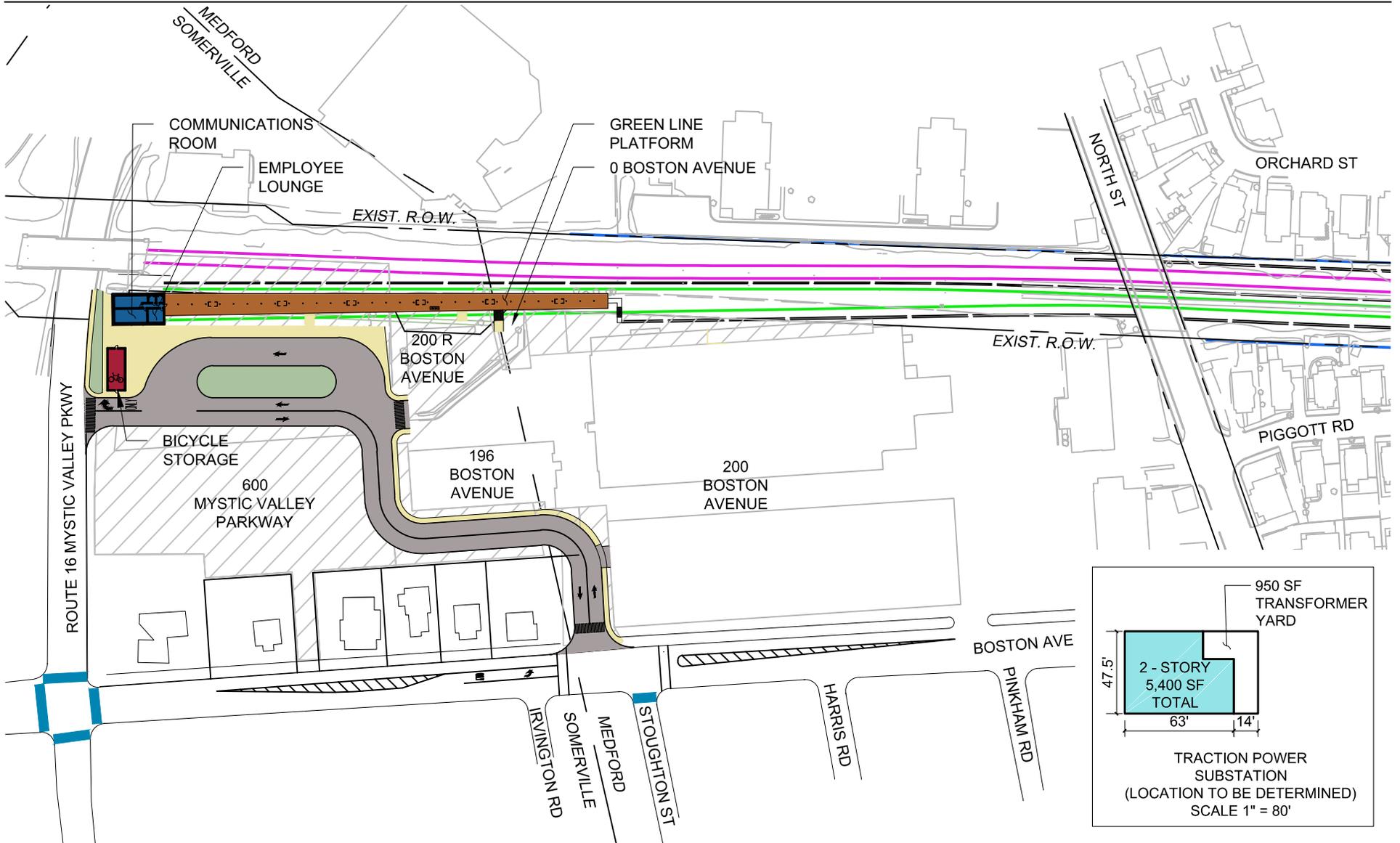
Legend

- | | | | | | |
|--|--------------------|--|-------------------|--|-------------------------|
| | Property Line | | Platform | | MBTA Bus Stop |
| | Retaining Wall | | Station Concourse | | Proposed Traffic Signal |
| | Fence | | Station Entry | | New Sidewalk |
| | Proposed Track | | Service Areas | | New Landscaping |
| | Existing Track | | Elevators | | New Pavement |
| | Limit of Structure | | Escalators | | |
| | Area of Refuge | | Stairs | | |
| | Doors | | Bicycle Storage | | |
| | Turnstiles | | | | |

Green Line Extension Project

Previously Reviewed Build Condition
Mystic Valley Parkway Station Layout

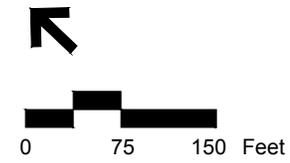




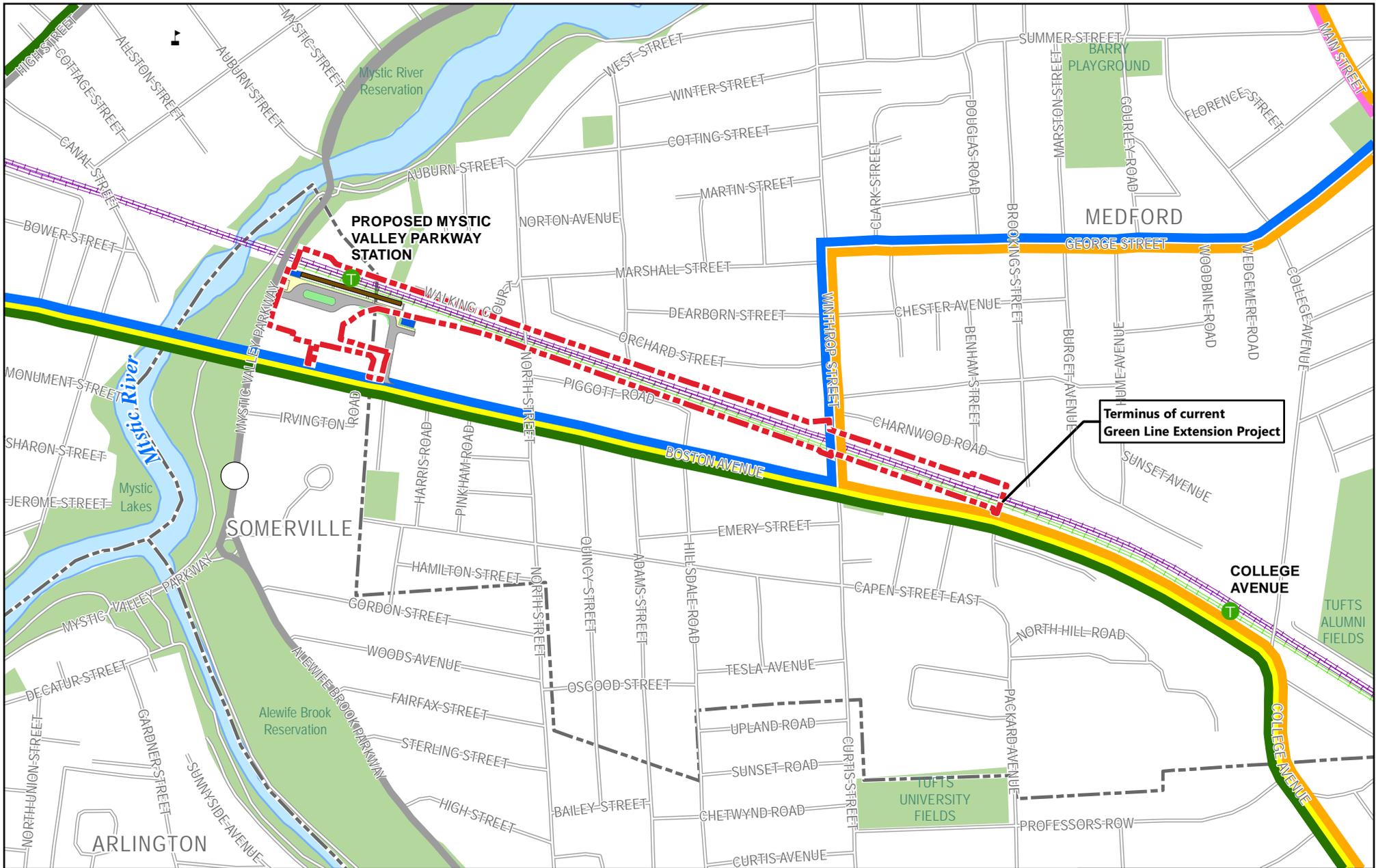
Legend	
	Platform
	Service Areas
	Bicycle Storage
	New Sidewalk
	New Landscaping
	New Pavement
	Assumed Property Acquisition
	Proposed Green Line Tracks
	Proposed Commuter Rail Tracks
	Proposed Noise Walls
	Proposed Retaining Walls

Green Line Extension Project

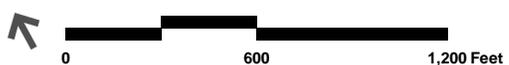
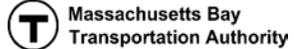
Currently Proposed Build Condition
 Mystic Valley Parkway Station Layout



Substation Location To Be Determined



Terminus of current Green Line Extension Project



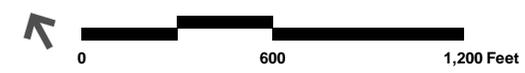
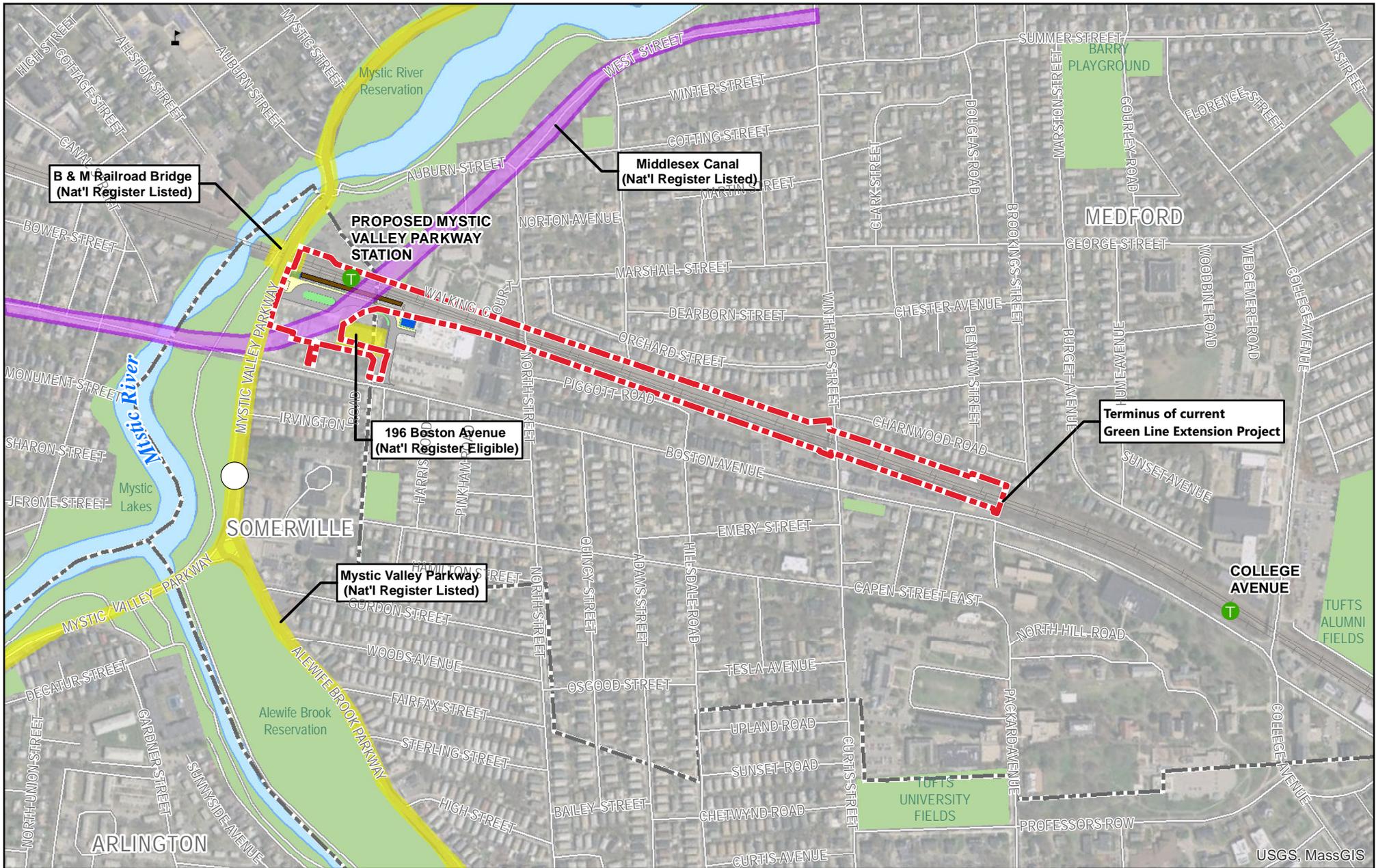
Legend

-  Proposed Station
-  School
-  Project Area
-  Protected and Recreational Open Space
-  Municipal Boundary
-  MBTA Green Line Extension
-  MBTA Commuter Rail
-  Platform
-  Service Area
-  New Landscaping
-  New Sidewalk
-  New Pavement
-  MBTA Bus 80
-  MBTA Bus 94
-  MBTA Bus 96
-  MBTA Bus 101 (Inbound)
-  MBTA Bus 101 (Outbound)

Green Line Extension Project

Transportation
Somerville and Medford, Massachusetts

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs



- Legend**
- Proposed Station
 - Project Area
 - Protected and Recreational Open Space
 - Municipal Boundary
 - MBTA Rail Line

- Platform
- Service Area
- New Landscaping
- New Sidewalk
- New Pavement

- Historic Resource
- Archaeological Resource

Green Line Extension Project

Historic Properties
Somerville and Medford, Massachusetts

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs

Provided by the MGNA Stakeholder Group to be Assessed in the future EIR



September 1, 2015
Mystic Valley Parkway Green Line Station Concept Rendering



September 1, 2015

Mystic Valley Parkway Green Line Station Concept Site Plan



**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Attachment 4 – Circulation List

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Circulation List

In accordance with Section 11.10(7) of the Massachusetts Environmental Policy Act (MEPA) regulations at 301 CMR 11.00, this Notice of Project Change is being distributed to the following governmental agencies and other parties via an email notification that the Notice of Project Change is available on the Project website (<http://www.greenlineextension.org>). Copies of the document are also made available at the listed libraries. To request a copy of the document, please contact Lois Baxter at (617) 222-3124 or at lbaxter@mbta.com

Federal Agencies and Elected Officials

Senator Elizabeth Warren
2400 JFK Federal Building
15 New Sudbury Street
Boston, MA 02203

Senator Edward Markey
975 JFK Federal Building
15 New Sudbury Street
Boston, MA 02203

Representative Michael Capuano
Attn: Jonathan Lenicheck
110 First Street
Cambridge, MA 02141

Representative Katherine Clark
701 Concord Avenue, Suite 101
Cambridge, MA 02138

Federal Transit Administration, Region 1
Attn: Mary Beth Mello
Regional Administrator
55 Broadway, Suite 920
Cambridge, MA 02142-1093

Federal Transit Administration, Region 1
Attn: Peter Butler
Deputy Regional Administrator
55 Broadway, Suite 920
Cambridge, MA 02142-1093

State and Regional Agencies and Elected Officials

Senator Patricia Jehlen
State House, Room 424
Boston, MA 02133

Senator Joseph Boncore
State House, Room 112
Boston, MA 02133

Senator Sal DiDomenico
State House, Room 208
Boston, MA 02133

Representative David Rogers
State House, Room 472
Boston, MA 02133

Representative Marjorie Decker
State House, Room 166
Boston, MA 02133

Representative Mike Connolly
State House, Room 33
Boston, MA 02133

Representative Jonathan Hecht
State House, Room 22
Boston, MA 02133

Representative Jay Livingstone
State House, Room 472
Boston, MA 02133

Representative Sean Garballey
State House, State House, Room 540
Boston, MA 02133

Representative Paul J. Donato
State House, Room 481
Boston, MA 02133

Representative Denise Provost
State House, Room 473B
Boston, MA 02133

Representative Christine Barber
State House, Room 473F
Boston, MA 02133

Representative Byron Rushing
State House, Room 234
Boston, MA 02133

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston, MA 02114

Department of Environmental Protection
Commissioner's Office
One Winter Street
Boston, MA 02108

Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, MA 01887

Department of Environmental Protection
Air Quality Program
One Winter Street
Boston, MA 02108

Massachusetts Department of Transportation
District Highway Director – District 4
519 Appleton Street
Arlington, MA 02476

Massachusetts Department of Transportation
Attn: MEPA Coordinator
10 Park Plaza, Suite 3170
Boston, MA 02116

Massachusetts Historical Commission
The Massachusetts Archive Building
Attn: Brona Simon, Executive Director
220 Morrissey Boulevard
Boston, MA 02125

Massachusetts Water Resources Authority
Program Manager, Regulatory Compliance
Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Boston Region Metropolitan Planning
Organization c/o Central Transportation
Planning Staff
10 Park Plaza, Room 2150
Boston, MA 02116

Metropolitan Area Planning Council
60 Temple Place, 6th Floor
Boston, MA 02111

Municipalities
Somerville

Joseph Curtatone, Mayor
Office of the Mayor
Somerville City Hall
93 Highland Avenue
Somerville, MA 02143

William A. White, Jr.
Alderman at Large, President
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Katjana Ballantyne
Vice President
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

John M. Connolly
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Dennis M. Sullivan
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Mary Jo Rossetti
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Matthew McLaughlin
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Maryann M. Heuston
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Robert J. McWatters
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Tony Lafuente
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Mark Niedergang
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Lance Davis
Somerville Board of Aldermen
93 Highland Avenue
Somerville, MA 02143

Somerville Board of Health
Attn: Health Department Director
City Hall Annex
50 Evergreen Avenue
Somerville, MA 02145

Somerville Bicycle Committee
City Hall
93 Highland Avenue
Somerville, MA 02143

Somerville City Clerk
93 Highland Avenue
Somerville, MA 02143

Somerville Conservation Commission
93 Highland Avenue
Somerville, MA 02143

Somerville Office of Strategic Planning and
Community Development
Attn: Brad Rawson
93 Highland Avenue
Somerville, MA 02143

Somerville Department of Public Works
1 Franey Road
Somerville, MA 02143

Cambridge

E. Denise Simmons
Mayor
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Marc C. McGovern
Vice Mayor
City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Dennis J. Carlone
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Lelund Cheung
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Jan Devereux
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Craig Kelley
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

David P. Maher
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Nadeem A. Mazon
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Timothy J. Toomey
Cambridge City Council
795 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Louis DePasquale
City Manager
Cambridge City Hall
795 Massachusetts Avenue
Cambridge, MA 02139

Cambridge City Clerk
City Hall
Attn: Donna P. Lopez
795 Massachusetts Avenue
Cambridge, MA 02139

Cambridge Traffic, Parking & Transportation
Department
Attn: Joseph E. Barr
344 Broadway
Cambridge, MA 02139

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Cambridge Community Development
Department
Attn: Susanne Rasmussen
344 Broadway
Cambridge, MA 02139

Cambridge Historical Commission
Attn: Charles M. Sullivan
Lombardi Building
831 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139

Cambridge Conservation Commission
344 Broadway
Cambridge, MA 02139

Cambridge Health Department
119 Windsor Street, Ground Floor
Cambridge, MA 02139

Medford

Stephanie M. Burke, Mayor
City of Medford
Medford City Hall
85 George Hassett Drive
Medford, MA 02155

Richard Caraviello
Medford City Council President
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Michael J. Marks
Medford City Council Vice President
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Frederick N. Dello Russo, Jr.
Medford City Councilor
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

John C. Falco
Medford City Councilor
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Adam Knight
Medford City Councilor
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Breanna Lungo-Koehn
Medford City Councilor
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

George A Scarpelli
Medford City Councilor
Medford City Hall
85 George P. Hassett Drive, Room 207
Medford, MA 02155

Medford City Clerk
85 George Hassett Drive
Medford, MA 02155

Medford Energy and Environment Office
85 George Hassett Drive
Medford, MA 02155

Medford Office of Veterans' Services
85 George Hassett Drive
Medford, MA 02155

Medford Department of Public Works
85 George Hassett Drive
Medford, MA 02155

Medford Office of Community Development
Attn: Lauren DiLorenzo, Director
85 George Hassett Drive.
Medford, MA 02155

Medford Building Department
85 George Hassett Drive.
Medford, MA 02155

Medford Conservation Commission
85 George Hassett Drive
Medford, MA 02155

Medford Board of Health and Council on Aging
101 Riverside Avenue
Medford, MA 02155

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Medford Office of Human Diversity and
Compliance
Medford City Hall,
85 George P. Hassett Drive, Room 214
Medford, MA 02155

Medford Fire Department
120 Main Street
Medford, MA 02155

Medford Police Department
100 Main Street
Medford, MA 02155

Boston

Boston Environmental Department
One City Hall Square
Room 805
Boston, MA 02201

Boston Transportation Department
Boston City Hall
Room 721
Boston, MA 02201

Boston Planning & Development Agency
One City Hall, Ninth Floor
Boston, Massachusetts 02201

Public Libraries

The State Library of Massachusetts
Government Documents Department
State House, Room 341
Boston, MA 02133

City of Somerville
Public Library, Central Branch
79 Highland Avenue
Somerville, MA 02143
Attn: Reference Desk

City of Somerville
Public Library, East Branch
115 Broadway
Somerville, MA 02145
Attn: Reference Desk

City of Somerville
Public Library, West Branch
40 College Avenue
Somerville, MA 02144
Attn: Reference Desk

City of Cambridge
Public Library, Central Branch
449 Broadway
Cambridge, MA 02139
Attn: Reference Desk

City of Cambridge
Public Library, Boudreau Branch
245 Concord Avenue
Cambridge, MA 02138
Attn: Reference Desk

City of Cambridge
Public Library, Central Square Branch
45 Pearl Street
Cambridge, MA 02139
Attn: Reference Desk

City of Cambridge
Public Library, Collins Branch
64 Aberdeen Avenue
Cambridge, MA 02138
Attn: Reference Desk

City of Cambridge
Public Library, O'Connell Branch
48 Sixth Street
Cambridge, MA 02141
Attn: Reference Desk

City of Cambridge
Public Library, O'Neill Branch
70 Rindge Avenue
Cambridge, MA 02140
Attn: Reference Desk

City of Medford
Public Library
111 High Street
Medford, MA 02155
Attn: Reference Desk

Attn: Curator of Government Documents
City of Boston
Public Library, Central Branch
700 Boylston Street
Boston, MA 02116

Community Organizations

350MA Transportation Working Group
Belmont Citizens Forum
Boston Cyclists Union
Brickbottom Artist Building Trust
Brickbottom Condominium

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Change.org
Charles River Transportation Management Association
Community Corridor Planning Project
Conservation Law Foundation
Davis Square Task Force
Downtown North Association
East Cambridge Planning Team
East Somerville Main Streets
Friends of the Belmont Community Path
Friends of the Bruce Freeman Rail Trail
Friends of the Community Path
Glass Factory Condo Trust
Green Line Advisory Group for Medford (GLAM)
Green Line Community Forum
Groundwork Somerville
Institute for Human Centered Design
Livable Streets Alliance
Magoun Square Neighborhood Association
Massachusetts Bicycle Coalition (MassBike)
Mass Central Rail Trail Coalition
MBTA Rider Oversight Committee
Medford Neighborhood Green Line Alliance (MGNA)
Mystic River Watershed Association
Sierra Club
Somerville Chamber of Commerce
Somerville Climate Action
Somerville Community Corporation
Somerville Community Health Agenda
Somerville Transportation Equity Partnership (STEP)
The Welcome Project
Town of Arlington Transportation Advisory Committee
Tufts University
Union Square Main Streets
University Place Condo Trust
Wachusett Greenways
Walk Boston

Businesses

Aero Cycle Co.
Arrowstreet Inc.
ADZ Group
BioVentures Investors
BPJ LLC
Cambridge Repro-Graphics
Catamount Holdings
Cummings Foundation, Inc.
Cummings Properties
Driscoll Electric
Elizabeth Grady Properties Inc.
Five Sac Self Storage Corporation

M.S Walker Company
Nelson\Nygaard Consulting Associates
Nilsson Associates
Pan Am Railways
Seventeen Sac Self-Storage Corporation
Simmons Properties LLC
South Bay Properties

Individuals

Mark Adams
Irene Abrams
Michael Adamian
Mary Anne Adducci
David Adriaansen
Mary Alexander Agner
Tania Ahmed
Seenivasan Alagarsamy
David Alexander
Karl Alexander
Ruth Alfasso
Matthew Alford
Jeff Altepeter
Rebecca Altepeter
Susan Altman
Fran Altvater
David Anderson
KyAnn Anderson
Terri Anderson
Philip Anderson
Diane Andronica
Tori Antonino
Amy Appleford
Chandace Arledge
Derek Arledge
Erin Artin
Gregory Atkinson
Lee Auspitz
Josiah Lee Auspitz
Sherry Autor
Garrett Avery
Kamal Ayad

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Lawrence Bacow	Michael Bernstein
Christopher Bader	Jane Fair Bestor
John Baehrend	Jack Beusmans
Lynne Baer	Rahul Bhargava
Cheryl Bakey	Gwen Blackburn
Jason Baklavas	Connie Blaszczyk
Joseph Baldesde	Jennifer Bliss
Ellen Band	Julie Bloch
Willa Bandler	Wendy Blom
Sarah Bapst	Ron Bonney
Richard J. Barbalace	Walter Booth
Catherine Barber	Nicholas Borch-Rote
Susanna Barry	Jose Borges
Edward Batista, Jr.	Bonnie Borthwick
Dick Bauer	Mark Boswell
Jenny Bauer	A. Raymond Bourque
John Bay	Seth Boyd
Elisabeth Bayle	Maureen Boyle
Laurinda Bedingfield	Chris Braiotta
Mares Beeman	Donna Brallier
Sharon Beets	Len Brault
Sharon Beiti	Laura Brewer
Christopher Beland	Elizabeth Brewer
James Bennett	Robert Breznak
Christine Bennett	Chris Briaotha
Lois Bennett	Richard Briton
Joel Bennett	Alan Brody
Melissa Butler Bennett	Paula Brody
William Bennett	Peter Bronk
Tom Bent	Nathaniel Brooks
Rosa Bento	Barbara Broussard
Christa Beranek	Francis Brown
Laura Beretsky	Susan Brown
Bob Berger	Steven Brown
Roger D. Bergeron	Andrew Brown
Sarah Bergstrom	Lisa Brukilacchio
Dan Berman	John Buckley
Fred Berman	David Buckley
Nancy Bernhard	Philip Budne

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Andres Bueno
Joelle Bueno
Ramon Bueno
Juan Bulnes-Fowles
Rachel Burckhardt
Natasha Burger
Donald Burgess
Kelly Burke
Lee Busch
Samantha Butler
Charles Cameron
Roberta Cameron
David Cameron
Irving Camiel
Stuart Camiel
Lana Camiel
James Campen
Kay Canavino
Wilson Cardona
Stuart Carnie
Douglas Carr
Krogen Carreno
Rolando Carrera
Linda Carrubba
Allison Carter
Susan Carter
Christopher Cassa
Patty Caya
Adam Chamberlain
Samir Charnalia
Ellen Chase
Mark Chase
Patrick Chasse
Chadi Chemaly
Lucy Chen
Priscilla Chew
Adam Chiavoli
Mary Christy
Dorie Clark

Scott Clark
Theodora Clark
Dennis A. Clarke
Ted Clausen
Jared Clemens
Sara Cohen
Eric Colburn
John Cole
Stacy Colella
Fernando Colina
Caitriona Cooke
W. Scott Coledge
Benice Costanzo
Kevin Costello
Paul Cote
Brooke Cowan
Natalie Cox
Turil Cronburg
Gerard Cronin
David Crosbie
Sam Crosbie
Courtney Croteau
David Dahlbacka
Jane Dahlbacka
Maria Daniels
M. Susanna Darling
Deborah Davidson
Marc Davidson
Michael Davidson
Adina Davidson
Cornelia Davis
Jeffrey Davis
Jessica Davis
John Deacon
Keelin Deasy
Craig Della
Charlie Denison
Mary Denofrio
Christopher DesAutels

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Jennifer DesAutels

Paul DeStefano

Tom Devlin

Chris Dewing

Damien DiBona

Rebecca Didier

Brian Didier

Augustin Didier

John Dieckmann

Lisa DiMatteo

Tai Dinnan

Gabriel S. Distler

Darlene Domain

Stacey Doniger

Rita Donnelly

Frances Donovan

Sean Doocy

David Douglas

Brendan Driscoll

Nadier Ducasse

Kevin Dufresne

Dennis Dunn

Myra Durkin

Colin Durrant

Catherine D'Urso

Michael Dwyer

R. Edwards

John Roland Elliott

Marwa Elsabbahy

Elias El-Wadi

Alex Epstein

Isaura V Ergucht

Lourdes Esparragoza

Anthony Espy

April Evans

Phyllis Ewen

David F.

Daniel Fairchild

Matthew Fallon

Keith Fallon

Christian Farrar

Robert Feigin

Alex Feldman

James Feldman

Laura Feldman

Ami Almendral Feldman

Darron Fernandes-Smith

Neil Fennessey

Eytan Fichman

David Filimon

Nathanael Fillmore

Leslie Fincke

Max Fine

Norman Fine

Elisabeth Fine

Charles Fineman

Lois Fiore

Jeremy Fisher

Frances Fisher

Linda Fisher

Valerie Fletcher

Brian Flynn

Geraldine Freda

Richard Freierman

Eric Friedrich

George Gabin

Peter Galeno

Ann Gallagher

Ellen Gallagher

Lori Gardinier

Karen Gardner

Thomas Gardon

Nina Garfinkle

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Stephen R. Gaun

Peter Gee

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Anthony Genco
Diane Georgopoulos
Louis Geppetti
Lynn Gervens
Hans Geuns-Meyer
Stephanie Geuns-Meyer
Walter Gilbert
Celia Gilbert
Thomas Gilbert
William Gilligan
Sheila Gilmartin
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Sharman E. Gingrich
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Philip Goff
Marsha Goldberg
Allison Goldsberry
Seth Goldstein
Elizabeth Golubitsky
Rex Gonsalves
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Steve Gottlied
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Linda M. Goulet
Kyle Grady
Lanna Grady
Alan Greene
Stephanie Greenish
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Cecile Guzman
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Daniel Hamalainen
Margery Hamlen
John Harding
Ariel B. Harms
John Haroutunian
Christopher F. Harris
Jennifer Harris
Cecily Harwitt
George C. Hatzis
Michael Heath
Jacqueline Heath
Michael Hegarty
Alex Heisinger
Miranda Henne
Lana Hermann
William Herron
Jonathan Herzog
Peter G. Hill
Lenore Hill
Brian Hilliard
Ally Hines
Lisa Hodson
Heather Maguire Hoffman
Karen Holtzman
Ryan "Fritz" Holznagel
Sean Hooley
Peter Houk
Kathleen Hornby
Franz Hover
John Howe
Jeremiah Huson
Olivia Huval

**Green Line Extension to Mystic Valley Parkway
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Jared Ingersoll
Sal Islam
Shuba Rajashri Iyengar
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Dina Jacobs
Joseph Jaquinta
Mark H. Jaquith
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Lawrence E. Johnson
Robin Johnson
Ben Johnson
Corey Johnson
Thouis Jones
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Stephanie Kamath
Gina Kamentsky
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Tami Kaplan
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Todd Kaplan
Grace Karg
Rob Kassel
Elissa W. Katler
Satish Katpally
Jane Katz
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Eamon Keating
Donna Keefe
Ram Kelath
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Priscilla Lamb Kennedy
Ryan Kennedy-Williams
Jeremy Kessler
EkOngKar Singh Khalsa

Umair Khan
Imran Khan
Ulandt Kim
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Gail King
Patrick King
Lee-Anne J King
William Kipp
Caroline Kipp
Kris Kipp
Edna Kissinger
Liza Kitchell
Sharon Kivenco
Michael Korczynski
Chantel Kosmidis
Gregory Kosmidis
Sandra Kosta
James Kostaras
Howard H. Kranz
Kenneth J. Krause
Laurie Krieger
Elaine Krohn
Bruce Kulik
Enid Kumin
John Kyper
Bernard LaCasse
Jayme Lacour
Jean Lamisere
Adrienne Landau
Donna Laquidara-Carr
Jerry Lauretano
Ben Lavery
Jennifer Lawrence
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David Lees
Kevin Leppmann
Scott Lever
Jeffrey Robert Levine

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Thomas W. Lincoln
Stephen Paul Linder
Linda Lintz
Suzanne Lipsky
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Samuel Lobel
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Ilya Lozovsky
Abby Luthin
Patricia Lyga
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Joseph P. Lynch, Jr.
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John Macleod
Max E. Malaret
Matt Malinowski
Maia Mamulashuili
John Mann
Robert S. Mantell
David Marcus
Rafael Mares
Charles Marquardt
Peter John Marquez
Robert G. Martel
Cornelius P. Martin Sr.
Clara Martin
Clifford J. Martin
Kenneth Martin
James Martin
Frank Martin
Vincent Mase
Patricia J. Mason
David Matheu
Lena Matranga
Nicholas Matsakis
Chris Matthews

Taco Matthews
Darlene Matthews
Brian Matthews
Cynthia Maurice
Amanda Max
Jennifer Mazer
Markie McBrayer
K. McCarte
Brian McCarthy
Jean McCarvill
Sarah McClellan
Gail McCormick
Steven McDonald
Jonathan McDowell
James A. McGinnis
Marc McLaro
Diane McLeod
Charles McNeil
Lynn McWhood
Margery Meadow
Tom Meek
Eve Melnechuk
Janet Mendelsohn
Chris Mesarch
Beth Meserve
William Messenger
Leigh Meunier
Peter Micheli
Hemy Milorin
Kevin Mitchell
Jonathan Mitchell
Matt Mmjanovic
Karen Molloy
Barbara Monagle
Alan Moore
Alison Moore
Andrew Moore
Bethany Morris
Shawn Morrissey

**Green Line Extension to Mystic Valley Parkway
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Jeffrey Morrow
James Morse
Susan Moynihan
Tim Mueller
Steve Mulder
K. Tracy Munn
Tracy Munn
Angela Murphy
Craig Murphy
Abigail Murray
Sundar Nagaraj an
Raymond Nagem
Shriram Nallamshetty
Bob Nesson
Tim Neunzig
Aaron Nevin
Richard Nilsson
Diane Novetsky
Lucy Nunn
Robert O'Brien
James O'Keefe
John J. O'Donoghue
Courtney O'Keefe
Debra Olin
Kevin Oliver
Chip Olson
Crispin Olson
Pete Olszowka
Seth Opitz
Xavier Orellana
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P. Panda
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Marilyn Pappas
Piotr Parda
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Taeshin Park
Larry Parnell
Bryant Parsons
Livingston Parsons
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Craig Della Penna
George Perkins
Zack Perman
Catherine Peterson
Alan Peterson
Andrew Petrone
Gelrick Phanor
David Phillips
Nancy Phillips
Ruth Piscitelli
Alex Pitkin
Matthew Podrer
Timothy Poisson
Miki Ann Polumbaum
Mimi Ann Polumbaum
Stephen Pomeroy
Polly K. Pook
Cvetiva Popu
Jordana Psiloyenis
Michael Quinn
Theresa Racicot
Barry Rafkind
Irine Rasputnis
Robin Hazard Ray
Anna Rawska

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

John Read
Vaughan Rees
Jeffrey Reese
Felice Regan
Mary Anne Regan
Mary Regan
Felipe Regan
John Reinhardt
Arnold Reinhold
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Ellin Reisner
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Matthew Rice
Jill Richard
Tom Riechele
Marco Rivero
Rachel Rockenmacher
Jeffrey L. Roelofs
Frances Rogers
Steven Roix
Julie Roix
Juliette Rooney-Varga
Carolyn Rosen
Lynn Rosenbaum
Sara Rosenfeld
Carolyn Ross
Sallyann Roth
Michael Rubino
Michele Rubino
Ruthann Rudel
Dina Rudick
Roy Rudolph
Vanessa Rule
Laurel R.T. Ruma
Charles Russo
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Michael Sandler
Sandy Schafer
Skip Schiel
Susan Schmidt
Christopher Schmidt
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Amy Semmes
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John Shayeb
Julia Shepley
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Sarah Shugars
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Beverly Sky
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Amy Smift
Charlie Smigelski

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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Cynthia Snow
Jonathan Soloman
Allison Stagg
Rachel Stark
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Barry Steinberg
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Jules Stevens
Jason Stockmann
Heather Stockwell
Martha Stone
Susan Strauss
Jessica Strauss
Pamela Su
Anita Suhanin
Sean Sullivan
George Summers, Jr.
Maura Swan
Joel B. Swets
Brian Sylvain
Brian Tamm
Linda Tamulaites
Ayesha Tariq
Anne Tate
Joyce Tavon
Leah Tenney
Charles Tesch
Kathleen Tevenan
Rome Thermidor
Karl Thidemann
Randall Thurston
Alana Thurston

Charles Tolson
David Tonnesen
Gayln Traub
Caroline Traugott
David Tremblay
Daniel Tremitiere
Steven Troian
Catherince Truman
Anne Tuan
Mollie Tucker
Ivy A. Turner
William S. Turville
Peter J. Ungaro
William Uricchio
Tara Urspruch
Irene Valivueis
Heather Van Aelst
Pete Varga
Martin Vaspan
Diolinda Vaz
Yvette Verdieu
Marc Verhagen
Jasper Vicenti
Maggie Villiger
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**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

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Ariyen Weissman
Lynn Weissman
Zackary Weissman-Bennett
David Welch
Mary Ann Wells
Philip Wells
Ken Westhassel
Adam Whelan
Kevin White
William A. White, Jr.
James W. Widor
Carla Wilbur
Lynn Wiles
Walter Willett
J. Brandon Wilson Evitt
Jonathan Winideoff
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Daniel Wolf
Kimberly Wolfram
Judy Wong
Paula Woolley
Karolina Wrobel
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Tyrone Yang
Timur Kaya Yontar
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Stephanie Zawacki
Kate Zebrose
Alden Zecha
Jessica Zeigler
Solh Zendah
Jimmy Zhang

**Green Line Extension to Mystic Valley Parkway
Notice of Project Change**

Attachment 5 – MassDEP Correspondence

**Green Line Extension to Mystic Valley Parkway
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COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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TIMOTHY P. MURRAY
Lieutenant Governor

IAN A. BOWLES
Secretary

LAURIE BURT
Commissioner

July 9, 2010

Jeffrey B. Mullan
Secretary of Transportation
Massachusetts Department of Transportation
10 Park Plaza, Suite 3170
Boston, MA 02116

Dear Secretary Mullan:

The Massachusetts Department of Environmental Protection has been requested by various stakeholders to clarify the requirement in the Transit System Improvements Regulation, 310 CMR 7.36, and the Massachusetts State Implementation Plan (SIP)¹, that MassDOT extend the Green Line to "Medford Hillside." The clarification requested is whether MassDOT's proposed project, to extend the Green Line to the College Avenue terminus in Medford, fulfills the requirement to extend the Green Line to "Medford Hillside." By this letter, MassDEP determines that the proposed project does fulfill this requirement of 310 CMR 7.36 and the SIP because, first and foremost, the proposed project is expected to provide the air quality benefits required by 310 CMR 7.36 and the SIP.

As a matter of background, 310 CMR 7.36, as amended, recognizes that the nature of the planning process for a transportation project is an iterative one and is influenced by many factors including, but not limited to, the environmental review process, permitting requirements, public input, and available funding. Based on our experience with implementing 310 CMR 7.36 from the date it was first promulgated on July 1, 1994, MassDEP determined that precisely defining project requirements (e.g., the exact location of the Green Line terminus) was not a practicable or reasonable approach due to the factors listed above.

To further recognize the need for flexibility in project planning and development, the 2006 amendment to the regulation included the ability to implement substitute projects under subsection (5), Substitute Transit System Improvement Projects. In addition, Subsection (9),

¹ The most recent amendment to 310 CMR 7.36 was effective on December 1, 2006 upon publication in the Massachusetts Register. The U.S. Environmental Protection Agency approved the regulation as part of the SIP on July 31, 2008.

Demonstration of Air Quality Emission Reductions, requires MassDOT to complete an analysis of completed projects to demonstrate that the emission reductions anticipated to be achieved by the list of projects in the regulation are actually achieved. By including this section, MassDEP recognized that if projects required by 310 CMR 7.36 (2)(h)2 and (J) changed in scope, MassDOT would still be required to demonstrate that the projected air quality benefits were achieved.

While outside of MassDEP's expertise, MassDEP believes that terminating the project at College Avenue will serve the greater Medford Hillside neighborhood and suggests that MassDOT address this issue pursuant to the project's review under Massachusetts Environmental Policy Act.

Sincerely,



Laurie Burt
Commissioner

cc. State Representative Carl Sciortino, 34th Middlesex District
Alicia McDevitt, BOEEA, MBPA Office
Kate Fichter, MassDOT, Office of Transportation Planning
Peter Butler, Federal Transit Administration, Region 1
Mike Korczynski