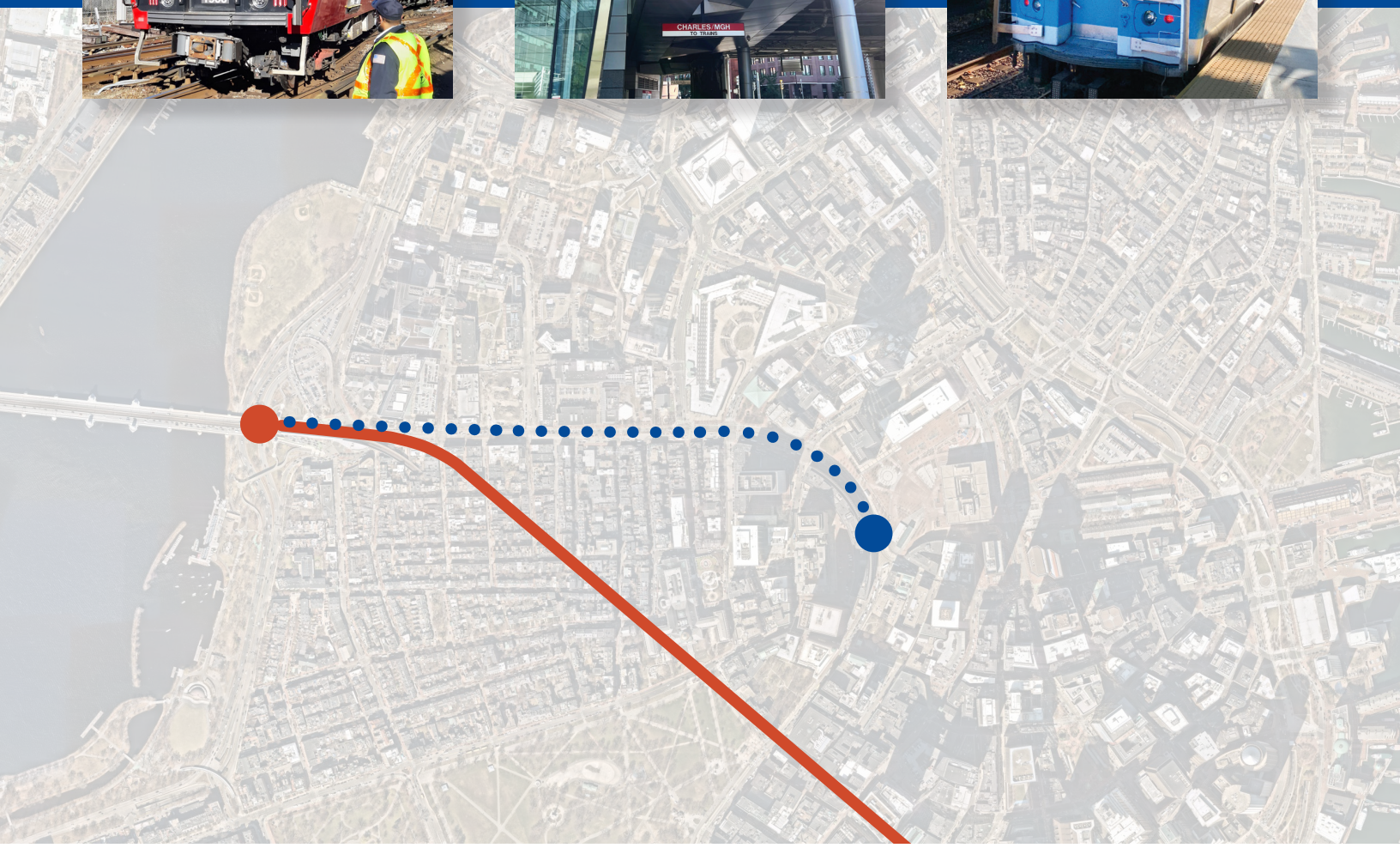
Notice of Project Change

October 2023

EEA # 14101

RED BLUE CONNECTOR PROJECT



Massachusetts Bay Transportation Authority

Red Blue CONNECTOR

Maura Healey, Governor
Kimberley Driscoll, Lieutenant Governor
Monica Tibbits-Nutt, Acting Secretary & CEO
Phillip Eng, General Manager & CEO

massDOT
Massachusetts Department of Transportation

October 2, 2023

Ref: EEA #14101

The Honorable Rebecca Tepper, Secretary
Tori Kim, Director of the MEPA Office
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: **Massachusetts Bay Transportation Authority**
Red Blue Connector Project - Notice of Project Change
Boston, Massachusetts

Dear Secretary Tepper and Director Kim:

The Massachusetts Bay Transportation Authority ("MBTA") is pleased to submit the enclosed Notice of Project Change ("NPC") for the Red Blue Connector Project ("the Project") located in Downtown Boston. The most recently reviewed build condition was presented in the Draft Environmental Impact report ("DEIR"), submitted to MEPA by MassDOT/MBTA in May 2010. Since the 2010 DEIR, the MBTA has made progress on updating existing conditions, advancing stakeholder coordination, advancing conceptual design of alternatives, and identifying a more efficient construction method.

The Project would provide improved mobility and access for residents of East Boston, Revere, Winthrop, and Chelsea by extending Blue Line service past its current terminus at Bowdoin Station to a new below-grade station at the existing Red Line Charles/MGH Station. The Blue Line largely services Environmental Justice ("EJ") populations, households with lower incomes, and transit dependent communities. Extending Blue Line service is expected to increase transit ridership, reduce congestion in downtown transfer stations, and improve regional mobility and connectivity.

This NPC is a result of a lapse in time and design refinements resulting from additional studies since the 2010 DEIR filing. The Project meets or exceeds MEPA review thresholds at 301 CMR 11.03(6)(a)(5) and 301 CMR 11.03(10), and the Project is within a 1-mile designated geographic area of EJ populations.[1] A Supplemental Draft Environmental Impact Report (SDEIR) is requested to further analyze impacts between a No Build and the Build Alternative as well as document the anticipated Project benefits.

The MBTA anticipates a 20-day public comment period for the NPC will begin on October 11, 2023, the publication date of the next *Environmental Monitor*, and will end on October 31, 2023. The distribution list included as Attachment 4 lists parties receiving an electronic or printed notice of availability with a link to the full document posted on MBTA's website at: https://www.mbta.com/projects/red-blue-connector

[1] Massachusetts Executive Office of Energy and Environmental Affairs, 301 CMR 11.00 MEPA Regulations

The MBTA is voluntarily offering two public meetings on the Project and the NPC, at 6:00 PM on Monday, October 16, 2023 at the Paul S. Russell, MD Museum at MGH and 6:00 PM on Thursday, October 19, 2023 at the East Boston Branch of the Boston Public Library, to receive comments on the Project and for MEPA's and the Federal Transit Administration's (FTA's) use in determining the scope for a state SDEIR and federal NEPA review document. Details of the meeting will be posted on MBTA's website at https://www.mbta.com/projects/red-blue-connector. Copies of the NPC may be obtained by calling 617-549-4357 or emailing tpaganelli@mbta.com during the public comment period.

We look forward to your review of this document and to consultation with the MEPA Office and other reviewers. Please feel free to contact me at tpaganelli@mbta.com if you have any questions.

Sincerely,

Tess Paganelli

Manager of Environmental Construction
Massachusetts Bay Transportation Authority

Notice of Project Change Form

Attachment 1: Project Change Description and Alternatives

Analysis Attachment 2: Secretary's Certificate

- May 2010 Draft Environmental Impact Report

Attachment 3: Figures

- Figure 1: USGS Project Boundary and Location
- Figure 2a & 2b: Previously Reviewed Build Condition
- Figure 3: Currently Proposed Build Condition

Attachment 4: Circulation List

Attachment 5: Public Outreach

- Public Involvement Plan

Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs ■ MEPA Office

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 # **14101**		
Project Name: **MBTA Red Blue Connector**		
Street Address: **1-327 Cambridge Street**		
Municipality: **Boston**	Watershed: **Charles River Watershed**	
Universal Transverse Mercator Coordinates: **(See Attachment 3 for location)**	Latitude: **(See Attachment 3 for location)** Longitude:	
Estimated commencement date: **2026**	Estimated completion date: **2031**	
Project Type: **Transit**	Status of project design: **10** %complete	
Proponent: **Massachusetts Bay Transportation Authority (MBTA)**		
Street Address: **10 Park Plaza**		
Municipality: **Boston**	State: **MA**	Zip Code: **02116**
Name of Contact Person: **Tess Paganelli**		
Firm/Agency: **MBTA**	Street Address: **10 Park Plaza**	
Municipality: **Boston**	State: **MA**	Zip Code: **02116**
Phone: **617-549-4357**	Fax:	E-mail: **tpaganelli@mbta.com**

With this Notice of Project Change, are you requesting:

a Single EIR? (see 301 CMR 11.06(8)) ☐Yes ☒No

a Special Review Procedure? (see 301CMR 11.09) ☐Yes ☒No

a Waiver of mandatory EIR? (see 301 CMR 11.11) ☐Yes ☒No

a Phase I Waiver? (see 301 CMR 11.11) ☐Yes ☒No

Which MEPA review threshold(s) does the revised project meet or exceed (see 301 CMR 11.03)? Identify any new or modified review threshold(s) associated with the project change.

- **301 CMR 11.03(6)(a)(5) – Construction of a new rail or rapid transit line along a new, unused, or abandoned right-of-way for transportation of passengers or freight.**
- **301 CMR 11.03(10) – Historical and Archaeological Resources**
- **301 CMR 11.01(2)(b)(4) – Any Project that is located within a Designated Geographic Area around one or more Environmental Justice Population shall comply with 301 CMR 11.05(4) and shall include in the Notice of Project Change a description of measures taken to enhance public involvement opportunities by the identified EJ Populations.***

***Advance notification for the Project was provided on August 14, 2023 in English, Spanish, Haitian Creole, Chinese, Portuguese, and Nepali**

Which Agency Permits does the revised project require?

Section 61 Findings, MDCR Access Permits, MWRA NPDES permit No. MA0103284, NPDES permit No. MA0101192, BCC Order of Conditions, Drainage Discharge Permit, Sewer Use Discharge Permit, City of Boston Building Permits

Identify any financial assistance or land transfer from an Agency of the Commonwealth for the revised project, including the Agency name and the amount of funding or land area in acres:
The Project currently has $30 million in state funding for planning, initial design, and environmental review as identified in the MBTA's FY24-28 Capital Investment Plan (CIP). Funding for final design and construction, while not yet identified, could be provided by a combination of Commonwealth transportation funds, possible federal funds or other local sources. All land to be used by the project is public right-of-way owned by the City of Boston or the Department of Conservation and Recreation (DCR), some of which may be subject to Article 97. The need for additional land will be identified in the future supplemental DEIR; no permanent land transfers are currently anticipated from agencies of the Commonwealth.

PROJECT INFORMATION

In 25 words or less, what is the project change? **Since the 2010 DEIR, the Project has updated concept designs for station, tunnel, and storage track alternatives, as well as a new tunnel construction method.**

See full project change description beginning on Page 4.

Date of publication of availability of the ENF in the Environmental Monitor: (Date: **November 15, 2007**)

Was an EIR required? ☒Yes ☐No; if yes,
was a Draft EIR filed? ☒Yes (Date: **April 7, 2010**) ☐No
was a Final EIR filed? ☐Yes (Date:) ☒No
was a Single EIR filed? ☐Yes (Date:) ☒No

Have other NPCs been filed? ☐Yes (Date(s):) ☒No

If this is an 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 Agency permits, financial assistance, or land transfers not previously reviewed: **include list of Agency Actions (e.g., Agency Project, Financial Assistance, Land Transfer, List of Permits)**

This Project could utilize FTA federal funds for future design and construction; therefore, concurrent review through FTA's National Environmental Policy Act (NEPA) implementing regulations is required.

Are you requesting a determination that this project change is insignificant such that an EIR should not be required (***note that the Proponent may also seek an advisory ruling under 301 CMR 11.10(6)***)? 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_____.**

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**

MBTA request an updated Certificate for Supplemental DEIR due to the lapse in time, continuation of design updates and change in construction method.

SUMMARY OF PROJECT CHANGE PARAMETERS AND IMPACTS

Summary of Project Size & Environmental Impacts	**Previously reviewed (in the 2010 DEIR)**	**Net Change (since the 2010 DEIR)**	**Currently Proposed**
LAND			
Total site acreage	**~8.05 acres**	**+0.8 acres**	**~8.85 acres**
Acres of land altered[1]	**0**	**0**	**0**
Acres of impervious area[2]	**~8.05 acres**	**+0.8 acres[2]**	**~8.85 acres**
Square feet of bordering vegetated wetlands alteration	**0**	**0**	**0**
Square feet of other wetland alteration	**0**	**0**	**0**
Acres of non-water dependent use of tidelands or waterways	**0**	**0**	**0**
STRUCTURES			
Gross square footage **(above ground headhouses and vent shafts)**	**~2,600 square feet**	**+5,000 square feet**	**~7,600 square feet**
Number of housing units	**0**	**0**	**0**

Maximum height (in feet) **(above ground headhouses and vent shafts)**	**~41 feet**	**0**	**~41 feet**
TRANSPORTATION			
Vehicle trips per day[3]	**-1,400 auto person-trips**	**TBD**	**TBD**
Parking spaces[4]	**N/A**	**0**	**TBD**
WATER/WASTEWATER			
Gallons/day (GPD) of water use[5]	**TBD**	**N/A**	**TBD**
GPD water withdrawal	**0**	**0**	**0**
GPD wastewater generation/ treatment	**0**	**0**	**0**
Length of water/sewer mains (in miles)	**N/A**	**N/A**	**TBD, Relocations along Cambridge Street and North Grove Street will occur**

[1] It is assumed that all work will be conducted within areas that were previously altered.
[2] The additional Project area (0.8 acres) is currently impervious therefore no net increase impervious surface.
[3] "TBD" indicates that impacts will be determined at a later date when travel demand modeling is completed.
[4] The number of current on-street parking spaces will be identified during the development of the Supplemental DEIR. No additional parking spaces are proposed. Spaces temporarily lost during construction will be restored.
[5]GPD will represent water use from MBTA staff restrooms.

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:

***As analyzed in the 2010 DEIR, the Project slightly extends into land protected by Article 97. It is anticipated that the preferred alternative will not permanently impact the recreational use of Charles River Reservation and Cardinal Cushing Park. This will be confirmed in the Supplemental DEIR and NEPA review documentation. A temporary occupancy work permit, issued by DCR, would be required for work within the Charles River Reservation and Cardinal Cushing Park.**

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 involves modification of any prior mitigation commitments or previously issued Section 61 Finding, include a description of any such changes and a draft of the modified Section 61 Finding (or it will be required in Supplemental EIR).

The project change description should include a comprehensive description of the proposed project change, including a description of any work or activities associated with the original project that have occurred to date. At the discretion of the MEPA Office, an alternatives analysis for the changed component(s) of the project may be required, including a summary of alternatives considered and associated environmental impacts at a level of detail commensurate with the scope and scale of the proposed change. In addition to the required attachments, the filing should include supporting technical data (e.g., a Traffic Impact and Access Study, Stormwater Report, etc.) as appropriate. It should include a full list of mitigation commitments that remain unchanged from the previously reviewed project.

See Attachment 1 for the project change description, and alternatives analysis.

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:

10/02/23		10/02/23	
Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing NPC (if different from above)
Tess Paganelli		**Kristen Bergassi**	
Name (print or type)		Name (print or type)	
MBTA		**VHB**	
Firm/Agency		Firm/Agency	
10 Park Plaza		**99 High Street**	
Street		Street	
Boston, MA 02116		**Boston, MA 02110**	
Municipality/State/Zip		Municipality/State/Zip	
617-549-4357		**617-607-2989**	
Phone		Phone	

ATTACHMENT 1: Project Change Description and Alternatives Analysis

Project Change Description and Alternatives Analysis

Introduction

The Red Blue Connector Project (the "Project") is an initiative of the Massachusetts Bay Transportation Authority (MBTA) to improve the transit connection between the Red and Blue lines. Under the Project, the Blue Line would be extended approximately 2,150 feet beyond its current terminus at Bowdoin Station, below Cambridge Street in Downtown Boston, to the Charles/Massachusetts General Hospital (MGH) Station, where it would connect directly to the Red Line. Bowdoin Station would be permanently closed, and Blue Line trains would travel directly from Government Center to Charles/MGH Station. In addition to the direct Red Line connection, an entrance within the new MGH Clinical Building between North Grove Street and Blossom Street is proposed to provide access to the MGH campus. Enhancing mobility between these two lines would also improve access for residents of East Boston and the North Shore, as well as residents of Cambridge and other communities northwest of Boston. This Project would also improve access to Massachusetts Eye and Ear Infirmary (MEEI) and other nearby medical facilities, and would improve system capacity, increase transit ridership, and extend accessibility.

The Project was previously reviewed pursuant to the Massachusetts Environmental Policy Act (MEPA) and its implementing regulations under the EEA number 14101 with an *Expanded Environmental Notification Form* submitted on September 6, 2007, and a 2010 *Draft Environmental Impact Report* submitted on March 31, 2010.[1, 2]

The need for this Notice of Project Change (NPC) for the Red Blue Connector Project results from the lapse in time since the prior environmental filing effort and further design refinements that resulted from additional studies and a new construction method, as discussed in the 2021 *Concept Design Report*.[3] The Red Blue Connector Project is no longer a Central Artery/Tunnel project mitigation commitment under State Implementation Plan (SIP) requirements.

The following sections describe the Project changes, including the progression of alternatives development since the 2010 DEIR, also discussed in the updated 2021 *Concept Design Report*.

Purpose and Need

The purpose of the Red Blue Connector Project is to improve mobility and access to jobs and health care for residents of East Boston, Revere, Winthrop, and Chelsea.

Goals and Objectives

Implementing the Red Blue Connector would likely:

- Improve mobility and regional access, especially for residents of East Boston and the North Shore, benefiting both environmental justice and non-environmental justice populations;
- Increase transit ridership by eliminating the need to make an intermediate transfer on the Orange or Green lines;
- Extend accessibility by replacing the inaccessible Bowdoin station with a fully accessible new Blue Line station at Charles/MGH; and
- Improve system capacity by reducing congestion in downtown transfer stations.

---

[1] MBTA, *Red Line/Blue Line Connector Expanded Environmental Notification Form*, September 2007.
[2] MassDOT, *Red Line/Blue Line Connector Project Draft Environmental Impact Report,* March 2010.
[3] MBTA, *Red Blue Connector Concept Design Report,* November 2021. Available here: https://www.mbta.com/projects/red-blue-connector

Project Change Description

The Red Blue Connector continued work following the 2010 DEIR Certificate, including a 2018 *Tunnel Constructability Study* and 2021 *Concept Design Report*. These efforts were largely focused on updating the following:

- Updating the tunneling method by re-evaluating feasibility, best practices and costs
- Updating potential construction impacts
- Updating station configuration
- Updating tunnel ventilation requirements
- Updating ridership along the Red and Blue lines to reflect recent development patterns
- Coordination with adjacent proposed and ongoing development projects

Existing Conditions

The Project Area is defined as the Cambridge Street Corridor, located along Cambridge Street, between Charles Circle and Sudbury Street.

Cambridge Street is a heavily traveled urban arterial and is wider than most arterials in Downtown Boston. The land use at the eastern end of the Project, east of Staniford Street, primarily consists of state and federal government buildings. West of Staniford Street on the north side of Cambridge Street, land use is primarily commercial and institutional, including MGH and MEEI. On the south side of Cambridge Street, structures are older and smaller commercial buildings with some residences. Located farther south is the largely Historic Beacon Hill residential neighborhood.

Public Transit

Public transit services within the Project Area include the MBTA Blue Line and MBTA Red Line rail rapid transit services. The MBTA's Red and Blue Lines are the only lines within the MBTA rail rapid transit network that do not have a direct connection with one another. MBTA Route 354 travels along Sudbury Street and a portion of Cambridge Street within the Project Area, however there are no bus stops within the Project Area.

Blue Line

The MBTA's Blue Line operates over a 6-mile corridor within the agency's rail rapid transit network. The Blue Line has twelve stations serving downtown Boston, East Boston, and Revere communities. The Blue Line largely serves environmental justice populations, households with lower incomes, and transit dependent communities. Blue Line service has maintained the strongest ridership recovery of all rapid transit lines since the start of COVID-19. Currently the Blue Line operates between 5:12 AM to 12:53 AM on weekdays, with peak frequency every five minutes and off-peak frequency every 11 minutes.[4] Bowdoin Station, located at the intersection of Cambridge Street and Bowdoin Street in Downtown Boston, is the Blue Line's western terminus. It is the only station on the Blue Line that is not accessible.

[4] MBTA Rapid Transit Schedule, Effective July 2, 2023

The Blue Line currently operates six-car trainsets between Bowdoin and Wonderland terminal stations. Wonderland Terminal features a two-platform station with three tail-tracks located east of the station platforms, used for reverse equipment movements. Wonderland is operationally constrained by the motor person walk-time, with the operator needing to exit the vehicle, walk the length of the train, and switch ends to reverse direction back to the inbound platform.

The Bowdoin terminal allows for continuous same-direction travel via the Bowdoin Loop. While there are time-savings benefits from not requiring operators to get out of their vehicles and switch ends as at Wonderland Terminal, the constrained track geometry (75' radius) and slow operating speeds (5 mph) significantly reduce the operational throughput over this section of track. With all other stations along the Blue Line able to accommodate the full six-car trainsets, the eastbound platform at Bowdoin Station is only able to accommodate four cars – with two doors that remain closed during boarding. Bowdoin Station is also the only Blue Line station that is not accessible.

The Blue Line is powered by an overhead catenary system (OCS), extending from Wonderland to Airport Station, and a third-rail traction power system extending from Airport to Bowdoin terminal. Trains switch modes during their dwell at Airport Station depending on traveling direction.

Red Line

The MBTA's Red Line is the system's busiest line, spanning 21 miles with 22 stations. The Red Line's trunk portion runs from Alewife to JFK/UMass with two branches extending to either Ashmont or Braintree. The two Red Line branches join south of downtown Boston in the city's Dorchester neighborhood. Currently, the Red Line operates between 5:00 AM to 12:38 AM on weekdays with all-day frequency every nine minutes on the trunk portion.[5]

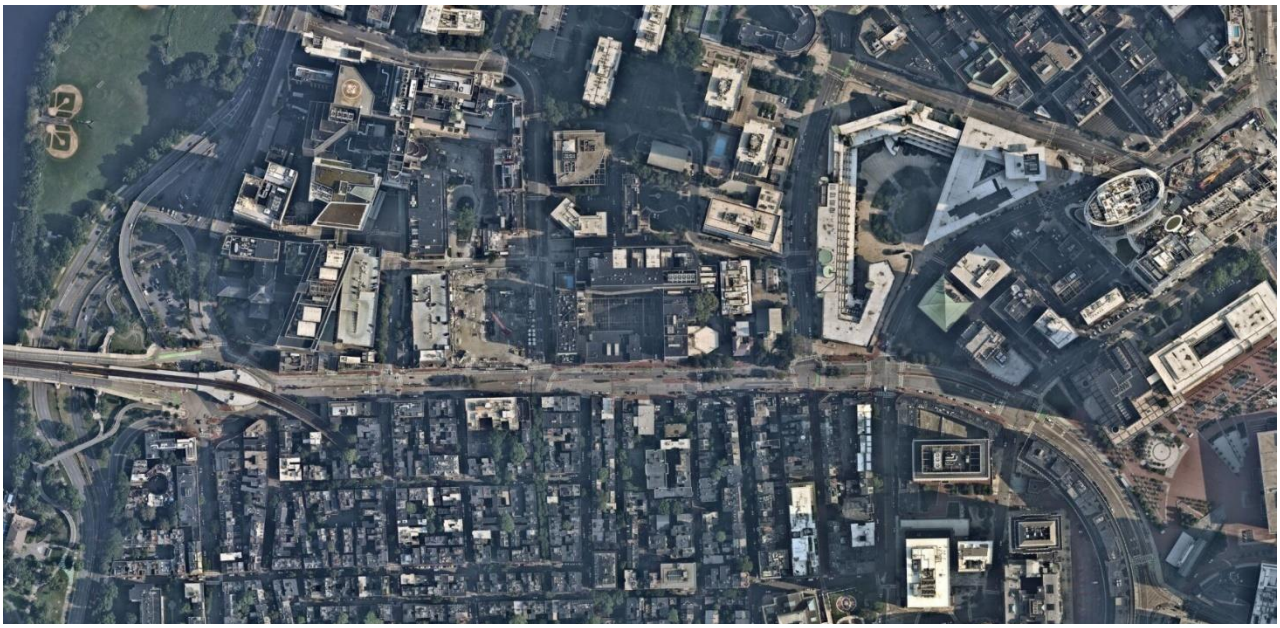
All Red Line trains on these lines serve stations between Alewife and JFK/UMass, including Charles/MGH Station and all other stations in downtown Boston. Constructed in 1931, Charles/MGH Station was designed to accommodate the Red Line elevated track, which was built in 1912.[6] Charles/MGH Station was renovated in 2007 to fully allow street level access under the alignment and making the station accessible with elevators. The station renovation was a headhouse project only and did not replace Red Line platforms or address the second means of egress associated with the National Fire Protection Association (NFPA) 130 Standard.[7] The new two-story station building replaced the elevated pedestrian footbridges and three-story headhouse. The station currently consists of a street-level headhouse entrance and fare collection lobby located in Charles Circle, as well as two semi-enclosed side platforms above the lobby area. Stairs, upward escalators, and elevators allow patrons to access the platforms.

[5] MBTA Rapid Transit Schedule, Effective July 2, 2023
[6] MBTA, *Draft Environmental Impact Report,* 2010
[7] National Fire Protection Association 130, Standard for Fixed Guideway Transit and Passenger Rail Systems

Roadway

The Cambridge Street corridor, running east from Charles Circle, is a dense urban sector of downtown Boston. There are approximately 560 individual properties along the corridor that are commercial/retail and institutional, mixed-use, with residential properties bordering the corridor. As evaluated in the 2010 DEIR, the Project area was defined and ten intersections were selected along Cambridge Street for the existing traffic conditions evaluation. The role of Cambridge Street as a major commuter route is demonstrated by the majority of the traffic traveling eastbound, towards Government Center, during the morning peak hour and the majority of the traffic traveling westbound, away from Government Center, during the evening peak hour. The majority of traffic on the Longfellow Bridge travels westbound, into Cambridge, during the morning peak hour and eastbound, toward Boston, during the evening peak hour. The difference in peak travel direction between the Longfellow Bridge and Cambridge Street may reflect the role of Storrow Drive as a major commuter route for people traveling to and from the City of Cambridge. The Storrow Drive on-ramp and Charles Street northbound have their highest traffic volume during the evening peak hour as commuters leave Boston and Cambridge, while the Storrow Drive eastbound and westbound off-ramps have their highest volumes during the morning peak hour as commuters enter the area.

Aerial of Cambridge Street Corridor



Source: NearMap 2023

Basis for Design

Design Criteria

Design criteria for the Project is comprised of applicable and jurisdictional code requirements for the proposed facilities. Among these include the Massachusetts State Building Code, the Americans with Disabilities Act (ADA), and the NFPA for fire protection, ventilation, and emergency egress. Additionally, all design is developed under the guidance of the MBTA's standards and guidelines, regulatory, professional, technical, and trade association standards.

Design criteria is typically set forth during the preliminary design phase, however some criteria have already been set through previous concept design work. A Basis for Design Report will be developed during the 30% design phase. Individual design reports for the various disciplines are developed and utilized to inform the Project's conceptual design criteria. These individual reports include:

- Design for the Environment Report
- Stormwater and Groundwater Management Plans
- Preliminary Geotechnical Data Report
- Tunnel Design Criteria Report
- Track and Signal Design Criteria Reports
- Traction Power Load Flow Study
- Station Design Criteria Report
- Roadway Design Criteria Report
- NFPA 130 Egress Analysis

Construction Methods

Three tunneling methodologies were discussed in the 2010 *DEIR* and *Concept Design Report*, namely Tunnel Boring Machine (TBM), Sequential Excavation Method (SEM), and Cut and Cover (C&C). TBM advances horizontally from an entrance point (access shaft) to the destination. SEM mining allows progressive construction of a tunnel opening by excavating areas only as large as the soil can support prior to installing structural support and shotcrete. C&C construction method involves installation of an earth support system along the outside limits of the tunnel (e.g., slurry wall, secant pile wall, steel sheeting, soldier pile and lagging), and installation of lateral support structures as the tunnel excavation advances. In 2018, the MBTA developed a Constructability Report that further evaluated and recommended the entire tunnel be constructed using the C&C method. Subsequently, the methodologies were independently reevaluated as part of the 2021 *Concept Design Report* and C&C construction was again proposed as the recommended tunneling method for the entire Project. See *Tier 3 Alternatives* for more information on the evaluation of tunneling methodology.

Construction Phasing

The 2010 *DEIR* schedule, assuming a mix of the three tunneling methodologies, included a duration of work over 5.75 years and included the following phases:

- Phase 1: Initial Utility Relocation and Other Initial Activities
- Phase 2A: Northerly Tunnel Construction
- Phase 2B: Top-Down C&C East of Receiving Pit
- Phase 3A: Utility Relocation
- Phase 3B: Southerly Tunnel Construction

In the 2021 *Concept Design Report*, the anticipated construction duration was estimated to be 4.5 to 5 years. The reduction in overall duration is attributable to utilizing the single tunnel methodology of C&C. In addition to a reduction in overall construction duration, this methodology is similar to that used for the Central Artery/Tunnel project performed by the major local contractors and is expected to yield a more competitive bid process with resulting reduction in overall construction costs compared to other tunnel methodologies.

Refinements of Alternatives

The following sections describe the alternatives considered for each Project component and criteria set to evaluate these alternatives. Tier 1 Alternatives describe the alternatives discussed in the 2010 *Definitions of Alternatives Report*. Tier 2 discusses alternatives in the 2010 *Draft Environmental Impact Report*. Finally, Tier 3 discusses the alternatives in the 2021 *Concept Design Report*.

Potential Blue Line Extension

Source: AECOM 2022

Tier 1 Alternatives and Evaluation

Evaluation Criteria

The 2010 *Definitions of Alternatives Report* evaluated an initial set of alternatives for general feasibility, constructability, relative cost, transportation benefit, and environmental impact. Tier 1 Alternatives aimed to identify a preferred Blue Line alignment and track configuration and were analyzed to understand the practicality of improving the existing Bowdoin Station or eliminating/relocating Bowdoin Station. Each alternative was evaluated for advantages and disadvantages in order to eliminate alternatives from consideration and select others to move on to the next phase.

Alternatives

The four major alignment segments considered were:

- Closure of Existing Bowdoin Station
- Blue Line Realignment with Elimination of Bowdoin Station
- Blue Line Realignment with Relocated Bowdoin Station
- Alignment and Track Configuration from Joy Street to Charles/MGH

The closure of the existing Bowdoin Station was evaluated as a potential alternative for the Red Blue Connector Project. It was determined that the existing configuration of Bowdoin Station cannot be modified to meet current MBTA turning radius and safety standards. This alternative has significant restrictions that impact the track alignment including, but not limited to, issues regarding structural configuration, platform lengths, ADA compliance, and length of vertical curves. This option has been eliminated due to operational challenges.

Blue Line track realignment with the elimination of Bowdoin Station was evaluated to identify the most appropriate track and tunnel realignment between Government Center Station and Joy Street. This design analysis determined the horizontal and vertical modifications required as well as construction type and potential surface impacts during construction.

Relocated Bowdoin Station alternatives were developed to accommodate a new relocated track configuration and station location. Factors contributing to evaluation of this alternative included potential ridership, financial impacts, and community impacts.

Alternatives for alignment and track configuration from Joy Street to Charles/MGH Station were developed to identify the necessary track and tunnel alignment that would permit an extension of the Blue Line from Joy Street to Charles/MGH Station. The alternatives were evaluated against highest possible ridership and operations opportunities. Design aspects such as the platform type, depth of excavation, construction type, and potential surface impacts during construction were also considered.

Tier 2 Alternatives and Evaluation

Following the screening of the Tier 1 Alternatives, alternatives were identified as impractical and were eliminated from future consideration. The purpose of the Tier 2 Alternatives was to further refine and evaluate a No Build and two Build Alternatives to include in the 2010 *DEIR*.

Evaluation Criteria

The evaluation criteria for the Tier 2 Alternatives included service and operation issues, construction impact analysis, community impact analysis, environmental issues, cost, and coordination considerations.

Alternatives

One No Build and two Build Alternatives were recommended for inclusion in the 2010 *DEIR* following the Tier 2 evaluation. Those alternatives are:

- No Build
- Alternative 1: Blue Line Extension to Charles/MGH Station with the Elimination of Bowdoin Station
- Alternative 2: Blue Line Extension to Charles/MGH Station with Relocated Bowdoin Station

The No Build Alternative provided a baseline to compare against the Build Alternatives. The No Build Alternative assumed that Blue Line operations will remain similar to existing operations. This alternative included funded capital improvements included in the Boston Region Metropolitan Planning Organization's (MPO) Long Range Transportation Plan.

Alternative 1 extended the Blue Line from Bowdoin Station to Charles/MGH Station and closed the existing Bowdoin Station. A new Blue Line platform constructed below the existing Charles/MGH Station would connect to the existing Red Line platforms via stairways, escalators, and elevators allowing passengers to transfer between the two lines.

Alternative 2 proposed the extension of the Blue Line to Charles/MGH with a relocated Bowdoin platform while maintaining the stations existing mezzanine and headhouse. In this alternative, Bowdoin Station would be able to accommodate six-car trains.

Alternative 1 Blue Line Platform View

Source: FMCB Red Blue Connector, 2021

The construction methodology proposed in Alternatives 1 and 2 was a combination of C&C, mined tunnel using TBM, and SEM methods. The tunnel would be partly constructed using the C&C method while TBM would be used to construct a mined tunnel for the balance of the tunnel work. Open excavations would also be required for vents and emergency egress points, as well as for the TBM launch pit. SEM would be used for the tail tracks.

Tier 3 Alternatives and Evaluation

Following the 2010 *DEIR*, an updated 2021 *Concept Design Report* was completed to develop and evaluate design and construction concepts with a combination of original work and new solutions. Refinements developed in the *Concept Design Report* built from "Tier 2, Alternative 1: Blue Line Extension to Charles/MGH" with the Elimination of Bowdoin Station. The report discusses three new station alternatives, additional tunneling methodology, and two additional storage track alternatives.

Evaluation Criteria

Station alternatives were evaluated against accessibility, code compliance, construction cost, and customer experience. Tunnel construction method alternatives were evaluated against construction impacts, cost, and feasibility. Storage track alternatives were evaluated against cost and operational feasibility.

Alternatives

Prior alternatives were revisited, and minor refinements were made to the terminals. Three station configurations were developed in the 2021 *Concept Design Report*. Station Alternative 1 locates the Blue Line platform immediately east and below the existing Charles/MGH headhouse, providing access via the existing headhouse at the west end of the platform and via an entrance within the future MGH Clinical Building on the east side of the platform. Redundant elevators would be provided and the path to elevators would be made visible from the platform. Station Alternative 2 places the Blue Line platform in the same location as Station Alternative 1. An intermediate mezzanine would be constructed with sidewalk entrances located to the north and south of the headhouse connecting to the mezzanine. Station Alternative 2 includes an entrance within the future MGH Clinical building and would move fare control from the existing at grade headhouse to a below grade mezzanine. Red Line passengers would be affected by this change and emergency egress would need to be evaluated. Station Alternative 3 locates the new Blue Line platform to the northwest of the existing headhouse. An underground mezzanine and new sidewalk entrances would be constructed. This alternative would move fare control from the existing at grade headhouse to a below grade mezzanine. Red Line passengers would be affected by this change and emergency egress would need to be evaluated. Station Alternative 3 would not support an entrance within the future MGH Clinical Building.

The three tunneling methodologies presented in the 2010 *DEIR* - Tunnel Boring Machine (TBM), Sequential Excavation Method (SEM), and Cut & Cover (C&C) - remain the same. The 2021 *Concept Design Report* evaluated six new tunneling methodology combinations utilizing TBM, SEM, and C&C.

The new combinations and key attributes are described in the Alternatives table below:

Alternative	Key Attributes
2010 Alternative*	› This alternative uses a combination of all three methodologies. › Benefits of TBM tunneling reducing surface disruption are offset by the need for C&C construction. › C&C construction compliments the ability to provide emergency tunnel ventilation.
T1: SEM and C&C	› T1 utilizes SEM for construction of the storage tracks, platform, and crossover area. C&C would be utilized for the tunnel portion. › Benefits of SEM tunneling reducing surface disruption are offset by the need for C&C construction › SEM construction limits the ability to provide an emergency tunnel ventilation system

	› SEM requires significant ground improvement
T1A: SEM and expanded C&C	› T1A is similar to T1 with the exception that the station and crossover would be constructed using C&C. › Benefits of SEM tunneling reducing surface disruption are offset by the need for C&C construction. › C&C construction compliments the ability to provide emergency tunnel ventilation.
T2: SEM, C&C, and TBM*	› This alternative would use TBM for the two storage tracks, SEM for the station and crossover, and C&C for the eastern portion of the tunnel. › Benefits of TBM tunneling reducing surface disruption are offset by the need for C&C construction along significant portions of the tunnel › SEM construction limits the ability to provide an emergency tunnel ventilation system › SEM requires significant ground improvement
T2A: C&C and TBM*	› Similar to T2 with the exception that the station and crossover area would utilize C&C. › Benefits of TBM tunneling reducing surface disruption are offset by the need for C&C construction along significant portions of the tunnel › C&C construction compliments the ability to provide emergency tunnel ventilation
T3: C&C	› The entire tunnel would be constructed by C&C. › Provides the shortest construction schedule and lowest cost › Supports flexibility including the ability to provide emergency tunnel ventilation › Allows for utility relocation to be performed in advance of work › Most common method with a proven track record of successful projects

*As discussed in the 2021 *Concept Design Report,* the distance of the tunnel does not support the use of TBM. Typically, TBM is used for tunnels that are a minimum of one mile. Because of this conclusion, tunnel methodology alternatives that suggest the use of TBM will not be selected.

Three storage track alternatives were developed following the 2021 Concept Design Report. Storage Track Alternative 1 places storage tracks west of the new Blue Line station platform, extending the inbound and outbound tracks approximately 300 feet west. Storage Track Alternative 1 would have tracks extend out as tail tracks and utilize the SEM tunneling method. Storage Track Alternative 2 consists of storage tracks east of the new Blue Line station. Storage Track Alternative 3 maintains and utilizes the existing Bowdoin loop for storage tracks. The Bowdoin loop will be sealed off at the south end to hold two trains in-line. At this time, a storage track preferred alternative has not been confirmed.

Alternatives to Advance for Further Evaluation

The following section describes the No Build and Preferred Build Alternative for the Red Blue Connector following the 2010 *DEIR* and 2021 *Concept Design Report*.

No Build

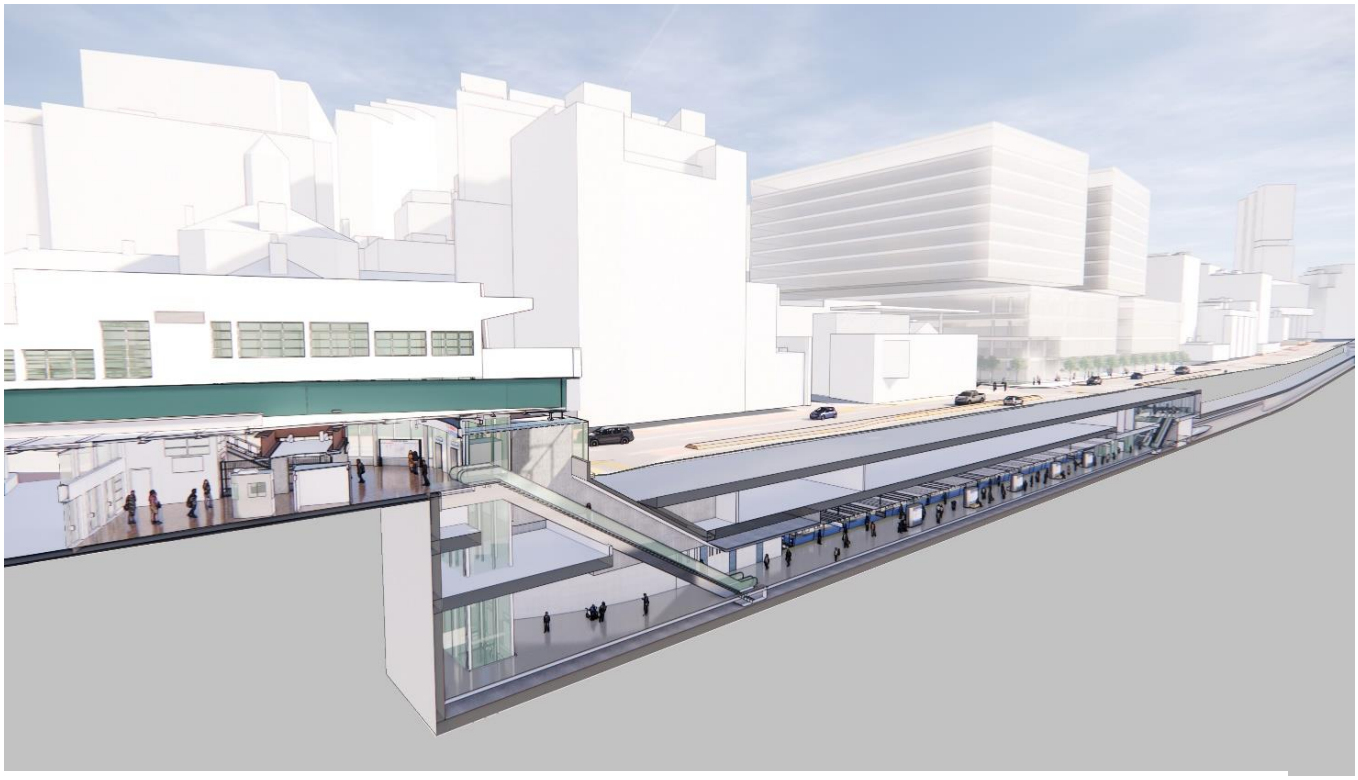
Under the No Build Alternative, it is assumed Red and Blue Line operations would remain similar to today's operations and existing stations (Bowdoin and Charles/MGH) and tunnels would remain the same, with the exception of infrastructure improvements proposed in Boston MPO's Long Range Transportation Plan. Refer to the Existing Conditions section for more information on current Red and Blue Line operations.

Preferred Build Alternative

Due to the current operational constraints of Bowdoin station, platform length and loop track configuration, the Preferred Build Alternative for the Project extends the Blue Line from Bowdoin Station to Charles/MGH and eliminates Bowdoin Station from operation. A new subsurface platform would be constructed at Charles/MGH to service the Blue Line. A two-track tunnel would be constructed underneath Cambridge Street within the right-of-way. The preferred method of tunnel construction is C&C (Alternative T3 of the 2021 *Concept Design Report*). The 2021 *Concept Design Report* recommended this tunneling method as an update from the 2010 *DEIR*.

The advantages of using C&C method include lower cost, shorter construction duration, advance utility relocation, flexibility in station design to maximize connectivity and ventilation requirements, and lower project risk compared to other tunneling methods. The preferred station alternative is Station Alternative 1. This alternative locates the station platform close to the existing Charles/MGH headhouse. This option provides customers with the clearest path of travel between the Red and Blue platforms as well an entrance within the future MGH Clinical building. The preferred storage track alternative will be further evaluated and decided in this phase of design. In addition to storage tracks, and in order to maintain a safe stopping distance beyond the platform, tracks to the west of the new Blue Line station will need to be constructed. These tracks will not be used for storage of vehicles or equipment.

Charles/MGH Blue Line Station Rendering



Source: FMCB Red Blue Connector, 2021

Indirect and Cumulative Effects

Summary of Previous Findings

The 2010 DEIR summarizes direct and indirect effects (both beneficial and adverse) from the Build and No Build.

Areas Identified for Further Evaluation

The SDEIR and FEIR will evaluate any changes to the potential indirect and direct impacts on resource categories.

Summary of Impact Avoidance and Mitigation

Avoidance and mitigation of impacts to environmental and social resources has been and will continue to be an integral part of the Red Blue Connector Project throughout the MEPA and NEPA process. The 2010 *DEIR* summarized both expected beneficial and adverse impacts from the Project. Beneficial effects of the Project, in addition to improved transit access for environmental justice communities, would include improved system capacity and extended accessibility. The 2010 *DEIR* found potential adverse impacts from noise generated by vibration and to groundwater. The mitigation proposed for each impact include:

- Noise (ground-borne) generated by vibration – installing special track structures at crossover locations
- Groundwater – installing permeation grouting within the tunnel and underpinning piers and foundations, as necessary

Due to the lapse in time and change in design components, all benefits, impacts, and proposed mitigation will be further evaluated in a SDEIR and Final Environmental Impact Report (FEIR).

Significance of Proposed Change

While the scope of the Project has not changed, there have been slight changes in design since the 2010 *DEIR* and due to the lapse of time, the environmental permitting effort will require further analysis. As was presented to the MEPA office on May 30, 2023, and June 8, 2023, the updated Preferred Build Alternative presented in the 2021 *Concept Design Report* will require a SDEIR and FEIR. The SDEIR and FEIR will analyze the full extent of environmental impacts for the Preferred Build and No Build and update impact avoidance and mitigation efforts.

Anticipated Project Permits and Approvals

Table 1 below lists the expected permits and approvals found in the 2009 EENF and 2010 DEIR. The SDEIR and FEIR will have an updated permits and approvals list.

Table 1 Anticipated Project Permits and Approvals

Agency	Permit/Approval/Review	Status
Federal		
Federal Transit Administration (if federally funded)	Finding of No Significant Impact	To be obtained.
	Section 4(f) Determination	To be obtained.
	Section 106 Finding	To be obtained.
	Federal funding approval	To be obtained.
U.S. Environmental Protection Agency (EPA) – Region I	National Pollutant Discharge Elimination System (NPDES) Permit for stormwater discharges and construction period	To be obtained prior to construction
	Remediation General Permit (EPA, Federal Register, September 9, 2005)	
	Section 61 Findings	
Commonwealth of Massachusetts		
MassDOT/MBTA	State funding approval	To be obtained
	Section 61 Finding	
Department of Environmental Protection (DEP)	Compliance with Massachusetts Stormwater Management Standards and Regulations	Review initiated with this NPC
	Section 61 Finding	To be obtained
Executive Office of Energy and Environmental Affairs (MEPA Office)	Certificate of adequacy from the Secretary	EENF Certificate issued November 15, 2007; DEIR Certificate issued May 28, 2010; NPC submitted herein
Massachusetts Department of Conservation and Recreation	Access permits	To be obtained
	Section 61 Finding	To be obtained
Massachusetts Historical Commission	Approval of archaeological monitoring plan	To be obtained
Massachusetts Water Resource Authority	Compliance with MWRA NPDES permit No. MA0103284 for discharges through the Combined Sewer Overflow system	To be obtained
	Sewer Use Discharge Permit (issued jointly with MWRA)	To be obtained
	8(m) permit	To be obtained
Boston		
City of Boston	Approval for temporary road closings/detours for construction	To be obtained
	Building permits as needed for construction	To be obtained
Boston Conservation Commission	Order of Conditions for work in Bordering Land Subject to Flooding	To be obtained, if required
Boston Water & Sewer Commission	Approval for temporary relocation of stormwater and sewer infrastructure (NPDES Permit No. MA0101192)	To be obtained
	Drainage Discharge Permit and/or Dewatering Discharge Permit	To be obtained
	Sewer Use Discharge Permit (issued jointly with MWRA)	To be obtained

ATTACHMENT 2: Secretary's Certificate

May 2010 Draft Environmental Impact Report

The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Deval L. Patrick
GOVERNOR

Timothy P. Murray
LIEUTENANT GOVERNOR

Ian A. Bowles
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
http://www.mass.gov/envir

May 28, 2010

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

PROJECT NAME	: Red Line/Blue Line Connector
PROJECT MUNICIPALITY	: Boston
PROJECT WATERSHED	: Boston Harbor
EOEA NUMBER	: 14101
PROJECT PROPONENT	: Massachusetts Department of Transportation (MassDOT)
DATE NOTICED IN MONITOR	: April 7, 2010

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 limited Scope provided below.

The Red Line/Blue Line Connector project has the potential to provide environmental and economic benefits associated with increased transit ridership and mobility. However, the project also presents several challenges in the context to MEPA review related to project timing and impact assessment. Design of the project is included in the latest revision of the State Implementation Plan (SIP) and codified in the Massachusetts Department of Environmental Protection's (MassDEP) Transit System Improvement Regulations (310 CMR 7.36). The SIP contains procedures and programs to monitor, control, maintain, and enforce compliance with all national air quality standards per the Clean Air Act (CAA). The design of the Red Line/Blue Line Connector is a specific project outlined in the SIP; a project to be undertaken by the Massachusetts Department of Transportation (MassDOT). As identified in the SIP, final design of the project

must be completed by December 31, 2011 in order to comply with the MassDEP Air Pollution Control Regulations.

The project's inclusion in the latest SIP revision was intended to allow for project design so that the project could be implemented readily should the Commonwealth choose to advance the project. However, at present this project is not listed on the latest Regional Transportation Plan (RTP) for the Commonwealth that identifies transit projects slated for funding and completion in the next 20 years, and no funding sources have currently been identified. Given these circumstances it appears possible that this project will be not constructed within the timeframe typically associated with MEPA review. Under the MEPA regulations, if a project does not commence construction within three years of the availability of the FEIR a Notice of Project Change (NPC) is required, and a new Environmental Notification Form is required after five years. These provisions of the regulations are intended to ensure meaningful review of environmental impacts by requiring review of project-related impacts in light of currently-existing conditions. Therefore, if the Red Line/Blue Line Connector project does not commence construction within these regulatory time periods, supplemental MEPA review may ultimately be required. In order to balance the goals embodied in the SIP of advancing the project to design completion with the constraints inherent in providing detailed information on a project that may not be constructed in the proximate future, I have limited the remaining items to be evaluated to key design features and their related environmental impacts. Those items pertaining to construction period impacts, operations impacts, station design, and other construction-level details, will need to be reconsidered and reviewed by MassDOT upon determination of a construction commencement date when a more meaningful review can occur. However, these topics should be addressed in the Response to Comments to the extent possible.

Commenters on the DEIR have expressed widespread support for the project and its potential to improve air quality, increase public transit ridership, and improve mobility and regional access. The project will also improve access to area medical facilities and public open space along the Charles River. Comments received reflect the challenges associated with environmental review of a project that has achieved a 10 percent design stage and has an undetermined commencement date or funding source. This uncertainty necessarily places some constraints on the project's ability to fully delineate all environmental impacts at this time, as some specific mitigation measures may need to be deferred until design is completed or a construction period context (i.e. timing of construction commencement) is identified. Therefore, I acknowledge MassDOT's need to rely on conceptual or draft plans and mitigation measures during MEPA review as the best available means to disclose and consider environmental impacts in the project design process.

Project Description

As described in the DEIR, the project consists of the extension of the Massachusetts Bay Transportation Authority's (MBTA) Blue Line under Cambridge Street to Charles/MGH Station, eliminating the existing Bowdoin Station within the City of Boston. The project uses realigned tracks from 250 feet west of the Government Center Station to Bowdoin Station and new tracks from Bowdoin Station to Charles/MGH Station. The project consists of several major components: 1) the realignment of the westbound Blue Line track though Bowdoin Station; 2) a

new rapid transit tunnel extending the Blue Line under Cambridge Street, from Joy Street to Charles Circle; 3) a new underground Blue Line Station connected to the existing Charles/MGH Station headhouse; and 4) construction of the North and South Tail Tracks beyond Charles/MGH Station for vehicle storage. The entire project, with the exception of parts of Bowdoin Station and tail tracks, lies within the right-of-way of Cambridge Street. The majority of the project length will have two separate tunnels; at the station platforms and crossover, one broad tunnel will be constructed.

The DEIR included a preliminary cost estimate of the preferred project alternative of $621 million (in 2009 dollars; at the mid-point of construction, the escalated cost would be $748 million) based on a ten percent design level and a 40 percent contingency allowance. The project construction period is estimated at six years. MassDOT has indicated in the DEIR that it has not identified funding for the construction of the project and therefore there is no selected date for commencement of cosntruction. Should additional resources for MBTA expansion projects become available, MassDOT has noted that this project will be one of the projects considered for implementation.

As described in the DEIR, the project is an initiative of MassDOT in coordination with the MBTA to implement enhancements to transit services that will improve mobility and regional access for the residents of East Boston and North Shore communities and the residents of Cambridge and the northwestern suburbs. This project is expected to boost transit ridership, reduce automobile travel through downtown, improve air quality, and reduce congestion in the existing downtown transfer stations.

MassDOT established a Working Group subsequent to the issuance of the Certificate on the Expanded Environmental Notification Form (EENF). This Working Group includes members of neighborhood, civic, and business groups, and the community at-large. According to the DEIR, the Working Group met on five occasions in 2009 and provided critical guidance to both MassDOT and the project consultant team to advance project study and design. I anticipate that this Working Group will continue to convene and provide project guidance to MassDOT throughout the remainder of the MEPA process and into the project's final design and beyond to the construction period. The DEIR indicated that at least six additional meetings are planned as the project progresses.

Procedural History

The EENF was submitted for MEPA review and noticed in the Environmental Monitor on September 25, 2007. On November 15, 2007, I 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. I declined to grant this request for reasons discussed in the Certificate on the EENF. The DEIR received an extended comment period of 45 days, commencing on April 7, 2010 and concluding on May 21, 2010.

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, there remain several unresolved issues requiring additional evaluation that preclude me from exercising my rights to declare that the DEIR will be considered an FEIR.

Project Permitting and Jurisdiction

The project is undergoing review pursuant to Section 11.03(6)(a)(5) because the project is being undertaken by a State Agency and will result in the construction 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 an access permit from the Department of Conservation and Recreation (DCR) for work affecting Charles Circle. The project may require an Order of Conditions from the Boston Conservation Commission. The project may require an 8(m) permit from the Massachusetts Water Resources Authority (MWRA). The project will also require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) and a Remediation General Permit 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.

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. The project as presented in the DEIR is generally consistent with that proposed in the EENF, however several design modifications were proposed that seek to reduce overall environmental impacts. These design modifications include the reduction in project track width from four tracks to two tracks and selection of mined tunnel technology as the preferred construction methodology for the majority of the project length. The DEIR document referenced numerous prior studies associated with various aspects of the project; these studies were included as appendices to the *Alternatives Analysis Technical Report*, prepared by STV, dated 2009.

Project Description and Permitting

The DEIR described the proposed project including anticipated project phasing and estimated project costs at a level commensurate with ten percent design. As noted previously, MassDOT does not have a designated funding source for this project at this time. I received several comments requesting more detailed cost estimates for inclusion in the FEIR. MEPA review is an environmental disclosure process, not a vehicle for detailed evaluation of project costs. Typically, MEPA uses requests for information on project cost as a way to better inform the

balancing of environmental impacts between project alternatives. In this case, completion of preliminary cost estimates revealed that selection of the use of tunnel boring machinery for the majority of the construction process would result in fewer environmental and construction period impacts than a cut-and-cover methodology. The level of detail regarding project costs (with the necessary adjustment for contingencies and inflation due to an uncertain construction commencement date) included in the DEIR is sufficient to assist in the determination that the selected project alternative has sought to avoid, minimize and mitigate Damage to the Environment.

The DEIR provided a history of rapid transit use in the project corridor and the relationship of this project to other MBTA improvement projects, including the Government Center Station and Blue Line railway car upgrades. The DEIR also contained a description of other related regional transportation improvement projects and consistency of the Red Line/Blue Line project with the parallel project goals.

The DEIR included existing conditions plans and supporting narrative descriptions detailing adjacent land uses, existing MBTA stations and tracks/tunnels, historic structures, major utilities, and potentially contaminated properties. Proposed conditions plans depict above ground and below ground project layout, station locations, track alignment, location of stormwater management systems, ventilation buildings and emergency exits, limits of work for both cut and cover and tunnel boring construction techniques, potential staging areas, and other project components. Several comments noted potential advantages to providing additional access to Charles/MGH Station via a full access headhouse at the Grove Street intersection or a pedestrian tunnel leading from Charles/MGH Station directly to land uses located on the north side of Cambridge Street at Charles Circle. While I am not requesting that the FEIR evaluate these project components, I encourage MassDOT to consider these potential future connections when determining final project design and strive not to preclude their implementation should they become feasible at a later date.

The DEIR also described station locations, anticipated access points and circulation, and conceptual station layout. The North Tail Track will be located approximately 400 feet from the proposed west end of the Charles/MGH Blue Line platform to beneath the Massachusetts Eye and Ear Infirmary (MEEI) parking lot. The South Tail Track will be located approximately 300 feet from the west end of the Charles/MGH Blue Line platform to beneath the eastern sidewalk of Charles Street on the south side of Charles Circle. A full crossover will be provided east of Charles/MGH Station Blue Line platform and a left-hand crossover will be provided east of Government Center Station. I encourage MassDOT, as project design advances, to consider comments received regarding the location and layout of the two proposed tail tracks. Notably, but not limited to, ensuring that design does not preclude future transit expansion of the Blue Line and confirming that location of tail tracks will not conflict with reasonably foreseeable work on the Longfellow Bridge or within the Charles River Reservation.

The DEIR described proposed electrical systems including substation locations and signal and communication systems along the project corridor. The DEIR concluded that no permanent land takings will be required to achieve the preferred alternative; however, temporary easements will be required during the construction period, most notably a temporary occupancy permit for

work within the Charles River Reservation from DCR. Finally, the DEIR included a list of anticipated permits and approvals from local, State and federal regulatory authorities.

Alternatives Analysis

Over the years, numerous planning studies have been undertaken by MassDOT to evaluate potential system modifications to better service the Commonwealth's transit riders and improve regional air quality. These studies, along with information shared in the EENF, assisted in narrowing the focus of the alternatives analysis for the scope on the DEIR. The DEIR presented an alternatives analysis that evaluated potential environmental impacts associated with three project alternatives:

1. the No-Build Alternative;
2. Alternative 1 – Red Line/Blue Line Connector with Eliminated Bowdoin Station (the Preferred Alternative); and
3. Alternative 2 – Red Line/Blue Line Connector with Relocated Bowdoin Station.

The DEIR provided a summary of past alternatives analyses and a description of how alternatives were initially evaluated and screened based upon general feasibility, constructability, relative cost, transportation benefit, and environmental impact. The DEIR also discussed the impact of a decommissioned Bowdoin Station on system operations, subway infrastructure (both above grade and below grade), and emergency egress. The preferred alternative (Alternative 1) will improve transit connectivity and result in improved transit times along the Blue Line between Charles/MGH Station and Government Center Station as compared to Alternative 2, but decreased accessibility to transit for passengers. Alternative 2 will improve access to transit as compared to Alternative 1, but will result in decreased transit times along the Blue Line between Charles/MGH Station and Government Center Station. Both alternatives will not adversely impact operations on the Red Line or Blue Line nor preclude operation of local shuttle services. In note that under the preferred alternative, the transit populations served by the existing Bowdoin Station will likely be displaced to either Charles/MGH Station or Government Center Station. I encourage MassDOT, as they advance plans for the upgrades to Government Center Station, to consider the potential to serve riders currently using Bowdoin Station with the construction of a full access headhouse to Government Center Station within the plaza associated with the John F. Kennedy Federal Building.

The DEIR also discussed further paring of alternatives based upon construction methodologies (cut-and-cover versus mined tunnel), with evaluation criteria consisting of transit/service operations, construction impacts, community impacts, environment, relative cost, and coordination. In an effort to avoid, minimize and mitigate Damage to the Environment, the preferred alternative will use a tunnel boring machine for the majority of tunnel construction, with cut-and-cover or sequential excavation mining methods used for the following areas:

1. A 550 foot segment east of Bowdoin Station to allow for track realignment and removal of the tunnel boring machine (cut-and-cover);

2. A 100 foot segment east of Charles/MGH Station to allow for construction of a ventilation room in the area of the track crossover (cut-and-cover); and
3. Construction of the short tail tracks west of Charles/MGH Station (sequential excavation mining) and excavation of a 150 foot segment of North Trail Track to allow for access of the tunnel boring machine (cut-and-cover).

Alternative configurations in track width and train storage locations were considered and ultimately led to the proposed project design, with two tracks and storage tracks provided at the terminus of the Blue Line. The Certificate on the EENF requested that MassDOT (then the Executive Office of Transportation (EOT)) provide a response to the suggested use of a pedestrian tunnel in lieu of a rapid transit connection between Bowdoin Station and Charles/MGH Station. The Certificate did not request the preparation of an alternatives analysis for the pedestrian tunnel at a level commensurate with that requested for the No Build, Build with Elimination of Bowdoin Station and Build with Relocated Bowdoin Station alternatives. Accordingly, MassDOT's response stated that use of a pedestrian tunnel, or people-mover technology was not a viable alternative that met the project's purpose as established by the project Proponent (MEPA, as an environmental disclosure process, does not establish a project's purpose, the Proponent does). Furthermore, MassDOT concluded that a pedestrian tunnel does not meet the regulatory requirement of extending rapid transit service to connect the Red Line and Blue Line as it does not result in an improvement in transit by reducing the existing "three-seat trip" for Blue Line riders who travel to destinations on the Red Line.

The DEIR described impacts associated with each alternative on station location and system operations, project cost, tunnel and track alignment, conceptual station design, stormwater and groundwater management systems and ridership. Information on project-related impacts associated with noise, vibration, air quality, historical resources, environmental justice populations and construction period activities were also presented in a manner that allowed for comparison between project alternatives.

Land

The DEIR clarified jurisdictional areas within the project corridor with regard to right-of-way ownership, identified those areas classified as park lands, and areas designated as Commonwealth Tidelands protected under M.G.L. c.91. Both Cardinal Cushing Park (located near Bowdoin Station) and the Charles River Reservation are protected parks in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth (Article 97). The preferred alternative will not permanently impact park resources within the project area. Modifications to Charles/MGH Station will require the relocation outward of an exterior wall which would limit impact to the existing exterior walkway around the station, which occupies Charles Circle. Underground components of the project will not change the recreational use of the Charles River Reservation or Cardinal Cushing Park. Temporary impacts to park resources during the construction period will include pedestrian detours or access restrictions. MassDOT will obtain a temporary occupancy permit from DCR during the project construction period for work on DCR property and roadways.

The portion of the project area along Cambridge Street east from the river to North Anderson Street, and adjacent land uses and public walkways, are presumed by MassDOT to be Landlocked Tidelands. Temporary (construction period) impacts to Landlocked Tidelands include excavating fill and placing structures along Cambridge Street during the tunnel boring phase of the project. Impacts will also include temporary traffic detouring and limited public access along adjacent walkways during construction. There will be no permanent impacts to Landlocked Tidelands. Contrary to what the proponent concluded in the DEIR, because the project submitted its EENF prior to November 15, 2007, I will not be required to conduct a Public Benefit Determination (301 CMR 13.00) for this project.

The preferred alternative will result in the permanent removal of approximately 175,000 cubic yards of soil. According to the DEIR, spoils from the tunnel boring machine will be temporarily stockpiled on-site before transport, while material from cut-and-cover excavations will be directly loaded into dump trucks and hauled off-site for disposal. The DEIR included as part of the *Alternatives Analysis Technical Report* a Geotechnical Report that analyzed on-site soils and assisted in the selection of construction methodologies.

Transit Ridership

The DEIR and related *Ridership Technical Memorandum* provided updated transit ridership data that incorporated anticipated service area growth and changes in trip distribution and boardings for both Alternative 1 and Alternative 2. The DEIR predicted an increase in ridership on the Blue Line of 4,400 for Alternative 1, and 4,200 for Alternative 2. A comparison of boardings for both alternatives estimated shifts in boardings along the Red Line and Blue Line at Charles/MGH, Park Street, Downtown Crossing, Bowdoin, Government Center, and State Stations. The redistribution of boardings at major downtown transit stations will provide congestion relief in many of the busiest stations within the transit system.

As part of the *Alternatives Analysis Technical Report,* an analysis of ridership and rapid transit operations was prepared. This memorandum discussed the regional travel model set of the Central Transportation Planning Staff (CTPS), which includes a four-step travel-modeling process of trip generation, trip distribution, mode choice, and trip assignment. A model set was developed for the Red Line/Blue Line Connector and presented as the basis for transit ridership models and related project-benefits as presented in the DEIR. This model included assumptions related to subway operating parameters (i.e., number and type of vehicles, vehicle capacity, travel time, and peak and off-peak headways). Vehicle Miles Traveled (VMT) reductions were determined for the design year (2030) based on a comparison of the projected vehicle trips under the No-Build Alternative (new and diverted trips) projected under both build alternatives. This VMT modeling reflected anticipated changes to transportation infrastructure, including projects in the Transportation Improvement Plan (TIP) and long-range regional plans.

Access to Government Center and Charles/MGH Stations are not anticipated to be affected by construction, although pedestrian walkways may be temporarily detoured to accommodate certain construction activities. Bowdoin Station will be closed during construction and Blue Line service will terminate at Government Center Station. Other transportation modes (i.e. public

buses, private hospital shuttle buses) will be temporarily impacted during construction, except for local access to MGH, during night-time and weekend construction hours.

Traffic and Transportation

The project will result in a net reduction of vehicle trips in comparison with a No Build Alternative. Regionally, either build alternative is estimated to reduce weekday VMT by approximately 5,250 (in 2030). Additionally, the primary mode of access to the new Blue Line Station at Charles/MGH would be by walking or by transfer from the Red Line inside the expanded Charles/MGH Station. No dedicated parking is anticipated in conjunction with this project due to its urban location. The project will not result in an increase in headways for either build alternative. Travel times to the end of the line, at Charles/MGH Station, will increase by about 30 seconds for Alternative 1 and two minutes for Alternative 2.

The DEIR included a detailed traffic study that presented existing and proposed conditions under the build and no-build alternatives for traffic volumes, operations, safety, emergency vehicle and truck access, pedestrians and bicycles, and parking. This analysis, subsequent to consultation with DCR, MassDOT, and the City of Boston Transportation Department (BTD), evaluated the following intersections within the study area:

- Charles Circle – Longfellow Bridge outbound/Storrow Drive westbound off-ramp;
- Charles Circle – Charles Street/Storrow Drive eastbound off-ramp/Longfellow Bridge inbound;
- Charles Circle – Charles Street northbound/Storrow Drive westbound on-ramp;
- North Grove Street/Grove Street;
- North Anderson Street/Anderson Street;
- Blossom Street/Garden Street;
- Joy Street;
- Staniford Street/Temple Street;
- New Chardon Street/Bowdoin Street; and
- New Sudbury Street/Somerset Street.

According to the traffic study presented in the DEIR, traffic operations along the majority of intersections along Cambridge Street would see minor improvements to overall average intersection delay under either Alternative 1 or 2, compared to the No-Build Alternative. No intersections would result in a loss of Level of Service. The DEIR indicates that there will be no long-term impacts to emergency access or truck routes in the project area. Pedestrian activity will be modified slightly in the vicinity of Bowdon Station (based upon the retention or elimination of the station) under both project alternatives, as compared to the No-Build scenario. However, pedestrian levels of service will remain unchanged in both Alternatives. Furthermore, neither build alternative will physically alter designated bicycle facilities or public parking supply. Construction period traffic and parking impacts are detailed later in this Certificate.

Air Quality

A key attribute of the Red Line/Blue Line Connector is its potential to reduce local air quality impacts by maximizing public transit service and replacing some vehicle trips with rapid transit. Prior to preparation of the DEIR, MassDOT consulted with both MassDEP and the U.S. EPA regarding air quality modeling protocols. The *Air Quality Technical Memorandum* prepared as part of the *Alternatives Analysis Technical Report* concluded that there were no major differences identified in the local (microscale) analysis of carbon monoxide (CO) emissions in 2030 between the two build alternatives, and both showed improvements when compared to the No-Build Alternative. Emission levels for each alternative are estimated to be below the National Ambient Air Quality Standards (NAAQS) for the 1-hour and 8-hour reporting periods. A regional (mesoscale) analysis estimated the area wide emissions of volatile organic compounds (VOCs), oxides of nitrogen (NOx), carbon dioxide (CO_2), CO, and particulate matter ((PM) both PM_{10} and $PM_{2.5}$) in 2030. The DEIR concluded that all project alternatives would result in reductions of these pollutants as compared to 2009 levels, and all parameters would be below the current applicable NAAQS. The project is not expected to generate any substantial amount of air toxics in the study area because the train engines are electric and will not result in the combustion of fuels. The DEIR included modeling data and assumptions to support the conclusions of the *Air Quality Technical Memorandum*.

The DEIR states that the project, as proposed, is consistent with the SIP and MassDEP's Transit Regulations because either build alternative will result in decreased emissions of regulated air pollutants as compared to the No-Build Alternative and MassDOT is advancing project design to meet the SIP requirement to have the project's final design completed by December 31, 2011. The project will not require State or Federal Agency air quality permits.

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.

Noise/Vibration

The DEIR presented an analysis of existing and proposed noise and vibration conditions along the project corridor for both build alternatives, 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.

Generally, the use of an underground subway tunnel effectively mitigates airborne noise generated by trains. Airborne noise sources from transit operations are limited to a traction power substation near Charles/MGH Station and fans in ventilation shafts in the median of Cambridge Street at North Anderson Street and near the eliminated Bowdoin Station. The DEIR concluded that there will be no potential airborne noise impact from transit operations and no mitigation or noise monitoring program will be required for operations-related noise impacts.

As part of the noise analysis, the DEIR also considered construction period noise impacts associated with the potential types of construction equipment that may be used. Potential noise impact from construction activities were assessed as FTA Category 2 (residential, hotel, hospital beds) receptors for daytime, evening and nighttime periods and at institutional and commercial receptors for the daytime period. The DEIR concluded that short-term construction period noise impacts in a worst-case scenario without mitigation may impact up to 26 residential properties and 26 commercial and institutional properties. As mitigation, the DEIR has proposed the preparation of a Noise Control Plan in conjunction with the selected contractor's specific equipment, schedule, and methods of construction, specification maximum noise limits for each equipment type, prohibition of certain types of equipment during nighttime hours, and engineering noise control measures.

According to the DEIR, vibration levels may increase during Red Line/Blue Line operations. The DEIR evaluated potential impacts of ground-borne vibration for humans in residential, institutional, and special buildings, vibration-sensitive equipment, and damage to structures. The DEIR concluded that there would be no adverse effect of ground-borne vibration impact from transit operations to hotels, hospital beds, institutional land uses, or sensitive equipment. The DEIR identified potential operational ground-borne vibration impacts to four multi-family residences near the crossover by Charles/MGH Station. Mitigation measures consisting of spring-rail frogs, moveable-point frogs, or flange-bearing frogs will be implemented to eliminate this vibration source. MassDOT has indicated that there will be no operations-related vibration monitoring plan.

The DEIR concluded that vibration levels may increase during the construction period at the MEEI building at 325 Cambridge Street and the multi-family residential building at 315 Cambridge Street. The DEIR notes that there are no regulatory requirements for managing vibration during construction activities. To mitigate potential impacts, the selected contractor will need to use specific construction methodologies and equipment. MassDOT should specifically

work with these property owners when finalizing design and selection construction methodologies to ensure that vibration impacts can effectively be mitigated.

Stormwater

The DEIR described existing surface water (Charles River) and stormwater management resources within the project corridor. The DEIR illustrated the location of existing drainage areas and treatment control structures. The stormwater management system is controlled primarily by the Boston Water and Sewer Commission (BWSC); however, some storm drains and outfalls are privately owned or are owned by agencies such as MassDOT or DCR. The Cambridge Street corridor contains a piped system that carries both sewage and stormwater flows to the MWRA Deer Island Wastewater Treatment plant. According to the DEIR, the Cambridge Street corridor is comprised of one drainage area that discharges to one Combined Sewer Overflow (CSO) outfall along the Charles River (MWRA022).

The existing stormwater management system will be temporarily altered and relocated during construction to accommodate excavation activities. The DEIR states that the drainage system will be reconstructed to its original alignment in accordance with BWSC requirements upon completion of each phase of construction. Altered CSO infrastructure will be separated into stormwater and sanitary sewer infrastructure per the BWSC Sanitary Sewer regulations. The DEIR contained a stormwater management plan, prepared in compliance with the MassDEP Stormwater Management Standards and Regulations (2008) and NPDES CGP requirements. As a redevelopment project, the project will meet Standards 1,2, and 3, as well as the pretreatment and Best Management Practices (BMPs) requirements of Standard 4 of the MassDEP Stormwater Management Standards and Regulations. The project will seek coverage under the existing BWSC NPDES permit for CSO discharges to the Charles River. The DEIR also included a draft Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with the NPDES CGP for use during the construction period, as well as a draft post-construction erosion and sedimentation control plan. The MassDEP comment letter has identified construction-related concerns pertaining to temporary relocation of portions of the drainage system and detention of stormwater during construction. MassDOT should consider these concerns in final project design.

Groundwater

The DEIR presented information on project area soils and groundwater conditions, as well as associated regulatory permitting requirements. The DEIR indicated that according to the Boston Groundwater Trust (BGT) groundwater in the project vicinity (Shawmut Peninsula) is altered from natural conditions (i.e. drawdown) due to impacts from the local sewer system. The permanent tunnels, stations, and auxiliary underground structures required for the project will be designed to be as waterproof as practicable to avoid issues associated with permanently lowering the groundwater table. Preliminary estimates presented in the DEIR conclude that leakage into the permanent structures will be less than aquifer recharge. Portions of the project area are located within in an expected zone of settlement. MassDOT will develop a monitoring program to identify and remedy problem situations related to structural integrity. MassDOT will also implement a groundwater monitoring program that will continue after construction to ensure that adverse long-term impacts to the water table do not occur. The DEIR included a description of

test parameters associated with a groundwater monitoring plan that would be used during the pre-construction, active construction, and post-construction periods. Dewatering is anticipated during the construction period and the project will likely require an MWRA Temporary Construction Site Dewatering Discharge Permit.

Open Space and Historic Resources

The DEIR discussed previously known and documented historic and archaeological resources, as well as newly identified resources that are listed, determined eligible for listing, or recommended eligible for listing in the Massachusetts State Register (State Register) and the National Register of Historic Places (National Register). The DEIR included a summary of historic properties within the project's Area of Potential Effect (APE). The majority of the project area has no to low archaeological sensitivity, however due to the location of the historic shoreline, the project area extending west from Anderson Street and including Charles Circle is considered a high archaeological sensitivity area. Detailed descriptions of historic resources within the APE were evaluated as part of the Historic Resources Reconnaissance Survey appended to *Alternatives Analysis Technical Report*.

Studies performed in conjunction with the preparation of the DEIR have concluded that the project will not directly impact any historic resources, as there would be no operational noise, vibration, or land acquisition impacts that would deem the project non-compliant with regulatory requirements. The DEIR presented mitigation measures to offset potential impacts to archaeological resources that may occur during the construction period. MassDOT has identified the need for additional archaeological investigations in high sensitivity areas to locate, identify, evaluate, and record significant cultural deposits.

MassDOT will develop a monitoring program to describe archaeological resource management requirements if resources are encountered during construction activities. The MHC letter on the DEIR has requested that historic structures in the APE be monitored during construction for any potential adverse effects. The DEIR indicated that MassDOT has initiated consultation with MHC to develop the monitoring plan. This monitoring program will be developed in consultation with the Massachusetts Historical Commission (MHC) to ensure compliance with regulatory requirements including, but not limited to, the National Historic Preservation Act of 1966. Finally, MHC has recommended that consideration be given to historic resources during the advancement of station design and potential impacts to the Beacon Hill Historic District associated with the above ground structures proposed as part of the project. I encourage MassDOT to work with MHC during the ongoing consultation process to address these concerns.

Hazardous Waste/Contaminated Soils

The DEIR included a description of potential hazardous materials (including special wastes) and solid wastes present or potentially present within and surrounding the project area. The DEIR included an updated list of hazardous waste sites consistent with MassDEP comments and a summary of contaminated sites immediately adjacent to the project corridor characterizing the nature of contamination and clean-up status. MassDOT has performed a Limited

Environmental Site Assessment for the project which identified over 400 hazardous material disposal sites within, adjacent to, or in the vicinity of the project area and recorded the Massachusetts Contingency Plan (MCP) database. The DEIR indicated that a subset of 34 MCP-listed sites were determined to have some potential to impact soils or groundwater within the project corridor. Three of these sites were determined to have a high potential for impact and were evaluated in detail as part of the DEIR.

A soil and groundwater management plan, describing testing protocols, on-site management, and eventual treatment or disposal, will be finalized prior to construction. The DEIR included a draft Soil and Groundwater Management Plan, prepared based upon the current level of design. This document discusses soil stockpiling and disposal, groundwater management protocols, potential permitting requirements, and responsible parties. The DEIR also discussed solid waste and hazardous waste management issues associated with the construction and demolition of Bowdoin Station.

MassDEP has indicated that pre-characterization of soils within the excavation alignment will be necessary. Additionally, dust/air monitoring will need to be conducted to establish action levels for implementing engineering controls and/or stop work orders. Based upon determined reportable concentration (RC) levels, soils will need to be disposed of in accordance with applicable MassDEP regulations. Groundwater proposed for recharge back into the subsurface will also be required to meet applicable groundwater RC standards or discharged upgradient of the excavation within the capture zone. I expect MassDOT to establish decontamination specifications upon completion of final project design. These specifications should be prepared consistent with applicable MassDEP regulations and guidelines.

Water/Wastewater

Wastewater flows generated during the construction will be limited to stormwater and collected groundwater (from seepage) that will need to be treated and discharged in accordance with MassDEP and BWSC requirements. Staff restrooms will be provided at the Charles/MGH Station, with nominal wastewater flows and water supply requirements anticipated.

Construction Period Impacts

As indicated in the DEIR, the majority of project-related impacts will be temporary in nature and incurred during the construction period. Both build alternatives will have the same temporary construction impacts primarily associated with the open cut-and-cover excavations between Bowdoin Station and Government Center Station, and near Charles/MGH Station. A preliminary general Construction Phasing Plan was presented, consisting of six major phases and a construction duration of six years, three months. No permanent construction easements will be necessary to facilitate construction or operation of the project; however, temporary construction easements will be required from DCR for work within the Charles River Reservation, from MEEI for work in the parking lot under the elevated Red Line, and from the Boston Redevelopment Authority for work in the plaza in front of the John F. Kennedy Federal Building. I note comments received from MWRA indicating that an 8(m) permit may be required for construction-related work near MWRA infrastructure or within MWRA easements.

The project will comply with MassDEP's Solid Waste and Air Quality Control regulations during construction. MassDOT has committed to conducting construction activities in accordance with appropriate City of Boston ordinances for managing nuisance conditions including dust, noise, odor, and rodent control. To accommodate a project staging area, access to the MEEI parking lot north of Charles/MGH Station, leased from DCR to MEEI, will be eliminated during construction. A temporary parking structure will be placed on a portion of the site to mitigate the loss of full access to the parking lot by MEEI.

MassDOT has presented a conceptual Traffic Management Plan that maintains four lanes of traffic along Cambridge Street, with the exception of weekends and overnight during some periods. This Traffic Management Plan seeks to direct through traffic around residential areas within the West End and Beacon Hill. Impacts to pedestrian access to businesses and public transportation will be minimized through use of temporary walkways and detours. The DEIR identified the location and scale of construction period impacts to parking and loading zones within the project corridor. Given the proximity of the project to hospitals and a Boston Fire Department Station, MassDOT has committed to maintain emergency access at all times throughout the area. However, temporary disruptions to existing emergency vehicle, Partners Shuttle, and truck routes will occur during the closure and detour of Cambridge and New Sudbury Streets on nights and weekends over the course of the project. As design advances, MassDOT must coordinate closures with emergency response officials to ensure unimpeded access as needed to these important facilities. The DEIR also presented truck routes for use by vehicles involved in the soil removal process during construction. I note the comments received from DCR on the proposed truck routes and potential conflicts with restrictions on DCR Parkways; MassDOT should consider this guidance prior to finalizing truck routing plans.

To mitigate construction period air quality impacts, MassDOT and the MBTA will contractually require the construction contractors to adhere to all applicable regulations regarding control of construction vehicle emissions. Excessive idling of construction equipment will be implemented as required by MassDEP regulations (310 CMR 7.11). Finally, all construction specifications will require that all diesel construction equipment use on-site be fitted with after-engine emission controls, such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs).

The DEIR indicated that a complete inventory of affected utilities will be conducted as design advances. Buried utilities within each open excavation area will be temporarily relocated during construction. The selection of a construction methodology that predominantly utilizes a tunnel boring machine will reduce project impacts on utility infrastructure. The DEIR notes that the West Side Interceptor and the Boston Marginal Conduit, major components of the Boston Main Drainage System (BMDS) will need to be relocated during construction and replaced in their original location upon completion of excavation work.

As noted previously, the Red Line/Blue Connector project is not scheduled or programmed for construction. The project corridor is proximate to a number of large-scale infrastructure projects that are scheduled to be constructed in the next five to 20 years. In discussing the Red Line/Blue Line Connector's consistency with regional projects and planning, the DEIR notes that

the three other projects within 0.25 miles of the project corridor are all slated to commence and complete construction in advance of construction of the Red Line/Blue Line Connector. The Construction Phasing Plan and Traffic Management Plan presented in the DEIR remain conceptual in nature, reflective of the project's design status (ten percent). MassDOT intends to keep these plans flexible to allow for integration with other nearby transportation projects as necessary. Members of the Working Group should remain engaged in the finalization of these construction period management plans.

SCOPE

As discussed above, I am providing the following Scope for the preparation of a FEIR, limited to the topics outlined below which related to finalizing project design. Although I recognize that this Scope will not address every issue raised by project commenters, and in particular will not resolve outstanding issues related to detailed construction period management and mitigation, I am confident that resolution of the remaining aspects listed below will allow MassDOT to demonstrate that the project has fully complied with the requirements of MEPA and the SIP. Additional topics will be addressed through the state and local permitting process at the time the project ultimately moves forward and through MassDOT's ongoing community involvement processes with the established project Working Group. As noted above, additional details may be reviewed if further MEPA review is required in the future. I also expect that issues raised in comment letters will be comprehensively addressed in the Response to Comments required below.

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.

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.

Article 97 Land

The FEIR should confirm the proposed placement of permanent ventilation/access shafts associated with the project on DCR property. If these permanent structures will be placed on DCR property, they will be subject to Article 97 and the FEIR must discuss how the project will meet the Executive Office of Energy and Environmental Affairs (EEA) Article 97 Policy. To further assist in the assessment of potential project impacts to Article 97 lands, the FEIR should provide additional information on the proposed temporary parking structure to be located in the MEEI parking lot as requested in the DCR comment letter on the DEIR. Additionally, DCR has indicated that soil stockpiling at the MEEI parking lot may be restricted by existing road infrastructure that bisects the property. MassDOT should affirm in the FEIR that the parking

parcel is sufficient to accommodate the various project needs. If not, the FEIR should present conceptual locations to meet project staging, parking and stockpiling needs within the project corridor.

Stormwater

The FEIR should respond to MassDEP's comment noting that the MWRA and the *Final Nutrient TMDL Development for the Lower Charles River Basin* TMDL indicate that the CSO outfall, MWRA022, designed to receive flows from the project, is closed. The FEIR should provide revised information on the drainage system and NPDES permit requirements, or the issue should be explained further to resolve the contradiction. Furthermore, the FEIR should address how project stormwater discharges will affect the Prison Point facility and the MWRA's Boston Marginal Conduit. As requested by MassDEP, the FEIR should address how water quality improvement measures may be incorporated into the project design for consistency with the applicable NPDES General Permit.

Mitigation/Section 61 Findings

The FEIR should include a separate chapter on mitigation measures. This chapter on mitigation should include updated draft Section 61 findings for each State Agency action. The draft Section 61 Findings should contain a clear commitment to specific mitigation items and/or the establishment of construction period mitigation plans, a conceptual schedule for implementation, an estimate of the individual costs of the proposed mitigation to the maximum extent that they can be determined at this time, and the identification of the parties responsible for implementing the mitigation.

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. 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. In addition, a copy of the FEIR should be made available for public review at the Boston, Revere, Chelsea, Winthrop, Cambridge, and Somerville public libraries.

May 28, 2010
Date

Ian A. Bowles

Comments received:

04/14/2010 Dan Fox
05/11/2010 Salvatore LaMattina, Boston City Councilor, District 1
05/19/2010 Partners HealthCare System, Inc. and its affiliate Massachusetts General Hospital
05/20/2010 Carlo Basile, State Representative, 1st Suffolk District
05/20/2010 MassDOT (public hearing transcript)
05/20/2010 Massachusetts Water Resources Authority
05/20/2010 A Better City
05/21/2010 Sierra Club
05/21/2010 Massachusetts Department of Environmental Protection – NERO
05/21/2010 Massachusetts Historical Commission
05/21/2010 Conservation Law Foundation
05/21/2010 Fred Salvucci
05/21/2010 Walk Boston
05/21/2010 Edward O. Nilsson
05/21/2010 Downtown North Association
05/21/2010 Massachusetts Department of Conservation and Recreation
05/25/2010 Mayor Thomas G. Ambrosino, City of Revere
05/25/2010 Metropolitan Area Planning Council

IAB/HSJ/hsj

This Page Intentionally Left Blank

ATTACHMENT 3: Figures

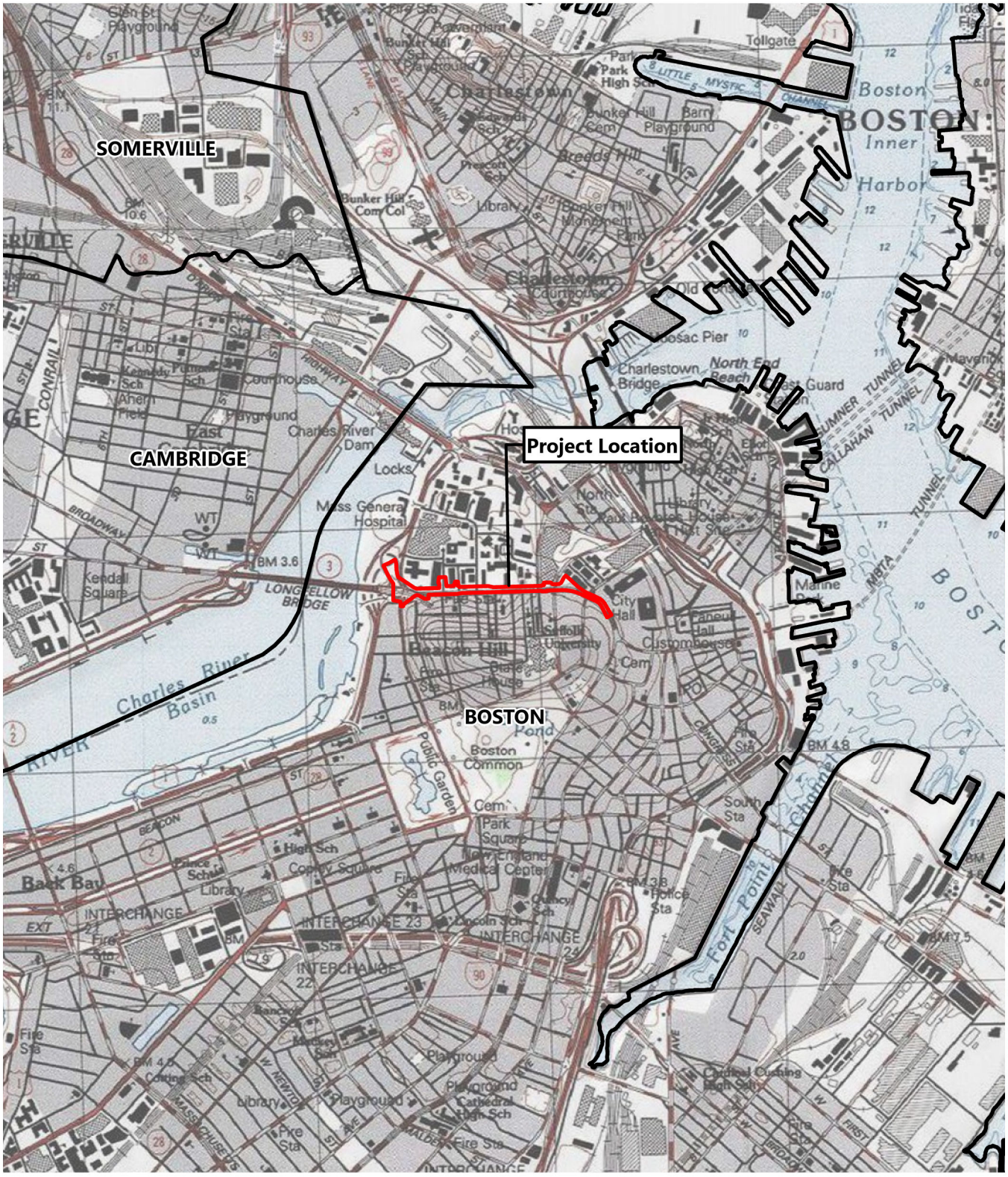
Figure 1: USGS Project Boundary and Location

Figure 2a & 2b: Previously Reviewed Build Condition

Figure 3: Currently Proposed Build Condition

Figure 1: USGS Site Location Map

MBTA Red-Blue Connector | Boston, Massachusetts



Path: \\vhb\gis\proj\Boston\15833.00\Project\MBTA Red Blue USGS Map\MBTA Red Blue USGS Map.aprx (SPelletier, 9/19/2023)

Source: USGS, MassGIS, VHB, MBTA

\\MABOS\projects\10803.00\GIS\project\EIR\Fig 3-4a Alternative-1 Concept West.mxd

Legend

- Project Area
- Proposed Open Mined Shaft
- Track Alignment
- Proposed Tunnel
- Proposed Platform
- Existing Blue Line Track Alignment
- Cut and Cover
- Sequential Excavation Mining
- Tunnel Boring Machine

0 30 60 120 Feet

Red Blue Connector Project

Figure 2a:

Previously Reviewed Build Condition (2010 DEIR)

Sources: MassGIS & BWSC

\\MABOS\projects\10803.00\GIS\project\EIR\Fig. 3-4b Alternative-1 Concept East.mxd

Legend

- Project Area
- Proposed Open Mined Shaft
- Track Alignment
- Proposed Tunnel
- Proposed Platform
- Existing Blue Line Track Alignment
- Cut and Cover
- Sequential Excavation Mining
- Tunnel Boring Machine

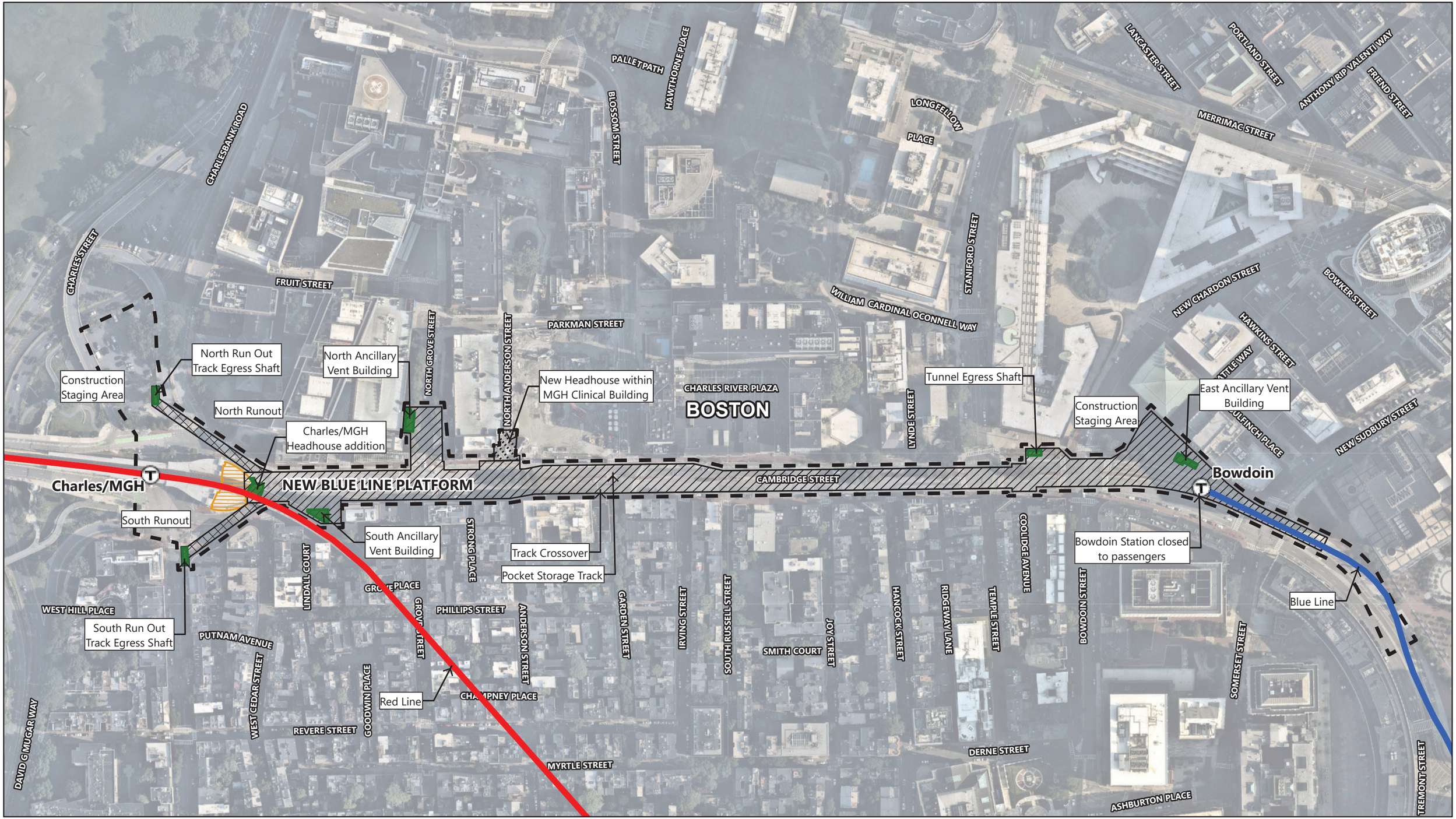
0 30 60 120 Feet

Red Line/ Blue Line Connector Project

Figure 2b:

Previously Reviewed Build Condition (2010 DEIR)

Sources: MassGIS & BWSC



Project Area
Red Line
Blue Line
MBTA Tranist Station

Cut and Cover
SEM
Station Headhouse Within New MGH Building
New Above Grade Structures
Existing Charles/MGH Headhouse

0 210 420 Feet

Source: VHB, MassGIS
Aerial Date: October 2021

Massachusetts Bay Transportation Authority

Red Blue CONNECTOR

Red Blue Connector

Figure 3:

Currently Proposed Build Condition

This Page Intentionally Left Blank

ATTACHMENT 4: Circulation List

Notice of Project Change Circulation List

Below is a list of all agencies and persons to whom the Proponent circulated the Notice of Project Change, in accordance with 301 CMR 11.16(3).

Federal Agencies

U.S. Department of Transportation Federal Transit Administration Attn: Peter Butler, Regional Administrator, Region 1 Kendall Square 55 Broadway, Suite 920 Cambridge, MA 02142-1093	U.S. Department of Transportation Federal Highway Administration Transportation Systems Center Attn: Joi Singh, Division Administrator Kendall Square 55 Broadway, Suite 910 Cambridge, MA 02142-1093

State and Regional Agencies and Officials

Executive Office of Energy and Environmental Affairs Attn: MEPA Office 100 Cambridge Street, Suite 900 Boston, MA 02114 mepa@mass.gov	Massachusetts Department of Transportation Public/Private Development Unit Attn: J. Lionel Lucien 10 Park Plaza Suite #4150 Boston, MA 02116 MassDOTPPDU@dot.state.ma.us
Department of Environmental Protection Attn: Commissioner's Office One Winter Street Boston, MA 02108 helena.boccodaro@mass.gov	Massachusetts Department of Transportation – District #6 Attn: MEPA Coordinator 185 Kneeland Street Boston, MA 02111 michael.garrity@dot.state.ma.us
Massachusetts Historical Commission Attn: Brona Simon The MA Archives Building 220 Morrissey Boulevard Boston, MA 02125 brona.simon@state.ma.us	Massachusetts Water Resources Authority Attn: MEPA Coordinator 100 First Avenue Charlestown Navy Yard Boston, MA 02129 katherine.ronan@mwra.com
Metropolitan Area Planning Council Attn: Executive Director 60 Temple Place Boston, MA 02111 mpillsbury@mapc.org afelix@mapc.org	Massachusetts Aeronautics Commission Attn: Jeffrey DeCarlo, Administrator 10 Park Plaza, Room 3510 Boston, MA 02116 Jeffrey.decarlo@dot.state.ma.us

MEPA Office Attn: EEA EJ Director 100 Cambridge Street, Suite 900 Boston, MA 02144 MEPA-EJ@mass.gov	Department of Conservation & Recreation Attn: MEPA Coordinator 10 Park Plaza Suite 6620 Boston, MA 02116 andy.backman@mass.gov
Massachusetts Highway Department Attn: Highway Administrator 10 Park Plaza, Room 3170 Boston, MA 02116 jonathan.gulliver@dot.state.ma.us	Boston Region Metropolitan Planning Organization c/o Central Transportation Planning Staff Attn: Tegin Teich, Executive Director 10 Park Plaza, Room 2150 Boston, MA 02116 tteich@ctps.org

Local Agencies

City of Boston Transportation Department Attn: Vineet Gupta, Director of Planning One City Hall Square, Room 721 Boston, MA 02201 vineet.gupta@boston.gov	City of Boston The Environmental Department Attn: Dr. Allison Brizius, Commissioner of Environmental Department One City Hall Square, Room 805 Boston, MA 02201 environment@boston.gov
Boston Planning & Development Agency Attn: Arthur Jemison 1 City Hall Square, 9th Floor Boston, MA 02201 James.Jemison@boston.gov	Mayor's Office Attn: Michelle Wu 1 City Hall Plaza Boston, MA 02201 mayor@boston.gov
City of Boston Public Library, Central Branch Attn: Kristin Parker, Curator of Govt. Documents 700 Boylston Street Boston, MA 02116 kparker@bpl.org	City of Boston Public Library, East Boston Branch Attn: Margaret Kelly, Branch Librarian 276 Meridian Street East Boston, MA 02128 mkelly@bpl.org
City of Boston Public Library, South End Branch Attn: Christina Jones, Branch Librarian 685 Tremont Street Boston, MA 02118 cjones@bpl.org	City of Boston Public Library, West End Branch Attn: Lauren Lepanto, Branch Librarian 151 Cambridge Street Boston, MA 02114 llepanto@bpl.org

Notice of Project Change Circulation List

City of Boston City Council Main Office Attn: Ed Flynn, Boston City Council President 1 City Hall Plaza, 5th Floor Boston, MA 02201 ed.flynn@boston.gov	City of Boston Public Health Commission Attn: Dr. Bisola Ojikutu 1010 Massachusetts Avenue, 2nd Floor Boston, MA 02118 info@bphc.org
City of Revere City Hall, Office of Mayor Attn: Patrick M. Keefe Jr. 281 Broadway Revere, MA 02151	City of Revere Office of Planning & Community Development Attn: Tom Skwierawski, Chief of Planning and Community Development 281 Broadway Revere, MA 02151
Revere Public Library Attn: Frank Schettino, Chair 179 Beach Street Revere, MA 02151 rev@noblenet.org	City of Revere Board of Health Attn: Lauren Buck, Director, Department of Public Health 249R Broadway Revere, MA 02151
City of Revere Conservation Commission Office of Planning & Development City Hall, 281 Broadway Revere, MA 02151 concom@revere.org	City of Chelsea Attn: Edward (Ned) Keefe, City Manager City Hall, 500 Broadway Chelsea, MA 02150
City of Revere City Council Chamber, City Hall Attn: Joanne McKenna, President 281 Broadway, Room 16 Revere, MA 02151	Chelsea Public Library Attn: Robert Collins, Director 569 Broadway Chelsea, MA 02150
City of Chelsea Office of Planning & Development Chelsea City Hall Attn: Alexander Train, AICP Chelsea, MA 02150 atrain@chelseama.gov	City of Chelsea City Council, Chelsea City Hall Attn: Leo Robinson, City Council President 500 Broadway, Room 306 Chelsea, MA 02150 lrobinson@chelseama.gov
City of Chelsea Board of Health, Chelsea City Hall Attn: Flor Amaya, Director of Public Health 500 Broadway Chelsea, MA 02150 famaya@chelseama.gov	Town of Winthrop Town Council, Winthrop Town Hall Attn: James Letterie 1 Metcalf Square Winthrop, MA 02152 jletterie@town.winthrop.ma.us

Notice of Project Change Circulation List

Town of Winthrop Winthrop Town Hall Attn: Tony Marino, Town Manager 1 Metcalf Square Winthrop, MA 02152 amarino@town.winthrop.ma.us	Town of Winthrop Conservation Commission Winthrop Town Hall Attn: Brian D. Corbett, Member 1 Metcalf Square Winthrop, MA 02152 conservation@town.winthrop.ma.us
Winthrop Public Library Attn: Greg McClay, Director 2 Metcalf Square Winthrop, MA 02152 gmcclay@noblenet.org	City of Cambridge Office of the Mayor, City Hall Attn: Sumbul Siddiqui, Mayor of Cambridge 795 Massachusetts Avenue Cambridge, MA 02139 mayor@cambridgema.gov
Town of Winthrop Planning Board, Winthrop Town Hall Town Manager's Office Attn: Christopher Boyce, Chair 1 Metcalf Square Winthrop, MA 02152 PLANNINGBOARD@TOWN.WINTHROP.MA.US	City of Cambridge Traffic, Parking & Transportation Dept. Attn: Brooke McKenna, Transportation Commissioner 238 Broadway Cambridge, MA 02139 tpt@cambridgema.gov
City of Cambridge Community Development Dept. Attn: Iram Farooq, Assistant City Manager of Community Development 344 Broadway Cambridge, MA 02139 ifarooq@cambridgema.gov	City of Cambridge Transportation Dept. Attn: Brooke McKenna, Transportation Commissioner 344 Cambridge, MA 02139 tpt@cambridgema.gov
City of Cambridge Public Library, Central Branch Attn: Dr. Maria McCauley 449 Broadway Cambridge, MA 02139 library@cambridgema.gov	Cambridge Historical Commission Lombardi Building Attn: Charles Sullivan 831 Massachusetts Avenue, 2nd Floor Cambridge, MA 02139
City of Cambridge, City Council Cambridge City Hall, 2nd Floor 795 Massachusetts Avenue Cambridge, MA 02139 CityCouncil@CambridgeMA.GOV	City of Cambridge Public Library, East Cambridge Branch Attn: Reference Desk 48 Sixth Street Cambridge, MA 02139 library@cambridgema.gov

City of Somerville Somerville City Hall Attn: Katjana Ballantyne, Mayor 93 Highland Avenue Somerville, MA 02143 kballantyne@somervillema.gov	City of Cambridge Public Health Department Attn: Derrick Neal, Chief Public Health Officer 119 Windsor Street, Ground Level Cambridge, MA 02139 dneal@challiance.org
City of Somerville Traffic and Parking Attn: Suzanne Rinfret 133 Holland Street Somerville, MA 02144 SRinfret@somervillema.gov	Office of Mayor Somerville City Hall Attn: Lammis Vargas, Chief Administrative Officer 93 Highland Avenue Somerville, MA 02144 lvargas@somervillema.gov
Somerville DPW Attn: Jill Lathan 1 Franey Road Somerville, MA 02143 jlathan@somervillema.gov	City of Somerville Public Library, Central Branch Attn: Cathy Piantigini 79 Highland Avenue Somerville, MA 02143 cpiantigini@somervillema.gov
Bill White City of Somerville Alderman 16 Browning Road Somerville, MA 02145	Tom Taylor City of Somerville Alderman 32 Vinal Avenue Somerville, MA 02143
City of Somerville Office of Strategic Planning & Community Development Attn: Thomas Galligani Somerville City Hall 93 Highland Avenue Somerville, MA 02143 tgalligani@somervillema.gov	City of Somerville Health Department City Hall Annex, Attn: Karin Caroll 50 Evergreen Avenue Somerville, MA 02143 kcarroll@somervillema.gov
Massachusetts Department of Environmental Protection – Northeast Regional Office Attn: MEPA Reviewer 150 Presidential Way Woburn, MA 01801	

Elected Officials

City	Office/Title	Name	Contact
Boston	Chief of Staff to the Mayor	Tiffany Chu	tiffany.chu@boston.gov
Boston	City Council President/Ward 2	Ed Flynn	ed.flynn@boston.gov
Boston	City Councilor at Large	Michael Flaherty	michael.f.flaherty@boston.gov
Boston	City Councilor at Large	Ruthzee Louijeune	ruthzee.louijeune@boston.gov
Boston	City Councilor at Large	Julia Mejia	julia.mejia@boston.gov

Boston	City Councilor at Large	Erin Murphy	erin.murphy@boston.gov
Boston	City Council Ward 1	Gabriela Coletta	gabriela.coletta@boston.gov
Boston	City Council Ward 3	Frank Baker	frank.baker@boston.gov
Boston	City Council Ward 4	Brian Worrell	brian.worrell@boston.gov
Boston	City Council Ward 5	Ricardo Arroyo	ricardo.arroyo@boston.gov
Boston	City Council Ward 6	Kendra Lara	kendra.lara@boston.gov
Boston	City Council Ward 7	Tania Fernandes Anderson	tania.anderson@boston.gov
Boston	City Council Ward 8	VACANT	
Boston	City Council Ward 9	Liz Breadon	liz.breadon@boston.gov
Boston	Mass. House 1st Suffolk	Adrian Madaro	adrian.madaro@mahouse.gov
Boston	Mass. House 2nd Suffolk	Dan Ryan	dan.ryan@mahouse.gov
Boston	Mass. House 3rd Suffolk	Aaron Michlewitz	aaron.michlewitz@mahouse.gov
Boston	Mass. House 4th Suffolk	David Biele	david.biele@mahouse.gov
Boston	Mass. House 5th Suffolk	Chris Worrell	christopher.worrell@mahouse.gov
Boston	Mass. House 6th Suffolk	Russell Holmes	russell.holmes@mahouse.gov
Boston	Mass. House 7th Suffolk	Chynah Tyler	chynah.tyler@mahouse.gov
Boston	Mass. House 8th Suffolk	Jay Livingstone	jay.livingstone@mahouse.gov
Boston	Mass. House 12th Suffolk	Brandy Fluker Oakley	brandy.flukeroakley@mahouse.gov
Boston	Mass. House 13th Suffolk	Dan Hunt	daniel.hunt@mahouse.gov
Boston	Mass. House 14th Suffolk	Rob Consalvo	rob.consalvo@mahouse.gov
Boston	Mass. House 15th Suffolk	Samantha Montano	samantha.montano@mahouse.gov
Boston	Mass. Sen. Suffolk-Norfolk	Mike Rush	mike.rush@masenate.gov
Boston	Mass. Sen. 1st Suffolk	Nick Collins	nick.collins@masenate.gov
Boston	Mass. Sen. 2nd Suffolk	Liz Miranda	liz.miranda@masenate.gov
Boston/Revere	Mass. Sen. 3rd Suffolk	Lydia Edwards	lydia.edwards@masenate.gov
Boston	Mass. Sen. Suffolk-Middlesex	Will Brownsberger	will.brownsberger@masenate.gov
Boston/Cambridge	Mass. Sen. Middlesex-Suffolk	Sal DiDomenico	sal.didomenico@masenate.gov
Cambridge	Mass. Sen. 2nd Middlesex	Pat Jehlen	patricia.jehlen@masenate.gov
Cambridge	Mass. House 25th Middlesex	Marjorie Decker	marjorie.decker@mahouse.gov
Cambridge	Mass. House 26th Middlesex	Mike Connolly	mike.connolly@mahouse.gov
Cambridge	City Council	Burhan Azeem	bazeem@cambridgema.gov
Cambridge	City Council	Dennis Carlone	dcarlone@cambridgema.gov
Cambridge	City Council	Alanna Mallon	amallon@cambridgema.gov
Cambridge	City Council	Marc McGovern	mmcgovern@cambridgema.gov
Cambridge	City Council	Patricia Nolan	pnolan@cambridgema.gov
Cambridge	City Council	E. Denise Simmons	dsimmons@cambridgem.gov
Cambridge	City Council	Paul Toner	ptoner@cambridgema.gov
Cambridge	City Council	Quinton Zondervan	qzondervan@cambridgema.gov
Revere	Mass. House 16th Suffolk	Jessica Giannino	jessica.giannino@mahouse.gov

Revere	Mass. House 19th Suffolk	Jeffrey Turco	jeffrey.turco@mahouse.gov
Revere	City Council President/Ward 1	Joanne McKenna	jmckenna@revere.org
Revere	City Council at Large	Steve Morabito	smorabito@revere.org
Revere	City Council at Large	Dan Rizzo	drizzo@revere.org
Revere	City Council at Large	Anthony Zambuto	azambuto@revere.org
Revere	City Council at Large	Marc Silvestri	msilvestri@revere.org
Revere	City Council at Large	Gerry Visconti	gvisconti@revere.org
Revere	City Council Ward 2	Ira Novoselsky	inovoselsky@revere.org
Revere	City Council Ward 3	Anthony Cogliandro	acogliandro@revere.org
Revere	City Council Ward 4	VACANT	
Revere	City Council Ward 5	John Powers	jpowers@revere.org
Revere	City Council Ward 6	Richard Serino	rserino@revere.org

Other Interested Parties

Kate Saunders, Senior Vice President Conservation Law Foundation 62 Summer Street Boston, MA 02110	Lee Auspitz Davis Square Task Force 17 Chapel Street Somerville, MA 02144
charlesrivertma@gmail.com Charles River TMA 10 Roger Street Cambridge, MA 02142	Rocco DiRico Community Relations Tufts University 14 Capen Street Medford, MA 02155
The State Library of Massachusetts State Librarian State House, Room 55 Boston, MA 02133	State Transportation Library 10 Park Plaza, 2nd Floor Boston, MA 02116 Attn: Librarian
Marianna Accomando A Better City 14 Beacon Street, Suite 402 Boston, MA 02108	Back Bay Association 229 Berkeley Street, Suite 410 Boston, MA 02116
Beacon Hill Business Association 66 Charles Street #451 Boston, MA 02114	Joshua Leffler Beacon Hill Civic Association 74 Joy Street Boston, MA 02114
Michael Donovan Boston University One Sherburn Street, 9th Floor Boston, MA 02215	Edwards O. Nilsson 262 Essex Street Salem, MA 01970

Notice of Project Change Circulation List

Rebecca Bowie Cambridgeport Neighborhood Association, Inc. cambridgeportna@gmail.com	Leslie Greis Cambridgeport Neighborhood Association, Inc. 131 Pleasant Street Cambridge, MA 02139
Liberty Mutual Insurance Group 175 Berkeley Street Boston, MA 02116	Harvard University Public Affairs & Communication 114 Mount Auburn Street, 6th Floor Cambridge, MA 02138
MASCO 375 Longwood Avenue Boston, MA 02215	Maha Aslam Livable Streets Alliance 70 Pacific Street Cambridge, MA 02139
Marcela del Carmen, MD Massachusetts General Hospital 55 Fruit Street, Bulfinch 240 Boston, MA 02114	Kelley Brown Massachusetts Institute of Technology 77 Massachusetts Avenue Cambridge, MA 02139
Elliott Laffer Neighborhood Association of Back Bay 160 Commonwealth Avenue #L-8 Boston, MA 02116	Nancy Gertner Neighborhood Association of Back Bay 160 Commonwealth Avenue #L-8 Boston, MA 02116
L. Joyce Hampers Newbury Street League 361 Newbury Street, 5th Floor Boston, MA 02115	David O. McCready Mass General Brigham 1153 Centre Street Boston, MA 02130
Sebastian Belfanti West End Civic Association P.O. Box 6503 Boston, MA 02114	Rich Badmington Riverside Neighborhood Association 45 Hayes Street Cambridge, MA 02139
Dan Fox danfoxart@yahoo.com	Susan Benoit West End Civic Association 8 Whittier Place #12F Boston, MA 02115
Fred Salvucci 6 Leicester Street Brighton, MA 02135	Downtown North Association Attn: Jay Walsh jay@downtownnorth.org
Walk Boston 45 School Street Boston, MA 02108	

Statewide Environmental Justice Reference List

First Name	Last Name	Affiliation	Email
Yusuf	Ali	Boston Cares	yali@bostoncares.org
Claire	B.W. Muller	Unitarian Universalist Mass Action Network	claire@uumassaction.org
Sara	Arman	Greenroots Chelsea	saraa@greenrootschelsea.org
Roseann	Bongiovanni	GreenRoots, Inc.	roseannb@greenrootschelsea.org
Chris	Mancini	Save the Harbor/Save the Bay	mancini@savetheharbor.org
Kristen	Barry	Save the Harbor/Save the Bay	barry@savetheharbor.org
Monica	Driggers	Mass Rivers Alliance	monicadriggers@massriversalliance.org
Shelby	Semmes	The Trust for Public Land	shelby.semmes@tpl.org; massachusetts@tpl.org
Kerry	Bowie	Browning the GreenSpace	kerry@msaadapartners.com
Janet	Domenitz	Community Action Works	info@communityactionworks.org
Liz	Cook	Boston Harbor Now	lcook@bostonharbornow.org
Brooke	Howard	MAB Community Services	bhoward@ivystreetschool.org
Viviana	Catano	Revere CARES	vcatano-merino@partners.org
Winki	Chan	Chinese Progressive Association	winki@cpaboston.org
Irene	Jor	Chinese Progressive Association	irene@cpaboston.org
Baolian	Kuang	Chinese Progressive Association	baolian@cpaboston.org
Carlton	Sagara	Chinese Progressive Association	carlton@cpaboston.org
Sylvia	Chiang	Revere CARES	srchiang@partners.org
Heather	Clish	Appalachian Mountain Club	hclish@outdoors.org
Betsy	Connell	Massachusetts Council on Aging	elizabeth@mcoaonline.com
Patricia	D. Rocker	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan	rockerpatriciad@verizon.net
David	D'Arcangelo	Massachusetts Commission for the Blind	david.darcangelo@mass.gov
Denise	DeSimone	Massachusetts Senior Care Association	ddesimone@maseniorcare.org
Seth	Gadbois	Conservation Law Foundation	sgadbois@clf.org
Deb	Fastino	Coalition for Social Justice	dfastino@aol.com
Melissa	Ferretti	Herring Pond Wampanoag Tribe	melissa@herringpondtribe.org

Joy	Gary	Boston Farms Community Land Trust	info@bostonfarms.org
Tomas	Gonzalez	Amplify Latinx	tomas@amplifylatinx.com
Adela	Gonzalez	GreenRoots	adelag@greenrootschelsea.org
Camilo	Auyero	GreenRoots	camiloa@greenrootschelsea.org
Ellen	Macaulay	Environmental League of MA	atemacaulay@environmentalleague.org
Alma	Gordon	Chappaquiddick Tribe of the Wampanoag Nation	tribalcouncil@chappaquiddickwampanoag.org
Tara	Gregorio	Massachusetts Senior Care Association	tgregorio@maseniorcare.org
Raquel	Halsey	North American Indian Center of Boston	rhalsey@naicob.org
Sara	Hamilton	Boston Cares	shamilton@bostoncares.org
Ben	Hellerstein	Environment Massachusetts	ben@environmentmassachusetts.org
Monica	Hinojos-Capes	Amplify Latinx	monica@amplifylatinx.com
Laura	Jasinski	Charles River Conservancy	ljasinski@thecharles.org
Robb	Johnson	Mass Land Trust Coalition	info@massland.org
Rita	Lara	Maverick Landing Community Services	rita@mavericklanding.org
Sarah	Levy	GreenRoots	sarahl@greenrootschelsea.org
Lydia	Lowe	Chinatown Community Land Trust	lydia@chinatownclt.org
Christine	Nguyen	Asian Community Development Corporation	christine.nguyen@asiancdc.org
Cindy	Luppi	Clean Water Action	cluppi@cleanwater.org
Chris	Marchi	Air, Inc.	cbmarchi@gmail.com
Lee	Matsueda	Mass Community Labor United	info@massclu.org
Lena	Entin	Neighbor to Neighbor	lena@n2nma.org
Miles	Gresham	Neighbor to Neighbor	miles@n2nma.org
Estera	Mich	Czech and Slovak Association Inc.	esteramlch@hotmail.com
Renata	Dutton	Czech and Slovak Association Inc.	renata_dutton@yahoo.com
Emily	Norton	Charles River Watershed Assoc.	enorton@crwa.org
Noemi	Mimi Ramos	New England United for Justice	mimi.neunited4justice@gmail.com
Rob	Moir	Ocean River Institute	rob@oceanriver.org
Sassy	Outwater-Wright	Massachusetts Association for the Blind and Visually Impaired	soutwater@mabcommunity.org

Vickash	Mohanka	Sierra Club MA	vick.mohanka@sierraclub.org
Veena	Dharmaraj	Sierra Club MA	veena.dharmaraj@sierraclub.org
John	Peters, Jr.	Massachusetts Commission on Indian Affairs (MCIA)	john.peters@mass.gov
Cora	Pierce	Pocasset Wampanoag Tribe	Coradot@yahoo.com
David	Queeley	Mystic River Watershed Association	david.queeley@mysticriver.org
Heidi	Ricci	Mass Audubon	hricci@massaudubon.org
Eneida	Roman	Amplify Latinx	eneida@amplifylatinx.com
Kathy	Abbott	Boston Harbor Now	kabbott@bostonharbornow.org
Elizabeth	Soloman	Massachusetts Tribe at Ponkapoag	Solomon.Elizabeth@gmail.com
Opeoluwa	Sotonwa	Massachusetts Commission for the Deaf and Hard of Hearing	opeoluwa.sotonwa@mass.gov
Stuart	Spina	GreenRoots	stuartespina@gmail.com
Cheryll	Toney Holley	Nipmuc Nation (Hassanamisco Nipmucs)	crwritings@aol.com
Gladys	Vega	Chelsea Collaborative	gladysv@chelseacollab.org
Carolyn	Villers	Mass Senior Action Council	CVillers@MassSeniorAction.org
Bettina	Washington	Wampanoag Tribe of Gay Head (Aquinnah)	thpo@wampanoagtribe-nsn.gov
Brian	Weeden	Mashpee Wampanoag Tribe	Brian.Weeden@mwtribe-nsn.gov
Dawn	Olcott	Cambridge Food and Fitness Policy Council	dolcott@challiance.org
Kenneth	White	Chaubunagungamaug Nipmuck Indian Council	acw1213@verizon.net
Julie	Wormser	Mystic River Watershed Association	julie.wormser@mysticriver.org
Daria	Clark	Mystic River Watershed Association	daria.clark@mysticriver.org
Patrick	Herron	Mystic River Watershed Association	patrick.herron@mysticriver.org
Hin Sang	Yu	Chinatown Resident Association	chinatownresidents@gmail.com
Angie	Liou	Asian American Civic Association	angie.liou@asiancdc.org
Jeena	Chang	Asian Community Development Corporation	jeena.chang@asiancdc.org
		Brazilian Workers Center	info@braziliancenter.org
		Chinatown Main Street Program	bostoncmsed@gmail.com
		Chinatown Neighborhood Council / Chinatown Coalition	sdong@tuftsmedicalcenter.org

		Chinatown Residents Association	chinatown@gossage-industries.com
		Chinese American Heritage Foundation	cahf.us@gmail.com
Larry	Young	Chinese Consolidated Benevolent Association	larryyoung888@yahoo.com
Hung	Goon	Chinese Consolidated Benevolent Association	hung_goon@yahoo.com
Paula	Chan	Chinese Consolidated Benevolent Association	paula1688@comcast.net
Susan	Chu	Chinese Consolidated Benevolent Association	ms.susan.chu@gmail.com
		Community Action Programs Inter-City	info@capicinc.org
		Community Action Programs Inter-City	rcromwell@capicinc.org
		Dominican Development Center	dominicandevelopmentcenter@gmail.com
		English for New Bostonians	info@englishfornewbostonians.org
		GreenRoots	youthpass@greenrootschelsea.org
		Hispanic American Institute	byc@hainst.org
		La Colaborativa	hola@la-colaborativa.org
		Moroccan-American Connections in Revere	info@macir.org
		Neighborhood of Affordable Housing (NOAH)	linda@noahcdc.org
		Turkish Cultural Center	info@tccma.org
		West End Community Center	centernews@westendcommunitycenter.com
		Cambridge Community Center	info@cambridgecc.org

Local Community Organizations

First Name	Last Name	Affiliation	Email
Albert	Ewing	Chelsea Housing Authority	aewing@chelseaha.com
Andy	Forman	Boston Center for Independent Living	aforman@bostoncil.org
Michael	Killoran	Boston Age Strong Commission	agestrong@boston.gov
Ann	Houston	The Neighborhood Developers	ahouston@tndinc.org
Angela	Johnson	T4MA	ajohnson@t4ma.org
Allison		Paridaez	allison@paridaez.com
Ashley	Melnik	City of Revere	amelnik@revere.org

Andrea	Burns	Age Strong Commission	andrea.burns@boston.gov
Anna	Leslie	ABHC	anna.leslie@abhealthcollab.org
Alejandro	Pineda	Family First Life	apinedalife@gmail.com
Ari	Ofsevit	ITDP	ari.ofsevit@itdp.org
Athena	Moulopoulos	The Liberty Hotel	athena.moulopoulos@libertyhotel.com
Alexander	Train	City of Chelsea	atrain@chelseama.gov
Brian	Arrigo	City of Revere	barrigo@revere.org
Brandon	Cardet-Hernandez	MAB Community Services	bcardethernandez@ivystreetschool.org
Brandon	Chase	Mass General Hospital	bchase7@partners.org
Paul	Burke	City of Boston	BFDpublicinfo@boston.gov
Rande	Mindick	Beacon Hill Real Estate, Cedar Block LLC	bhre@bellatlantic.net
		Boston Bikes	bostonbikes@boston.gov
Brad	Gerratt	City of Boston	bradley.gerratt@boston.gov
Brianna	Millor	City of Boston	brianna.millor@boston.gov
		Boys & Girls Clubs of Boston	bsnyder@bgcb.org; info@bgcb.org
Ben	Stuart	Boston Business Chamber	bstuart@bostonchamber.com
		Chinese American Heritage Foundation	cahf.us@gmail.com
Caitlin	Allen-Connelly	A Better City	callen-connelly@abettercity.org
		Association of Cambridge Neighborhoods	cambridgeneighborhoods@gmail.com
Carla	Richards	ABCD	carla.richards@bostonabcd.org
Christopher	Bright	City of Revere	cbright@revere.org
Colleen	Delaney	Mass General Hospital	cdelaney5@partners.org
		North End/Waterfront Residents Association	cdelgreco@comcast.net
Chris	Dempsey	T4MA	cdempsey@t4ma.org
		West End Community Center	centernews@westendcommunitycenter.com
Ciara	D'Amico	City of Boston	ciara.damico@boston.gov
		HarborArts	connect@harborarts.org
Conor	Newman	City of Boston	conor.newman@boston.gov
		East Boston Chamber of Commerce	contact@eastbostonchamber.com
		Cub Scout Pack 15 Revere	cubmaster@pack15revere.org
		East Boston Health Center	dearauje@ebnhc.org
Duber	Gutierrez	East Boston Central Catholic School	dgutierrez@ebccs.org
David	Leonard	Boston Public Library	dleonard@bpl.org

		East Boston YMCA	eastbostony@ymcaboston.org
		Eastie Now!	eastienow1@gmail.com
Gladys	Oliveros	East Boston Main Streets	ebmsgladyso@gmail.com
E.J.	Brown	The Liberty Hotel	ej.brown@libertyhotel.com
		Walnut Street Synagogue/Congregation Agudas Sholom	ejmedros@gmail.com
James	Hooley	Boston EMS	emailems@bostonems.org
		The Boston Living Center	emiller@vpi.org
Rev. Mariama	White-Hammond	City of Boston	environment@boston.gov
Eric	Leslie	Union Capital Boston	eric.leslie@unioncapitalboston.com
Erin	Kenney	Nutrition Rewired, LLC	erin@nutritionrewired.com
Fatou	Drammeh	Revere Community School	fdrammeh@reverek12.org
Frank	Ramirez	East Boston Ecumenical Community Council	framirez@ebecc.org
Gabriel	Portillo	Portillo Property Partners	gabriel@portillopropertypartners.com
Gaetan	Kashala	AIM	gkashala@aimnet.org
Gladys	Oliveros	City of Boston	gladys.oliveros@boston.gov
		Chelsea Collaborative	gladysv@chelseacollab.org
Gerry	Visconti	City of Revere	gvisconti@revere.org
Helena	Fong	Boston Chinese Evangelical Church	helena.fong@bcec.net
		Fathom Information Design	hello@fathom.info
		Chelsea Restoration Corp.	hzucco@chelsearestoration.org
		A Better Cambridge	info@abettercambridge.org
		BCNC	info@bcnc.net
		Beacon Hill Civic Association	info@bhcivic.org
		Action for Boston Community Development	info@bostonabcd.org
		Boston TenPoint Coalition	info@btpc.org
		Cambridge Community Center	info@cambridgecc.org
		Cambridge Families of Color Coalition	info@cambridgefamiliesofcolor.org
		Chelsea Community Connections Coalition	info@chelseaccc.org
		Centro Presente	info@cpresente.org
		Charles Street Liquors	info@csliquors.com
		Crossroads Family Center	info@ebcrossroads.org

		Marston Beacon Hill	info@marstonbeaconhill.com
		NorthEndBoston.com	info@northendboston.com
		Neighbors United For A Better East Boston	info@nubeastboston.org
		Robin's Nest Boutique & Gift Shop	info@robinsnestwinthrop.com
		Women Encouraging Empowerment	info@weewomen.org
		Beacon Hill Yoga	info@yogabeaconhill.com
		Boston Public Market	information@bostonpublicmarket.org
		Cambridge Highlands Neighborhood Association	jatennis@comcast.net
		YMCA International Learning Center	jbrothers@ymcaboston.org
Julie	Burkley	FriendshipWorks	jburkley@fw4elders.org
Jeannette	Cintron White	City of Chelsea	jcintron@chelseama.gov
Jessica Ann	Giannino	East Boston/Revere	Jessica.Giannino@mahouse.gov
		Imagination Station Early Learning Center	jessteixeira82@gmail.com
Jesse	Mermell	Alliance for Business Leadership	jmermell@alliancebl.org
John	Kingston	Federal Credit Union	johnkingston4revere@gmail.com
		Boston Center for Independent Living (BCIL)	jpodesva@bostoncil.org
John	Quatieri	City of Chelsea	jquatieri@chelseama.gov
John	Regan	AIM	jregan@aimnet.org
Julie	Xhafaj	European Wax Center	juli.xhafaj@waxcenter.com
Julia	Wallerce	ITDP	julia.wallerce@itdp.org
		Downtown North Association	jwalsh1421@gmail.com
Kaira	Fox	City of Boston	kaira.fox@boston.gov
Kara	Elliott-Ortega	City of Boston	kara.elliott-ortega@boston.gov
Kate	Davis	City of Boston	kate.davis@boston.gov
Kate	Dineen	A Better City	kdineen@abettercity.org
		Cambridge Residents Alliance	KeepCambridgeLivable@gmail.com
		King & I	ken@kingandIboston.com
Kristen	Karshis	Kristen Karshis & Co. Real Estate	kkarshis@kw.com
Kristen	McCosh	Boston Disability Commission	kristen.mccosh@boston.gov
Kristen	Mansharamani	Torit Montessori School	kristen@toritschool.org
Kristina	McGeehan	City of Boston	kristina.mcgeehan@boston.gov

Kyle	Robidoux	FriendshipWorks	krobidoux@fw4elders.org
Leonard	Albanese	City of Chelsea	lalbanese@chelseama.gov
Lourdes	Alvarez	City of Chelsea	lalvarez@chelseama.gov
Laura	Macris	Crush Boutique	laura@shopcrushboutique.com
Lisa	Jacobson	BARR	ljacobson@barrfoundation.org
		First Congregational Church of Revere	loralei@firstcongrevere.org
		The East Boston Foundation	lorene@ebfoundation.com
Lou	Desautels	Boston Arts & Antiques Co.	lou_bos@yahoo.com
Lydia	Edwards	East Boston/Revere/Winthrop	Lydia.Edwards@masenate.gov
Michaela	Achey	Harvard Gardens	machey@harvardgardens.com
Malia	Lazu	The Urban Labs	malia@theurbanlabs.com
		New Urban Partners	management@newurbanpartners.com
Maria	Foster	Transportation, Resources, Information, Planning & Partnership for Seniors (TRIPPS)	maria@trippsmass.org
		The Boston Project	maridena@tbpm.org
Kaelyn		Mayfair On the Hill	mayfaironthehill@hotmail.com
Michael	Cecere	City of Revere	mcecere@revere.org
Marion	Decaillet	Institute of Human Centered Design, Boston	mdecaillet@ihcdesign.org
Michael	Morrison	Mass General Hospital	mdmorrison@partners.org
Mekhi	Etheridge	City of Boston	mekhi.etheridge@boston.gov
Marta	Flores	Improve Business Management	mflores@improvebm.com
		Finagle A Bagel	mgh@finagleonline.com
Millicent	Cutler	Ouimillie	millicent@ouimillie.com
Marissa	Rivera	A Better City	mrivera@abettercity.org
Mary	Skelton Roberts	Barr Foundation	MSkeltonRoberts@barrfoundation.org
Michael	Wells	City of Revere	mwells@revere.org
Natalia	Urtubey	City of Boston	natalia.urtubey@boston.gov
Nathalia	Benitez	City of Boston	nathalia.benitezperez@boston.gov
Noah	Brown	Mass General Hospital	nbrown9@partners.org
		Alchemists	neighbour@alchemists.community
		North End/Waterfront Neighborhood Council	newncboston@gmail.com
		Bike to the Sea	news@biketothesea.org
Niles	Welch	Beantown Law Group LLC	nilesw@beantownlawgroup.com

		Association of Haitian Women in Boston	office@afab-kafanm.org
Oscar	Desjardins	Mass No Cost Solar	oscar@massnocostsolar.com
Paul	Argenzio	City of Revere	pargenzio@revere.org
		Boy Scout Troop 15 Revere	pat@troop15revere.org
		People's A.M.E. Church	peoplesame2012@gmail.com
Domenic	Amara	Pirandello Lyceum Inc.	pirandellolyceum@aol.com
Patricia	Lewis	City of Chelsea	plewis@chelseama.gov
Patricia	Montes	Centro Presente	pmontes@cpresente.org
		Agassiz Baldwin Community	psinclair@agassiz.org
		City of Boston	publicworks@boston.gov
Robert	Casaletto	East Boston Central Catholic School	rcasaletto@ebccs.org
		Revere Community School	rcsrevere@gmail.com
		Whitney + Winston	rebecca@whitneyandwinston.com
		Roosters Men's Grooming Center	reidyrodriguez1@gmail.com
		REPS Fitness Studio	repsbeaconhill@gmail.com
		Revere Public Library	rev@noblenet.org
Pat	Lospenatto	Santander Bank	reverechamberpat@gmail.com
		Revere Youth in Action	revereyouthinaction@gmail.com
		Revere Intersectional Support for Education	rise.studentsrhs@gmail.com
Rita	Lara	Maverick Landing Community Services	rita@mavericklanding.org
		Buena Vista Social Club	rryals@comcast.net
		Revere Society for Cultural and Historic Preservation	rschpmuseum@comcast.net
		Cambridgeport Neighborhood Association	rsrbowie@gmail.com
Rufus	Jackson Faulk	City of Boston	rufus.faulk@boston.gov
Ryan	Wilson	The Whitney Hotel	ryan.wilson@hhmlp.com
Ryan	Jaslow	Mass Eye and Ear	ryan_jaslow@meei.harvard.edu
		Salesian Boys & Girls Club of East Boston	salesianfrontdesk@gmail.com
Leo	Sarkissian	The Arc of Massachusetts	sarkissian@arcmass.org
		Generations Inc.	scammarata@generationsinc.org
Felix	Lui	Chinese Consolidated Benevolent Association	felixkflui@gmail.com

Sarah	Gay Jackson	Public Library of the City of Chelsea	sgay@chelseama.gov
Sharon	Scott-Chandler	ABCD	sharon.scottchandler@bostonabcd.org
Shirley	Fajardo	East Boston Area Planning Action Council	shirley.fajardo@bostonabcd.org
Aimee		French + Italian	shop@FrenchItalian.com
Shumeane	Benford	City of Boston	shumeane.benford@boston.gov
Sarah	Lee Kurpiel	MAPC	SKurpiel@mapc.org
Sarah	Lee	MAPC - Transportation	slee@mapc.org
		City Life/Vida Urbana	smeacham@clvu.org
Susan	Pacheco	Cambridge Council on Aging	spacheco@cambridgema.gov
Stacy	Thompson	Livable Streets	stacy@livablestreets.info
Steve	Williams	North Shore Road LLC	steve@rentatool.com
		The UPS Store	store5768@theupsstore.com
Tom	Ambrosino	City of Chelsea	tambrosino@chelseama.gov
		Temple Emmanuel	templeemmanuelchelsea@verizon.net
Tracy	Nowicki	City of Chelsea	tnowicki@chelseama.gov
		Top Shelf	topshelfboston@gmail.com
Tony	Portillo	Stars Branding	tportillo@starsbranding.com
Tegin	Teich	Cambridge	tteich@cambridgema.gov
		Beacon Hill Cleaners	tuyetnva0910@gmail.com
		West End Civic Association	weca.boston@gmail.com
Whitney	Denehy	SoulCycle - Beacon Hill	whitney.denehy@soul-cycle.com
Winston	Pierre	City of Boston	winston.pierre@boston.gov
		Just-A-Start YouthBuild Program	youthbuild@justastart.org
Andrew	Reker	Cambridge	areker@cambridgema.gov

This Page Intentionally Left Blank

ATTACHMENT 5: Public Outreach

Public Involvement Plan

Introduction

1 Project Background and Need

The Red Blue Connector project (the "Project") is an initiative of the Massachusetts Bay Transportation Authority (MBTA) to improve the transit connection between the Red and Blue lines. Under the Project, the Blue Line would be extended approximately 2,150 feet beyond its current terminus at Bowdoin Station, below Cambridge Street in Downtown Boston, to the Charles/Massachusetts General Hospital (MGH) Station, where it would connect directly to the Red Line. Bowdoin Station would be permanently closed, and Blue Line trains would travel directly from Government Center to Charles/MGH Station. In addition to the direct Red Line connection, an entrance within the new MGH Clinical Building between North Grove Street and Blossom Street is proposed to provide access to the MGH campus. Enhancing mobility between these two lines would also improve access for residents of East Boston and the North Shore, as well as residents of Cambridge and other communities northwest of Boston. This Project would also improve access to Massachusetts Eye and Ear Infirmary (MEEI) and other nearby medical facilities, and would improve system capacity, increase transit ridership, and extend accessibility.

The purpose of the Red Blue Connector project is to improve mobility and access to jobs and health care for residents of East Boston, Revere, Winthrop, and Chelsea. Implementing the Red Blue Connector would likely:

- Improve mobility and regional access, especially for residents of East Boston and the North Shore, benefiting both environmental justice and non-environmental justice populations;
- Increase transit ridership by eliminating the need to make an intermediate transfer on the Orange or Green lines;
- Extend accessibility by replacing the inaccessible Bowdoin station with a fully accessible new BL station at Charles/MGH; and
- Improve system capacity by reducing congestion in downtown transfer stations.

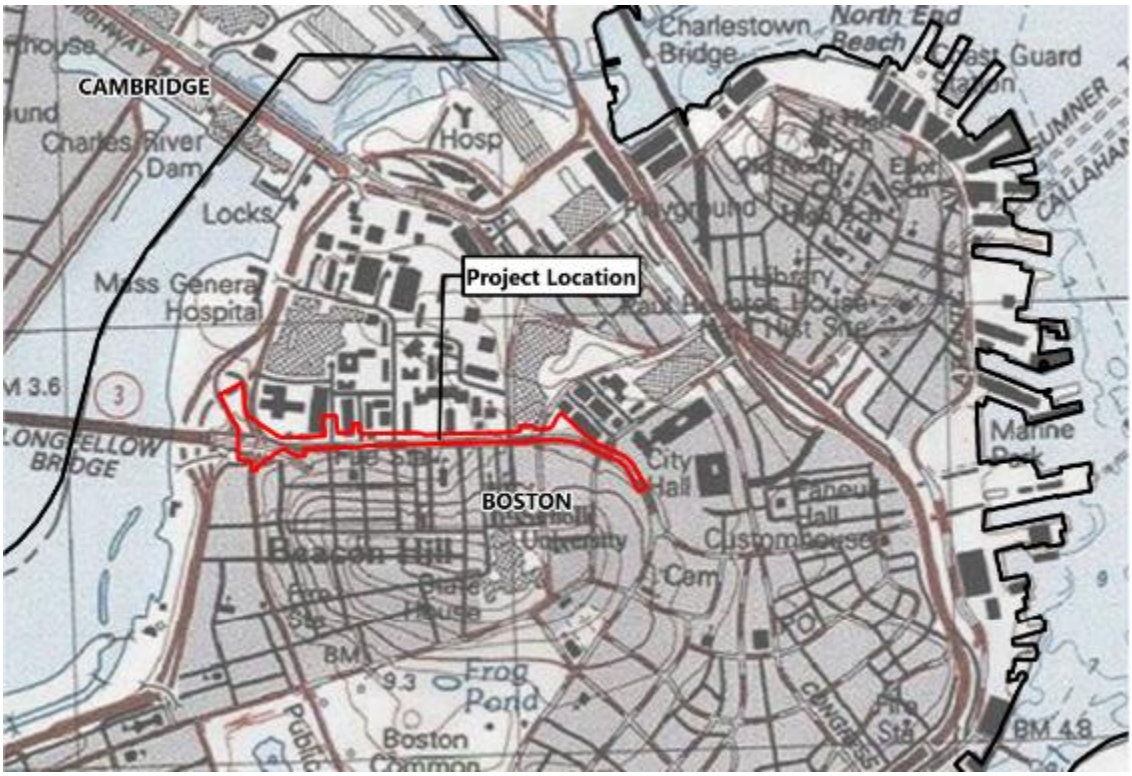
2 Project History

A state Draft Environmental Impact Report (DEIR) and conceptual engineering for the Red Blue Connector were completed in 2010. The DEIR included a baseline study of existing conditions in the corridor, development and refinement of alternatives, and an evaluation of impacts and potential mitigation measures. The MBTA looked at two potential alternatives: a new and somewhat relocated Bowdoin Station or eliminating a station at Bowdoin altogether. The report included a recommended design and tunnel construction methodology. Including a public process, the plan secured a Secretary's Certificate on the project indicating compliance with the Massachusetts Environmental Policy Act (MEPA).

Following the DEIR, work continued on the project through a series of studies and reports, including:

- 2018 Tunnel Constructability Study, to update the 2010 DEIR, looked at construction options and recommended a cut and cover approach as the most efficient. The study updated ridership and continued to provide information through MBTA Board presentations and the project website.
- 2021 Concept Design Report updated the station and tunnel design concepts, adding a second station entrance within the new MGH Clinical Building, which is currently under construction. The plan added redundant elevators and escalators. Information continued to be shared on the project website, with MBTA contact information for public inquiries.
- 2022 Preliminary Engineering and Environmental Review, the current project. The MBTA's goal is to complete the state MEPA and federal National Environmental Policy Act (NEPA) requirements. The plan includes robust stakeholder coordination with a wide variety of stakeholders: MBTA riders, abutters, MGH, Mass Eye and Ear, the MBTA's Longfellow Viaduct project, utilities, City of Boston, and Blue Line communities. Outreach includes new strategies for reaching out to EJ community stakeholders. The MBTA is also running the travel demand model to update project ridership and impacts.

The project area is shown below, between the Blue Line Bowdoin station and Red Line Charles/MGH station.



3 Outreach Goals and Strategies

The MBTA is committed to implementing a robust public involvement and outreach program that is inclusive and welcomes and maximizes participation from communities, riders and abutters. The stakeholder outreach will focus on **making connections**, **engaging communities** and **listening to their concerns and ideas**. The Red Blue team will invite MBTA riders, EJ communities, business leaders, abutters, and community stakeholders to participate in project meetings and conversations.

Identifying Stakeholders

The first task of outreach is identifying stakeholders who have an interest in the project. This effort, well underway, will identify and welcome:

- Abutters, business owners affected by construction, and sensitive receptors in the neighborhood
- Local, state and congressional officials; federal, state and local environmental officials
- Bike and pedestrian groups
- Transportation and advocacy groups
- Educational institutions
- EJ, Title VI groups, low-income, English isolation or Limited English Proficiency (LEP) stakeholders
- Senior Centers and Councils on Aging
- Agencies and organizations related to accessibility
- Individuals who request to be added to the database
- Targeted community groups, particularly in East Boston, Revere and Beacon Hill
- Community based-organizations, federal Tribes, and Indigenous organizations identified in the EJ Reference List
- Blue Line and Red Line customers
- Coordination with major institutions, such as Mass General and Mass Eye and Ear, hotels and restaurants, businesses along Cambridge Street, tourism and major employers

Making Connections

The second goal of outreach is to make connections, listen to and learn from those connections, and address their concerns, challenges and opportunities. To do so, our program will include:

- Clear and targeted *materials* that support a project website and describe in plain language the project and opportunities to learn about it; materials will be shared in briefings, public meetings and through email
- Language *access* services for LEP stakeholders identified by Census data and upon request
- *Briefings* for community groups, businesses, abutters and transportation organizations to provide information and address questions
- *Compliance with updated EJ outreach guidelines,* including filing the EJ form, and researching and reaching out to EJ populations within and near the project area

- Support for *public meetings, open houses and other strategies* during the environmental process to ensure that stakeholders can participate in project review and have timely access to information[1]
- Scheduling meetings at *convenient times* and using a variety of times and locations, for example, after work hours; at local and regional events; at community organization meetings
- *Media outreach* that begins during design and permitting and continues through construction
- *Preparation for construction*, which will bring together the multiple interests and problem solvers who will have a role in the challenges of construction: the MBTA, project team, City of Boston departments, public safety, utilities, businesses on Cambridge Street, MGH and MEEI and residential abutters. Anticipating the impacts of construction and sharing that information widely with the public so they can be avoided respects stakeholders and eases the burden on the construction process as well

Listening and Responding

The third goal of outreach is to listen and respond. We will use multiple tools to involve stakeholders so they can participate in design development. Our team will support a robust website and project database and project informational materials. We will develop a calendar of email blasts and information that support a two-way conversation, including:

- Tracking stakeholders and issues in a database; developing a schedule of informational materials distribution and sending responses both directly and through development of Frequently Asked Questions (FAQ) handout. The outreach team will draft responses to questions received through the website and project email. Commonly asked questions will be added to the FAQ as the work advances
- Reaching out to community groups, providing materials in appropriate languages and formats and ensuring that all stakeholders are connected to the information they need to ask questions and make comments
- Complying with the requirements and spirit of the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) Environmental Justice Policy that is designed to promote community engagement early in the process of environmental decision making

In all of the outreach efforts undertaken for the project, our goals are to be:

- Inclusive – offering full and fair participation to all potentially affected and interested constituencies
- Targeted – providing a variety of opportunities for abutters, residents, and other stakeholders, including language and culturally appropriate, attractive materials; meetings held in accessible locations

[1] Currently, the MBTA is using a combination of virtual and in-person meetings and briefings. The format is discussed with the stakeholders to ensure a level of comfort and access. Virtual meetings are typically recorded and posted on a project website.

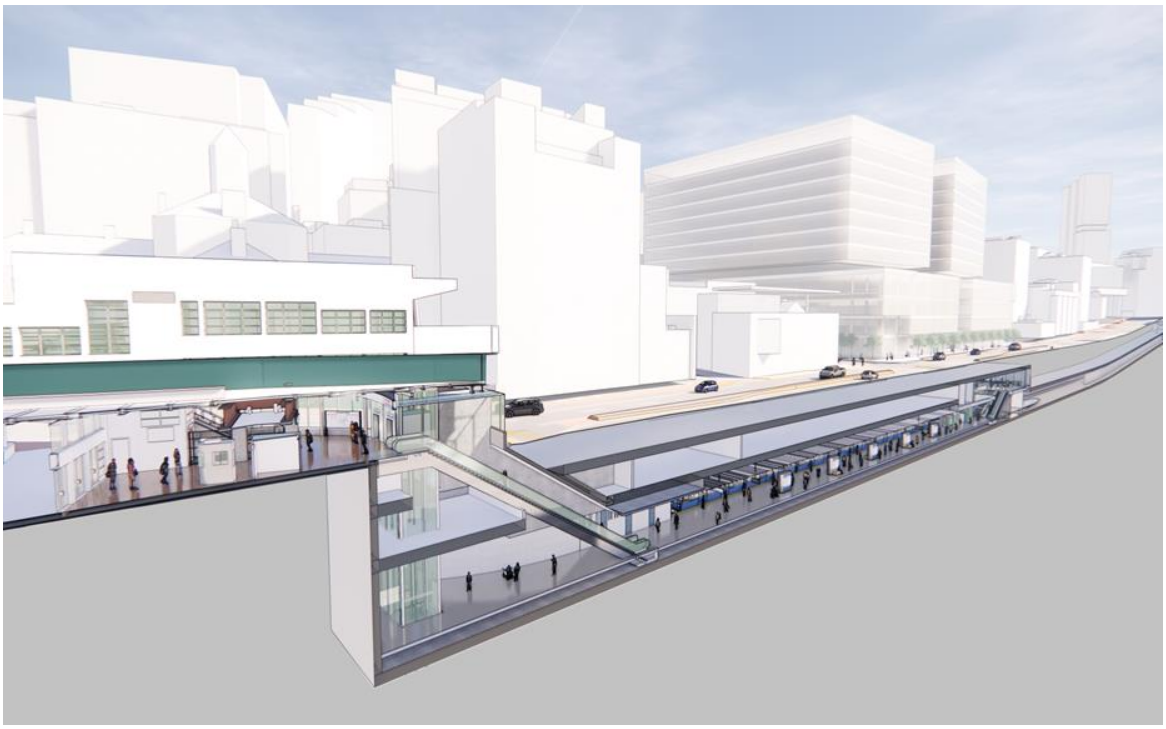
- Effective – tracking all outreach activities in a spreadsheet; providing summary notes and key issues lists; responding to inquiries (with MBTA review); using closed captioning and interpreters for meetings and events; drafting and translating meeting notices and presentations (as requested); and using eblasts, flyers and other materials to invite stakeholders to events and meetings
- Cooperative – working closely with MBTA staff and with other projects whose issues overlap with this project

The Red Blue team will coordinate among the various MBTA departments and all stakeholders identified by the MBTA, including, but not limited to, the City of Boston, East Boston and Revere officials, Federal Transit Administration, MassDOT, DCR, and DCAMM and sensitive receptors in the project area (e.g., fire station, trauma center, library and other sites to be identified).

The MBTA will develop attractive branding and messaging around key issues that will be of primary interest during the initial design process, leading to permitting, final design and construction. This information will be based on clarity and transparency.

- Clarity about project elements and their benefits
- Transparency about project goals, plans and impacts with all stakeholders
- Once construction begins, to present information about potential construction impacts (such as dust, vibration, rodents/pests, noise, truck traffic and noise) and related mitigation strategies
- Present strategies to mitigate construction impacts, where required, such as air and noise emission reduction on equipment; pest control; and traffic management plans and related mitigation strategies

Station rendering from the Updated Concept Design Report



4 Environmental Justice (EJ), Title VI and Other Demographics

In 2002 the Massachusetts EEA developed a policy of Environmental Justice (EJ) to better serve the environmental needs of the Commonwealth's most vulnerable residents. The policy addresses the disproportionate environmental burdens experienced by low-income persons, minority communities, and those not speaking English well or not at all. In addition to ensuring protection against environmental pollution, the policy promotes community engagement in environmental decision-making processes. The policy protocols date from January 2022.[2]

Quoting the policy:

> Environmental justice is based on the principle that all people have a right to be protected from environmental hazards and to live in and enjoy a clean and healthful environment regardless of race, color, national origin, income, or English language proficiency. Environmental justice is the equal protection and meaningful involvement of all people and communities with respect to the development, implementation, and enforcement of energy, climate change, and environmental laws, regulations, and policies and the equitable distribution of energy and environmental benefits and burdens.

Massachusetts defines Environmental Justice populations as neighborhoods that meet one or more of the following criteria[2]:

- The annual median household income is not more than 65 percent of the statewide annual median household income
- Minorities comprise 40 percent or more of the population
- 25 percent or more of households lack English language proficiency
- Minorities comprise 25 percent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income

The project team prepared the Environmental Justice Form for circulation to EJ groups in and near the project area. A Project Summary will also be available. Based on MEPA's EJ map, the EJ Form and Project Summary will be translated into Chinese, Haitian Creole, Spanish and Portuguese and an Indic language (see the map in Appendix A for the map and comments). The form will be provided to all of the groups listed in NPC Attachment 4 and posted on the project website.

The MBTA will respond to requests for briefings, presentations or input opportunities that result from circulation of the EJ Form and/or Project Summary. The EJ list will continue to be part of the email and outreach efforts throughout the project and the list will be updated as new information becomes available.

[2] The full policy is available at https://www.mass.gov/doc/environmental-justice-policy6242021-update/download.

As the project advances, key materials, meeting announcements and flyers will be translated into the named languages, with other services available on request. Virtual and in-person meetings will include closed captioning, where appropriate, as well as interpreters, for Spanish and Chinese speakers; and other languages as requested.

5 OUTREACH PROGRAM ELEMENTS

Multiple strategies and tools for communicating information and gathering input will broaden the reach of this project and offer community members ways to participate at times and in locations that are convenient. The outreach program is designed to meet the particular needs and expectations of the public and stakeholder groups affected by the project.

The outreach program will be consistent with the MBTA's Public Participation Plan, and use Engage, MassDOT's mapping tool for outreach, and the Environmental Justice map and information to guide the public participation process. All public materials produced for the public, including those posted to the project website, will be in an accessible format consistent with MBTA guidelines to the extent possible.

PROJECT COMMUNICATION TOOLS

Branding

- Develop a logo for use on all project materials.
- Develop a header to be used on all email communications in conjunction with GovDelivery, the email platform used for MassDOT and MBTA projects.
- Gather project photos and graphics that will be used for the background image, flyers and other information on the project website.

Project Email Account

- Employ a project email account that will be the primary contact for all project questions and comments in conjunction with GovDelivery.
- Provide a sign-up link for email as part of every communication and meeting.
- Implement a process to monitor the inbox and respond to email inquiries.
- Post the email address on the project website and other materials.

Project Website

- Continue to develop material for the MBTA project website with a project overview, design elements and considerations, construction schedule, construction impacts and mitigation, relevant project documents and materials, as well as links to sign up for project email updates.
- Update the project website with announcements regarding service changes, information about upcoming meetings and events, and meeting and post-meeting materials.

Press

- Draft media advisories about the project for MBTA public affairs to distribute to broadcast, online and print media outlets.

Contacts Database

- Create a project database with contact information for relevant and interested stakeholders.
- Collect and enter into the database contact information from meetings, briefings, website, and email communications.

Email Blasts (including service announcements through T-alerts)

- Provide email updates to the project mailing list based on client approval, including notification of upcoming meetings or briefings or project website updates.

Social Media

- Post project content on the MBTA social media sites, including Facebook, Twitter, Blog, YouTube, and Flickr, as directed by the MBTA.

Briefings/Events

The team will support the organizing, staffing and summarizing a variety of virtual participation tools, including Zoom, the MBTA's preferred media for virtual briefings, meetings, and open houses. The MBTA will provide instruction materials and arrange closed captioning, language interpretation and breakout sessions, as needed. Meeting formats will include virtual; in person; open houses; briefings for specific groups, such as:

Legislative and Mayoral/City Council Briefings

- Conduct briefings for chief elected officials and municipal officials and local Representatives and Senators in advance of key milestones to provide timely notice and follow-up when there are questions and concerns.

Community Meetings

- Organize, set up, staff and summarize public meetings for key milestones (virtual or in-person).
- Reach out to local community and business groups, abutters and stakeholders to publicize these meetings to their members employing the project database and other outreach strategies; notify the entire database public meetings and open houses.
- Provide meeting presentations, recordings and informational materials on the project to the MBTA website team for posting in the approved format.

Tracking

Tracking is important for any outreach program to help staff maintain records of incoming information (comments and questions received from the public) and outward-facing activities (events, meetings, e-blasts, etc.).

- Maintain a comment log for the project. Capture and track key issues discussed at briefings, events, community meetings, as well as submitted online and via email, in this issues log.
- Maintain an outreach log including logging any direct outreach to stakeholders, all meetings, events, e-blasts, etc., for the project.
- Maintain a log listing questions, issues and requests for meetings or information resulting from the Environmental Justice outreach and identify continuing outreach and communication.

Print Materials[3]

Flyers

- Flyers will help the MBTA spread the word about upcoming public meetings. They will include all information about the meeting so that someone without internet access would have sufficient information to attend the public meeting.
- Similar to fact sheets, flyers should be posted to the project website and distributed at key community locations in advance of public meeting dates and other key milestones.
- Flyers will be available in appropriate languages.

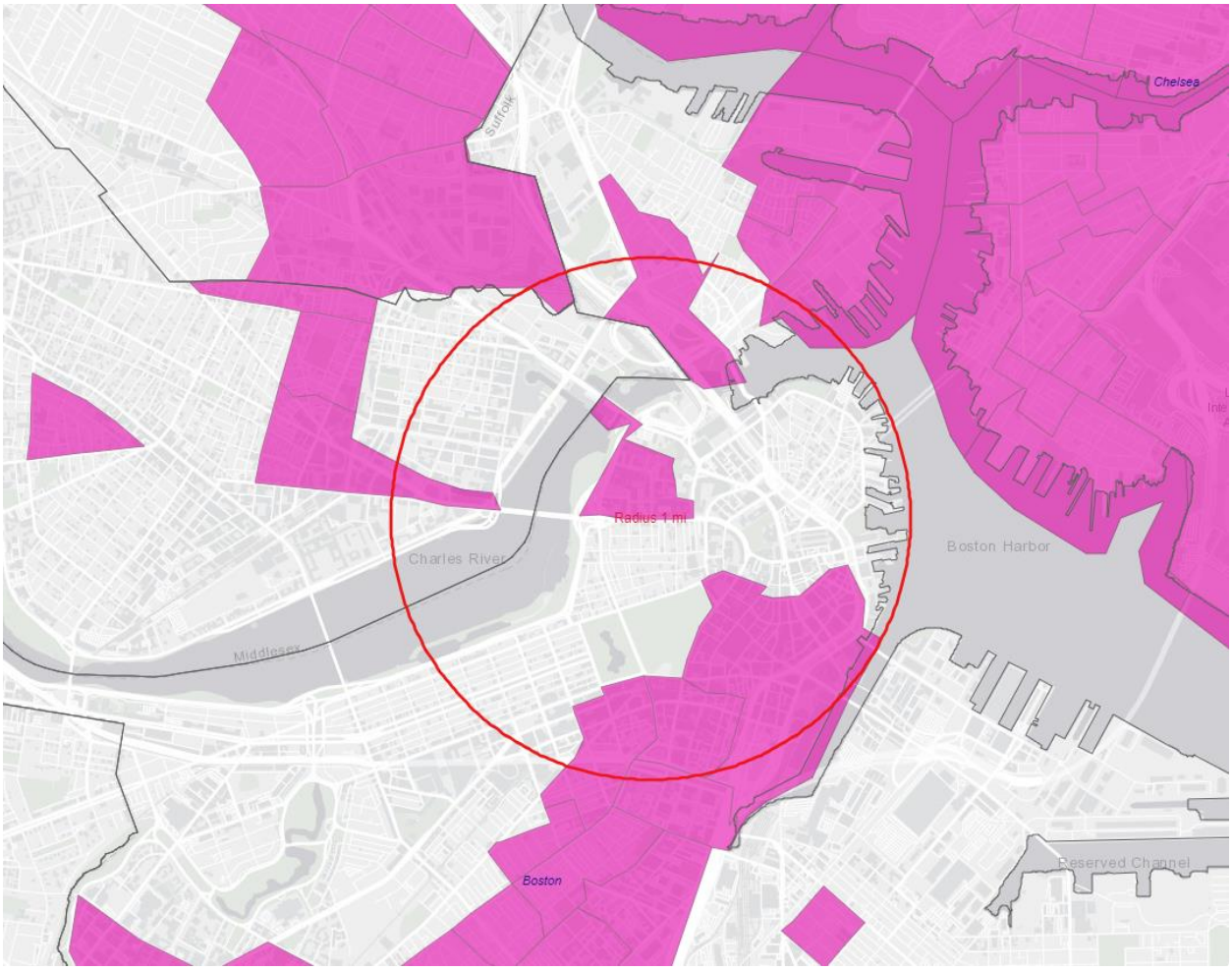
Marketing and Advertisements

Newspaper Display Ads

- Public meeting information will be published in media outlets serving the region and in publications.

[3] Print materials are more likely to be provided when in-person events resume.

6 APPENDIX A: LANGUAGE ACCESS AND EJ CONSIDERATIONS



Language access information was provided by examining mapping and data from the Massachusetts EEA, as well as data from both the American Community Survey (ACS) and Department of Early and Secondary Education (DESE). Within the 1-mile radius there are languages spoken by 5% of the population or more for Haitian Creole, Spanish, Portuguese, Chinese, and Other Indic.

The two languages above or nearly at 10% for the in-house translation interpreters are: Spanish (10.5%), and Chinese (9.8%). The project will provide these languages through on-site interpreters during MBTA-hosted public meetings.

The MBTA will tailor outreach to the needs of this specific project; preparing materials that are accessible and comply with federal and state standards; meet the standards of MEPA's Environmental Justice policy; and organize meetings and events that meet MassDOT's Office of Diversity and Civil Rights (ODCR) Public Participation Plan, Language Access Plan and Accessible Meeting Policy, and Engage tool.