

EXECUTIVE SUMMARY

The Executive Summary provides a high-level overview of the Route 1A Corridor Study’s background, its purpose – including study goals and objectives, the development and evaluation of alternative strategies for achieving the purpose, comparative assessment of the study alternatives, key findings, and next steps.

E-I. INTRODUCTION AND STUDY CONTEXT

The Massachusetts Department of Transportation (MassDOT) undertook the Route 1A Corridor Study to provide a comprehensive review of the 2.3-mile segment of Route 1A and the parallel rail corridor owned by MassDOT and the Massachusetts Bay Transportation Authority (MBTA). This conceptual study is intended to provide a full public planning process for the railroad corridor, which was the subject of a proposal by Cargo Ventures, an industrial property owner in the corridor. That proposal entailed the re-use of the rail corridor for a Bypass Road with a Shared Use Path along the Chelsea Creek waterfront to support the redevelopment of several corridor properties between Curtis Street and Tomasello Way.

The Route 1A Corridor Study is intended to review potential uses of the inactive MassDOT and MBTA rail parcels located between Route 1A and Chelsea Creek and to evaluate opportunities for improving transportation, recreation, and resilience in the corridor between East Boston’s Day Square and Revere’s Bell Circle.

The Route 1A Corridor Study:

- Assesses the present and future geographic, infrastructure, demographic, transportation, resiliency, sustainability, safety, and environmental conditions in the Route 1A corridor.
- Evaluates two potential improvement alternatives for reuse of the rail parcels:
 - Alternative 1) Shared Use Path Only
 - Alternative 2) Bypass Road with Shared Use Path
- Evaluates two potential improvement sub alternatives connecting the Shared Use Path along the rail parcels with Bell Circle
 - Option A) On-Street Connection via Harris Street and Beach Street
 - Option B) Shared Use Path via Revere Beach Parkway Ramp
- Summarizes the projected benefits, costs, impacts, and trade-offs of the improvement alternatives.

Critically, the study has entailed a comprehensive civic engagement process involving residents, businesses, elected officials, and other stakeholders in a series of meetings and through online interaction. This included cooperative development of the following goals for the project:

- Safety
 - Improving safety for people using all modes of transportation (walking, biking, transit, driving, etc.) in the corridor
- Connectivity
 - Expanding and enhancing connectivity for users of all modes of transportation along and across the corridor
 - Balancing local and regional transportation needs and improving the reliability of freight transportation
- Sustainability and Climate Change Resiliency
 - Improving air quality and access to public and natural resources
 - Enhancing the resilience of corridor infrastructure and the surrounding area
- Equity
 - Enhancing corridor benefits while reducing corridor burdens on Environmental Justice communities

MassDOT recognizes that the linear rail corridor, which is currently inactive, could be put to better use, including being reconfigured for transportation, recreation, waterfront access, and/or coastal resilience purposes. A redeveloped corridor could enable a range of uses, including enhanced access to the Chelsea Creek waterfront and natural amenities, improved transportation connections, new open/green space, and/or access to the regional multimodal network. The rail corridor is well situated to provide public access to the adjacent Chelsea Creek waterfront, to provide a link in the regional greenway network, and/or connect industrial freight uses along the west side of Route 1A to the Martin A. Coughlin Bypass Road and Logan Airport.

In order to ensure that the Route 1A Corridor Study process was fully informed by input from the community and relevant public agencies, the project team engaged East Boston and Revere residents, stakeholders, and public officials throughout the study process. The project team established a study Working Group that comprised representatives of community and stakeholder groups and met with the Working Group five times at key study milestones. The project team also held five Community Meetings, and met periodically with an inter-agency group made up of representatives from interested local, regional, and state agencies.

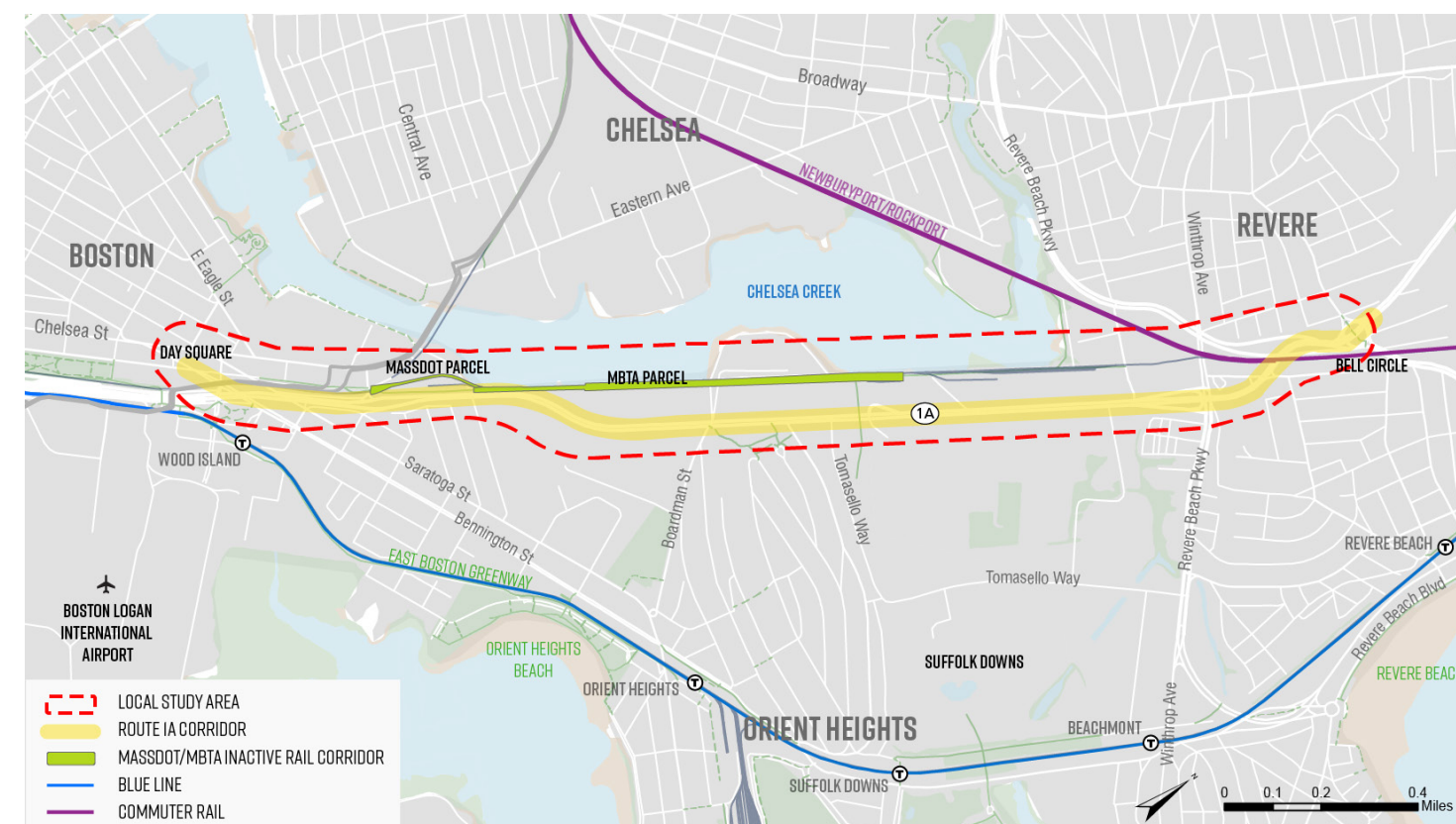


Figure ES-1. Study Area Overview Map

E-2. EXISTING AND FUTURE CONDITIONS

The study area lies between Chelsea Creek and Route 1A, spanning a linear corridor between East Boston's Chelsea Street and Revere's Bell Circle, shown in Figure ES-1. The regional study area includes communities and neighborhoods surrounding the study area, such as East Boston, Downtown Boston, Chelsea, and Revere, as well as major nearby transportation facilities, such as Logan Airport, Interstate-90, Route 60, Route 16, the MBTA Rapid Transit Blue Line, the MBTA Newburyport/Rockport Commuter Rail Line, and the regional shared use path network, as shown in Figure ES-2.

- **Demographics and Community Character.** Neighborhoods near the Route 1A corridor have grown substantially in population in recent years, including significant increases throughout East Boston, Revere and Chelsea. This trend is projected to continue in the future, including growth in established neighborhoods and in newly-developed or redeveloped areas, such as Suffolk Downs. Most study area neighborhoods have significant populations of foreign-born residents. Every census tract in the study area meets one or more of the environmental justice criteria (minority, low median income,

limited English proficiency) established by the Metropolitan Area Planning Council (MAPC), with many of these criteria at much higher levels near the study corridor than the regional average. Public health data indicate that residents of the study area corridor are characterized by health challenges, including higher rates of diabetes, heart disease, and pediatric asthma than average for the regional population.

- **Land Use / Community Character.** This area has been historically shaped by the presence of industrial uses, many of which stem from their proximity to Chelsea Creek, the Designated Port Area (DPA), and Logan Airport. Parcels directly adjacent to the study corridor are commercial, industrial, airport-related, and very auto-oriented. Aside from the heavy industrial presence along Route 1A and the rail corridor, land uses within East Boston, Revere, and Chelsea are predominantly residential, with commercial establishments located along main street corridors. In addition to the Suffolk Downs Redevelopment, another economic development area (EDA) has been established by the City of Boston in the study corridor: the McClellan Highway EDA is intended to facilitate environmentally sound economic growth and development of retail, office, research and development, and light industrial and manufacturing uses.
- **Transportation Characteristics.**
 - **Roadway.** The corridor's key intersections with Route 1A – Curtis Street, Boardman Street, Tomasello Way, and Revere Beach Parkway – currently operate during morning and evening commuter peak hours at Level of Service (F), the worst level. This congestion is forecast to continue in the future, even with mitigation measurements implemented from the Suffolk Downs Redevelopment.

- **Vehicles.** Approximately 35,000 cars traverse Route 1A in the study area daily in the northbound direction and approximately 40,000 in the southbound direction. Speeds are highest at the southern end of the corridor in both directions, where traffic operates with little or no traffic signals or controls. Route 1A traffic speeds are much lower in the center of the corridor in the vicinity of the signalized intersection at Boardman Street and at the northern end of the corridor near Bell Circle. Most vehicle trips along Route 1A have their northern terminus in the communities immediately north of the study area – Lynn and Revere – with their southern ends primarily at Logan Airport, in Downtown Boston, or in the Seaport District/South Boston. Trucks comprise roughly 6.2 percent of Route 1A's daily study area traffic: 2022 count data reveals 1,860 trucks in the northbound direction and 1,800 in the southbound direction. By 2040, these traffic volumes are projected to increase by approximately 30 percent in the northbound direction and by 43 percent in the southbound direction.
- **Rail Corridor.** The inactive railroad corridor runs approximately 1.8 miles, from the vicinity of Curtis Street at the southern end to the Newburyport/Rockport Commuter Rail line near Winthrop Avenue at the northern end. Widths along the rail corridor vary considerably, ranging from an absolute minimum of approximately 27 feet near Addison Street to a maximum of nearly 85 feet near the Boston – Revere municipal line. Key pinch points include the area between Curtis Street and Addison Street (27 feet) and a brief segment in Revere that narrows to 47 feet wide near the Hampton Inn and Furlong Drive.
- **Safety.** MassDOT crash data shows that there have been four fatal crashes on Route 1A in the study corridor in the last five years, including a pedestrian fatality in 2020. These have all occurred at the southern end of the corridor, where average speeds are higher. Bell Circle is also designated as a high pedestrian crash location by MassDOT.
- **Pedestrian.** The existing study area pedestrian infrastructure generally provides basic pedestrian access. There are sidewalks along Route 1A; these are mostly asphalt sidewalks roughly 8 – 10 feet wide, in varying condition including segments in disrepair. Pedestrian connections along Route 1A span many wide crossings at intersections and driveways. Most of the pedestrian crossings lack curb ramps that

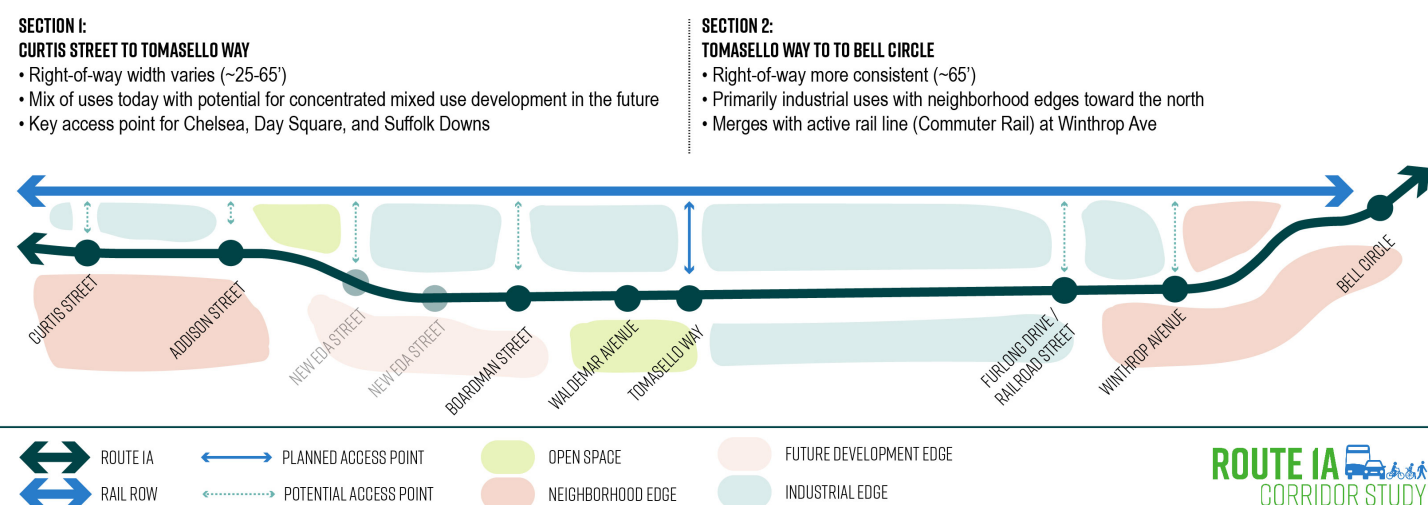


Figure ES-2. Study Corridor Existing Conditions

are compliant with the Americans with Disabilities Act (ADA) standards, with the exception of a few recently-improved locations, such as Boardman Street, Winthrop Avenue, and Bell Circle. In addition, safe crossings of Route 1A are widely-spaced and provide few opportunities to cross the highway or access the Chelsea Creek waterfront. There are only four locations where pedestrians can safely cross Route 1A between Curtis Street and Bell Circle, and these are spaced at wide intervals. Furthermore, half of the existing study area bus stops are not near crosswalks. MassDOT's Potential for Walkable Trips (PWT) analysis tool indicates significant potential for short walkable trips along the corridor; this potential is anticipated to increase with the projected increases in population and development.

- **Bicycle.** Based on the Level of Traffic Stress (LTS) bicycle conditions methodology, all of the existing roadways in the study corridor are considered high stress for cyclists. There is no dedicated space for bicycle users on Route 1A, which is designed as a major arterial/express highway that prioritizes motor vehicle volumes and speed. As a result, the facility is generally uncomfortable for bicyclists, who are vulnerable users operating at a significantly lower speed. Wide lanes, gentle sweeping curves, a median that often features a guard rail, limited intersections and signals, and few buildings or trees fronting the road all encourage high vehicle speeds and contribute to uncomfortable conditions for bicyclists.
- **Transit.** Although the nearby Blue Line is heavily used, transit options along the Route 1A corridor are limited. The existing MBTA Route 450 bus service has very low ridership, with fewer than 10 boardings per hour during peak periods in the study area. This is due to several factors: infrequent buses with service mainly during commuter peak periods; vehicle-oriented land uses and development patterns; and difficult pedestrian access. As a result, the MBTA's Bus Network Redesign process has recommended eliminating bus service in the Route 1A corridor.

E-3. ALTERNATIVES DEVELOPMENT AND ANALYSIS

Alternatives Development

The Route 1A Study includes an alternatives analysis to identify and evaluate potential solutions to the study's core purpose: examining a range of transportation uses of the MassDOT / MBTA-owned rail right-of-way (ROW) lying between Chelsea Creek and Route 1A.

To address this issue, the alternatives analysis process defines key infrastructure and operational elements that identify differentiating features. Such distinguishing characteristics enable assessment of potential alternatives' benefits, costs, and impacts. These key parameters comprise the following components:

- Corridor Configuration
- Corridor Usage and Access
- Route 1A Mainline and Intersection Design
- Access to Waterfront
- Climate Resilience Features
- Corridor Constraints

The study identifies a number of potential combinations of Shared Use Path and Bypass Road configurations and designs along the rail ROW between Curtis Street and Railroad Street. The study screens these options and narrows them down to two principal alternatives for detailed analysis. Each alternative includes a new Shared Use Path, open space, and flood protection infrastructure adjacent to Chelsea Creek. In addition, the study reviews two potential options (A & B) for developing Shared Use Path connections at the northern end of the study corridor, from the rail ROW at Railroad Street (near Route 1A) to Bell Circle. The range of alternatives is summarized in Figure ES-3.

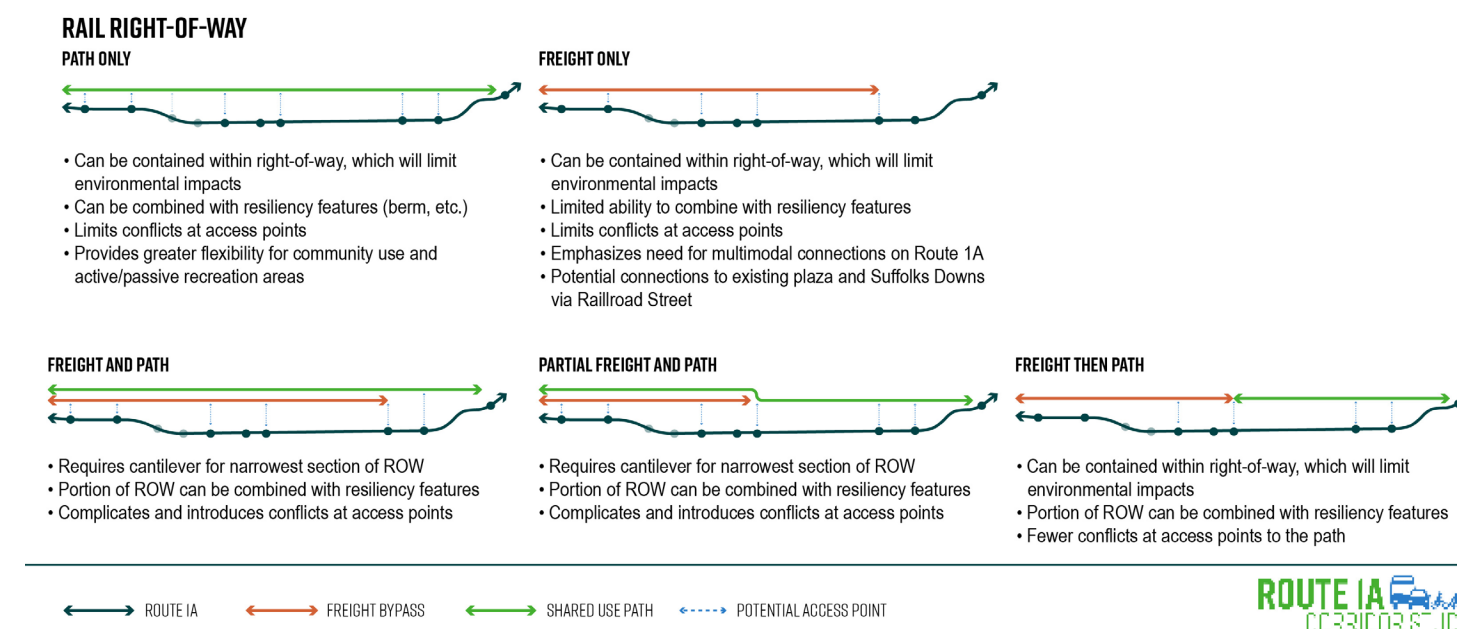


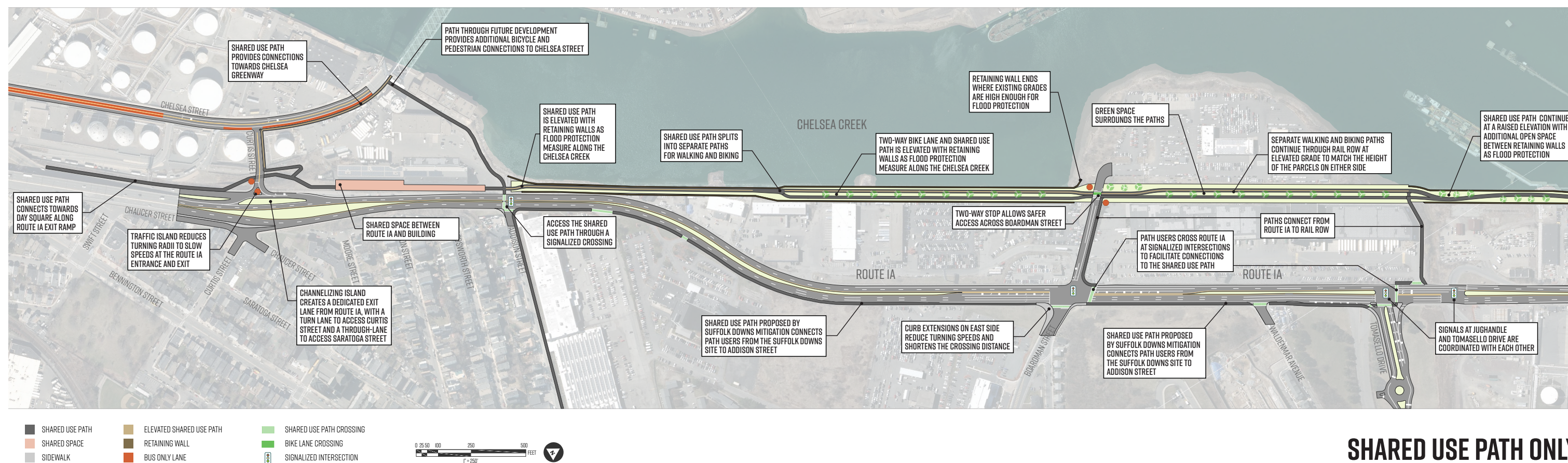
Figure ES-3. Conceptual Alternatives Screening

The study alternatives comprise a set of different configuration and alignment options in each of three primary corridor segments; two of these segments each have two alignment alternatives, while the middle segment has only one alignment proposal. From south to north, these segments are:

- Curtis Street – Jughandle/Tomasello
 - Alternative 1 – Shared Use Path Only would implement a new Shared Use Path along the publicly-owned rail parcels. The Shared Use Path would pass beneath the Curtis Street Bridge in the railroad corridor, in a low-speed shared roadway space between the CubeSmart building and Route 1A, then into the main railroad corridor north of Addison Street. North of Addison Street, the Shared Use Path would pass through the narrowest segment of the railroad corridor; beyond this pinch point, the railroad ROW widens and would enable separate paths for walking and biking along with park space within the railroad corridor. The Shared Use Path

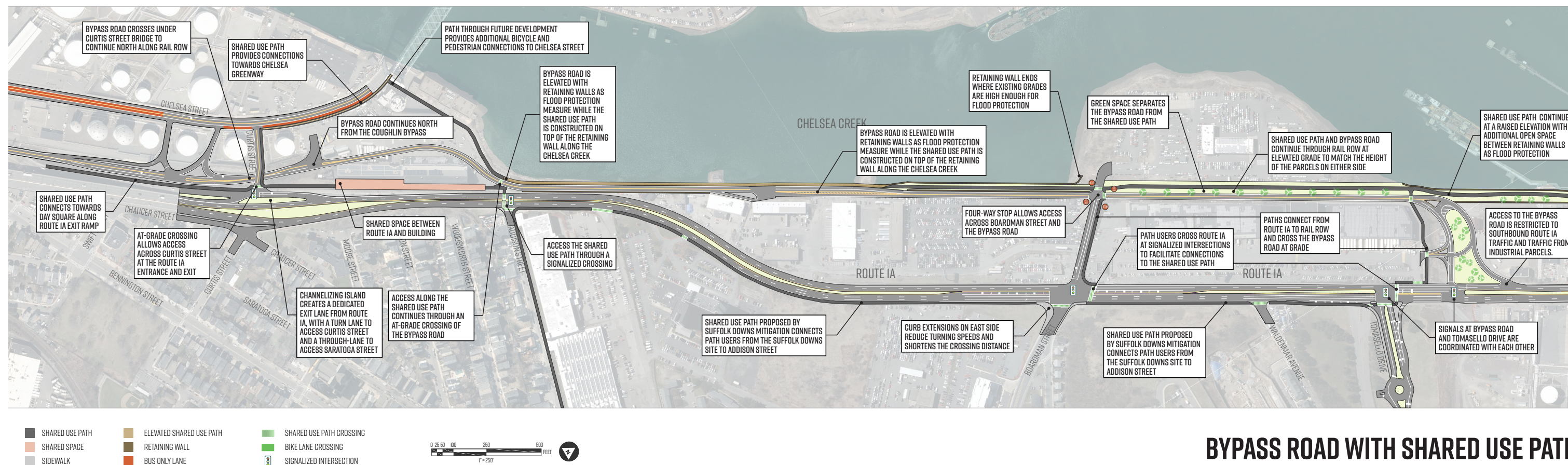
would be elevated on a raised berm to provide flood protection against sea level rise and storm surge from Chelsea Creek, and would cross Boardman Street at grade. Alternative 1 of this segment is shown in Figure ES-4.

- Alternative 2 – Bypass Road with Shared Use Path would create a corridor that integrates a new vehicle Bypass Road with a Shared Use Path in a combined alignment in the railroad corridor. The Bypass Road would connect to the existing Martin A. Coughlin Bypass Road near Day Square, and would pass beneath the Curtis Street Bridge in the railroad corridor. This would not leave adequate width beneath the Curtis Street Bridge for the Shared Use Path, which would need to cross Curtis Street at grade with a signalized crossing. North of Curtis Street, the Bypass Road would pass to the west of the CubeSmart building, while the Shared Use Path would operate in a low-speed shared roadway space between the CubeSmart building and Route 1A. The Bypass Road would occupy the narrow pinch point



SHARED USE PATH ONLY

Figure ES-4. Shared Use Path Only – Curtis Street to Jughandle/Tomasello



BYPASS ROAD WITH SHARED USE PATH

Figure ES-5. Bypass Road with Shared Use Path (SUP) – Curtis Street to Jughandle/Tomasello

north of Addison Street, while the Shared Use Path would be cantilevered over Chelsea Creek from an elevated flood wall. The Bypass Road would cross Boardman Street at grade and connect with the Jughandle intersection at the Suffolk Downs reconfigured Tomasello Drive intersection. This would be the northern terminus of the Bypass Road, while the Shared Use Path would continue north of the Jughandle roadway in the railroad alignment. Alternative 1 of this segment is shown in Figure ES-5.

- Jughandle/Tomasello – Winthrop Avenue
 - The Shared Use Path continues north along the railroad alignment to Railroad Street, where it would cross the active MBTA Newburyport / Rockport Commuter Rail Line via a reconstructed pedestrian/bicycle only bridge. It would continue north along a two-way Separated Shared Use Path along the eastern edge of Revere Beach Parkway. This would require conversion of one of the three northbound lanes on

Revere Beach Parkway into a Shared Use Path, which would connect to the Revere Beach Parkway/Winthrop Avenue/Harris Street intersection.

- Winthrop Avenue – Bell Circle
 - Option A – On-Street Bicycle Accommodation. Bicyclists would continue north on Harris Street via shared lane markings to Beach Street, then along painted bike lanes on Beach Street to Bell Circle.
 - Option B – Shared Use Path via Revere Beach Parkway Ramp. The Shared Use Path would cross Winthrop Avenue and continue in a separated alignment on the eastern side of the Revere Beach Parkway northbound ramp to Bell Circle. The Shared Use Path would use the space currently occupied by ramp's eastern side and right travel lane.

Both alternatives and options between Jughandle/Tomasello and Bell Circle is shown in Figure ES-6.

Alternatives Analysis

These alternatives were evaluated using a set of quantifiable metrics based upon the project’s purpose and need, study goals, and alternative objectives. Table ES-1 provides a summary of the comparative evaluation of the benefits, impacts, and costs of Alternatives 1 and 2.

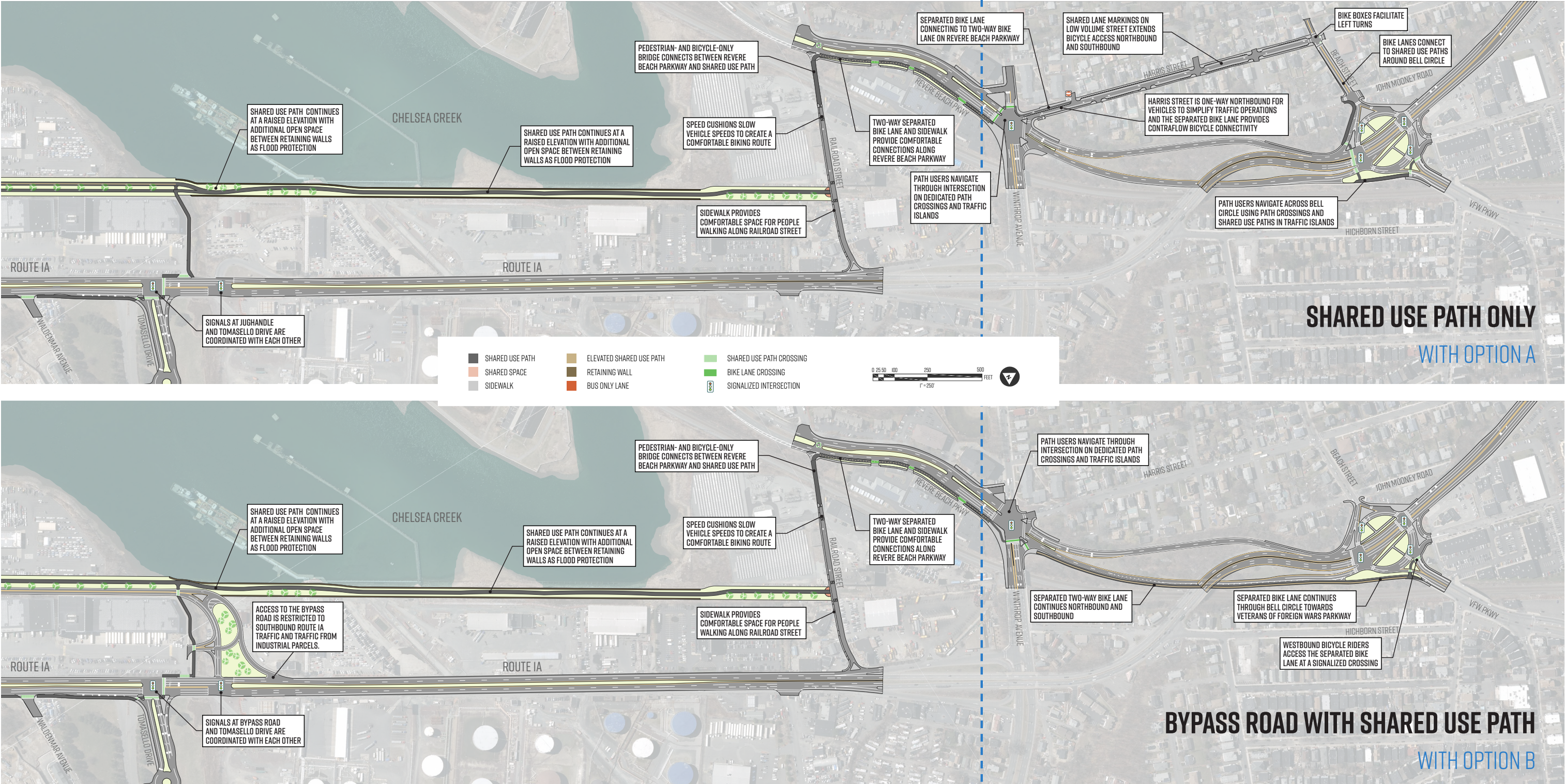


Figure ES-6. Shared Use Path Only and Bypass Road with Shared Use Path (SUP) – Jughandle/Tomasello to Bell Circle

STUDY GOAL	TYPE OF ANALYSIS	#1 – SHARED USE PATH ONLY	#2 – BYPASS ROAD WITH PATH	KEY FINDING(S)
Safety	Crash Modification Factors	Somewhat Better	Somewhat Better	Both alternatives would improve multimodal safety at Curtis Street and Addison Street. For Shared Use Path users, Alt. 1 would eliminate potential interactions present in Alt. 2 (at-grade crossings, trucks).
Safety	Pedestrian Comfort *	Better than Base	Somewhat Better	Shared Use Path in Alt. 1 would cross beneath Curtis Street; offer a vehicle-free transportation corridor with more open space; and enable separation for those walking and biking in select areas.
Safety	Bicyclist Comfort *	Better than Base	Somewhat Better	Both alternatives would provide a continuous Shared Use Path. Alt. 1 would allow a wider biking facility, greater comfort (more distance from vehicles) and some separation from those walking.
Connectivity	Intersection Operations	Comparable to Base	Somewhat Better	Assuming nearly 35 percent of projected truck traffic (1,870 daily trips) is diverted off the mainline, the Alt. 2 Bypass Road would offer traffic congestion and delays reduction benefits for Route 1A drivers.
Connectivity	Truck Volumes (Routing & Travel Time Savings)	Comparable to Base	Somewhat Better	Bypass Road would offer reliability benefits for trucks, the majority of would be to/from Logan Airport. Travel times would be shorter during peak periods (SB AM, NB PM), but otherwise comparable to 1A.
Connectivity	Employment Access	Somewhat Better	Somewhat Better	Both alternatives would realize benefits for residents via better connections to jobs in Revere, Chelsea, Everett and Lynn. Land access west of Bell Circle or north of Day Square would improve.
Connectivity	Non-Motorized Access *	Better than Base	Better than Base	Both alternatives would offer new public access to the shoreline of Chelsea Creek, with a waterfront Shared Use Path serving as a new signature link within the regional trail network.
Environment, Resilience	Flood Mitigation / Heat Island	Better than Base	Somewhat Better	With 3.4 more acres of green space, Alt. 1 would offer comparative heat benefits given less pavement. Permeable path pavement could be used in either alternative to maximize stormwater infiltration.
Environment, Resilience	Flood Protection	Somewhat Better	Somewhat Better	Both alternatives provide protection from 2070 100-year floods, including sea level rise, via shoreline seawalls that maintain a 16-foot elevation and include an extra two-foot lip.
Environment, Resilience	Environmental Impact	Comparable to Base	Somewhat Worse	Alt. 1 would introduce less encroachment into wetland areas. With a history of adjacent industrial uses, the need to perform more extensive (wider) or intensive (deeper) work along the corridor in order to support Alt. 2's Bypass Road would introduce a greater potential for the release of OHM.
Environment, Resilience	Restore or Improve Access to and Use of Natural Resources	Better than Base	Somewhat Better	Both alternatives would improve natural resources and provide access to waterfront spaces for public use. Alt. 1 would create more green space and limit vehicle conflicts.
Equity	Truck Impacts on Noise & Air Quality – Residents	Comparable to Base	Somewhat Better	The Alt. 2 Bypass Road would lower truck volumes along Route 1A south of Tomasello, reducing truck-related noise in west Orient Heights and at two nearby sensitive receptors.
Equity	Truck Impacts on Noise & Air Quality – Path Users	Somewhat Better	Somewhat Worse	As a result of greater separation, including from trucks using the Bypass Road, as well as among walking and biking (where possible), the Alt. 1 Shared Use Path would offer a quieter, cleaner user experience.
Equity	Public Health (Benefits for Corridor EJ Communities)	Better than Base	Somewhat Better	Both alternatives would improve neighborhood connections for EJ communities. Alt. 1 would preserve more open space and better enhance access to Chelsea Creek via a lower stress facility.
Feasibility	Estimated Cost	Somewhat Worse	Worse	Capital cost of Alt. 2 would be approximately 50 percent higher (\$35.5 M), driven by the high-cost cantilevered segment of the Shared Use Path (Boardman to Addison Street), and the Bypass Road.
Feasibility	Permitting / General Feasibility	Somewhat Worse	Worse	Both alternatives would vastly improve public access, recreation, and open space uses at the waterfront while also requiring authorization to perform work within regulated areas. Given the inclusion of a non-water dependent use (i.e., proposed Bypass Road) in areas that are assumed to remain in the Chelsea Creek DPA, Alt. 2 would likely encounter greater difficulty in permitting under Chapter 91.

* At Bell Circle, Option B (Revere Beach Parkway) would provide Shared Use Path users with direct access to east side amenities while Option A (Harris Street) would afford better access for residents to the west.

Table ES–1. Comparative Evaluation and Key Findings Summary

E-4. KEY FINDINGS AND NEXT STEPS

Study Findings

The following is a high-level summary of the key features and differentiating factors of the alternatives that will help decision-makers determine a preferred approach for advancing improvements in the study corridor.

- **Safety:** Both alternatives would provide safety improvements relative to the No-Build condition.
 - **Crash Modification Factors.** Both Alternative 1 (Shared Use Path Only) and Alternative 2 (Bypass Road with Shared Use Path) would entail safety improvements at the Curtis Street and Addison Street intersections to address existing safety issues.
 - **Pedestrian and Bicycle Conflicts.** Both alternatives would provide a Shared Use Path with new pedestrian and bicycle access opportunities that have low vehicular conflicts. However, compared to the Shared Use Path Only Alternative, the Bypass Road with Shared Use Path Alternative would introduce potential path user conflicts with Bypass Road vehicles at major access points (e.g., jughandle near Tomasello Drive, Boardman Street, and Addison Street). In Alternative 2, path users also would have an additional at-grade crossing with vehicles turning on to and off of Route 1A at Curtis Street, while Shared Use Path users would cross using an underpass in Alternative 1.
 - **Northern Options for Pedestrian and Bicycle Access.** Option A would provide on-street bicycle accommodations via Sharrows on Harris Street, a low-volume residential street, along with a limited segment of sidewalk-level bike lane on the southern approach to Revere Beach Parkway. Option B would provide a lower-conflict separated bike path along the Revere Beach Parkway ramp to Bell Circle.
- **Connectivity:** By providing a new Shared Use Path, both alternatives would provide better pedestrian and bicycle connectivity relative to the No-Build condition. By building a new vehicular Bypass Road that enables connections between Route 1A, industrial businesses, and Logan International Airport, Alternative 2 would provide better connectivity for authorized vehicles, including heavy trucks and potentially buses and

other vehicles.

- **Truck Connectivity.** The analysis indicates that the Bypass Road proposed in Alternative 2 would attract nearly 1,900 truck trips per day – just under 35 percent of the total truck volume projected for 2040 on Route 1A and from the Cargo Ventures project proposal. AM and PM peak hour truck diversions to the Bypass Road are projected to be 109 (42 northbound, 67 southbound) and 103 (50 northbound, 53 southbound), respectively.
- **Traffic Congestion.** The traffic analysis found that enabling these truck diversions from Route 1A to the new Bypass Road would result in a minor reduction in delay and congestion on Route 1A in Alternative 2.
- **Pedestrian and Bicycle Access.** In both alternatives, the Shared Use Path would enable better access to recreational facilities and natural resources for residents near the study corridor. The Shared Use Path in both alternatives would also provide better non-motorized access for residents to employment opportunities and other destinations.
- **Environment and Resilience:** Both alternatives would improve the environmental and resilience performance for the railroad corridor relative to the No-Build condition.
 - **Flood Protection.** Both alternatives would provide an elevated transportation facility that would serve as a barrier to sea level rise and storm surge for two key neighborhood flood pathways to the north and south of Orient Heights.
 - **Flood Mitigation and Urban Heat Mitigation.** Alternative 1 would provide roughly 3.4 additional acres of green space, because it would not need to provide a paved vehicular Bypass Road in addition to the Shared Use Path. This green space would help mitigate urban heat impacts and would provide additional permeable surface for flood absorption and mitigation.
 - **Environmental Impact.** The Alternative 2 Bypass Road may have greater construction impacts than Alternative 1, such as more disruption of the Chelsea Creek and areas contaminated with hazardous materials.
 - **Access to Natural Resources.** Both alternatives would provide much better access

to the Chelsea Creek than the No-Build condition. However, Alternative 1 would provide more waterfront open space and natural resources than Alternative 2.

- **Equity:** Both alternatives would enhance access to natural resources and recreational facilities and provide equity benefits for residents of the Environmental Justice surrounding the study corridor relative to No-Build conditions.
 - **Truck Impacts on Noise & Air Quality for East Boston Residents.** By enabling the diversion of an estimated 35 percent of trucks from Route 1A to the Bypass Road, Alternative 2 would displace a significant proportion of heavy vehicle-generated noise and air pollution farther from the East Boston residential neighborhoods that are closest to Route 1A.
 - **Truck Impacts on Noise & Air Quality for Shared Use Path Users.** By keeping all trucks on Route 1A rather than on an adjacent Bypass Road, Alternative 1 would keep truck-related noise and air pollution away from the Shared Use Path and the park spaces along Chelsea Creek.
 - **Public Health Benefits.** Alternative 1 would provide more park space and green space along the Shared Use Path, and more recreational green space. The Shared Use Path Only Alternative would also provide a more comfortable, lower-stress experience for non-motorized users, particularly pedestrians, by offering separate



Figure ES-7. Route 1A Along Chelsea Creek – Alternative 1 (Shared Use Path Only)

pathways for bicyclists and pedestrians from just north of Addison Street (230 McClellan Highway) to just south of the jughandle (480 McClellan Highway).

- **Feasibility and Implementation:** The No-Build, status quo scenario represents the most “feasible” option, with the fewest challenges. Both alternatives would entail significant capital cost, as well as project impacts that would require significant permitting in this environmentally sensitive waterfront corridor.
 - **Capital Cost.** Both alternatives have significant capital costs for rehabilitating the railroad corridor, raising the profile for flood control, and building the infrastructure associated with the proposed alternative. Alternative 2 is roughly 50 percent more expensive, due to the cost associated with building the Bypass Road in addition to the Shared Use Path, as well as building the cantilevered segment of the Shared Use Path.
 - **Environmental Permitting.** Both alternatives would entail significant permitting related to potential environmental impacts, especially for construction in filled tidelands under Chapter 91 regulations. In addition, portions of the study corridor are within the Chelsea Creek Designated Port Area (DPA); both alternatives would entail new uses in a DPA, whose regulations place restrictions on construction of non-water-dependent uses.



Figure ES-8. Route 1A Along Chelsea Creek – Alternative 2 (Freight Bypass with Shared Use Path)

Next Steps

While MassDOT is not pursuing a project at this time, the Route 1A Corridor Study represents an important early step in the project implementation process. If other parties or agencies choose to move forward with any elements of this study, the following is a brief discussion of the project implementation process, with a focus on key elements of the project definition and project development phases that are specific to the Route 1A Corridor Study and implementation of an infrastructure improvement project in the MassDOT – MBTA railroad corridor.

Planning and Project Definition

The Route 1A Corridor Study is a long-term planning study that is intended to help to define a potential project in the railroad corridor along the Chelsea Creek. It identifies a transportation need, goal, or concept, and begins to translate that general concept into a more clearly defined project. The Route 1A Study substantially advances the project definition and conceptual planning for this project by defining the project purpose and need; its geographic scope; potential alternative solutions for addressing the purpose and need; and the project’s high-level benefits, impacts, and costs.

However, there is still not a clearly defined project for the railroad corridor. There is still work required to engage corridor stakeholders and community residents, build consensus on a project approach, and advance the findings of the Route 1A Corridor Study to define a preferred project. In order to further advance a potential project in the Route 1A corridor, there are several additional issues that should be considered in later phases of project development:

- **Truck Diversions on Local Streets.** Community residents and stakeholders have expressed concerns about existing truck diversions from Route 1A onto local streets such as Bennington Street and Saratoga Street.
- **Potential for Induced Traffic Demand from the Bypass Road.** Another concern that has been raised is the potential for the Alternative 2 Bypass Road to generate additional traffic on Route 1A through “induced demand,” which is the potential for added roadway capacity to attract new traffic.
- **Chapter 91 and Designated Port Area Compliance.** Because much of the study area is in filled tidelands, any infrastructure improvements in the railroad corridor would be subject to Chapter 91 licensing; any segments within the Chelsea Creek Designated Port Area (DPA) would need to comply with relevant regulations.

- **Railroad Corridor Ownership and Property Issues.** MassDOT and the MBTA own the inactive railroad corridor from the northern end of the Martin A. Coughlin Bypass Road to its junction with the Newburyport/Rockport Commuter Rail Line. There are several challenges to developing an infrastructure project in the corridor, including ownership by separate entities, varying width of the corridor, impacts to abutters, property encroachment by abutters, and any temporary or permanent easements or property takings that might be required.

In addition to considering these issues, any next steps resulting from the Route 1A Corridor Study should be advanced in the context of other planning efforts and development projects near the study corridor. These include the City of Boston’s PLAN: East Boston process, Climate Ready Boston, Suffolk Downs Redevelopment and its associated transportation mitigation program, and other development proposals, including those by CargoVentures and Trident Logistics.

Project Development and Design

Once a project has been clearly defined through planning, and a consensus on the project approach has been achieved through civic and stakeholder engagement, the project proponent can move forward into the project development and design phase. This process comprises preliminary design and environmental review/permitting, followed by final design.

Given the waterfront location of the project corridor, the significant permitting regime associated with the Chapter 91 Massachusetts Public Waterfront Act, and potential environmental sensitivity, the environmental review and permitting for the project will be especially critical. This includes the following issues and considerations:

- **Federal Environmental Review.** The primary vehicle for federal environmental review and permitting is the National Environmental Policy Act (NEPA) process, likely through the Federal Highway Administration (FHWA). Other relevant federal environmental review process include Section 106 historical approval through the Massachusetts Historical Commission, Section 404 Clean Water Act permit that would be issued by the U.S. Army Corps of Engineers, and National Pollutant Discharge Elimination System (NPDES) permit issued by the U.S. Environmental Protection Agency.
- **State and Local Environmental Review.** A project in the Route 1A corridor would also require state and local environmental review. The environmental review regime for

the Commonwealth of Massachusetts is governed primarily by the Executive Office of Energy and Environmental Affairs (EEA), and it comprises several review and permitting processes led by EEA component agencies. These include the following:

- Massachusetts Environmental Policy Act (MEPA), which establishes “impact thresholds” for the level of environmental review required for a given project.
- A project in the railroad corridor would require a Chapter 91 Waterways License from the Massachusetts Department of Environmental Protection (MassDEP). The Chapter 91 Waterways Program is designed to preserve public access to Commonwealth tidelands, use of public facilities along the waterfront, and public enjoyment along the water’s edge, while protecting tidelands and waterways for water-dependent uses, such as commercial fishing, shipping, marinas, and other water-related activities.
- Portions of the railroad corridor and potential project area remain within the Chelsea Creek Designated Port Area (DPA), which imposes restrictions on use of DPA zones to preserve maritime infrastructure, often built at significant public cost, for continued water-dependent use.
- Other State and Local Permits. Other state and local environmental permits would likely be required for a project resulting from the Route 1A Corridor Study, including but not limited to Stormwater Management Standards Compliance Review (MassDEP), Massachusetts Contingency Plan Review/Preliminary Determination (MassDEP), Notification Prior to Construction or Demolition (MassDEP), Section 401 Water Quality Certificate (MassDEP), Order of Conditions under the MA Wetlands Protection Act and local wetlands bylaws (Conservation Commission for all municipalities affected by the project), and building permits (Massachusetts Department of Public Safety, municipal governments)

Capital Planning and Project Funding

Funding for the project would need to be secured, preferably in parallel with permitting activities. Not only do federal, local, and state planning processes need to be followed for permitting approvals, but additional processes are required to be navigated for the project to receive public funding. It is likely that both state and federal funding sources would be required in order to implement a project of this scale. A number of different funding and grant sources at each level could offer potential funding. Typically, federal sources would fund 80 percent of transportation infrastructure capital costs, while the remaining 20 percent would be funded by state or local contributions.

- Federal Funding Programs. A number of programs and grants could comprise the 80 percent federal contribution for the project, including the use of federal “formula” funding that the federal government allocates to the Commonwealth of Massachusetts, as well as through competitive discretionary grant. The recently passed Infrastructure Investment and Jobs Act (IIJA) offers a range of such competitive grant programs that might be suitable for a project that could come out of the Route 1A Corridor Study, such as the Carbon Reduction Program, Safe Street and Roads for All, Reconnecting Communities, and Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation.
- State Funding and Capital Planning Processes. As with federal funding, there are many potential state funding sources and programs that provide funding for improvements in the study corridor. The MassDOT Capital Investment Plan (CIP), a five-year rolling capital plan that the Commonwealth’s transportation investment priorities, establishes the policies and priorities that guide state transportation funding. A project arising out of the Route 1A Corridor Study would need to compete for state funding through the CIP process.