

ROUTE IA Casis

Hampton Jan

Working Group Meeting #2 December 1, 2021

East Boston – Revere





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Agenda

- **1** Introductions
- 2 Study Context
- **3 Goals and Objectives**
- 4 Key Issues and Opportunities
- **5 Existing Conditions**
- 6 Next Steps









Study Context

Study Purpose and Need

The purpose of this study is to assess the potential uses of the MassDOT/MBTA rail parcels located between Route 1A and the Chelsea Creek in East Boston, and evaluate the Route 1A corridor between Bell Circle and Day Square.

The study will identify opportunities to:

- improve walking, biking, and transit conditions
- address safety deficiencies for all users
- accommodate freight needs and increasing demand on the corridor due to new development
- mitigate potential impacts of climate change







Study Corridor

Our study corridor includes the MassDOT/MBTA owned rail parcels along the Chelsea Creek and Route 1A from Chelsea Street in East Boston to Bell Circle in Revere.







Regional Study Area

The broader regional study area includes communities, land uses, and transportation facilities that influence the study corridor: East Boston, Chelsea, Revere, Logan Airport, Downtown Boston, Blue Line, Newburyport/ Rockport Line, I-90, Route 60, Route 16, and the regional shared use path network.







Study Process

Public Involvement



- Study area
- Planning context
- Goals & objectives
- Multimodal data and analysis
- Issues and opportunities

- Infrastructure, operations, and policy improvements
- Designed to address issues and opportunities and achieve goals & objectives



Findings & Recommendations

- Qualitative and quantitative evaluation - Evaluation criteria based on goals & objectives
- Short, medium and long-term recommendations
- Implementation plan
- Consensus-based



Related Studies and Projects

- **PLAN: East Boston**
- **Climate Ready Boston**
- Vision Chelsea Creek
- Next Stop: Revere Master Plan
- East Boston Municipal Harbor Plan
- Chelsea Creek Municipal Harbor Plan
- Suffolk Downs Redevelopment
- Addison-McClellan EDA
- MassDOT Road Safety Audits



Squares and Corridors

Squares and Corridors are important points of gathering and connection within a neighborhood. They provide essential goods and services to local residents, and create important job and entrepreneurial opportunities for the broader East Boston community. Squares and Corridors also operate as gateways, connecting East Boston to important regional destinations.

This document includes draft recommendations prepared for East Boston's **Squares and Corridors.**

- on page 8
- on page 10
- "Maverick Square" page 18
- "Central Square" or
- page 34 "Day Square" on pag
- on page 56
- on page 70

- page 94







"Shaping Building For

"Orient Heights Square "Suffolk Downs Squar



















BEACHMONT

BELLE ISL





Goals, Objectives, and Evaluation Criteria

Public and Stakeholder Involvement

Community engagement through a variety of channels:

- Study Working Group key stakeholder engagement forum to
 - Provide local knowledge, perspective, and expertise
 - Facilitate communication with community organizations
 - Review findings and provide feedback
 - 5 meetings at key milestones
- Public Information Meetings (4 meetings)
- **Neighborhood Briefings**
- Site visits
- Meetings with elected officials and municipalities
- **Online feedback forms**
- Project website: <u>https://www.mass.gov/route-1a-east-boston-corridor-study</u>







Study Strategic Direction

- Goals
 - High-level statements of desired outcomes that address major challenges, issues, and opportunities

- Objectives
 - Statements that derive from the Goals and establish concrete, specific, and measurable outcomes that help to achieve the Goals

- Evaluation Criteria
 - Measurable parameters (quantitative or qualitative) that enable us to assess how well a proposal or option satisfies the objective(s)











Study Goals

Safety

• Improve safety for people using all modes of transportation (walking, biking, transit, driving, etc.)

Connectivity

- Enhance connectivity for users of all modes of transportation along and across the Route 1A corridor
- Balance local and regional transportation needs and improve the reliability of freight transportation

Sustainability and Climate Change Resiliency

- Improve air quality and access to public and natural resources
- Enhance resilience of corridor infrastructure and surrounding area

Equity

Enhance corridor benefits and reduce corridor burdens
 on Environmental Justice communities







Safety

Goal: Improve safety for people using all modes of transportation (walking, biking, riding transit, driving, etc.)

- Reduce the number of crashes on the Route 1A corridor, particularly fatal and serious injury crashes
- Address safety deficiencies at High Crash Locations
- Reduce incidence of speeding throughout the Route 1A corridor
- Reduce the number of conflict points at intersections
- Address sight line obstructions along the Route 1A corridor \bullet
- Increase Level of Comfort/reduce Level of Stress for vulnerable road users





Connectivity

Goal: Enhance connectivity for users of all modes of transportation along and across the Route 1A corridor

- Provide new and/or upgraded pedestrian and bicycle facilities along and across Route 1A
- Close gaps in the regional bicycle network \bullet
- Improve existing or create new pedestrian and bicycle connections between residential neighborhoods and the Chelsea Creek
- Make transit service more reliable and accessible along Route 1A, and \bullet provide bus stop amenities throughout the corridor





Connectivity (continued)

Goal: Balance local and regional transportation needs and improve the reliability of freight transportation

- Address delay at "bottleneck" locations with congestion
- Facilitate freight movements through the Route 1A corridor and between ulletfreight origins and destinations along the corridor
- Minimize local impacts of regional traffic and cut-through traffic in ulletneighborhoods





Sustainability and Climate Change Resilience

Goal: Improve air quality and access to public and natural resources **Objectives**

- Reduce air pollution and greenhouse gas emissions
- Provide new and/or improved natural resources including open space and \bullet waterfront access
- Reduce the adverse environmental impacts of freight movements through the lacksquarecorridor

Goal: Enhance resilience of corridor infrastructure and surrounding area

- Mitigate flooding pathways and infiltration points from Sea Level Rise and storm surge lacksquareImprove drainage, reduce flooding from precipitation, and reduce runoff lacksquare





Equity

Goal: Reduce corridor burdens and enhance corridor benefits on Environmental Justice communities

- Prioritize strategies that reduce burdens that disproportionately impact Environmental Justice communities (e.g. public health burdens, transportation impacts)
- Prioritize strategies that benefit Environmental Justice communities (e.g. increased access • to public space, reduced cut-through traffic, etc.)







Existing Conditions Analysis

Preliminary Issues and Opportunities – Corridor-Wide

- Issues
- Roadway safety and traffic congestion
- Barrier to neighborhood walking and cycling access
- Vulnerability to impacts from climate change





•

- Opportunities
 - MassDOT/MBTA-owned inactive rail corridor
 - Development mitigation
 - Resilience investments



Southern Segment – Viaduct to Addison Street

Curtis Street: Conflict

Including Fatalities

Point with High

Crash History,

Corridor Bounded by Neighborhood to the East, Fuel Tanks to the West



Inactive Rail Corridor – Potential for Recreational, Resilience, or Transportation Infrastructure





Middle Segment – Addison Street to Fuel Tanks

Inactive Rail Corridor – Potential for Recreational, Transportation or Resilience Infrastructure Low Elevation Areas with High Vulnerability to Future Flooding, Pathways into Neighborhood

Corridor Bounded by Neighborhood and Fuel Tanks to the East, Industrial/Trucking-Oriented Businesses to the West

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CORRIDOR STUDY

Suffolk Downs Redevelopment Poorly-Distributed Traffic Signals, Pedestrian Crossing Opportunities





Northern Segment – Viaduct to Addison Street





Connectivity

Bell Circle-Traffic Congestion, Confusing Movements, Poor Pedestrian Connectivity



MassDOT/MBTA Rail Parcels

- Access opportunities/desire lines at:
 - Chelsea St/Curtis Street
 - Addison St
 - Addison-McClellan EDA \bullet
 - Boardman St
 - Tomasello Way/Suffolk Downs



• Potential ROW Uses identified by stakeholders: Passive Linear Park/Recreational Space Trail Connection for Walking and Biking Climate resiliency measures Freight movements, other transportation access



MassDOT/MBTA Rail Parcels

- Parcel Constraints:
 - Parcel right-of-way (ROW) width
 - Widest area: ~65 feet
 - Narrowest area: ~42 feet (MBTA parcel), ~25 feet (MassDOT parcel)
 - Active industrial uses on Route 1A limit public ROW for access and general permeability
 - Grade change between
 Route 1A and Rail ROW
 - Flooding vulnerability







Regulatory Context – Chapter 91

Chapter 91, the Massachusetts Public Waterfront Act

- Sets jurisdictional lines to provide public access to waterways
- Preserves and protect the rights of the public
- Establishes priority for water-dependent uses
- Guarantees that private uses of tidelands and waterways serve a proper public purpose
- Includes filled tidelands extending up to the first public Right of Way
- Chapter 91 jurisdiction near the study corridor is bounded by the yellow boundary and the area seaward of it in the map on the right





Source: City of Chelsea: Chelsea Creek Municipal Harbor Plan

Chapter 91 Jurisdiction



Regulatory Context – Designated Port Area (DPA)

- DPA is a special designation issued by the Commonwealth of MA Office of Coastal Zone Management (CZM)
- DPA designation protects natural and man-made ulletresources for water-dependent industrial uses
- DPA boundary review commenced on May 6, 2021 ulletin response to a request from a group of property owners along the Chelsea Creek
- Six month consultation period from October 2021 to April 2022
- Designation report will be issued by CZM within 30 days of the close of consultation period
- Report will include areas to be included or excluded from the DPA
- 30-day public comment period and public hearing following the publication of the report









Study Area Demographics

Key Takeaways – Land Use, Public Health, and **Community Demographics**

- Study area communities predominantly made up of Environmental Justice populations
 - Non-white residents > 40% of population
 - Median income < 65% of statewide median income
 - Limited English proficiency > 25% of households
 - High foreign-born population, including half of East Boston residents
- Land use and environmental challenges
 - Fuel tanks, shipping, rental car facilities, hotels line corridor due to the proximity to Logan Airport
 - Historic and continuing industrial uses of Chelsea Creek, Designated Port Area
- Public health challenges for neighborhoods near the corridor •
 - High rates of diabetes and heart disease in East Boston

High rate of pediatric asthma in Boston, low pediatric asthma hospital admissions in East Boston (potential issue of healthcare access)

Corridor Demographics – Population Change, 2014-2019

• Significant population increase on both ends of the corridor and along Blue Line





R

Corridor Demographics – Foreign-Born Population

Most of the Census Tracts have higher than 30% population that are born in foreign countries



Corridor Demographics – Environmental Justice Status

- Corridor communities have minority populations higher than the regional average
- Higher than average limited English proficiency and/or low-income population





han the regional average w-income population



Existing Corridor Land Use

- Communities near corridor are principally residential
- Land uses along the corridor and across Chelsea Creek are industrial and commercial







Corridor Environmental Resources and Challenges

- Significant number of industrial uses, oil/fuel tanks and sites with Activity Use Limitations
- Wetlands and Areas of Critical Environmental Concern also present east of Route 1A





- MASSDEP OIL AND/OR HAZARDOUS MATERIAL SITES WITH ACTIVITY USE LIMITATIONS (AUL)
 - AREAS OF CRITICAL ENVIRONMENTAL CONCERN

OIL TANK AREA



TUSES	WETLAND
RIAL USES	WATER



Regional Public Health Conditions

Pediatric asthma rate in Boston is significantly higher than the statewide average and other municipalities in metro Boston







Type 2 (per),000 students)
6
18.1
13.6
0
12
0
9.7
8.4
10.9
0
2.7
1.8
23.8
10.2
10.45



Boston Public Health Conditions

 Asthma Emergency Department visits for 3–5 year-olds lower in East Boston than the Boston average



Adult diabetes and heart disease incidence significantly higher in East Boston than the Boston average

	Adults	Heart Disease (per
Neighborhood	Diabetes (%)	10,000 residents)
Allston	3.7	75.5
Brighton	3.7	75.5
Back Bay	3.8	66.5
Charlestown	3.9	88.2
Dorchester (Zip Codes 02121, 02125)	12.8	97.5
Dorchester (Zip Codes 02122, 02124)	9.3	95
East Boston	9	109.8
Fenway	3.9	63.7
Hyde Park	9	96.7
Jamaica Plain	5.8	67
Mattapan	17.3	100
Roslindale	8	81.4
Roxbury	14.1	117.3
South Boston	5.8	94.1
South End	6.5	86.9
West Roxbury	7.9	72.7
Boston	8	86.5



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Key Takeaways – Safety and Connectivity

- Safety Traffic Higher speeds at southern end of corridor
 - Higher crash rates at southern end of corridor
 - Near Curtis Street
 - At curve south of Boardman Street
- Pedestrian and bicycle access
 - Corridor is a major barrier to access
 - Loud, high-speed traffic •
 - Poor walking and cycling infrastructure
 - Large gaps between crossings
- Transit
 - High Blue Line ridership, low bus ridership
 - Lack of pedestrian crossings at many bus stop pairs

• Major feeders to/from north: Route 1, Lynnway (1A), Revere Beach Parkway

• Major destinations to/from south: Logan Airport largest, followed by East Boston, Downtown, South Boston, Chelsea

 Volumes highest in middle of corridor (Tomasello – Boardman)

Boardman Street intersection highly congested

Bell Circle less congested, but predicted to grow more congested in the future

Existing Corridor Safety Conditions

- Weighted map of crash incidence, 2016-2020
- Shows location of four (4) fatal crashes near southern end of corridor
- Fatal crashes related to elevated vehicle speed







Existing Corridor Pedestrian Conditions

- Analysis of Pedestrian Crossings
 - Number of lanes crossed
 - **Traffic speed**

BUII.

Pedestrian protection (signal, refuge island)

- - Min. distance: 0.5 mile



Existing Marked Crosswalks Max. distance: 1.4 miles 6 bus stops without crosswalks



Existing Corridor Walking Conditions

- Accessible ramps not present at most intersections and driveways
- Sidewalk width and surface quality varies widely
- Sidewalks from corridor to Bell Circle, but no marked crossings at Bell Circle
- Bus stops lack amenities or marked crossings











Existing Corridor Biking Conditions

- Analysis of Biking Crossings
 - Number of travel lanes
 - Traffic speed
 - Existing or planned bike protection

- **Bike connectivity**





No inter-neighborhood connectivity Some planned connections



Existing Corridor Biking Conditions

- Route 1A lacks dedicated bicycle facilities
- Some segments of the corridor feature painted shoulders, but they are discontinuous with gaps in between
- Vehicle speeds may discourage residents from biking on the corridor
- Corridor observations noted some people rode or walked bicycles on the sidewalk











Regional Trail Network

- Growing shared use path network north of Boston (Northern Strand Trail, etc.)
- Potential for connection from East Boston Greenway to Revere Beach (potential Suffolk Downs connection)







Regional Traffic Patterns

- •Regional Demand Viewed from the jughandle at **Tomasello Way**
 - •Where Do Cars Come From?
 - •Where Are Cars Headed?





• Operations along Route 1A – Each Direction • How Many Cars? Average Speeds? • Peak Period vs. All-Day



Southbound Regional Traffic – Where Do Cars Come From?



Southbound Regional Traffic – Where Are Cars Headed?



Northbound Regional Traffic – Where Do Cars Come From?



Northbound Regional Traffic – Where Are Cars Headed?



At Bell Circle, exits to the North Shore via VFW Pkwy. attract 21%

- 5,000 9,999
- 2,000 4,999
- < 2,000

Truck Traffic and Freight Flows

- Reviewing truck trips using multiple data sources (INRIX + StreetLight)
- Route 1A serves freight to/from north accessing
 - Destinations in Boston
 - Other National Highway Freight Network links
 - I-93, I-90, I-95
- Critical Urban Freight Corridors
 - Coughlin Bypass Road and Chelsea Street
- 2 Intermodal Connectors
 - Logan International Airport (MA18A)
 - Various fuel terminals (MA21P)









Regional Transit Patterns

• Blue Line demand (AM Peak)







Regional Transit Patterns

• Blue Line demand (PM Peak)







Regional Transit Patterns

CORRIDOR STUDY





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Sustainability and Climate Change Resilience

Key Takeaways – Sustainability and Climate Change Resilience

- Corridor Flooding Vulnerability
 - Flood pathways (from sea level rise and storm surge) from Chelsea Creek reflect topography and history
 - North and south of Orient Heights neighborhood (historic "Hog Island")
 - Filled land that was open water in colonial times
- Low-lying segments of Route 1A prone to flooding
 - Infiltration from Chelsea Creek
 - Inland precipitation (exacerbated by lack of permeable cover)
- Lack of public open space in the study area
- Opportunities for flood resiliency measures, improved drainage management



Climate Risk – Flooding Vulnerability

- Low-lying areas include natural waterways, filled land between original islands
- Create flood-prone areas and storm surge infiltration pathways



CLIMATE IMPACTS



CURRENT I% ANNUAL FLOOD ZONE (WITH NO SEA LEVEL RISE) 2030 I% ANNUAL FLOOD ZONE REGULATORY FLOODWAY 2070 I% ANNUAL FLOOD ZONE HIGH RISK COASTAL AREA

tween original islands hways





Public Open Space

• Minimal public open space near corridor







Permeable Cover

ROU⁻

CORRIDOR STUD

Some permeable cover, less in the industrial/airport-related zones near the corridor •





Heat Island Effect (Boston only)

• Heat island effect, especially in paved areas – inverse of permeable cover







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 Schedule and Next Steps

Study Schedule

Public Involvement





Findings & Recommendations



Fall 2022



Next Steps

Public Meeting

December 8 – Existing Conditions & Issues

AHEAD OF THE NEXT WORKING GROUP MEETING, WE WILL

- Finalize Existing Conditions analysis and conduct a Future Conditions Analysis
 - Suffolk Downs mitigation, Climate Ready Boston and Plan: East Boston recommendations
- Develop preliminary improvement alternatives
 - Safety and local access improvements pedestrian crossings, bicycle connections, traffic safety improvements
 - Rail corridor concepts, including local access
 - Roadway improvements







Questions and Discussion

Questions and Discussion

Working Group Members

- Use the "Chat" button to submit a typed question or comment
- Press the "Raise Hand" button to share your question or comment verbally. Wait for the moderator to recognize and unmute you before speaking.
- If you have joined by phone only, you may "raise your hand" by pressing the star button and then nine (*9)
- After you speak, we will lower your hand and you will be muted to allow the team to respond and provide opportunities for others to participate
- Website: <u>https://www.mass.gov/route-1a-corridor-study</u>
- Email: <u>Rt1ACorridorStudy@dot.state.ma.us</u>













Thank you!

For question and comments please email: Rt1ACorridorStudy@dot.state.ma.us

Sign up for project updates: https://www.mass.gov/route-1a-corridor-study



