

Silver Line Gateway Alternatives Analysis

Public Meeting - September 18, 2013



Study Overview

GOAL: Identify a recommended alternative for extending Silver Line service to Chelsea and East Boston that will enhance mobility and economic development potential

Context:

- Corridor well aligned with MassDOT goals
- Leverage recent infrastructure investments

Public Meetings:

- March 2013 Introduced study and project corridor
- May 2013 Reviewed potential alternatives and solicited feedback
- June 2013 Present initial analysis results, solicit feedback
- September 2013 Present recommended alternative



Study Corridor

- Service would be new branch of Silver Line Waterfront service.
- Duplicates existing service at:
 - South Station
 - South Boston Transitway / Seaport District stations
- New connection to Blue Line at Airport Station
 - Does not serve Logan terminals
- Coughlin Bypass Road to Chelsea Street Bridge





Alternatives for Serving Chelsea

MassDOT developed and evaluated **three alternatives** based on input received at May public meeting and at other stakeholder meetings:

Alternative 1: Busway to Mystic Mall (4 stations in Chelsea)

Alternative 2: Busway to Bellingham Square (3 stations in Chelsea)

Alternative 3: On-Street to Everett Avenue (4 stations in Chelsea)



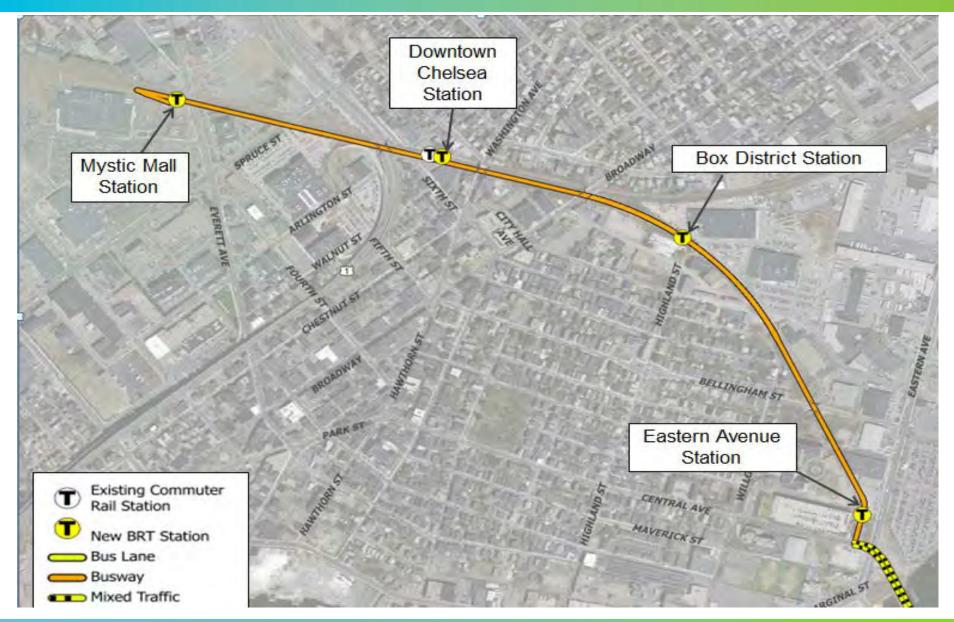
Alternatives for Serving Chelsea

RECOMMENDED ALTERNATIVE:

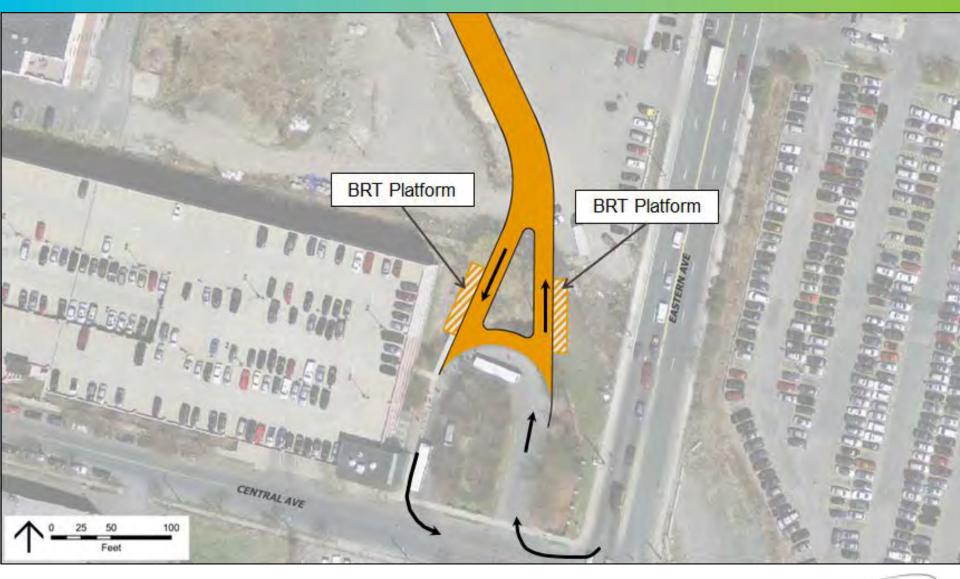
Alternative 1: Busway to Mystic Mall (4 stations in Chelsea)



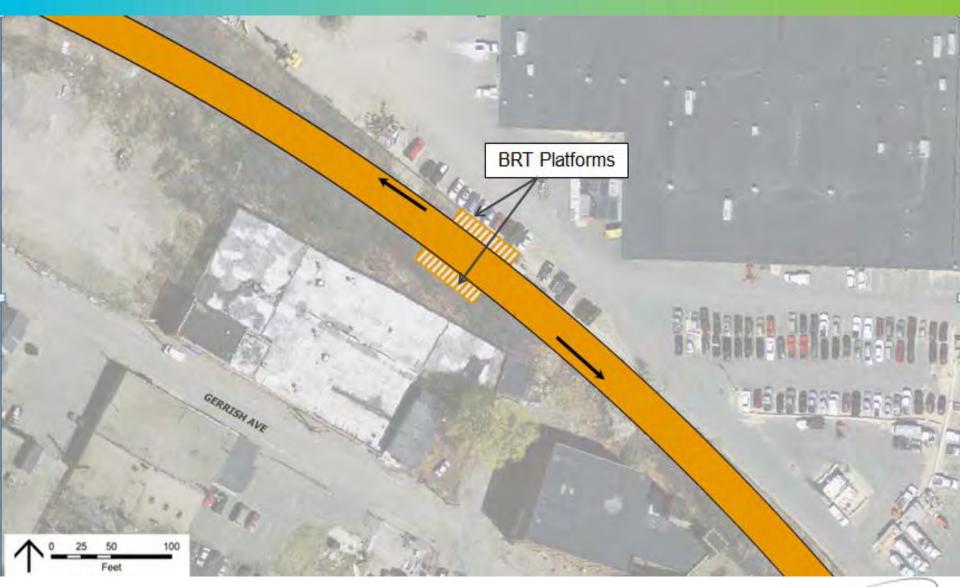
Busway to Mystic Mall



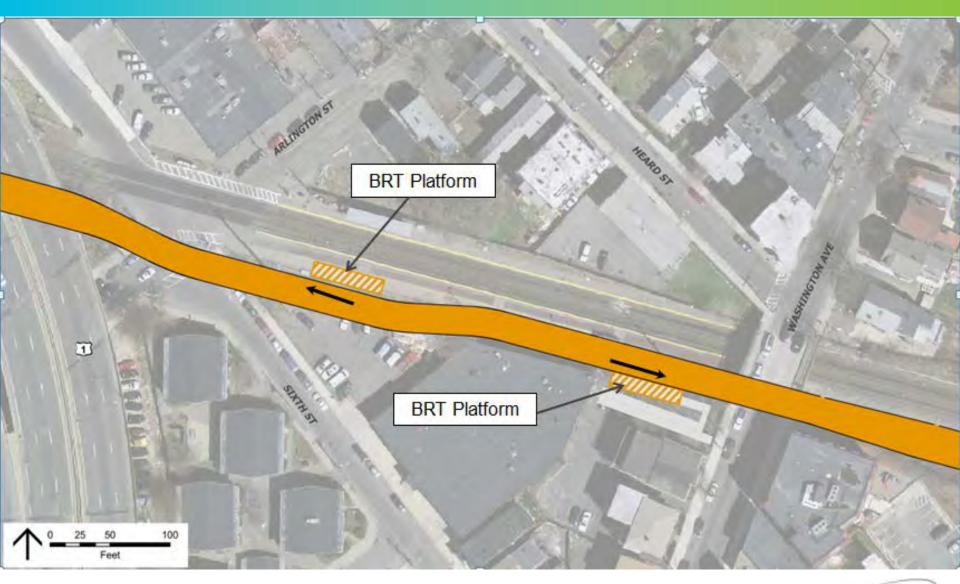
Station – Eastern Avenue



Station – Box District

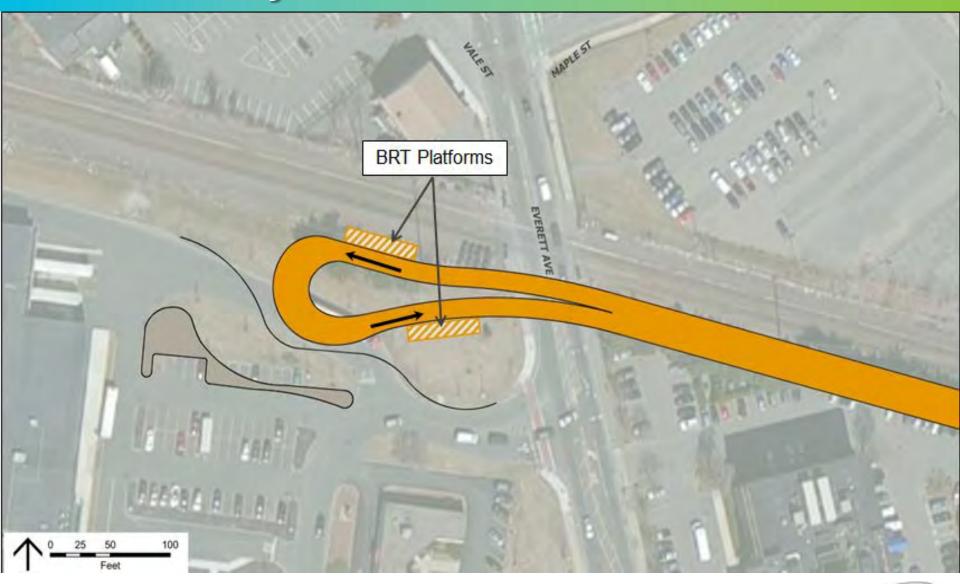


Station - Downtown Chelsea

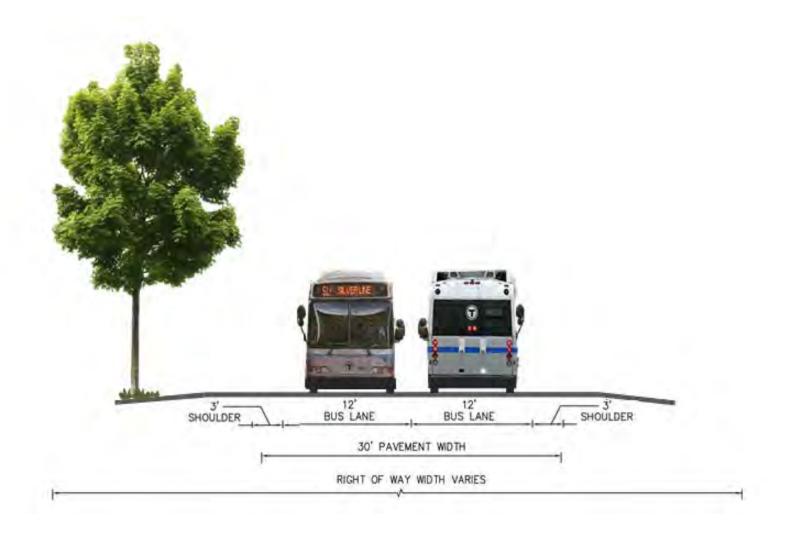




Station - Mystic Mall

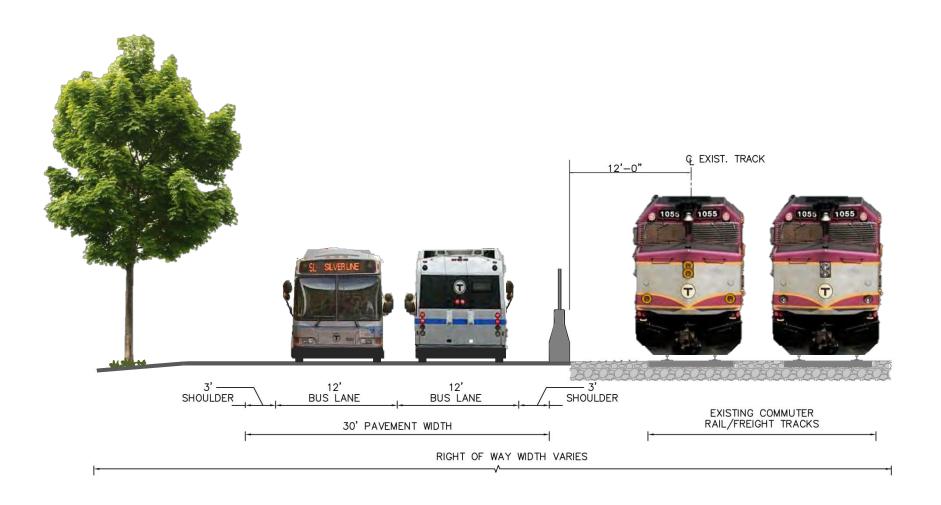


Busway Section in Abandoned Rail Corridor



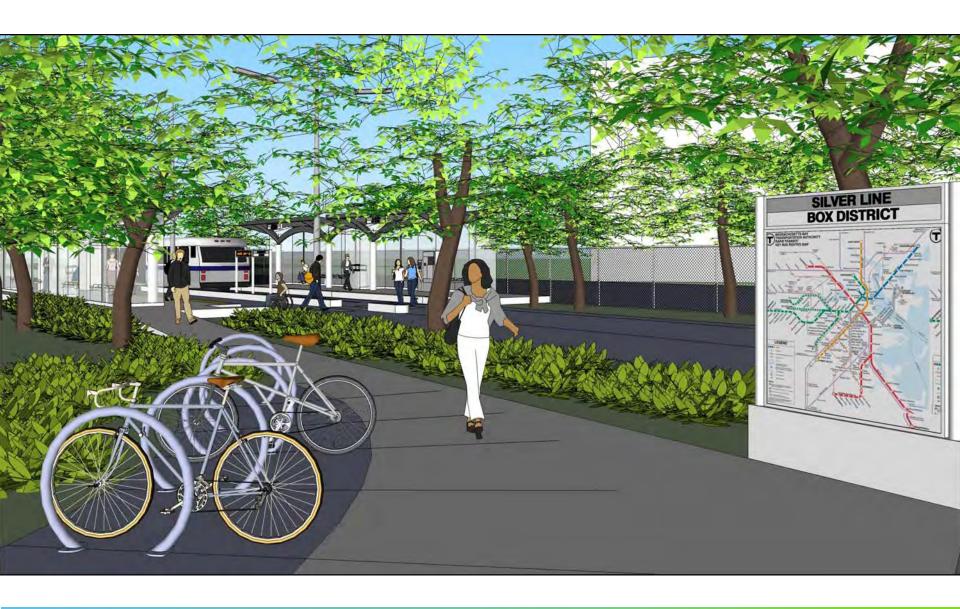


Busway Section Adjacent to Active RR











Hawthorn Street – Local Bus Corridor



- Improve reliability and travel time for local bus service
- 3 of MBTA Key Routes already serve this block
- 4,000 bus riders/day compared to 7,000 cars
- GreenDOT opportunity for shift to transit mode
- Relocation of Bellingham Square bus stop

Service Assumptions

- Frequency every 10-12 minutes each direction
- Service 5:00am to 1:30am seven days a week
- Rapid Transit Fares (\$2) with Charlie Card
- Off-board fare collection
- 60' articulated low emission vehicles



Busway Alternative - Travel Time

Preferred Alternative – Busway to Mystic Mall				
Example Trip Ends	Travel Time (minutes)			
Downtown Chelsea to Airport Blue Line Station	8			
Downtown Chelsea to World Trade Center*	15-19			
Downtown Chelsea to South Station	23			
Airport Blue Line Station to World Trade Center*	7-11			
Airport Blue Line Station to South Station	15			



^{*} Range of travel times for Silver Line Gateway are for surface and underground WTC stations, respectively.

Performance Comparison – Seaport Access

	No Build			Silver Line Gateway				
Performance Measures	111 Bus	Commuter Rail	Blue Line	Busway				
Downtown Chelsea to World Trade Center, Boston								
Travel Time	39 min	36 min	37 min	15-19 min				
Transfers	3	1	2	0				
Reliability	Low	High	Medium	High				
Airport Blue Line Station to World Trade Center, Boston								
Travel Time	NA	NA	20-26 min	7-11 min				
Transfers	NA	NA	1	0				
Reliability	NA	NA	High	High				

Notes:

No-Build travel times are based on MBTA Trip Planner tool.

Range of travel times for Silver Line Gateway are for surface and underground WTC stations, respectively.



Busway Alternative - Ridership

- CTPS Travel Demand Forecasting Results Year 2035
- Results as compared to No-Build Alternative

		*****	Change in Ridership compared to No-Build		
Alternative	SLG Total Daily Ridership	New Transit Trips	Blue Line	Route 111	Combined Routes 116/117
Busway to Mystic Mall	8,730	2,500	190	-2,230	-1,950

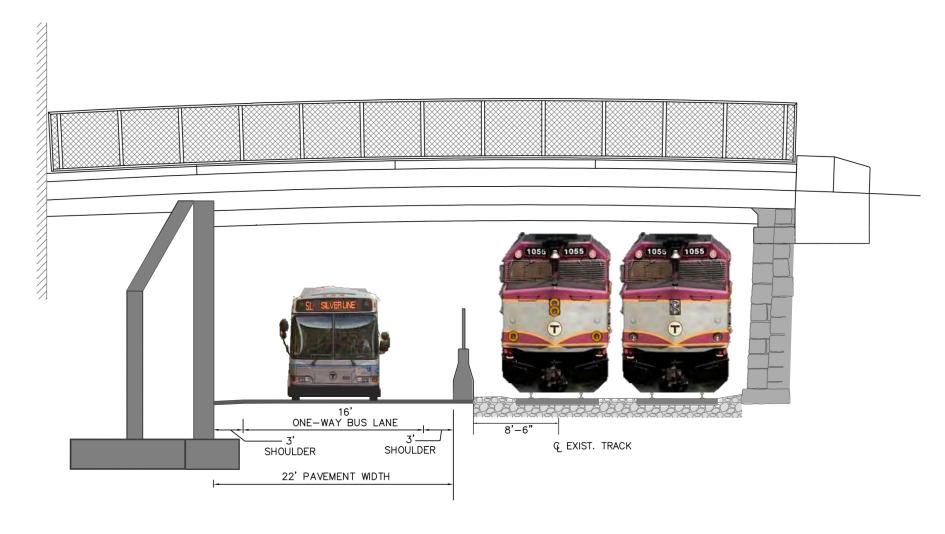


Washington Avenue Bridge Issues

- Rated as functionally obsolete
- Bridge scheduled for replacement in 2014
- Prior design concept only provided room for onelane busway
- Silver Line Gateway has resulted in new design concept for the bridge

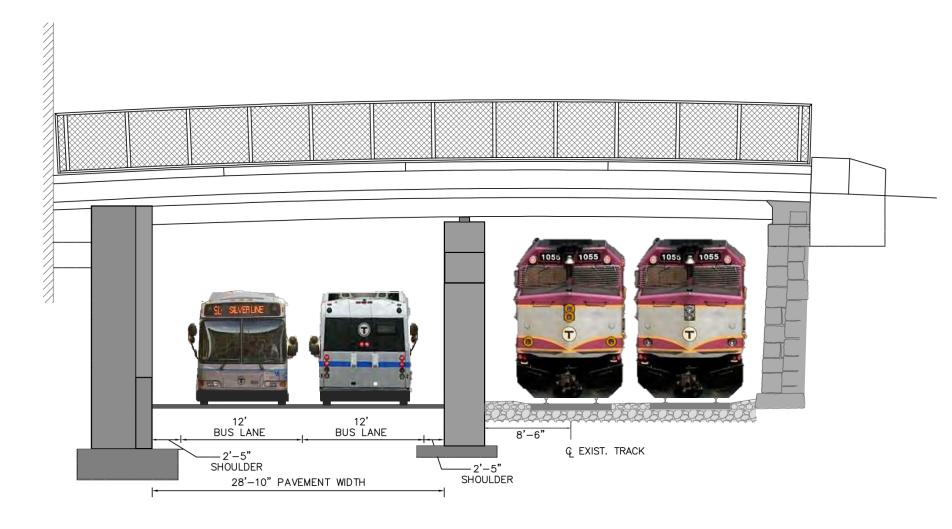


One Lane



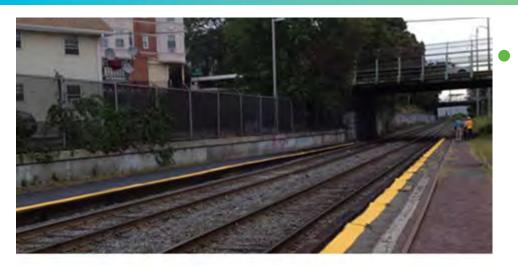


- Two Lanes





Chelsea Commuter Rail Station





- MassDOT's Commitment:
 - Modern station
 - Accessible to all users
 - Convenient connections with Silver Line Gateway



Chelsea Commuter Rail Station - Issues

- Accessibility Regulations and MBTA Design Standards
 - High level platforms for level boarding
 - Accessible boarding from all cars (800' long platform)
 - Platform with minimum depth of 7'6"
- Significant physical constraints to meeting these regulations and standards at Chelsea Commuter Rail Station



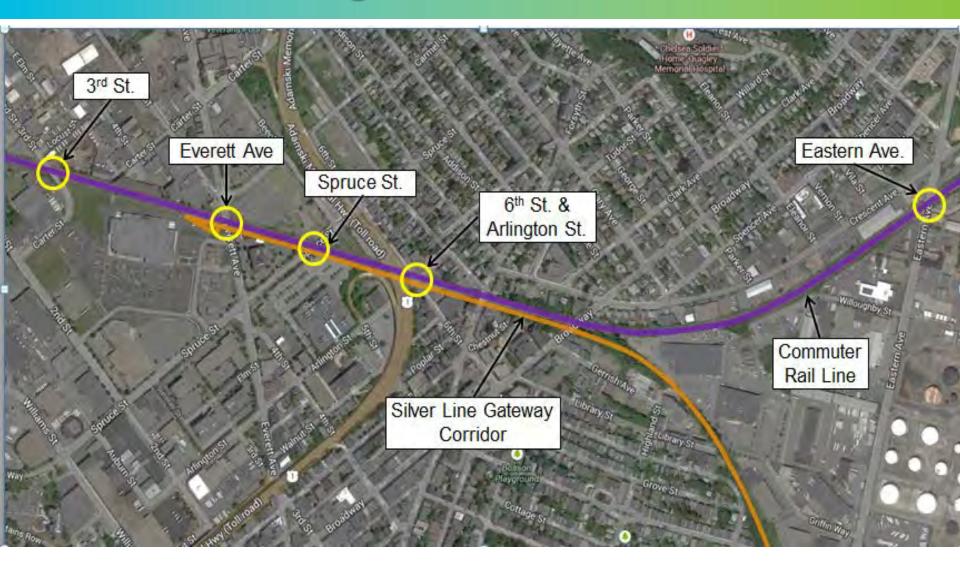
Chelsea Commuter Rail Station - Constraints



- North Abutment of Washington Avenue Bridge
- At-Grade crossing of Sixth/Arlington Streets



Grade Crossings - Commuter Rail Corridor

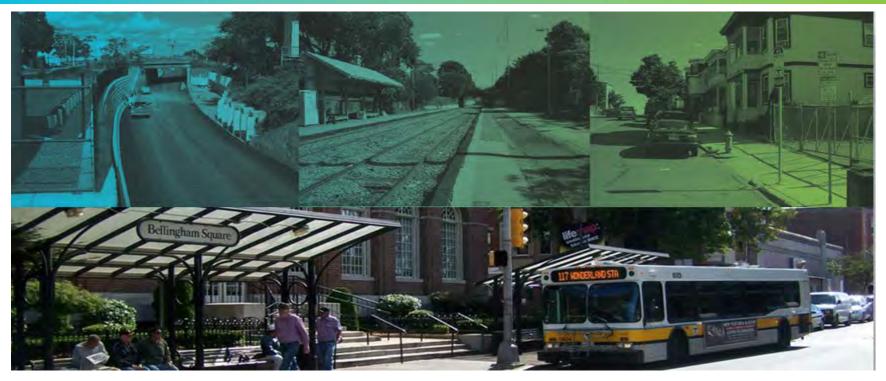




Next Steps and Schedule

- Complete the Alternatives Analysis (AA) Phase
- Complete Final AA Report and post to Project Website
- File Expanded ENF with MEPA
- Commence critical early design actions





THANK YOU

QUESTIONS & ANSWERS

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