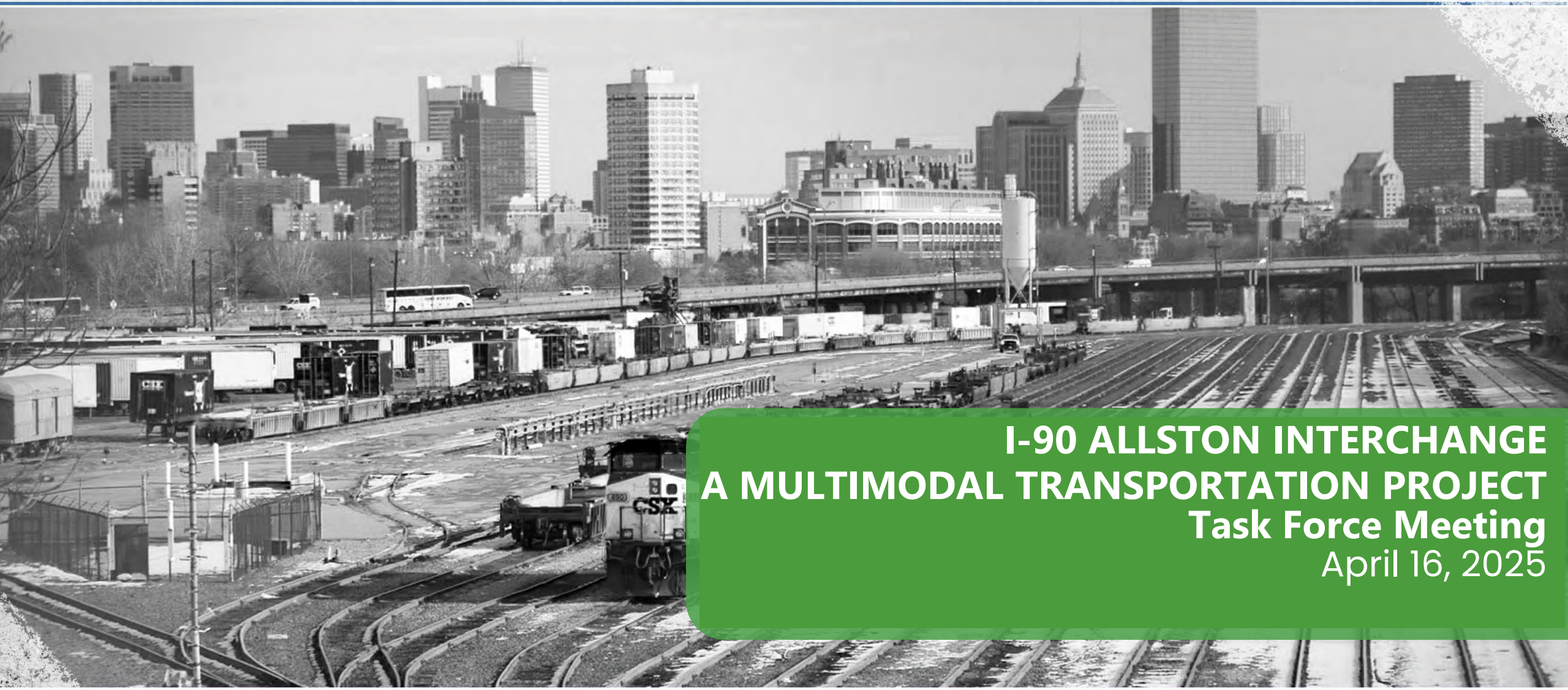


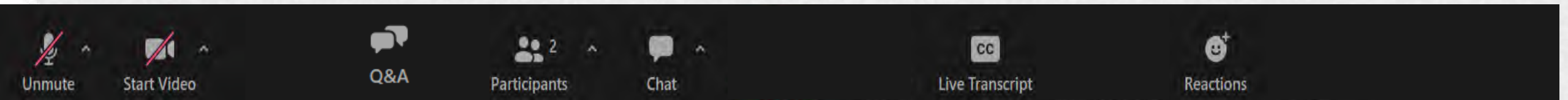
I-90 ALLSTON INTERCHANGE
A MULTIMODAL TRANSPORTATION PROJECT
Task Force Meeting
April 16, 2025

Zoom Controls

- •Drop down menu to check microphone and speakers
- •Ask a question and share comments; Alt+H
- •Raise your hand - *9 for users dialing in; Alt+Y
- •Closed captioning is automatically generated by ZOOM
- •If you are unable to access the internet or are having technical problems, please call into the meeting at 305-224-1968, Meeting ID: 889 3699 8149
- •Ask for support from the Virtual Public Involvement team

If you have trouble with the meeting technology during the presentation, please call:

1-888-799-9666



Public meeting notes and procedures:

Notification

- While this virtual public meeting is not being recorded, the Massachusetts Department of Transportation may choose to retain and distribute images, reports, and/or the Q/A transcript.
- All parts of this meeting are considered public record.
- If you are not comfortable being part of the official record, please refrain from utilizing the Q/A feature, turn off your camera, and keep your microphone muted, or you may choose to excuse yourself from the meeting.

Important notes

- Your microphone is automatically disabled upon entering the meeting.
- The meeting will be open to questions and answers at the end of the formal presentation, with opportunities to ask questions after each of the updates as well.
- Task Force members will be prioritized for questions and comments

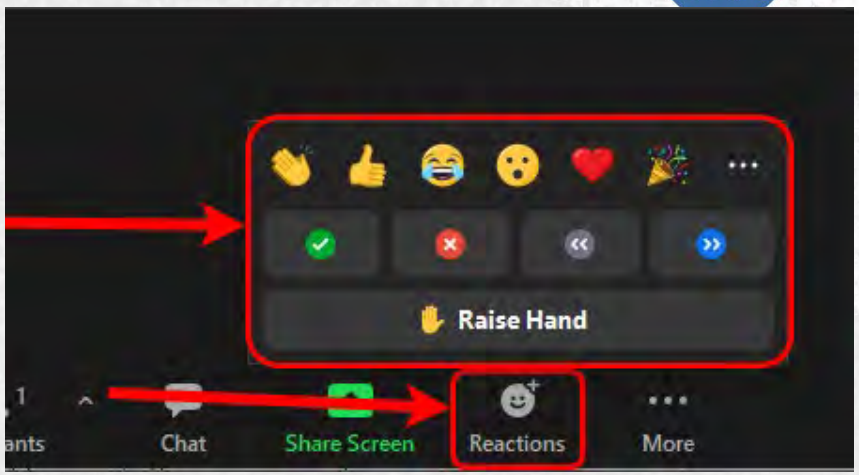
All questions and comments are welcome and appreciated, however we do request that you refrain from any disrespectful comments.

Notice of MassDOT's policy on diversity and civil rights:

- All MassDOT activities, including public meetings, are free of discrimination.
- MassDOT complies with all federal and state civil rights requirements preventing discrimination based on sex, race, color, ancestry, national origin (limited English proficiency), religion, creed, gender, sexual orientation, gender identity or expression, or veteran's status.
- We welcome the diversity from across our entire service area. If you have any questions or concerns, please visit https://www.mass.gov/nondiscrimination-in-transportation-program to reach the Office of Diversity and Civil Rights.

Thank you for joining our meeting. We appreciate your participation!

Share Your Questions and Comments





- Submit your questions and comments



- “Raise your hand” to be unmuted for verbal questions



- Please state your name before your question



- Please share only **1** question or comment at a time, limited to **2** minutes, to allow others to participate.



- To ask a question via phone, dial *9 and the moderator will call out the last 4-digits of your phone number and unmute your audio when it is your turn.

Please be advised that all comments are subject to disclosure for public records, therefore use these functions for project-related business only.

Today's Agenda

- **Welcome/Introductions**
- Multimodal Local Street Network
  - CTPS Modeling Update
  - Street Layout
- Shoreline and Parkland
- Follow-up
  - Layover Analysis
  - MBTA, MassDOT Compass Rail and Amtrak Operations
- Next Steps

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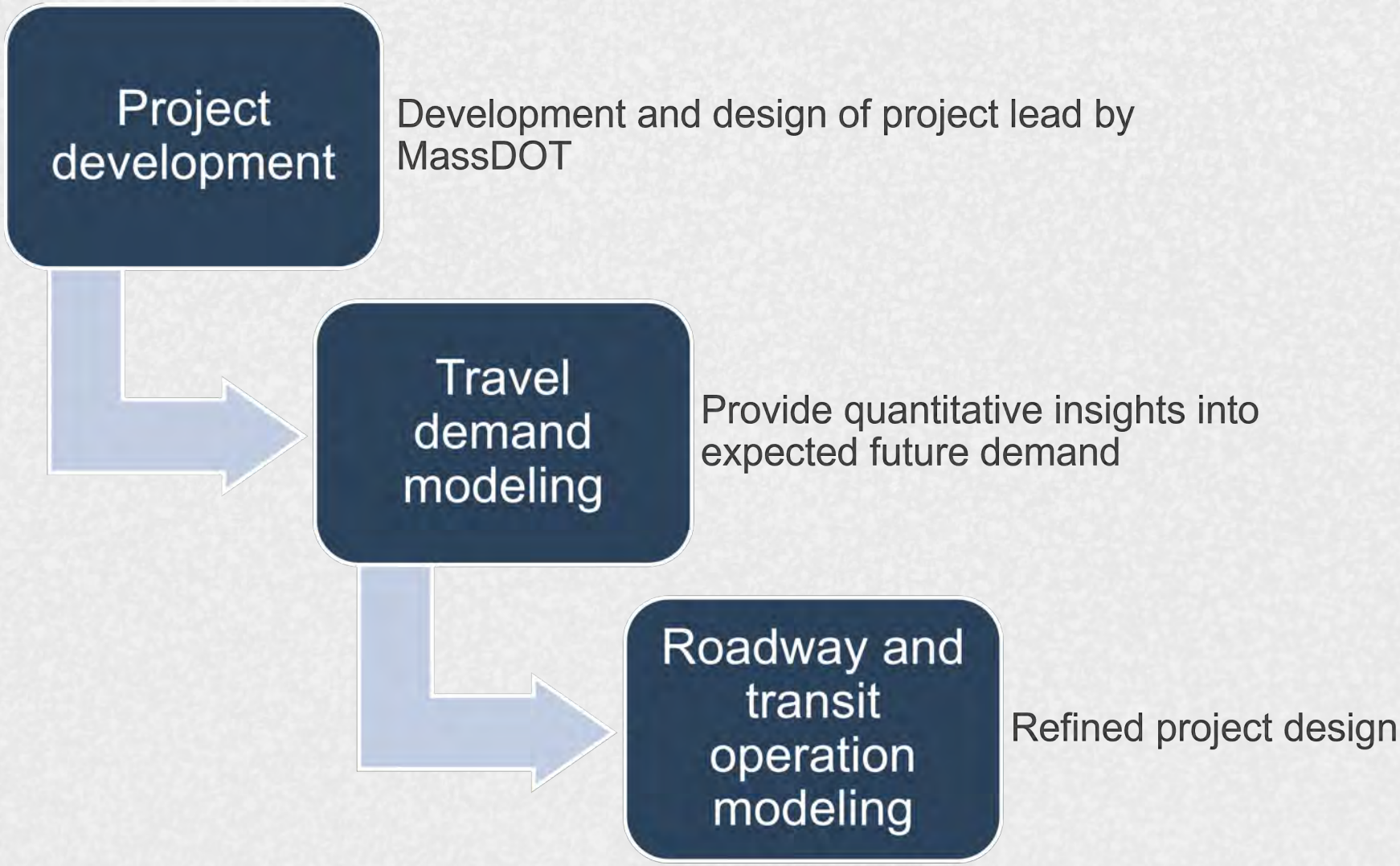
CTPS Modeling Update

- **Project introduction**
- Travel demand model overview
- Allston area demand modeling
  - Inputs
  - Outputs

Role of the Travel Demand Model



CTPS Modeling Update

- Project introduction
- **Travel demand model overview**
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  - Inputs
  - Outputs

Long Range Transportation Plan (LRTP)

- Establishes a vision for the region's transportation system and guides capital investments and research to support that vision
- Updated every 4 years
- The regional travel demand model is updated in parallel to support development of the plan



ctpsstaff.github.io/tdm23_users_guide/1.0/

TDM23.1.0 Users Guide

Search

Overview Setup Inputs Outputs Workflow More

Overview
Inputs
Components and Market Segments
Temporal
Implementation
Outputs

Overview

Welcome to the official Users Guide for TDM23, the travel demand model for the Boston Region, developed and maintained by the Central Transportation Planning Staff (CTPS). This guide provides comprehensive documentation to help you understand and use TDM23, from initial setup to advanced features. TDM23 supports *Destination 2050* , the Boston Region Metropolitan Planning Organization's current Long-Range Transportation Plan. Covering all of Massachusetts, Rhode Island, and southeastern New Hampshire, TDM23 is a trip-based aggregate model that simulates surface travel patterns on a typical weekday using a static highway and transit assignment.

This user's guide supports TDM23 version 1.0 (TDM23.1.0). For a detailed walk-through of TDM23.1.0, refer to the Structures and Performance Report.

To access the model inputs and scripts for TDM23, please email model.support@ctps.org with details about your organization and intended use.





Estimation and Validation Data

Surveys

- 2011 Massachusetts Travel Survey
- 2012-16 American Community Survey
- 2018 Massport ground access survey
- 2015-17 MBTA rider survey
- 2018 MAPC Fare Choices survey

Counts

- 2019 MS2 Counts (raw and balanced)
- 2019 HPMS (Interstate Only)
- 2018 Transit Boardings
- 2019 MA DPU TNC trip data
- 2017-18 Park and Ride lot utilization

Big Data

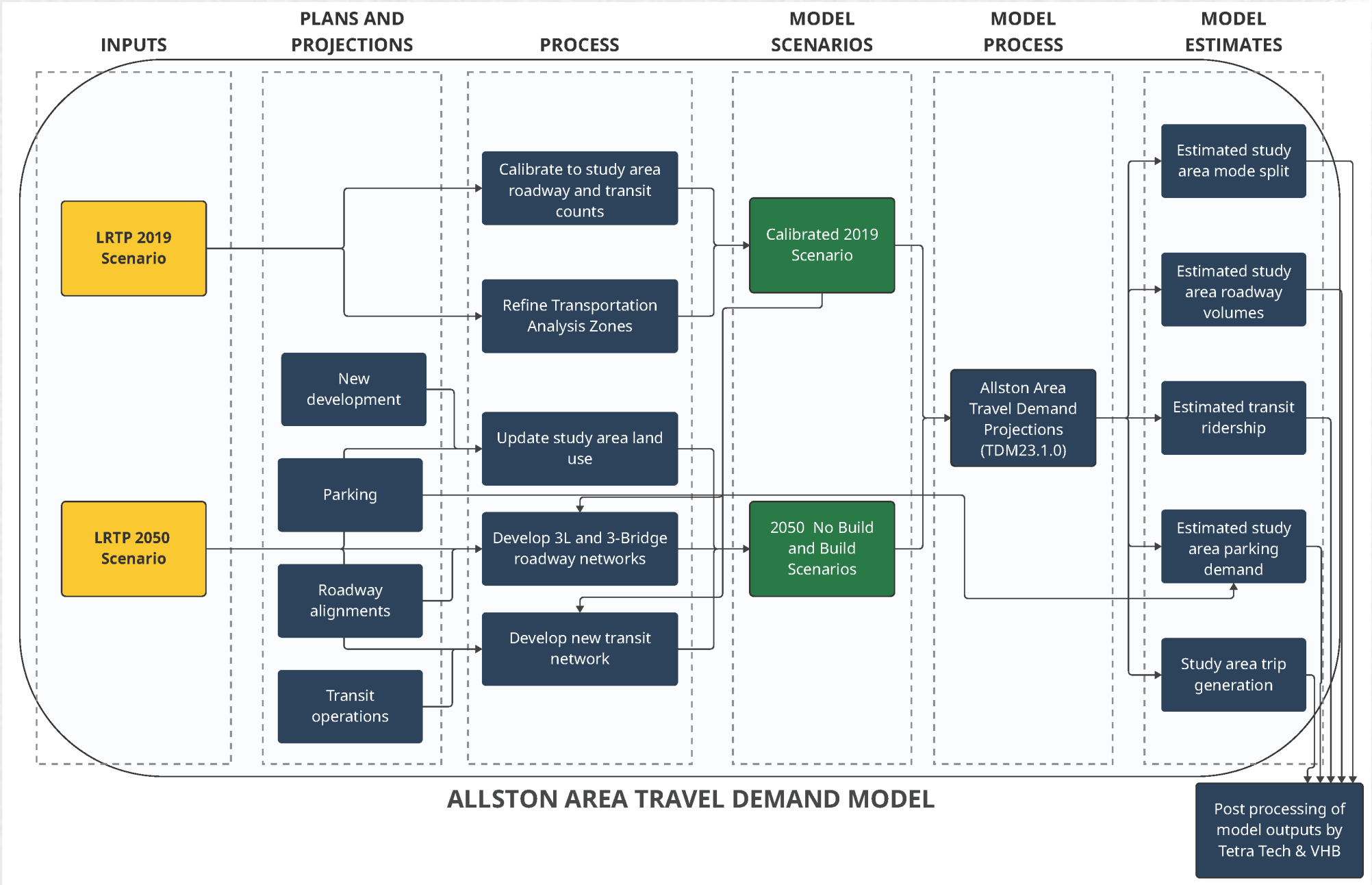
- 2019 Streetlight / Replica OD flows
- 2019 RITIS speeds
- 2022 Replica free flow speeds

Published Conditions

- MBTA Fall 2018 GTFS Recap
- RTA 2019 GTFS
- 2022 TNC fares
- 2021 parking costs

CTPS Modeling Update

- Project introduction
- Travel demand model overview
- **Allston area demand modeling**
  - **Process**
  - **Inputs**
  - **Outputs**



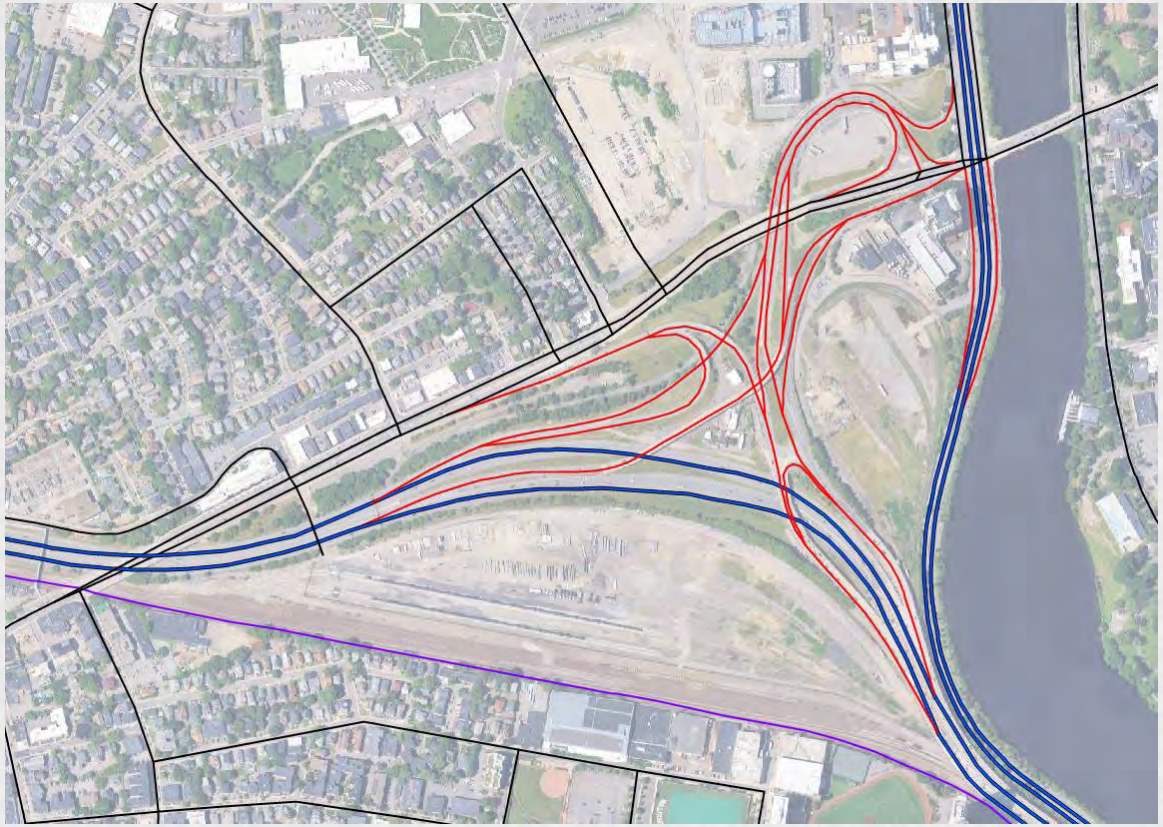
ALLSTON AREA TRAVEL DEMAND MODEL

Model Scenarios

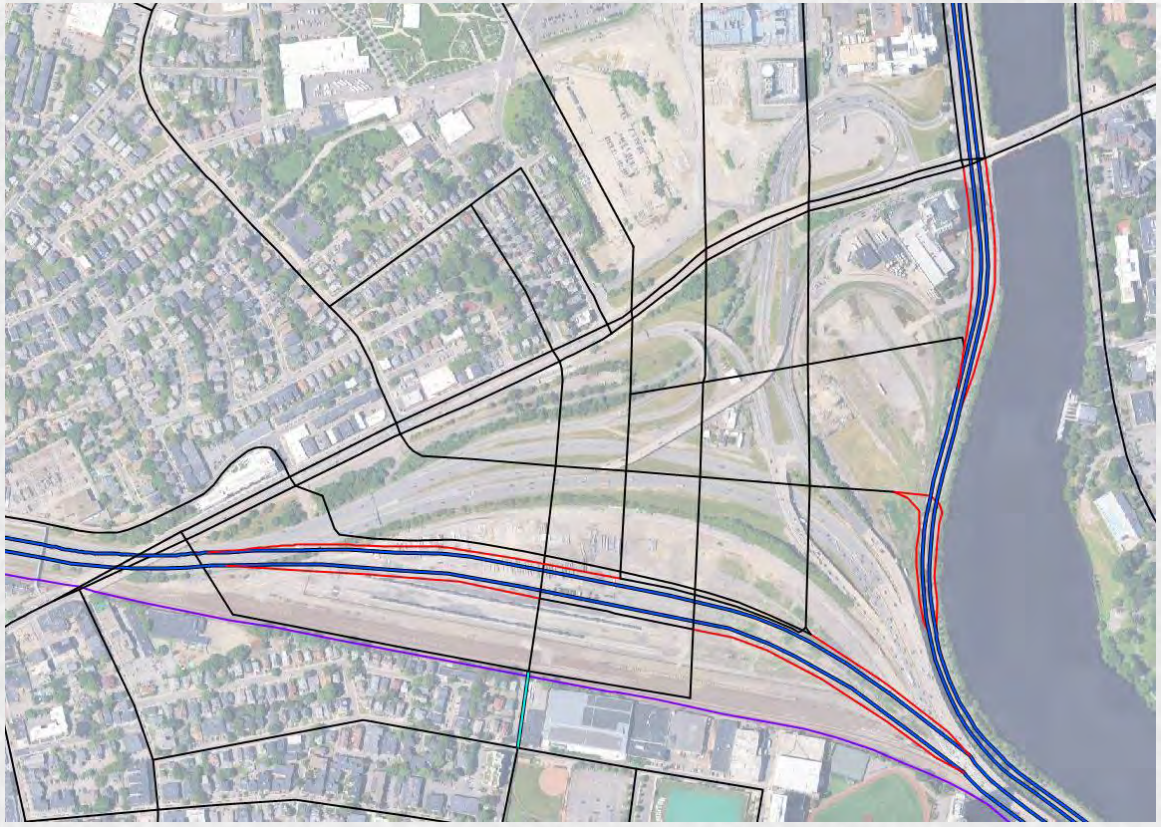
Base year (2019)	No build (2050)	Build (2050)
• Existing conditions in 2019	• Projected 2050 land use and transportation networks **without** the project and associated development	• Projected 2050 land use and transportation networks **with** the project and associated development • Two different roadway configurations (3L and 3 Bridge)

Input: Roadway Network

No Build



Build (3L)



Input: Transit

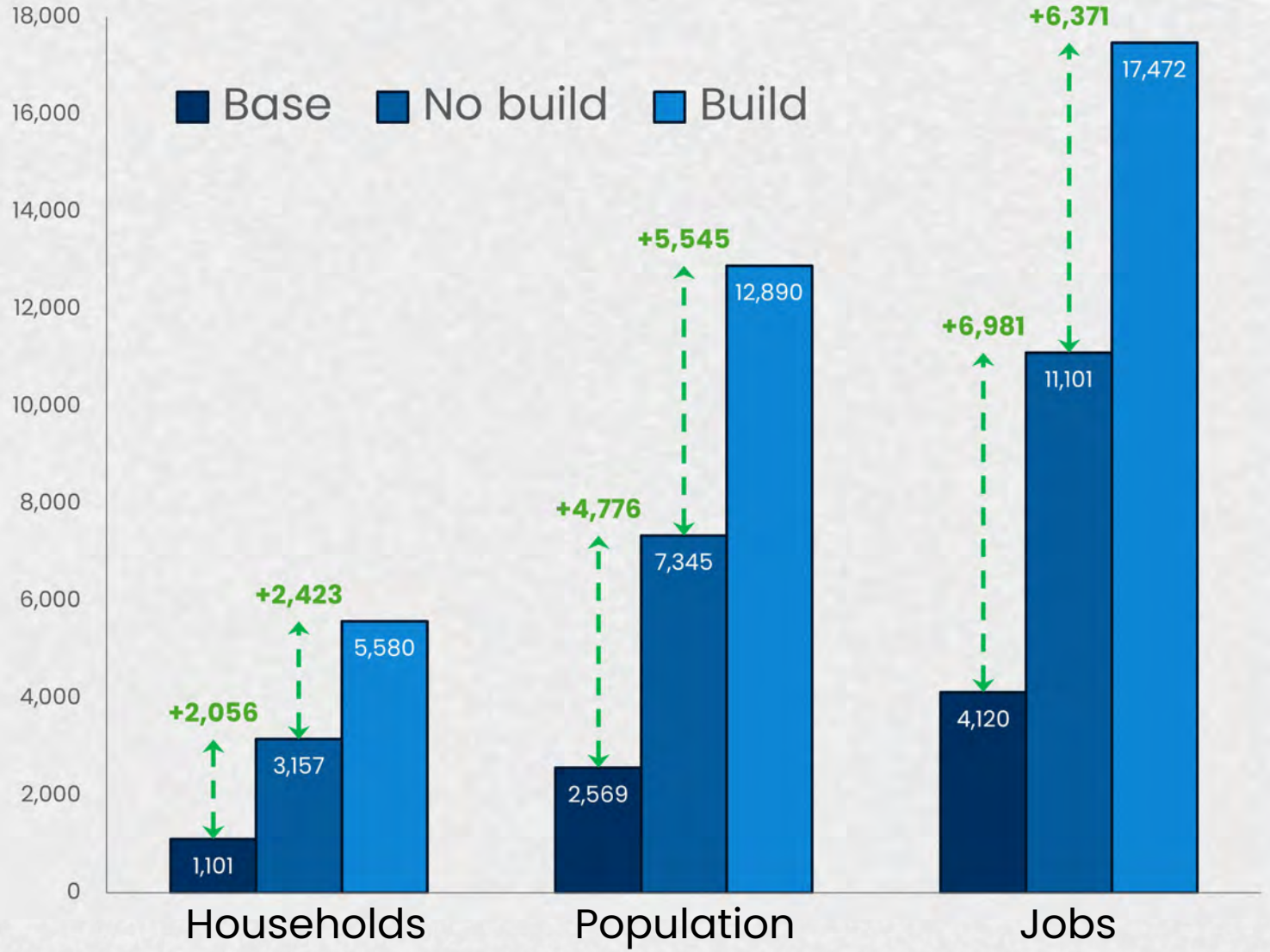
Service	Input	2050 No Build	2050 Build
Framingham/ Worcester Line	Framingham Local: 30-minute headways	✓	✓
	Zonal Express: 30-minute headways	✓	✓
	Service to West Station on the Framingham Local		✓
Shuttles	Harvard-West Station		✓
	Lechmere/Kendall/Central-West Station		✓
	Ruggles/LMA-West Station		✓
MBTA Bus	Bus Network Redesign proposed service	✓	✓
	Bus Route 64: Reroute via Malvern Transitway		✓

- Transit routes, stops, frequency, schedule pattern, and fares are represented in the demand model transit network
- Operational considerations, such as number and capacity of vehicles and number of tracks available are not

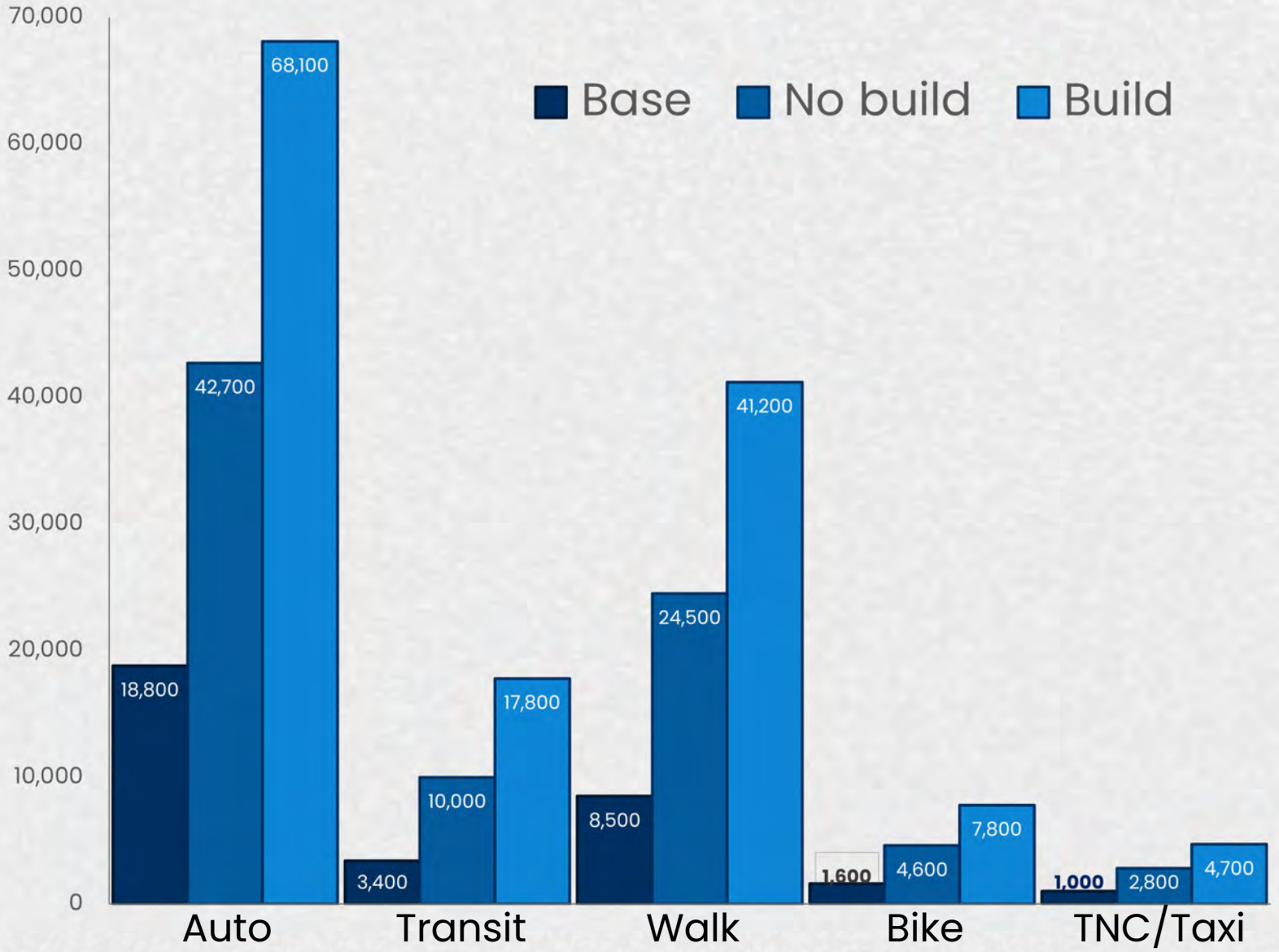
Input: Study Area Land Use

Study area TAZs





Output: Daily Study Area Trips by Mode



Percent Change in Land Use and Daily Trips

	Base to No build	No build to Build
Land use		
Population	186%	75%
Jobs	169%	57%
EDaily Trips		
Auto	127%	59%
Transit	194%	78%
Walk	188%	68%

Output: Study Area Mode Share

Mode	Base	No build	Build	Change base to no build	Change no build to build
Auto	56.5%	50.5%	48.7%	-6.0%	-1.7%
Transit	10.2%	11.8%	12.8%	+1.6%	+1.0%
Walk	25.4%	28.9%	29.4%	+3.5%	+0.5%
Bike	4.8%	5.5%	5.6%	+0.7%	+0.1%
TNC/Taxi	3.1%	3.3%	3.4%	+0.2%	+0.1%

Output: Transit Ridership

New Services	Service	Ridership Estimates (daily boardings)
West Station (rail)	30-minute headways	1,200
Study area shuttles (all stops)	AM: 5-minute headways MD: 15-minute headways PM: 5-minute headways NT: 20-minute headways	19,800

Output: Roadway volumes in the study area

Percent Change in Roadway Volumes	I-90 Mainline	I-90 On/Off Ramps	Local Roads
Base to No build	5.5%	1.3%	1.4%
No build to build	0.5%	7.7%	1.7%

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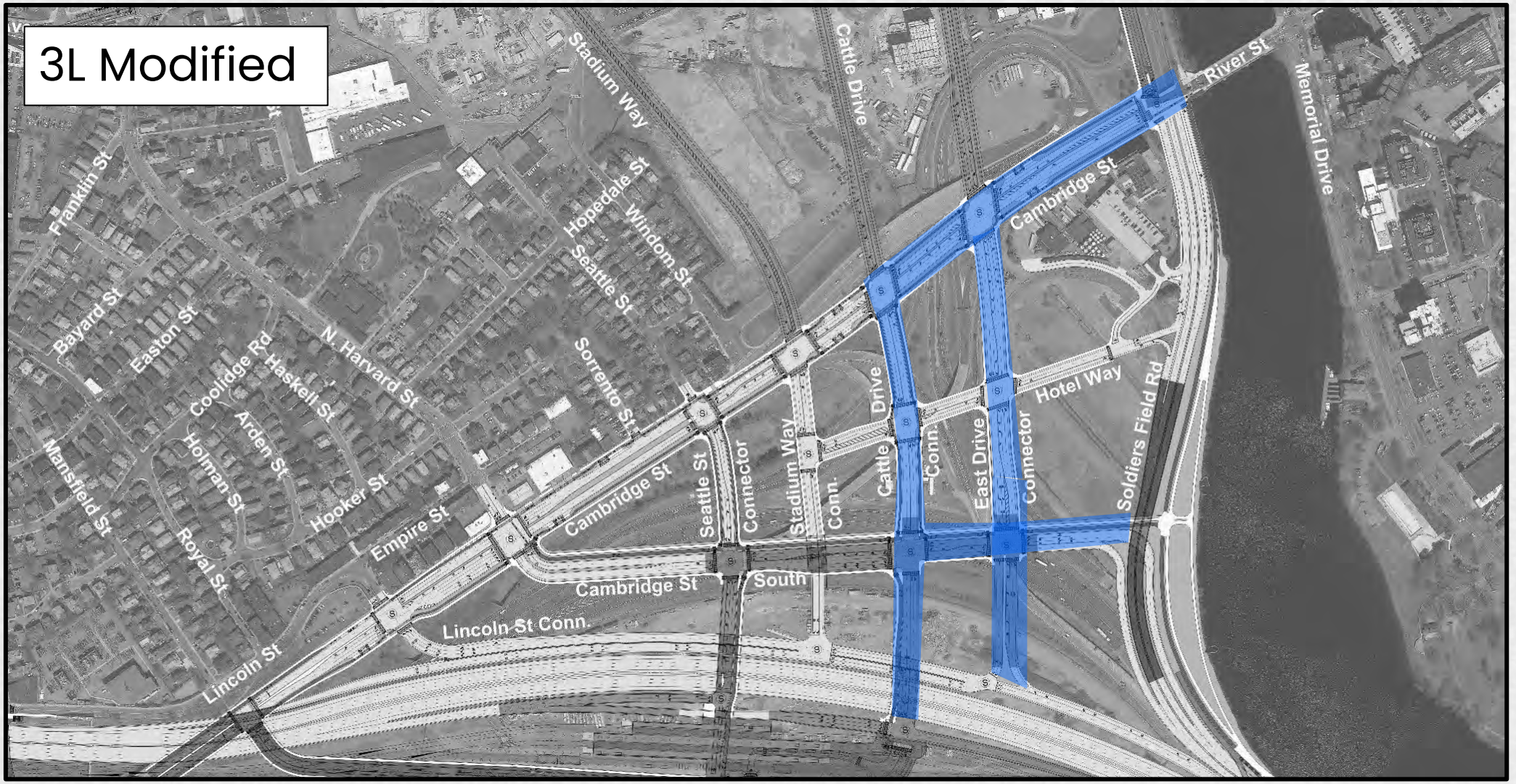
Post-CTPS Modeling Data Processing & Analysis

- Volume data needs to be converted for traffic analysis
  - Peak period (3 or 4 hours) to Peak Hour
  - Roadway "Link" volumes to intersection turning movement volumes
- Balancing or "smoothing-out" the network volumes
- Adjust volumes to reflect network capacity constraints

Interchange Options

- 3L Interchange Option
- 3L Modified Interchange Option
- 3-Bridge Interchange Option

Roadways with Potential Heavy Traffic Demands



Corridors with Potential Heavy Ped/Bike Demands



Concept Plan Development: Pedestrian and Bicycle Facilities

- Sidewalks on all streets
- Separated bicycle facilities on all streets (one-way or two-way)
- Separate crossing zones for pedestrian and bicyclists at all intersections

Concept Plan Development: Signal Operations

- Pedestrian safety
  - Exclusive Pedestrian Phases
  - Concurrent Lead Pedestrian Interval (LPI)

- Bicycle safety
  - Bicycle Signals
  - Exclusive Bicycle Phases (two-way bikeways)

Concept Plan Development: Transit

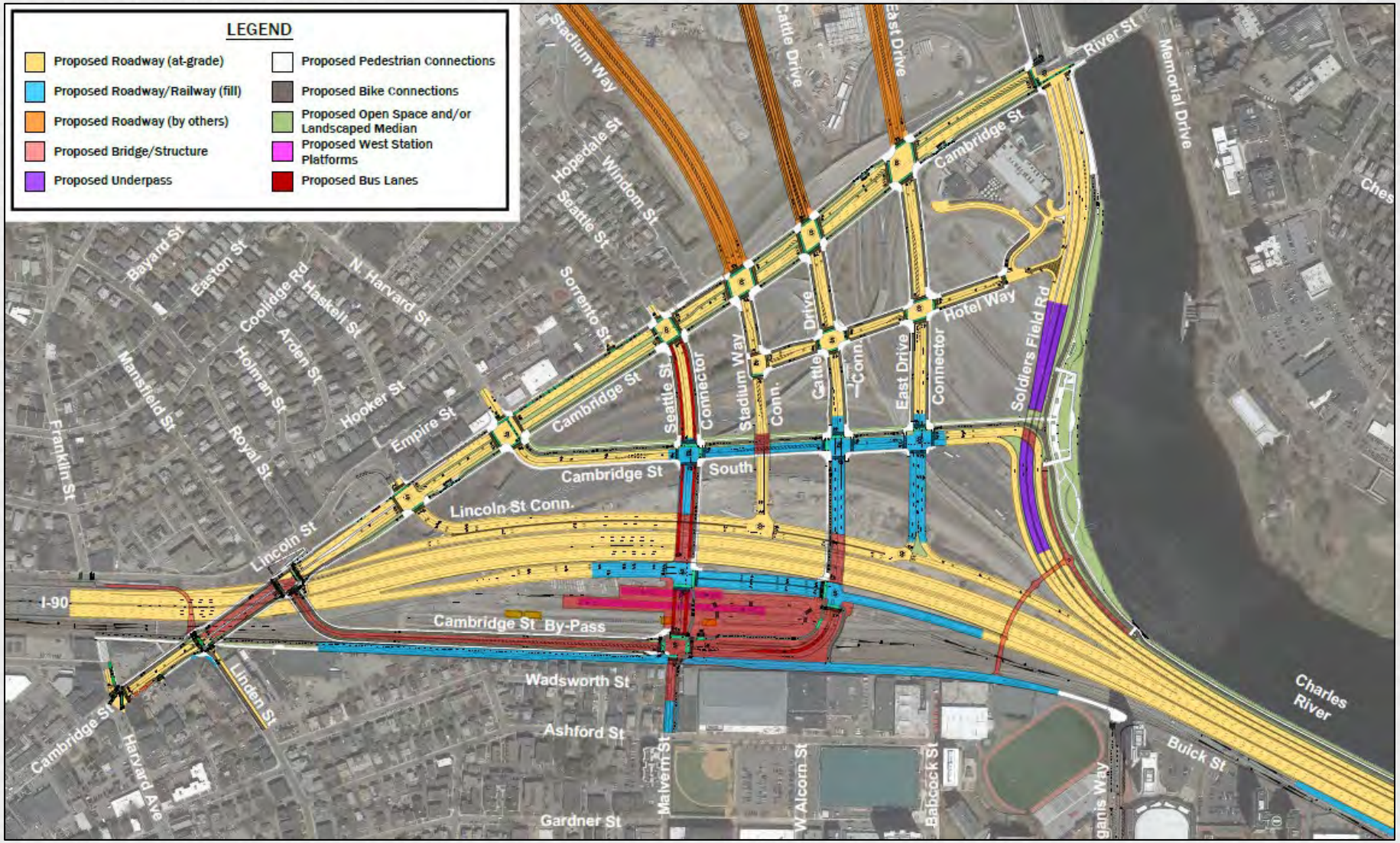
- Exclusive Bus Lanes
  - Seattle Street (West Station to Cambridge St.)
  - Cambridge St. Bypass Road (at West Station)

- Intersection/Signal Treatments
  - Exclusive Bus Phase
  - Transit Signal Priority

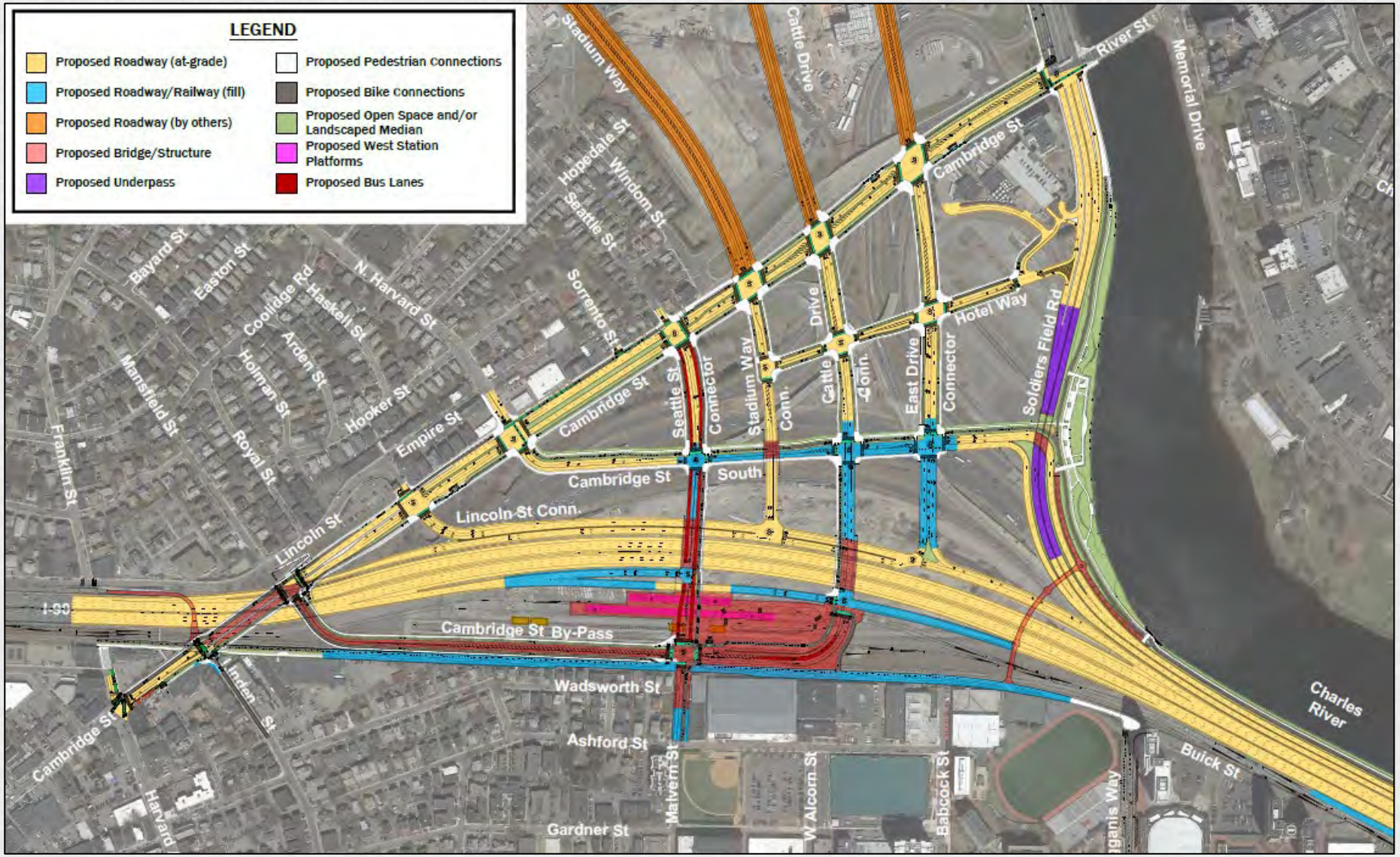
Concept Plan Development: Roadways

- Started with minimal roadway cross-sections
- Strategic employment of left turn restrictions
- Added lanes as necessary to prevent gridlock or queue spillbacks onto the I-90 main line.

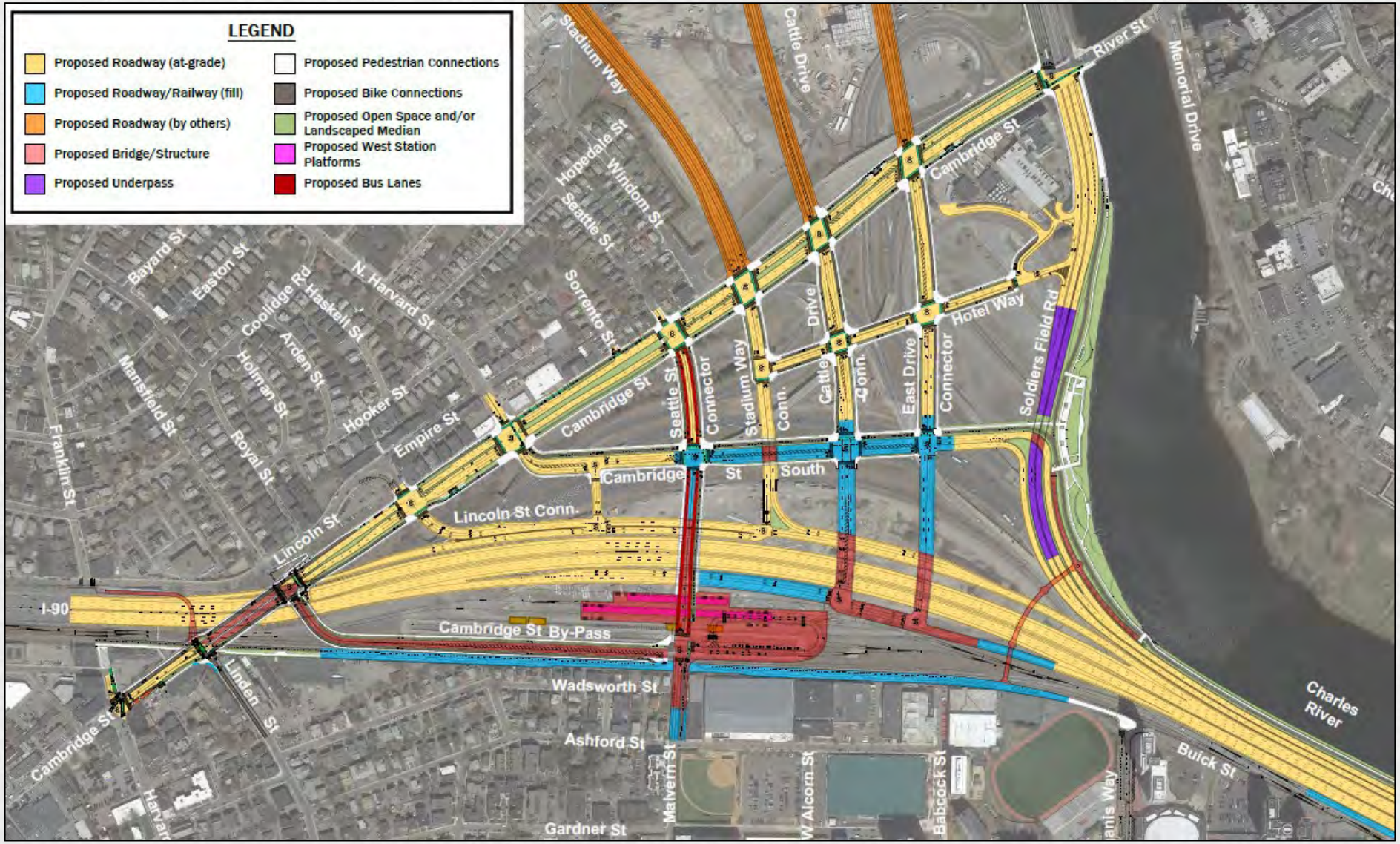
3L Interchange Option – Concept Plan



3L Modified Interchange Option – Concept Plan



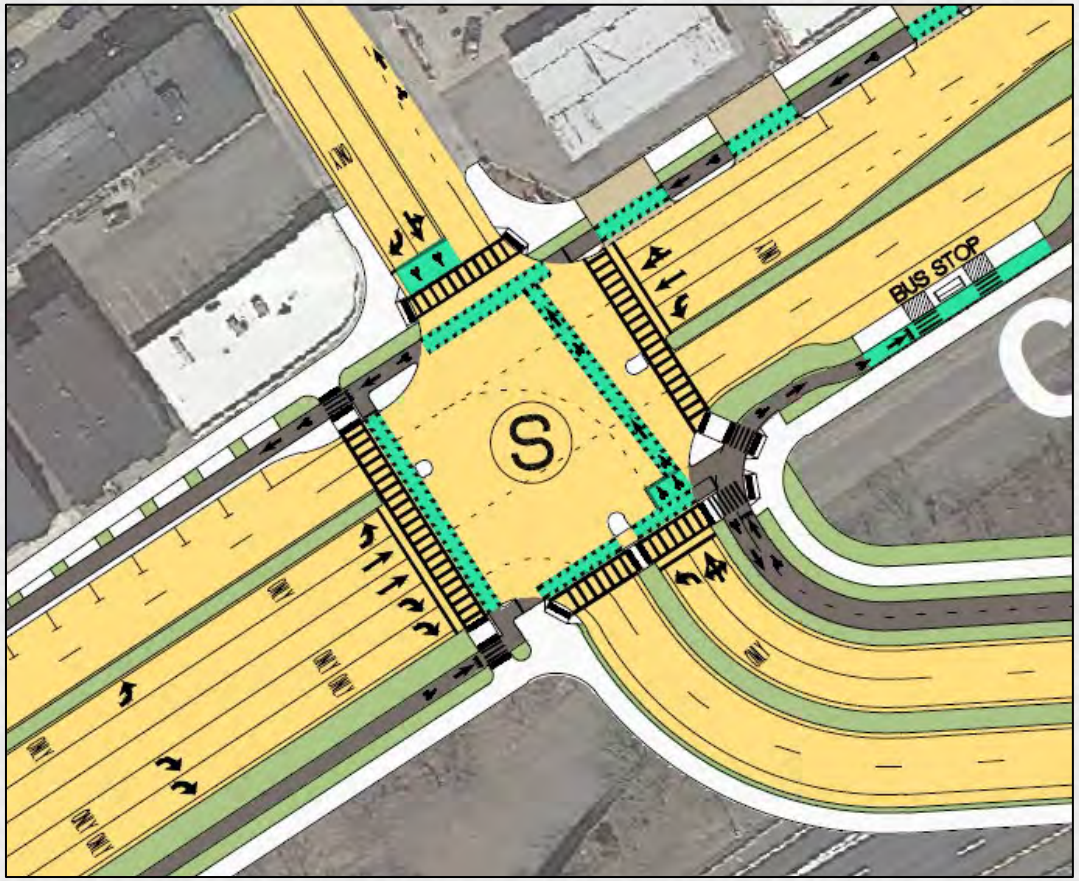
3-Bridge Interchange Option – Concept Plan



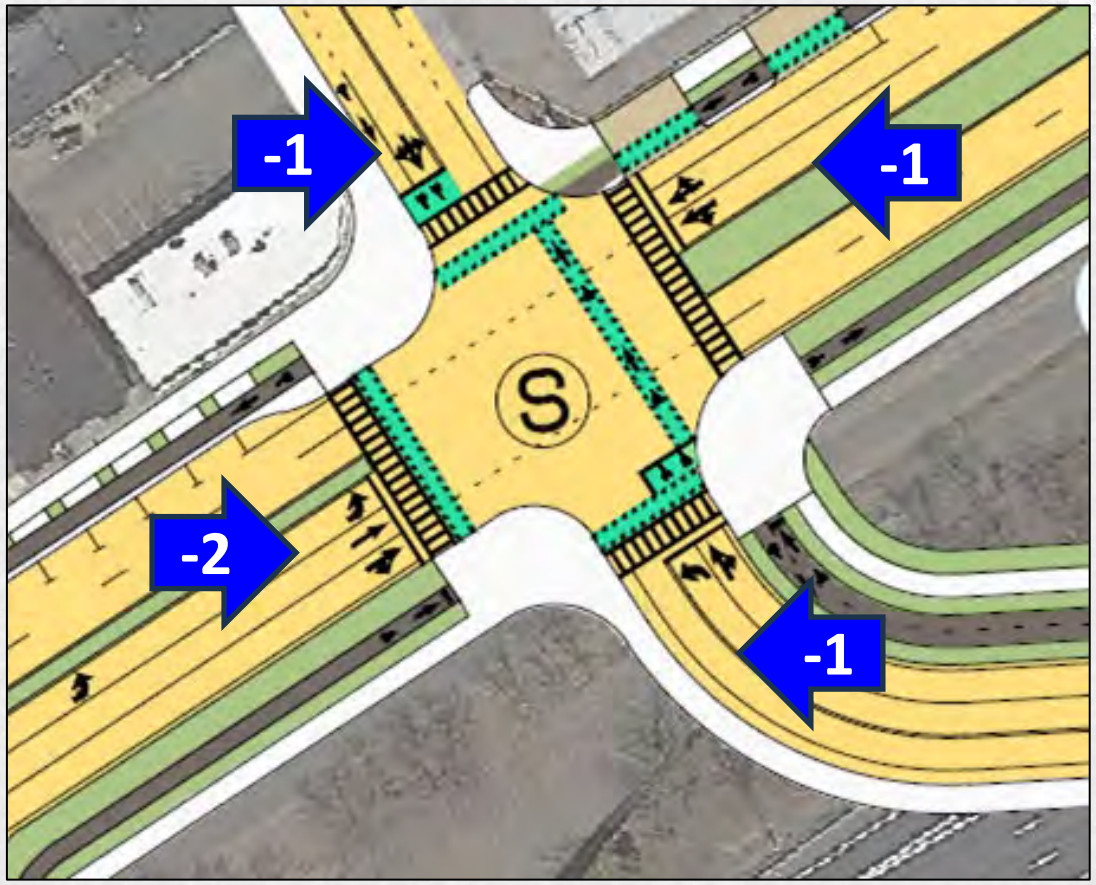
Concept Plans: General Findings (3L Modified)

- Number of Lanes Reduced at 13 intersections
- Exclusive Ped Phase or LPI provided at 13 of 17 intersections
- Benefits of Cambridge St. Bypass Rd., reduced volumes on:
  - Cambridge Street
  - Cambridge Street South
- Included left turn restrictions at 6 intersections

Key Location Comparisons: Cambridge St./N. Harvard St./Cambridge St. South

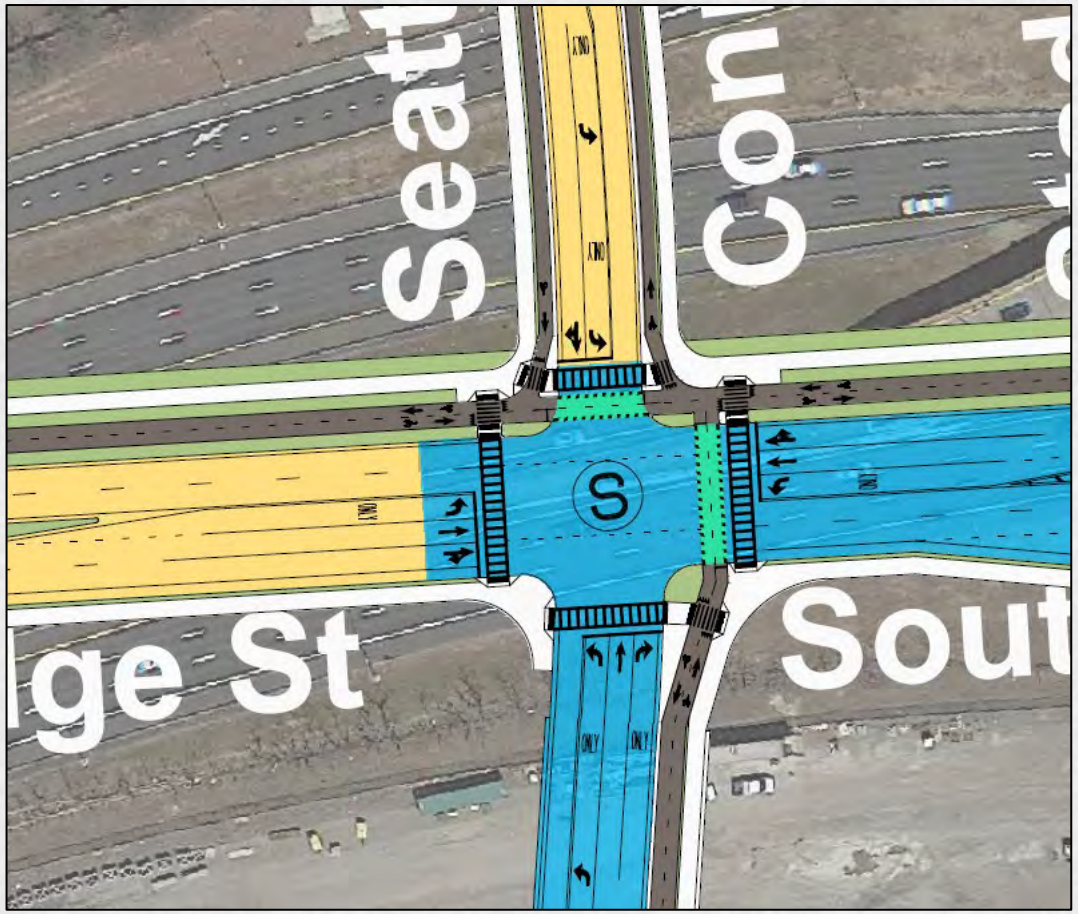


3L Modified (old)



3L Modified (new)

Key Location Comparisons: Cambridge St. South/Seattle St. Connector



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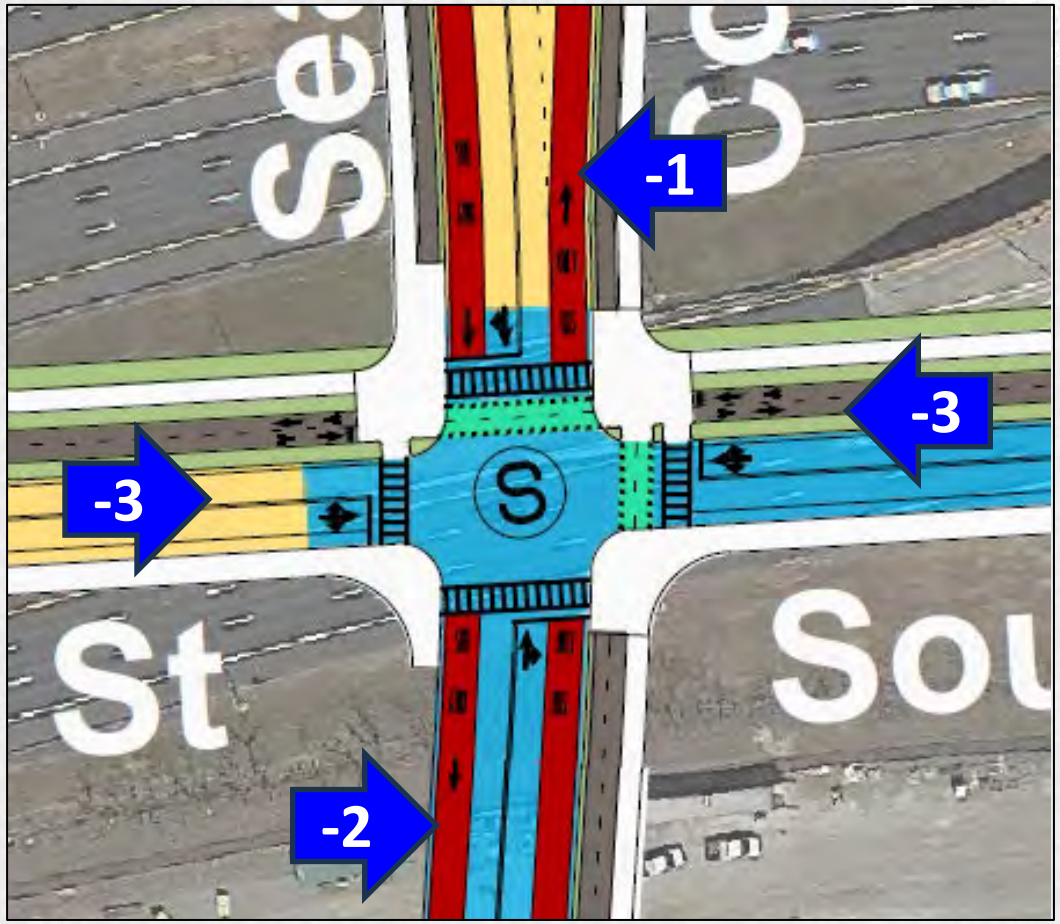
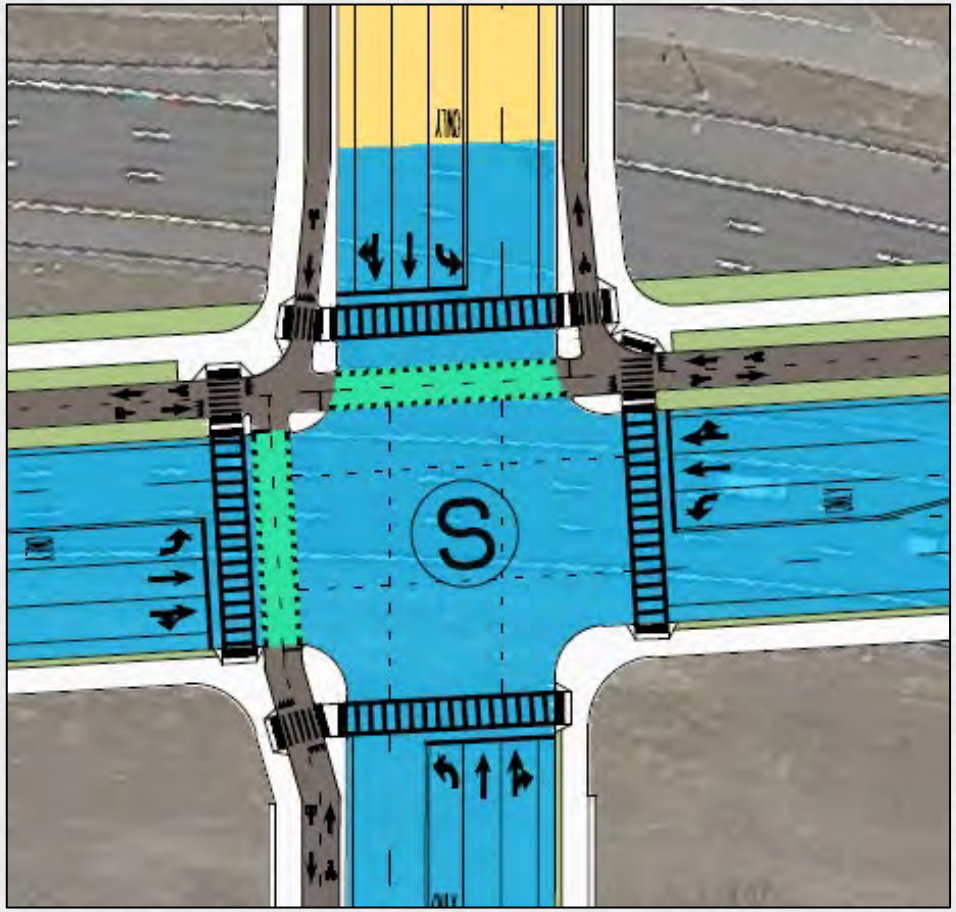
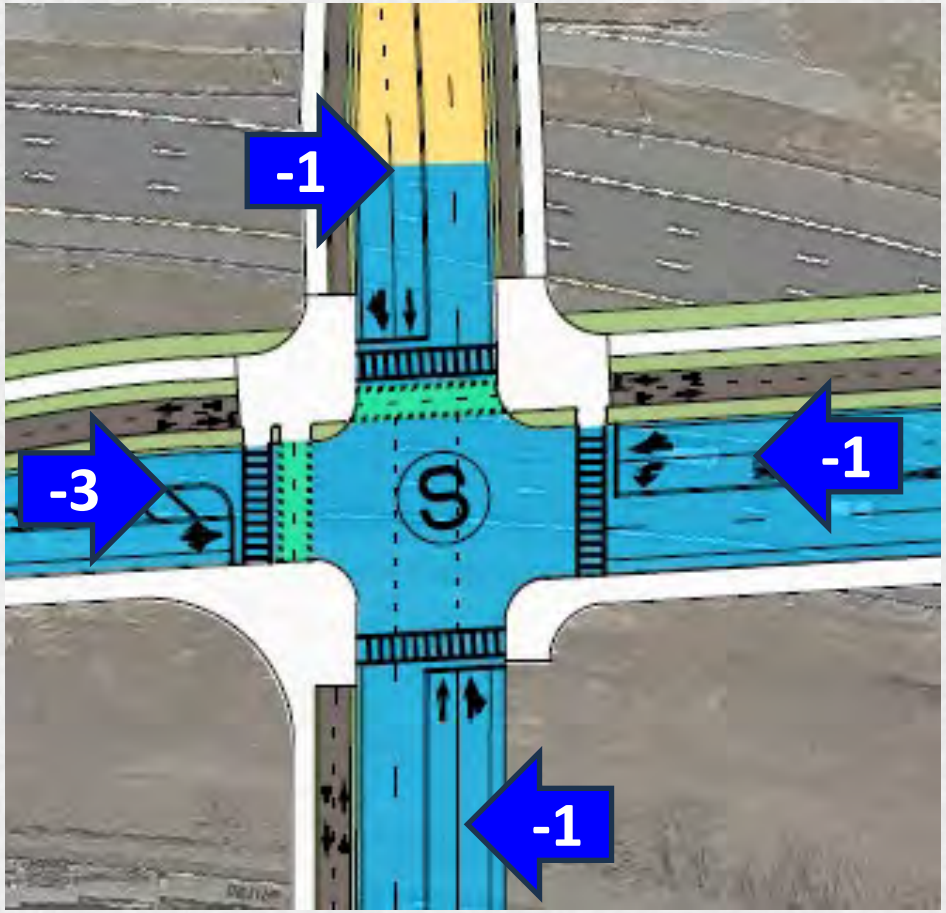


3L Modified (new)

Key Location Comparisons: Cambridge St. South/Cattle Dr. Connector



3L Modified (old)



3L Modified (new)

Seattle Street Corridor: Bus Lanes



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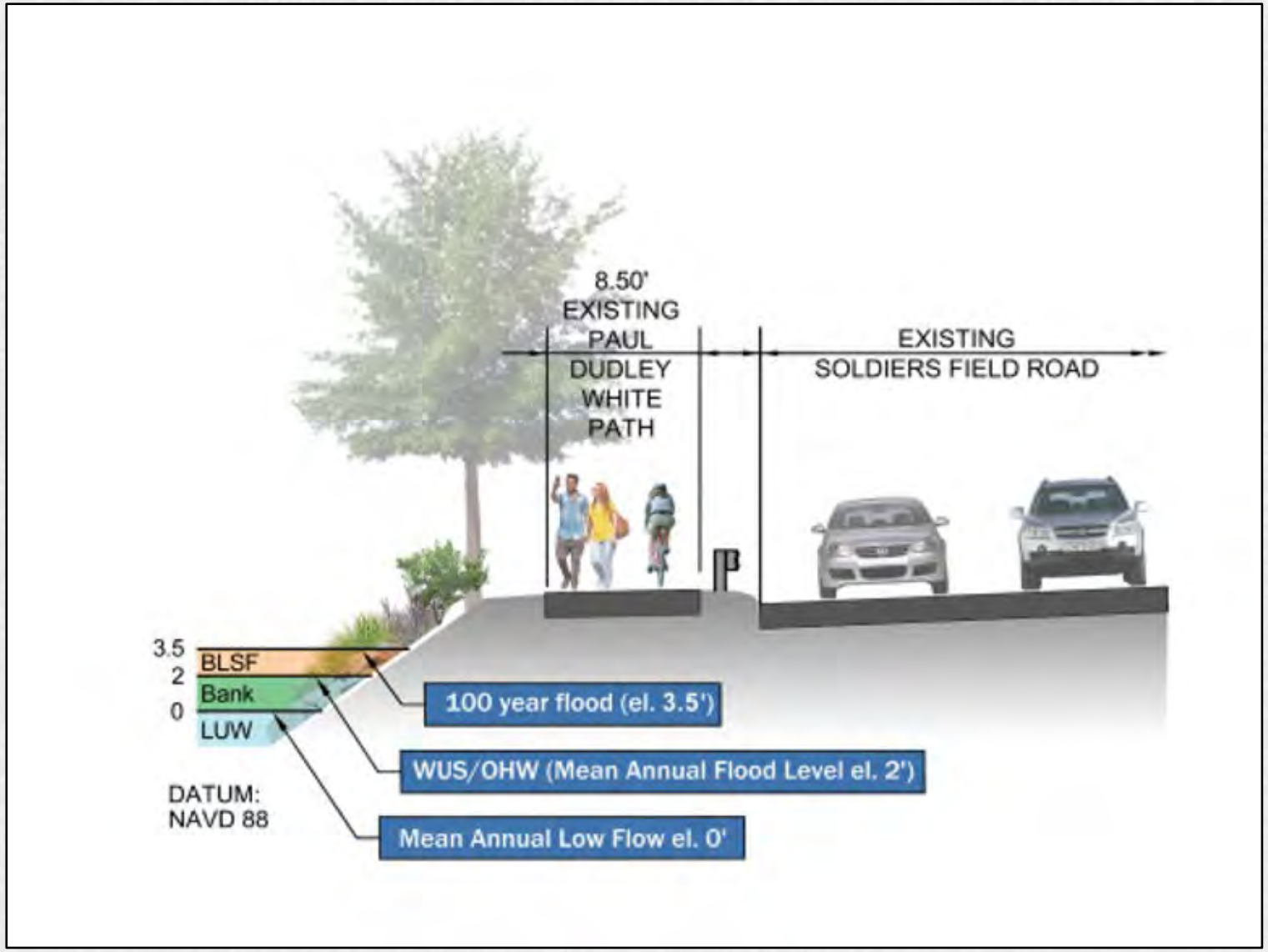
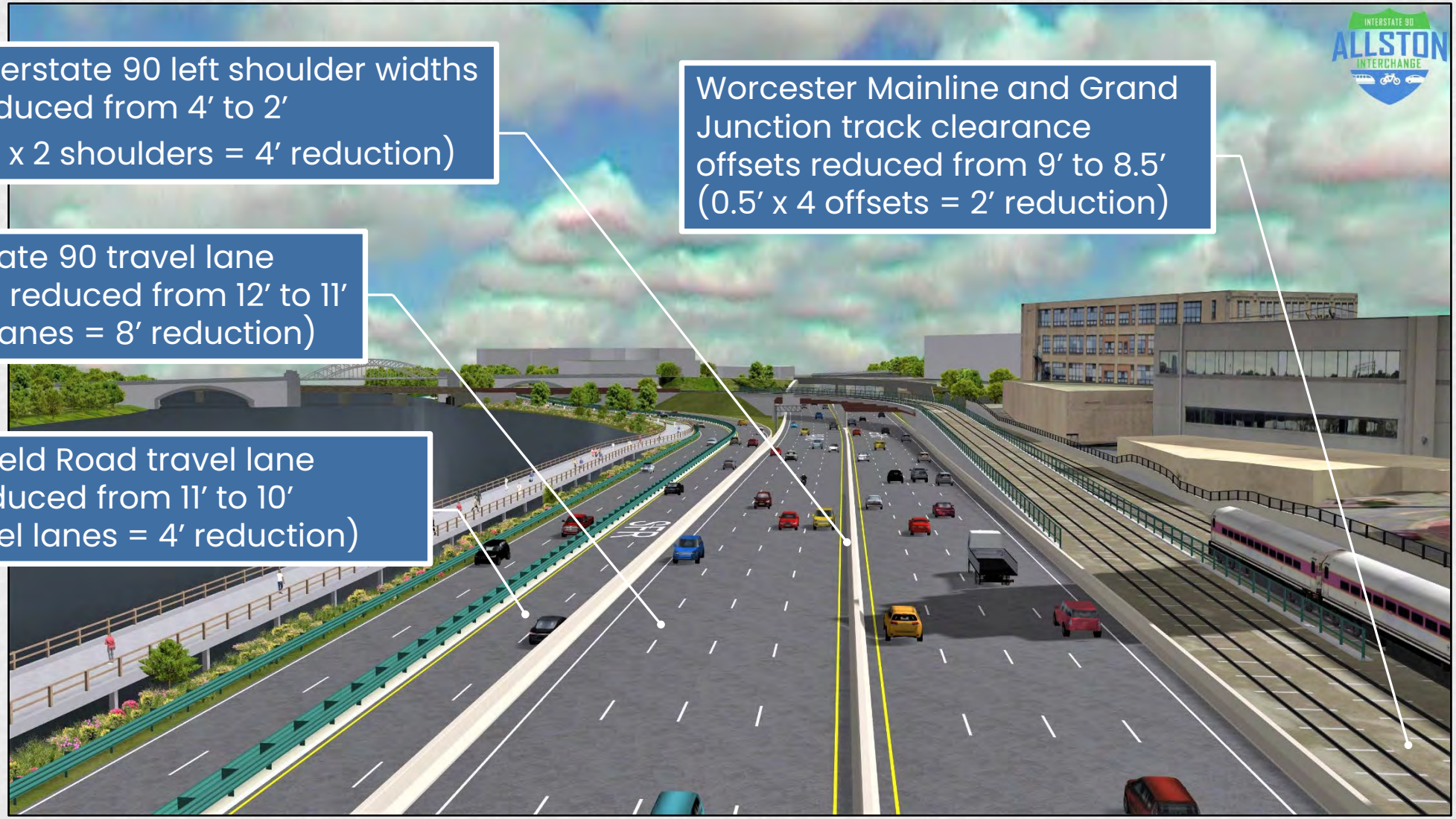
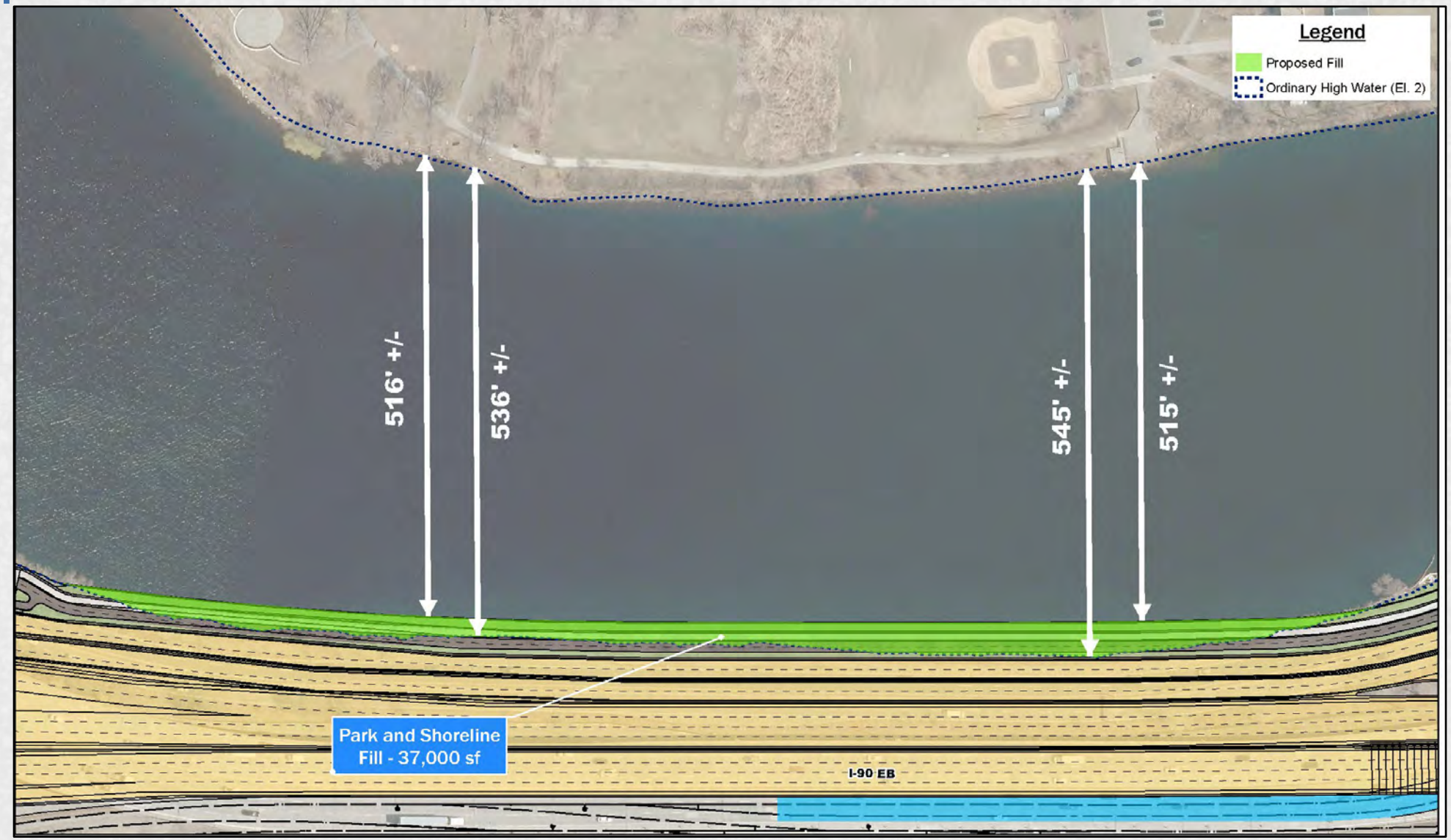
Existing Riverbank Conditions – Jurisdiction



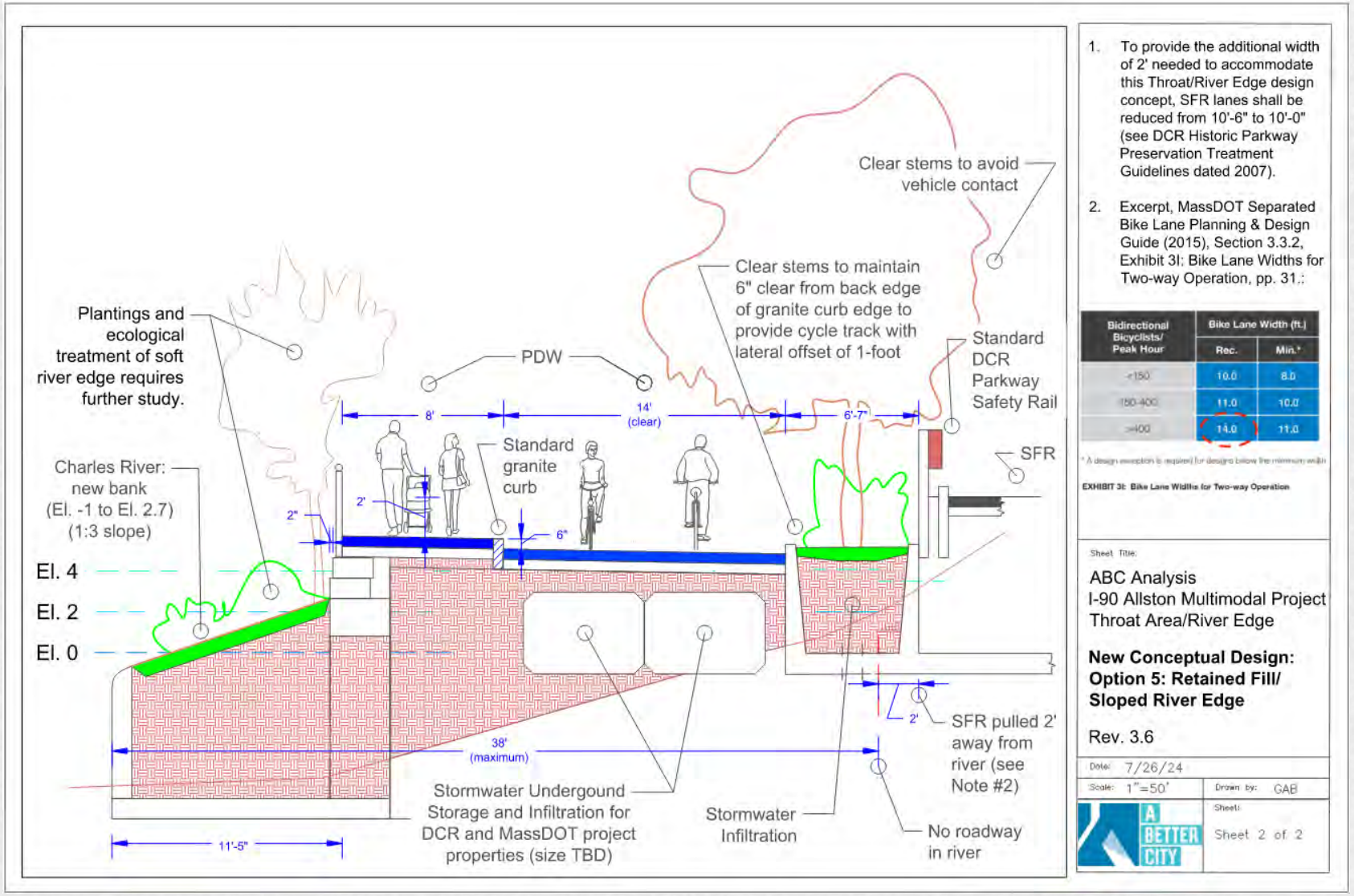
At-Grade Throat Area Highway and Rail Cross Section Reduction Measures To Date



Proposed Fill and River Width



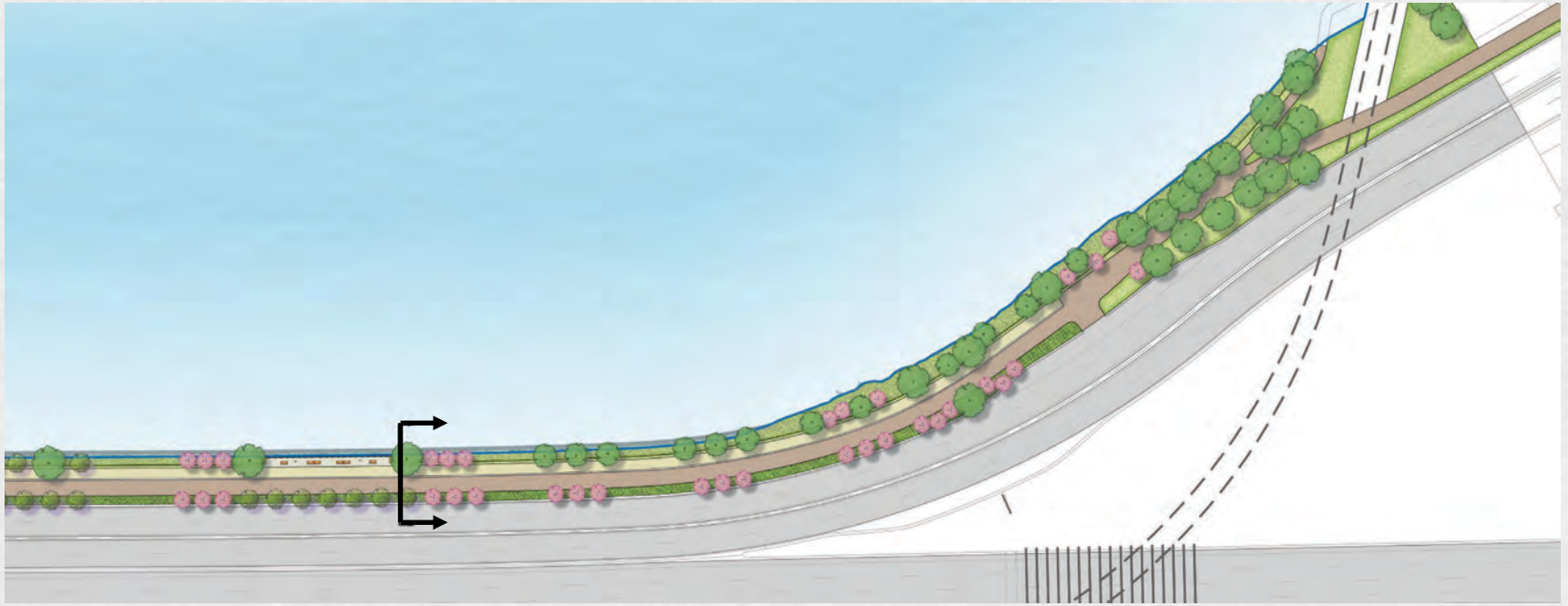
Throat - Previously Discussed Options (ABC Option)



- **ABC Option Dimensions:**
- Assumes SFR lane reduction to 10'
- 6'-7" wide SFR Landscape Buffer, 14' wide Bicycle Path, 6" wide vertical curb, 8' wide Pedestrian Path
- 11.5' wide planted shoreline with ~3' high retaining wall
- **Design Considerations:**
- Ease of maintenance access
- Underground storage proximity to water table
- Optimal approach to path separation

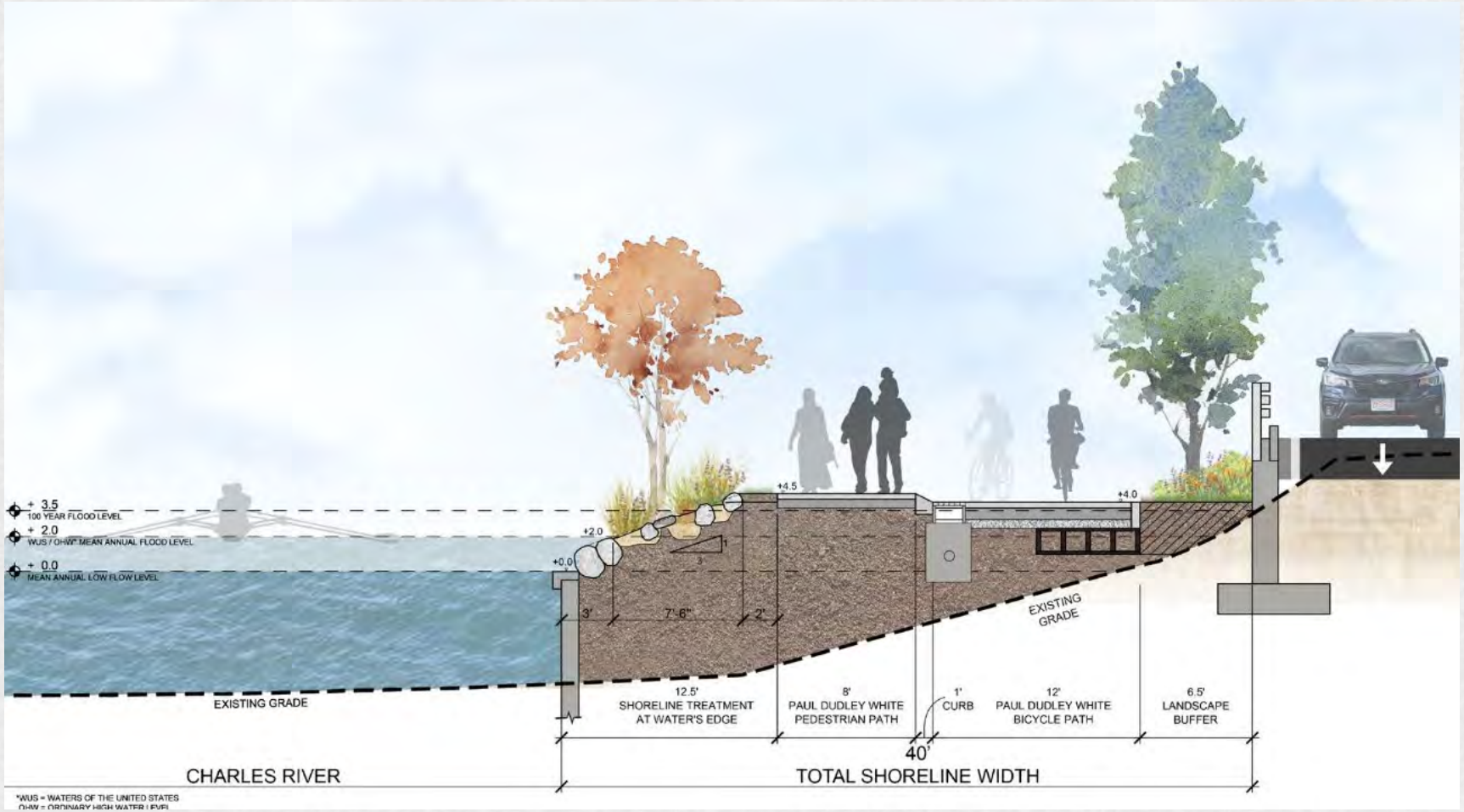
Throat - Preferred Option - Plan





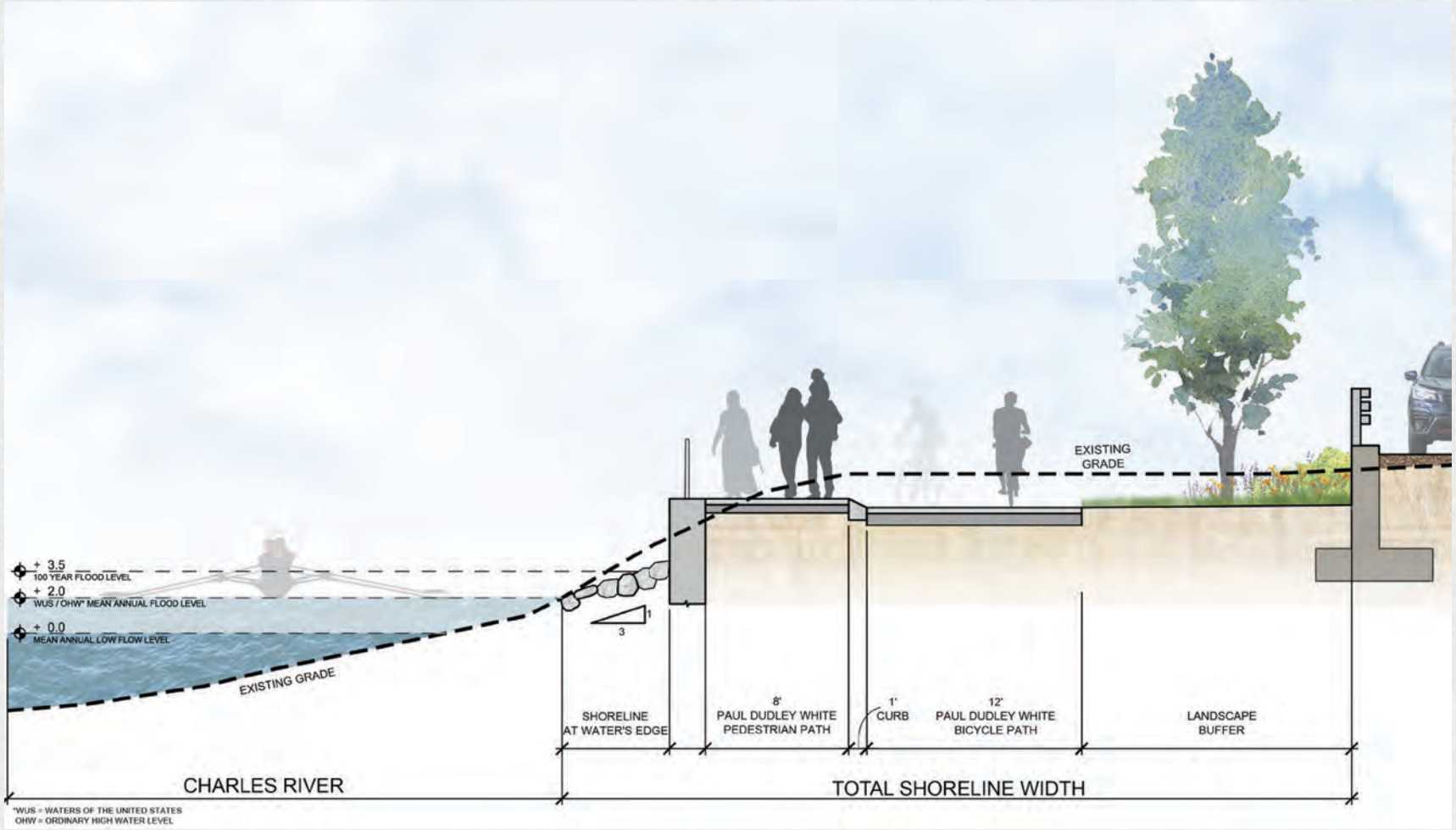
- Typically, a 40' wide land area consisting of a planted shoreline, a separate pedestrian and bicycle path with a narrow, curbed buffer, and a landscaped buffer at the edge of SFR
- A short segment at the west requires a retaining wall at the transition to the Parkland (no wall in river)
- The eastern end merges into a shared path before going under the GJ and BU Bridges.

Throat - Preferred Option - Sections



- 6.5' wide SFR Landscape Buffer, 12' wide Bicycle Path, 1' wide sloped curb buffer, 8' wide Pedestrian Path,
- 12.5' wide planted shoreline (with no wall) with 3V to 1H planted slope (accessible to DCR maintenance)
- Submerged sheet pile wall with flat cap provide stable river edge and opportunity for safer river rescue
- Silva cells to expand root zone and central drainage structures to capture stormwater
- Sloped curb buffer to reduce tripping concern

Throat - Preferred Option - Wall Section



- Same typical PDW dimensions (i.e., 12' wide bicycle path) Note: section cut at location with wider landscape buffer near Agganis ramp. Typical width is 6.5'
- Rip rap shoreline reinforcement at narrowest location
- Vertical wall to support PDW with railing – No Wall in River

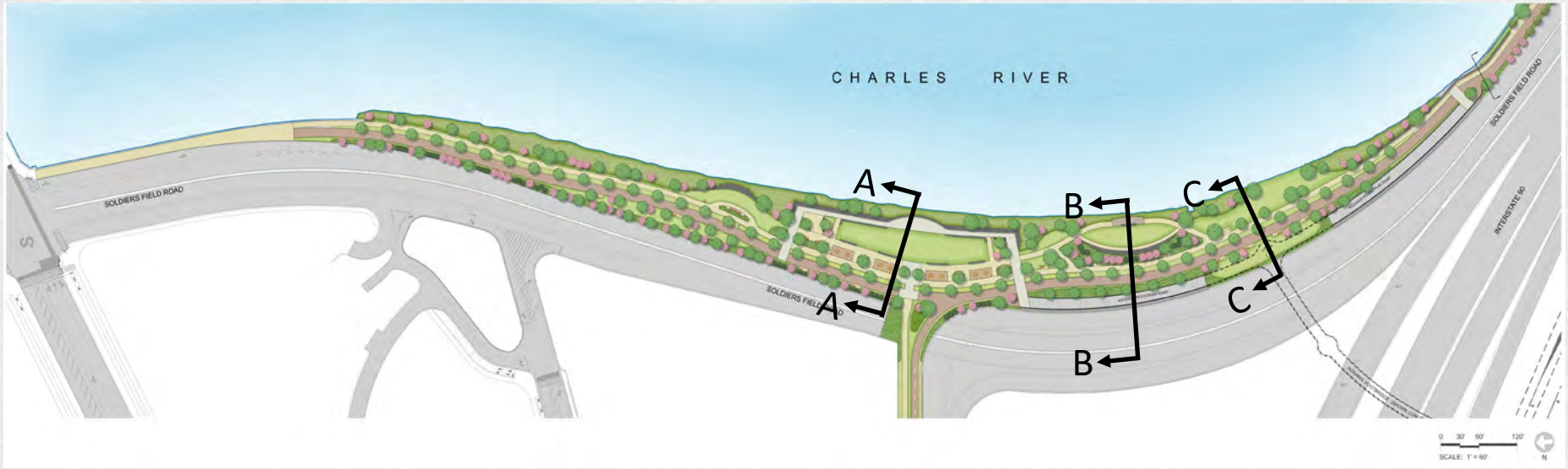
Parkland - Previously Discussed Options





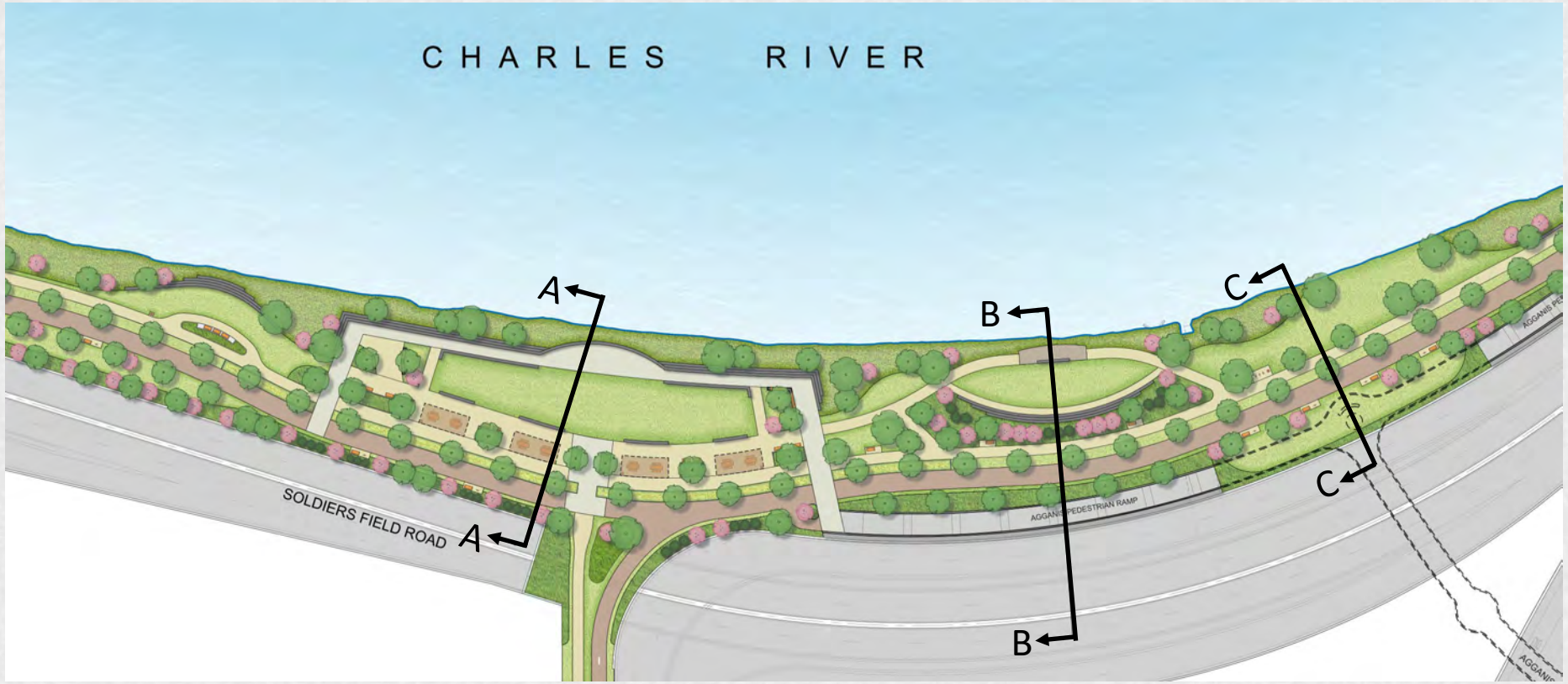
- Previous park designs included above ground storm water storage, central mixing circle, a variety of path options, lawn areas, and a planted shoreline
- Some concerns related to bicycle and pedestrian conflicts, a desire for a more cohesive park design, and simpler maintenance needs

Parkland - Preferred Option Plan



- Central Gathering Lawn with shade structures and river's edge walk
- Bicycle and pedestrian paths separated intersection
- Variety of viewing and accessible seating areas are provided
- Stormwater captured in below ground infiltration chambers
- PDW transitions into shared path before River Street Bridge intersection and at GL/BU Bridge

Parkland - Plan Enlargement



- Central Lawn with shade structures provide main gathering space and river viewing opportunities
- Lower lawn with overlook deck provides opportunity to get close to water's edge
- Additional overlook opportunities exist along path edges
- 14' wide bicycle path, 8' wide pedestrian path (10' wide at central lawn), and 8' wide tree-lined buffer between paths

Parkland - Preferred Option Sections



- Central Lawn retained at higher elevation to create unique river views
- Lower lawn brings visitors closer to water's edge
- Typically, a dense landscaped buffer along edge of SFR
- Agganis Pedestrian Bridge provides views over the river
- Park lawns slope to river's edge to provide informal water access opportunities

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Southside System Layover Needs Analysis

Questions about Layover Needs

- Use of Amtrak's Southampton Yard Facility "Front Yard"
- System balance of inner-core vs. outlying locations
- MBTA layover needs for "spares"
- Approach to address existing layover deficits
- Yard ownership/operations/maintenance

Southside System Layover Needs Analysis

Questions about Layover Alternatives

- Use of South Station for Layover
- Layover in Springfield
- MBTA Middleborough Yard

Evaluation of Alternative sites to continue…

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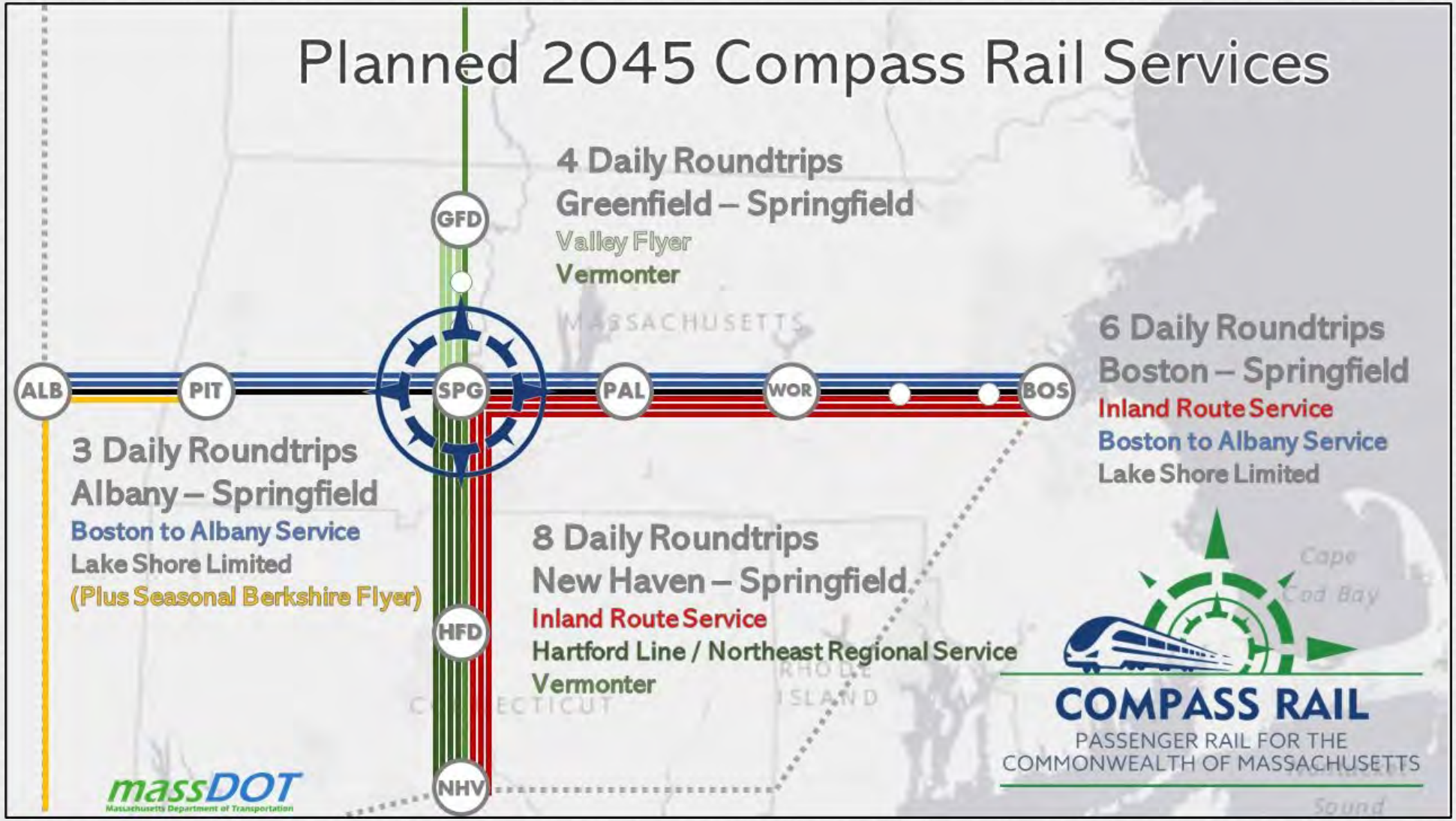
2045 Compass Rail Vision – Service Enhancement and Expansion



Snapshot: Framingham/Worcester Line Investments

- Speed restriction removal
  - Improved tracks to raise maximum authorized speed from Lansdowne to Auburndale
- Worcester Union Station Platform Rebuild (Estimated completion in 2024)
  - Fully accessible
  - Will allow two trains at a time on platform
- Framingham/Worcester "30-30" Service (Target: 2026)
  - All-day, 30-minute "Zonal express" bi-directional service to Worcester
  - All-day, 30-minute local bi-directional service to Framingham
  - Requisite track improvements funded with $20 million in Fair Share funds
- Framingham/Worcester Station Improvements (On-going)
  - Extensive capital upgrades to upgrade several stations, improving accessibility and reducing dwell times
  - Example: Natick Center Station Accessibility Improvements
  - Future priorities are Wellesley Square and Newtonville stations





Train Movements through the Project Area

- Dramatic increases in rail service are being planned on routes that will **utilize the Worcester Main Line's infrastructure**
  - Future MBTA revenue movements will be evenly split between Framingham local trains **that will serve West Station** and Worcester zonal express trains that **will not serve West Station**.
  - MassDOT will inaugurate Compass Rail in 2030 and will run 4 trains per day by 2035
- Once re-opened, Grand Junction will **continue to be used** for non-revenue maintenance movements

Operator	Today	2035	Change
MBTA (Revenue)	55	160	***+105***
Amtrak (Revenue)	2	2	--
Compass Rail (Revenue)	0	4	***+4***
Maintenance Movements (Non-Revenue)	2	2	--
Total Trains per day	**59**	**168**	***+109***

Today's Agenda

- Welcome/Introductions
- Multimodal Local Street Network
  - CTPS Modeling Update
  - Street Layout
- Shoreline and Parkland
- Follow-up
  - Layover Analysis
  - MBTA, MassDOT Compass Rail and Amtrak Operations
- **Next Steps**

Next Steps

- Proposed Upcoming Task Force Meeting Dates: May 15 and June 12
- Potential Topics at Upcoming Task Force Meetings
  - Multimodal Local Connections
  - Grand Junction Rail Temporary Outage/Mitigation
  - Rail Operations Analysis and Needs
  - Status of Alternate Layover Sites
  - IMR Briefing
  - West Station Location/Layout
  - Future Beacon Park Yard Land Use
- Other Suggested Topics for Upcoming Task Force Meetings?

Thank You!

