



I-90 ALLSTON INTERCHANGE A MULTIMODAL TRANSPORTATION PROJECT

Brookline Transportation Board Briefing
March 20th, 2017– Brookline Town Hall

Meeting Agenda

- **Welcome & Introductions**
- **Project Purpose**
- **Project Area**
- **Project History Since 2/29/16**
- **MassDOT Concept 3K Refined**
- **Ongoing Public Involvement**

Project Purpose

- Replace structurally deficient/functionally obsolete I-90 viaduct
- Straighten main line through Beacon Park Yards (BPY)
 - All Electronic Tolling
 - Rebuild Urban Interchange
 - Geometric and safety improvements
- Realign Soldiers' Field Road (SFR)
- Create a more vibrant Cambridge Street
- Construct urban improvements/accessibility
 - Shared Use Path (SUP) "Peoples' Pike"
 - Rebuild Lincoln Street Pedestrian Bridge
 - Introduce Cycle Tracks on Cambridge Street
- Build BPY Layover and West Station

Shared Priorities

- ✓ *Improve safety for all modes: walking, cycling, driving, transit*
- ✓ **Realign I-90**
- ✓ **Context sensitive design or:**
 - ✓ **Lessen impact of interchange**
 - ✓ **Avoid inducing cut-through traffic with new configuration**
 - ✓ **Reconnect sections of Allston to each other and the River**
- ✓ **Protect abutting and adjacent neighborhoods during construction**
- ✓ **A more vibrant Cambridge Street that serves all modes**
- ✓ **Accessibility to transit at future West Station**

Project Area



Since We Last Visited – Ongoing Outreach

- **Taskforce meetings:**
 - March 10th, 2016
 - March 30th, 2016 (site walk)
 - April 7th, 2016
 - April 28th, 2016
 - May 19th, 2016
 - October 13th, 2016
 - February 16th, 2017
- **Targeted briefings:**
 - April 22nd, 2016 – Allston Village Main Streets
 - January 19th, 2017 – Cambridgeport Neighborhood Association
- **Public information meeting: December 8th, 2016**
- **City of Boston Allston Open House: March 6th, 2017**

Since We Last Visited - BPDA

- **Boston Planning & Development Agency (BPDA) (nee BRA) place-making process:**
 - Used Option 3K4 as a baseline for analysis
 - “Test the district to ensure a wide range of successful outcomes”
 - Looked at:
 - Public Realm/Open Space
 - Mobility/Connectivity
 - Development Potential/Flexibility
 - Distinctive Place/Context Sensitive
 - Energy Efficiency/Sustainability
 - Meetings with I-90 Allston Taskforce on:
 - December 17th, 2015
 - January 11th, 2016
 - January 20th, 2016
 - February 3rd, 2016
 - June 27th, 2016
 - July 14th, 2016



Major Placemaking Standards



Organizing the Placemaking Standards

- Charles River Edges and Connections
 - Areas Along and Above the Highway and Rail Alignment
 - Cambridge Street and Connections to the North
 - Areas within the New District
-
- Area-Wide Standards
 - Guidelines for Future Master Planning



Placemaking Study – Major Standards

• Charles River Edges and Connections

Charles River Edges and Connections

1. Add I-90 and Soldiers Field Road connections

*Provide additional access between Soldiers Field Road and new streets leading to the I-90 ramps, in order to reduce vehicular traffic on Cambridge Street and within the new district; this will also help support new development. ***

- The intersection of Cambridge St. at River St. is simplified
- The Paul Dudley White Path can be widened near River St.
- The land in the "corner" near the Charles River will be more adaptable to various types of uses



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Placemaking Study – Major Standards

- Charles River Edges and Connections

Charles River Edges and Connections

2. Realign portions of Soldiers Field Road along the River

*Soldiers Field Road can be pulled further away from the Charles River, creating more useable open space, public access and pedestrian/bicycle connectivity. ***

Realignment will require new solutions to access to Houghton Chemical and the MBTA maintenance facility.



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Placemaking Study – Major Standards



- Charles River Edges and Connections

Charles River Edges and Connections

3. Create Park Space on the Charles

*Provide the space for a new park along the Charles River with revisions to the Soldiers Field Road alignments. ***

The space along the Charles will expand the Esplanade and be a neighborhood and district destination.



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Placemaking Study – Major Standards



- Charles River Edges and Connections

Charles River Edges and Connections

4. Provide a primary, at-grade pedestrian and bicycle connection to the Charles River edge

*As part of the roadway interchange and intersection design along Soldiers Field Road, provide a connection to the open space along the River for pedestrians and bicyclists. ***

Depressing a section of Soldiers Field Road will create the opportunity for the continuation of at-grade pedestrian and bicycle links directly into the new river edge park land.



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Placemaking Study – Major Standards



- Areas Along and Above the Highway and Rail Alignment

Areas Along and Above the Highway and Rail Alignment

9. Provide for an additional east/west street connection between Cambridge Street and the West Station Area

*Provide for a direct street connection with bicycle and pedestrian accommodations at or near the Cambridge Street Bridge over I-90 and the West Station area, using air rights. ***

DNP

The design of the project should anticipate future, phased construction of a new street above the rail and highway alignment that will link West Station area and Cambridge Street near its bridge over I-90.

WEST STATION AREA

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Placemaking Study – Major Standards



- Areas Along and Above the Highway and Rail Alignment

DNP

Areas Along and Above the Highway and Rail Alignment

15. Provide a north/south link for shuttles and buses

*Provide a north/south transit link for buses and shuttles between the North Allston/Harvard Area, West Station, and areas to the east and south, including Kendall Square and the Longwood Medical Area. ***

Buses and shuttles should not terminate their routes at West Station, but should be able to continue across the I-90 and rail alignment. The project should establish feasible ways to accomplish this north/south link by evaluating potential routes and alignments.

WEST STATION

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Placemaking Study – Major Standards



- Areas Along and Above the Highway and Rail Alignment

Areas Along and Above the Highway and Rail Alignment



16. Provide added width to the connecting bridges to West Station

*Provided added dimension (such as landscaped aprons) to the bridges that span above the highway and rail alignment to provide visual and landscape amenities to support a pleasant pedestrian and bicycle environment.**

DNP

The Long Street Bridge in Columbus, Ohio is an award-winning solution that widens a highway bridge to create a pedestrian-friendly, landscaped crossing



MCKK Landscape Architects



Placemaking Study - Major Standards



- Cambridge Street and Connections to the North

Cambridge Street and Connections to the North

18. Provide a third north/south arterial Street
*Provide three north-south arterial streets across Beacon Yards aligned with three north-south streets now being planned for the Harvard Institutional Master Plan (IMP) area.***

Updated planning will result in 3 connecting streets, better distributing traffic, transit routes and creating better blocks in the new district

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Placemaking Study - Major Standards



- Cambridge Street and Connections to the North

Cambridge Street and Connections to the North

20. Consider a direct North Harvard Street intersection alignment
*A more direct intersection between Cambridge Street South and North Harvard Street at Cambridge Street would limit neighborhood impacts and reduce unnecessary turning movements, congestion, and street and intersection widths along Cambridge Street.***

 If a more direct alignment proves to have fewer impacts, then the odd-shaped blocks in Concept 3K-4 can be reorganized to provide better opportunities for development



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Placemaking Study - Major Standards



- Cambridge Street and Connections to the North

Cambridge Street and Connections to the North

21. Strengthen Cambridge Street for early redevelopment along its southern edges

*Provide the opportunity for an improved Cambridge Street as an early phase redevelopment target. ***

Creating an active and developed edge along Cambridge Street will occur better and sooner if the blocks are well proportioned and have adequate depth for retail uses



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Placemaking Study – Major Standards



- Areas within the New District



Areas within the New District

31. Limit slopes of new streets and associated sidewalks and bike facilities

*Limit the maximum slopes for the new roadway network to less than 5%.**

Slopes with grades less than 5% accommodate easy walking, people in wheel chairs and bicyclists.

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Placemaking Study – Major Standards



- Areas within the New District

Areas within the New District

32. Organize streets to create blocks that can be flexibly and efficiently developed

*Provide a street grid that defines blocks that are scaled consistently and provide continuity of block width and length. ***



The placemaking standards for street alignment and connectivity will lead to better proportioned blocks that can be adapted to a wide variety of development and open space solutions.

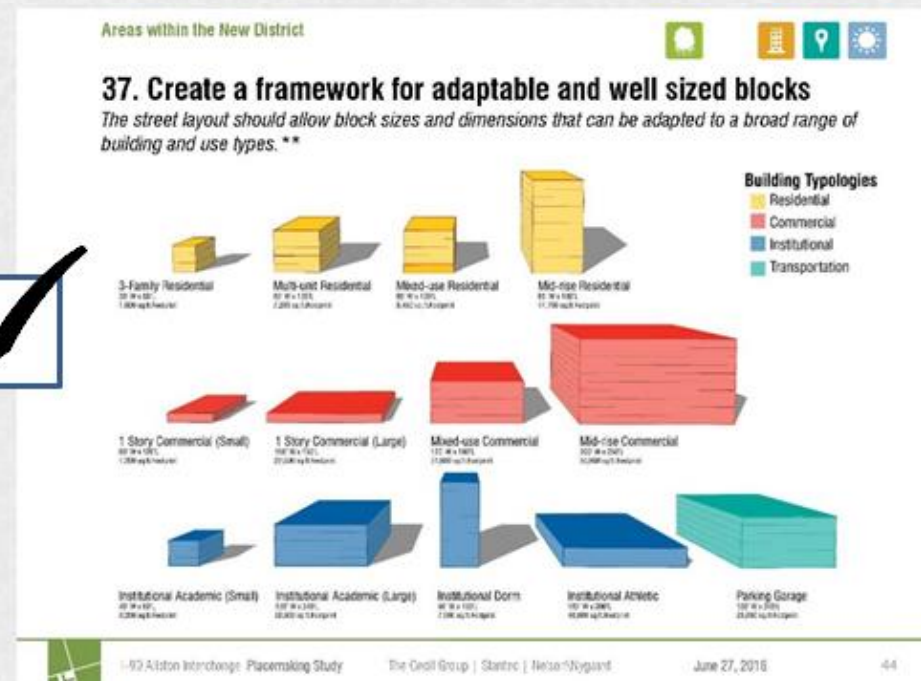


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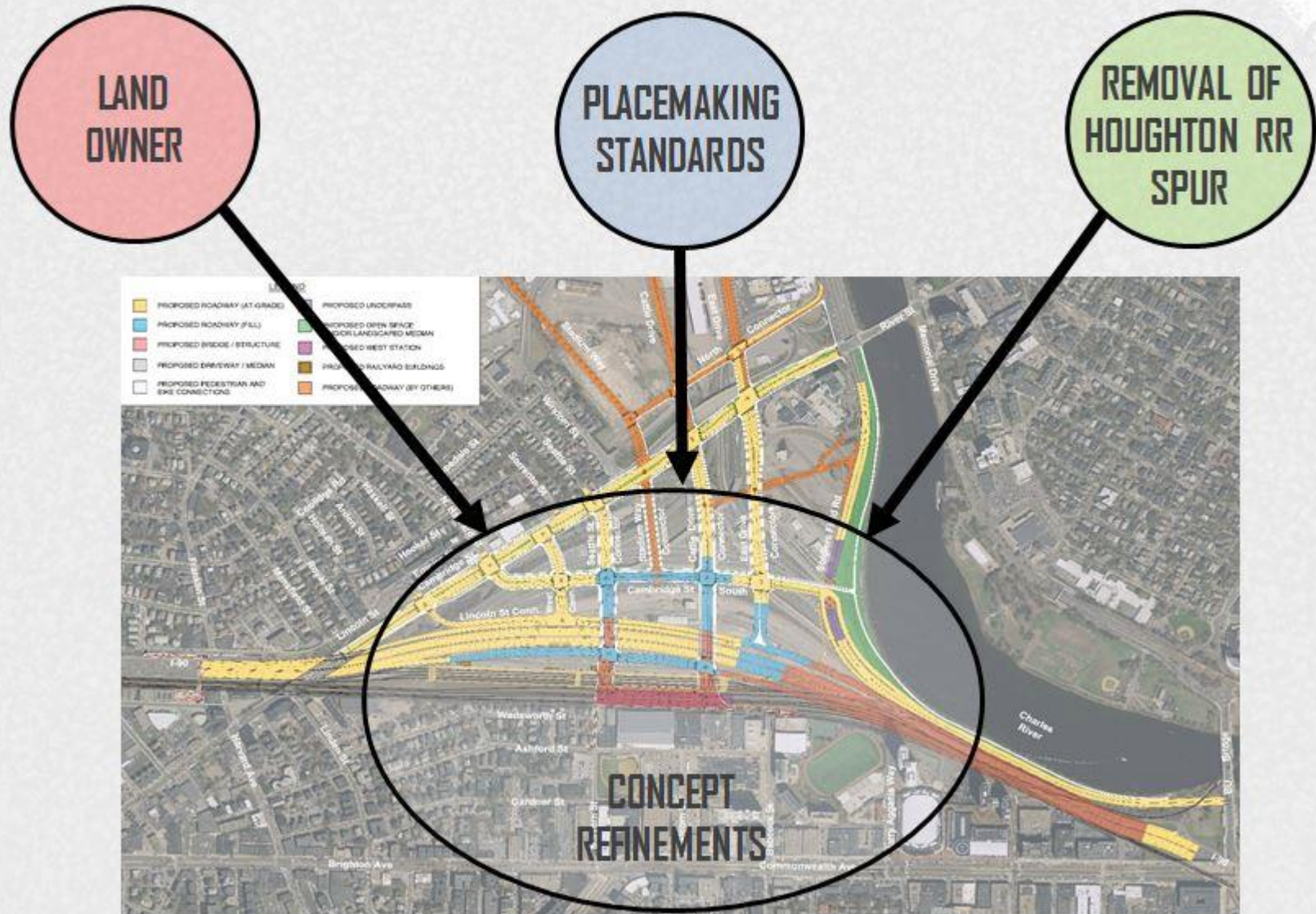
Placemaking Study – Major Standards



- Areas within the New District

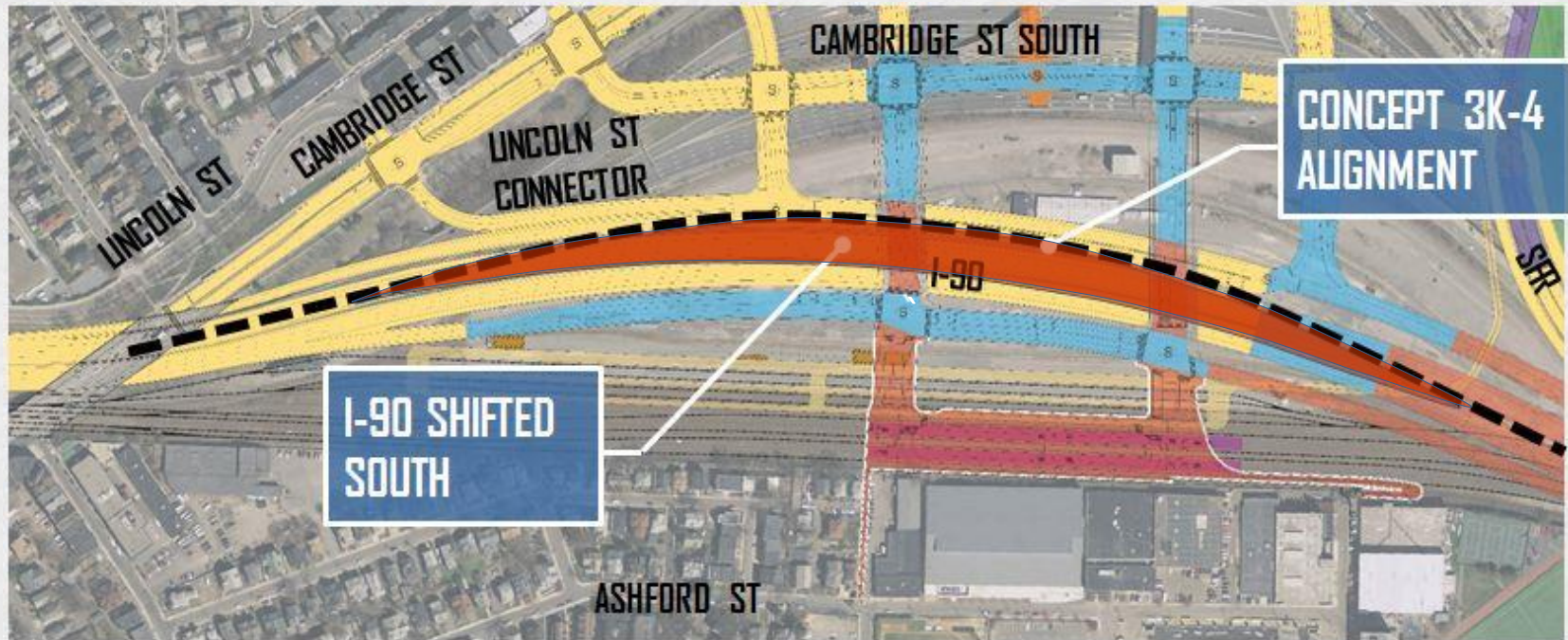


Concept Refinements – Contributing Factors

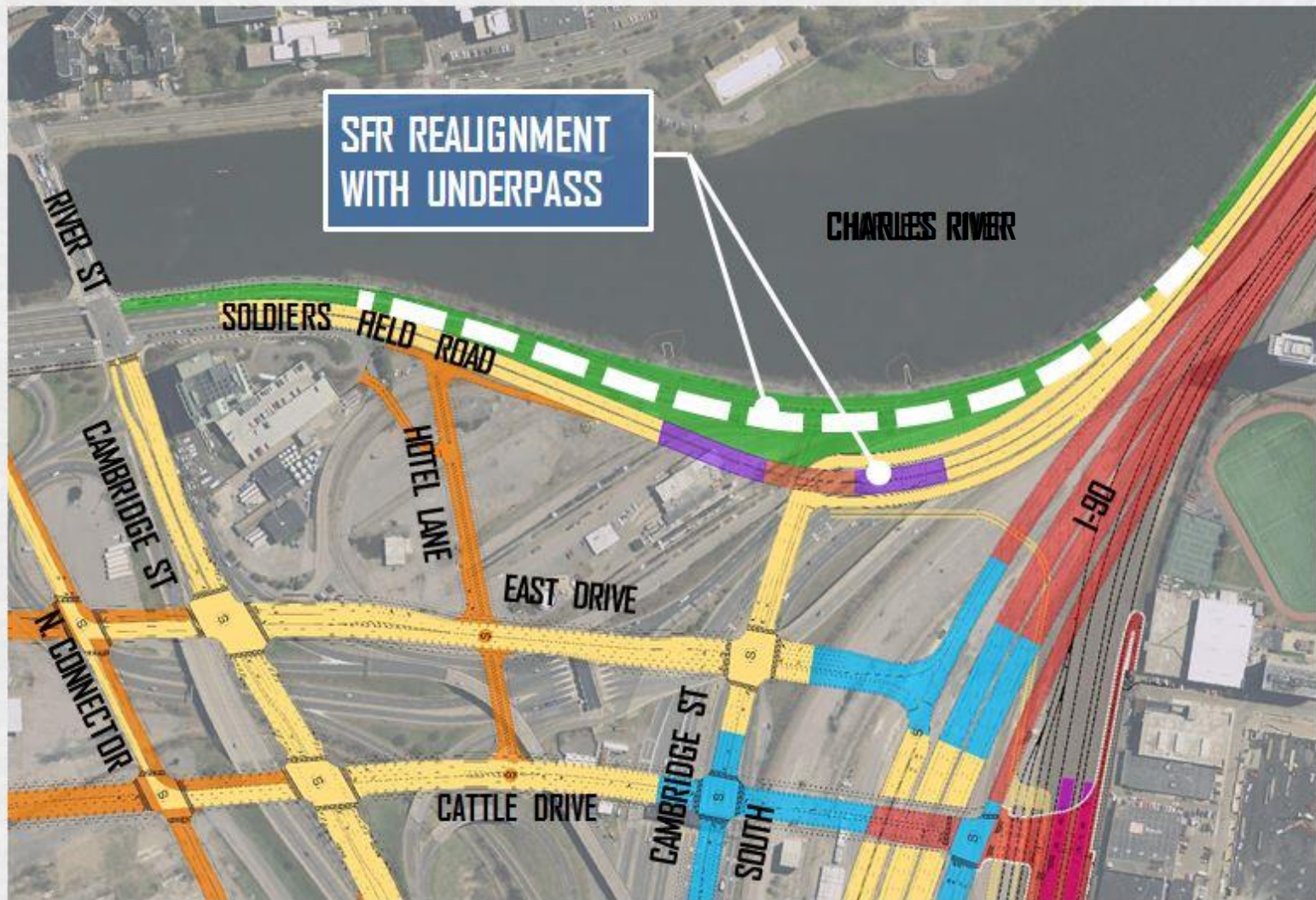


Concept Refinements – I-90 Realignment

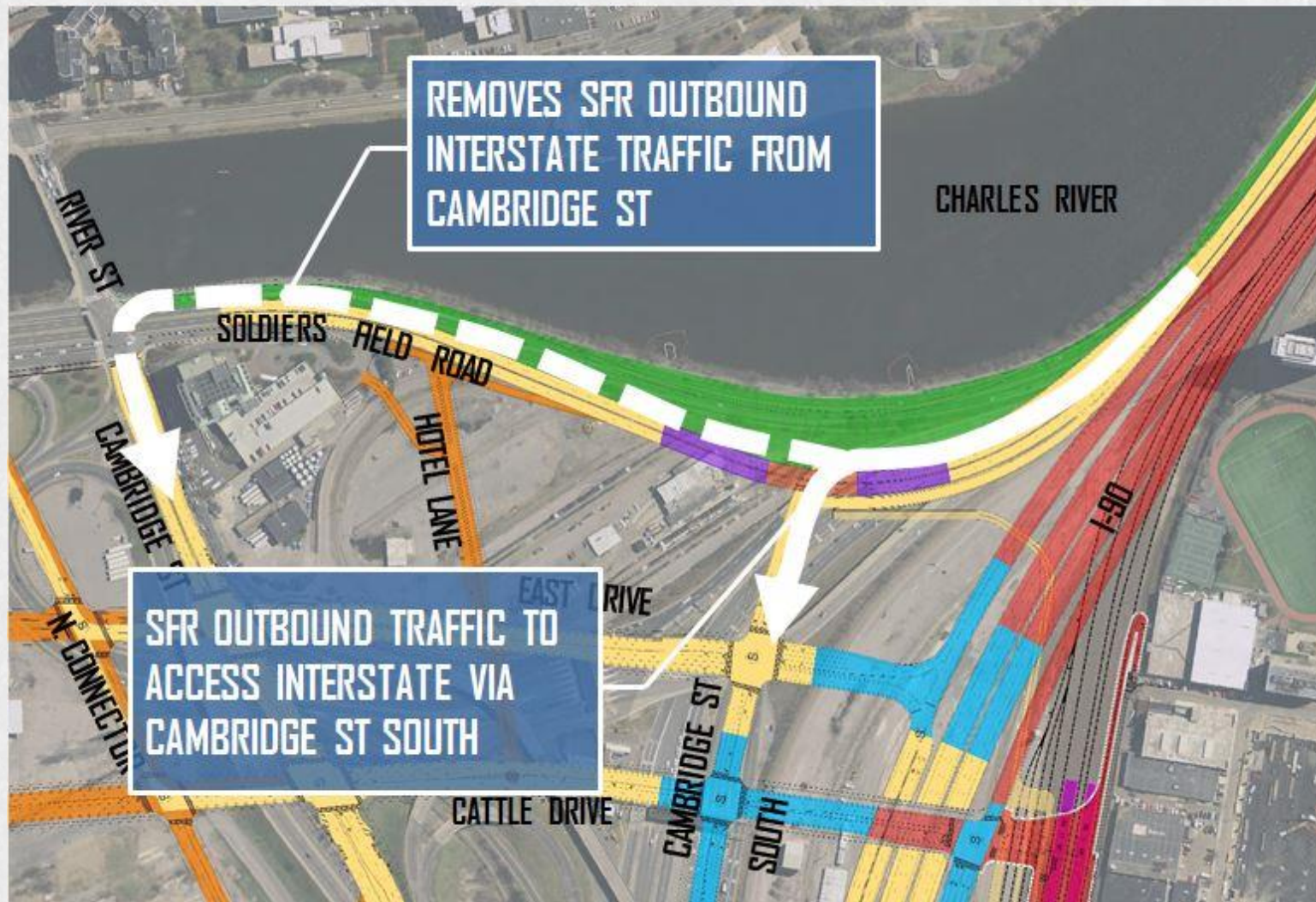
- Shifted 100 ft south
- Allows for adjusted Street Network
- Decreases slopes between Cambridge St and West Station



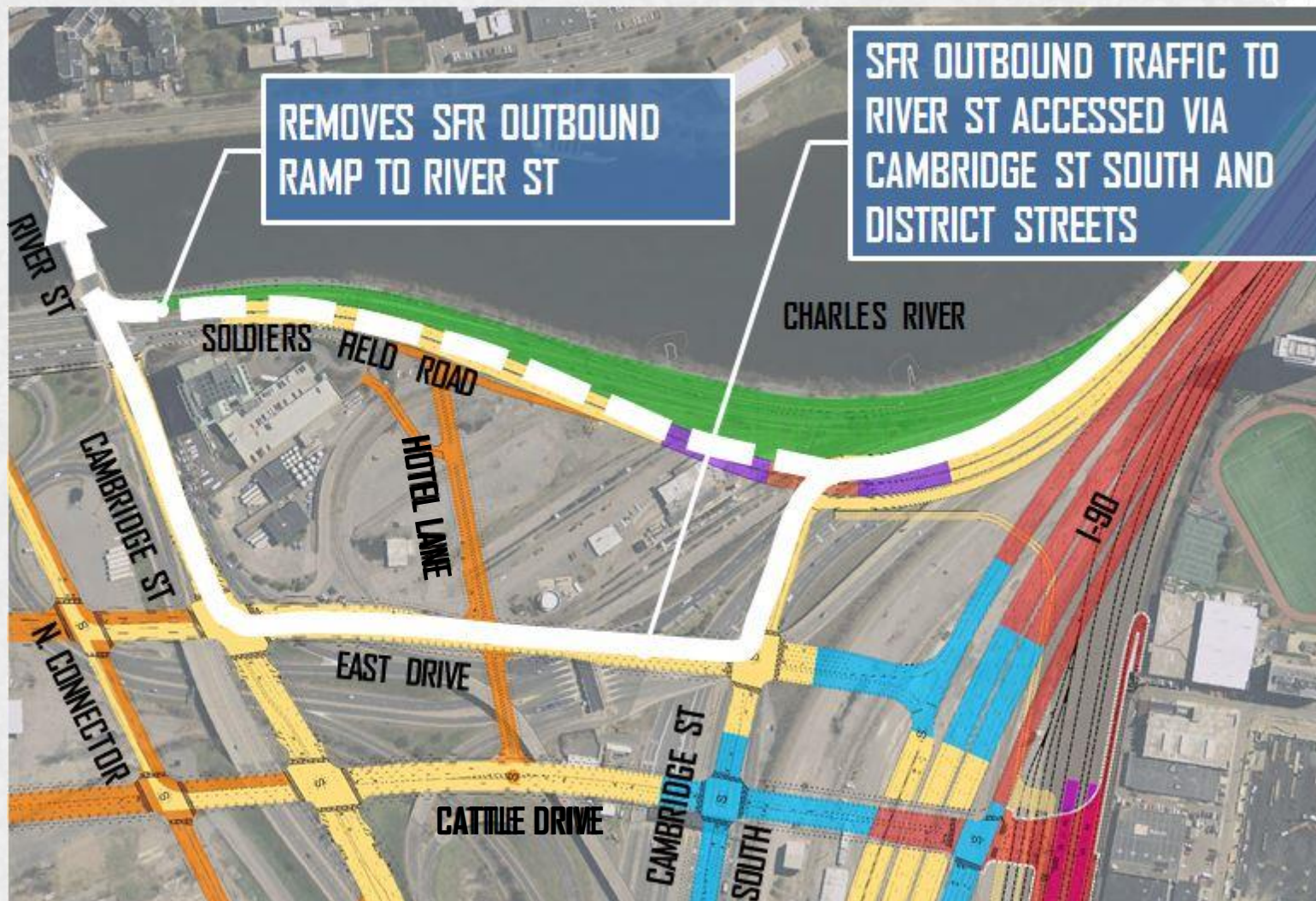
Concept Refinements – SFR Realignment



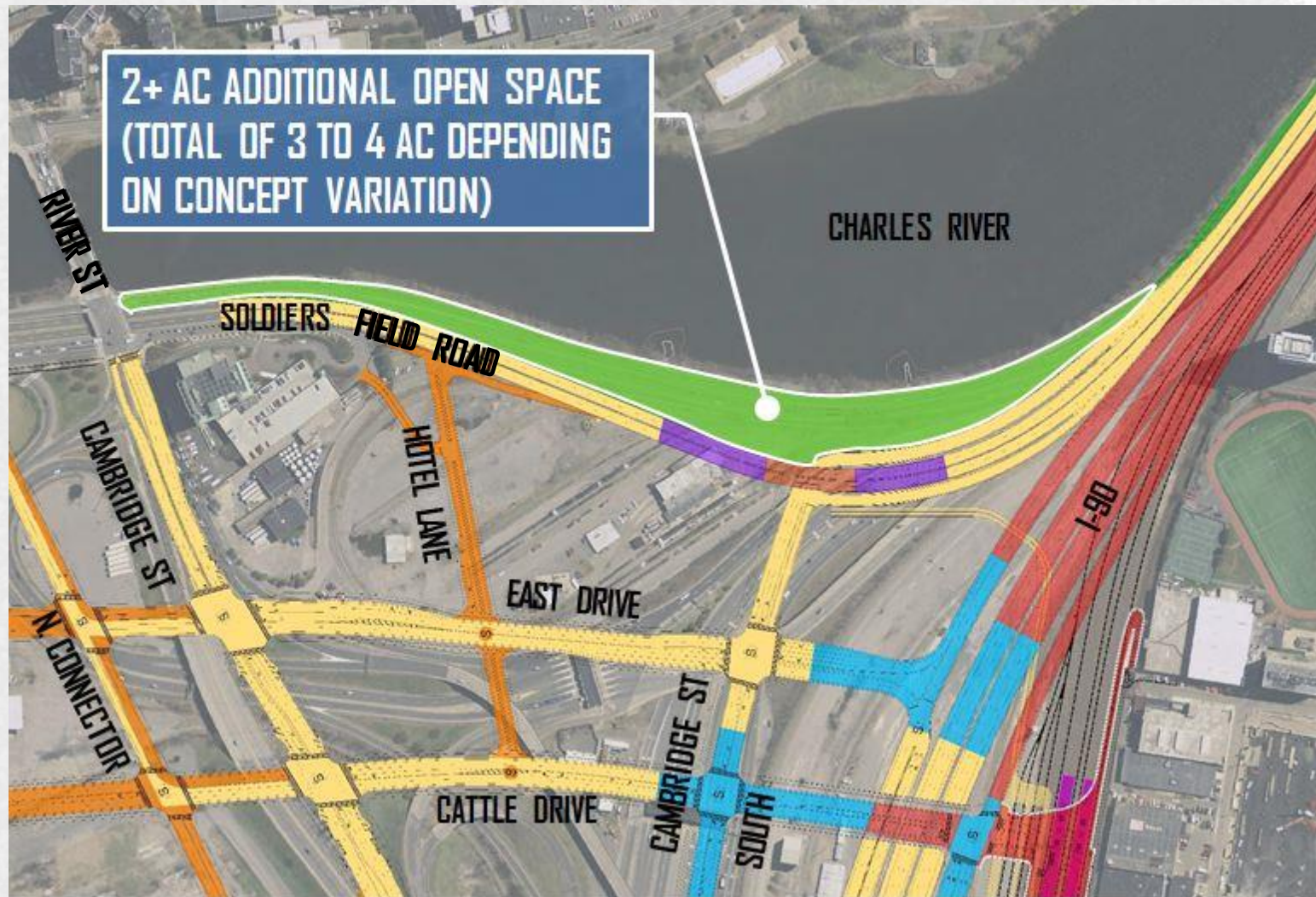
Concept Refinements – SFR Vehicular Access



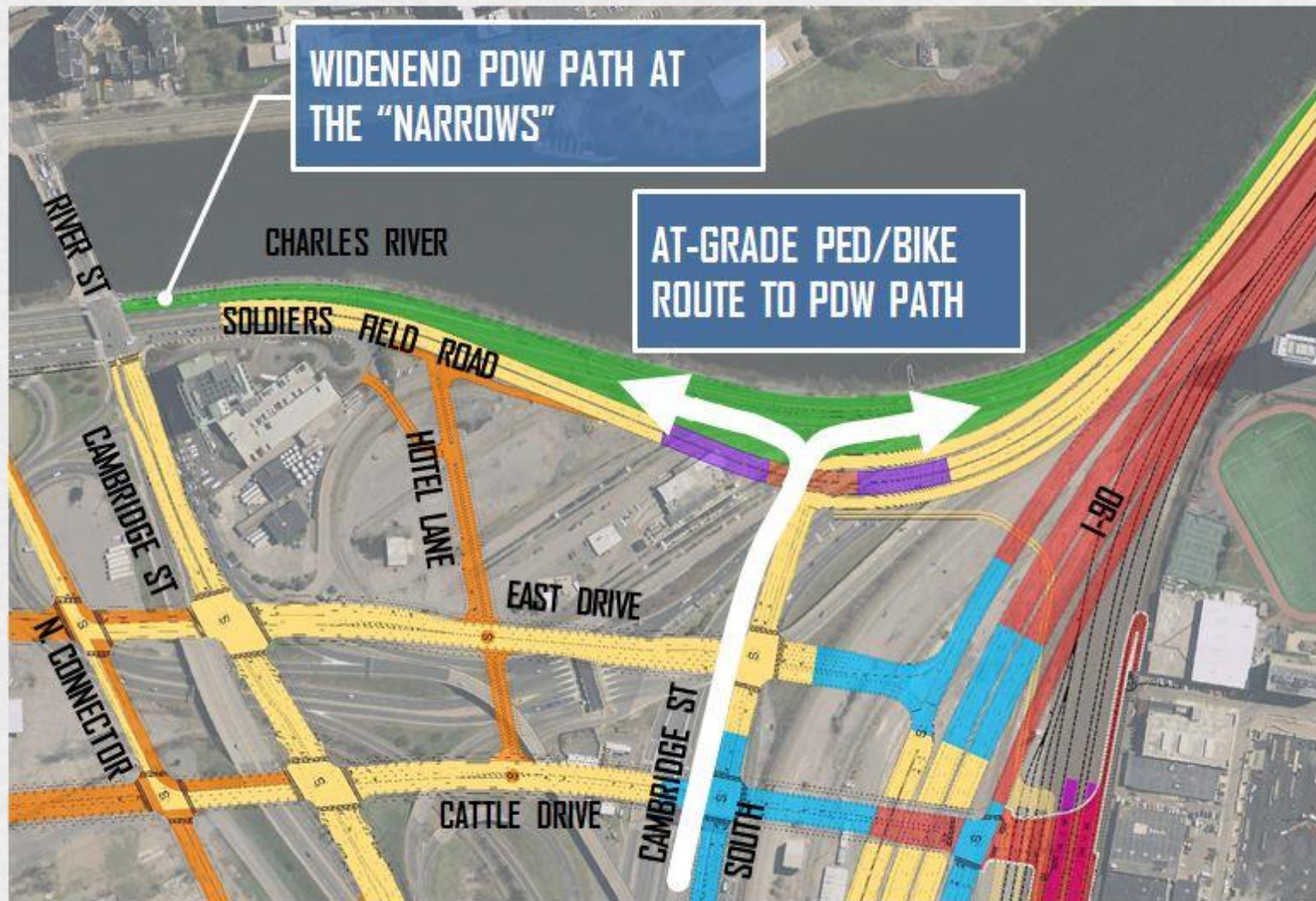
Concept Refinements – SFR Vehicular Access



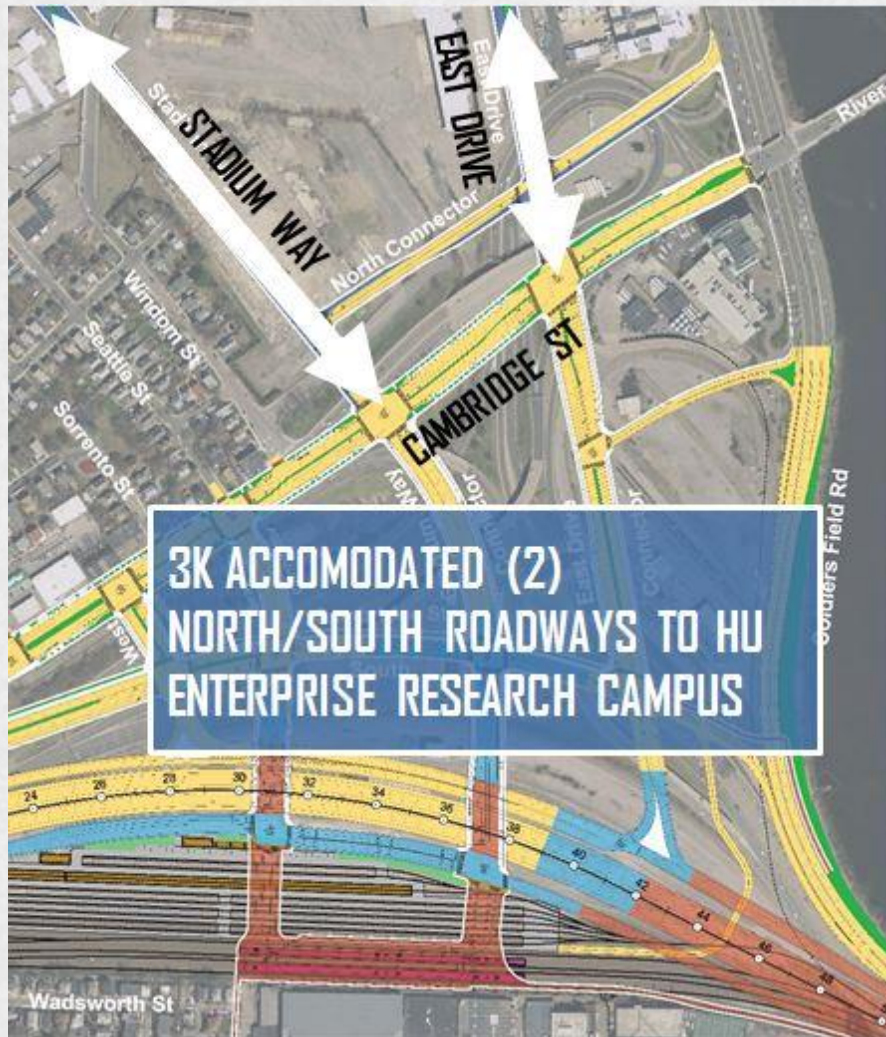
Concept Refinements – SFR Additional Open Space



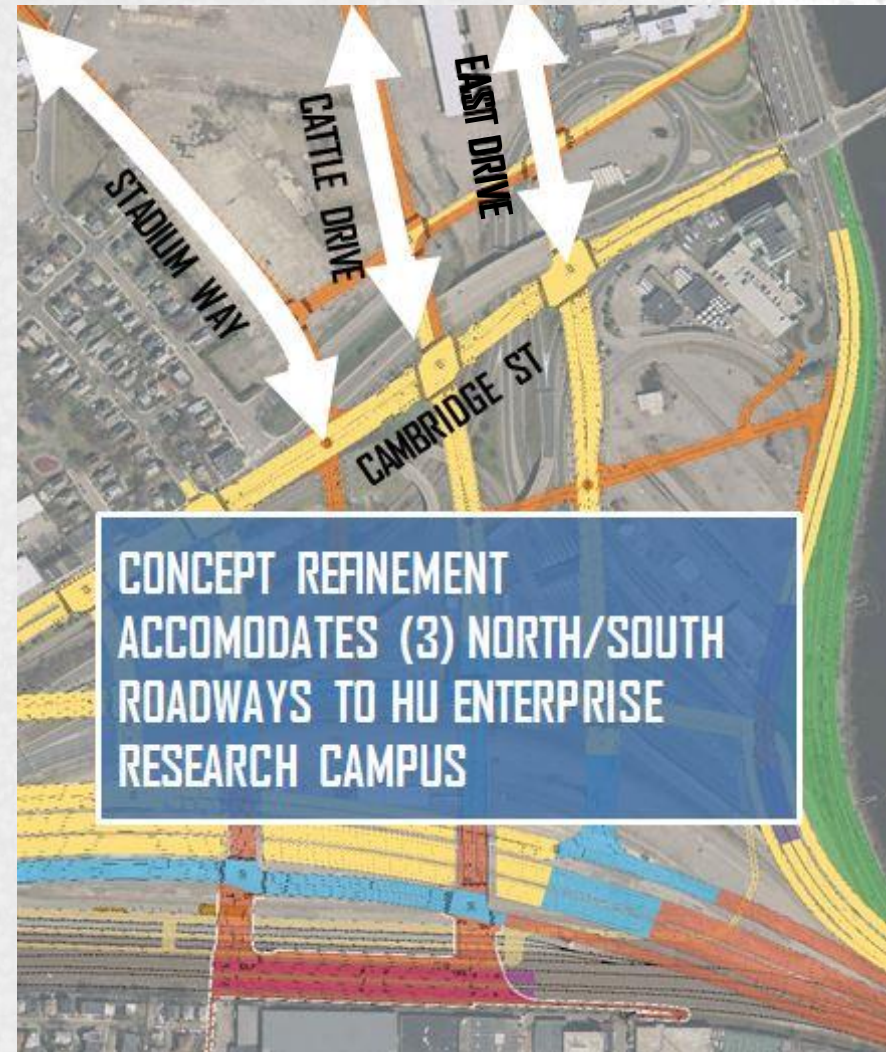
Concept Refinements – SFR At-Grade Ped/Bike



Concept Refinements – 3 North/South Streets

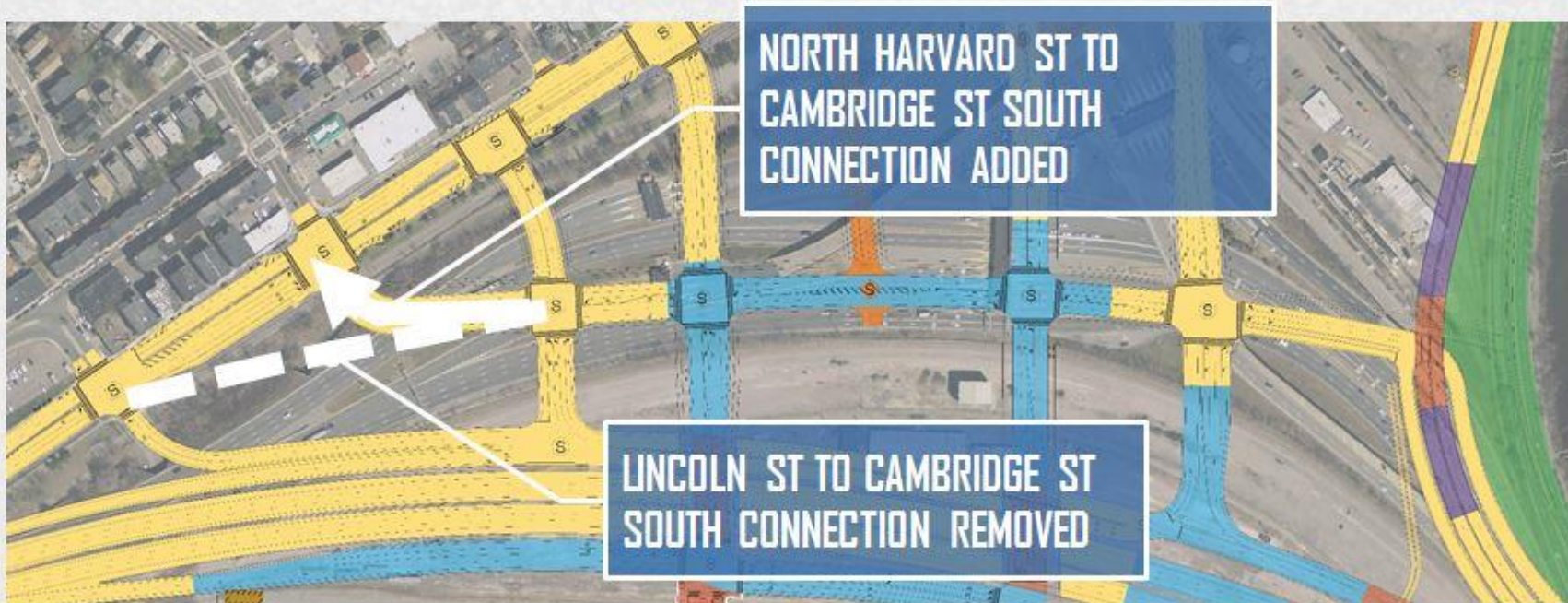


CONCEPT 3K-4



CONCEPT REFINEMENT

Concept Refinements – North Harvard St Connection



Concept Refinements – Cambridge St South Ped/Bike Facilities

PED/BIKE ACCESS TO PDW PATH VIA
SEPARATED PED/BIKE FACILITIES ON
NORTH SIDE OF CAMBRIDGE ST SOUTH



Summary of Concept Refinements (3K-Refined)



North/South Connections – A Brookline Perspective



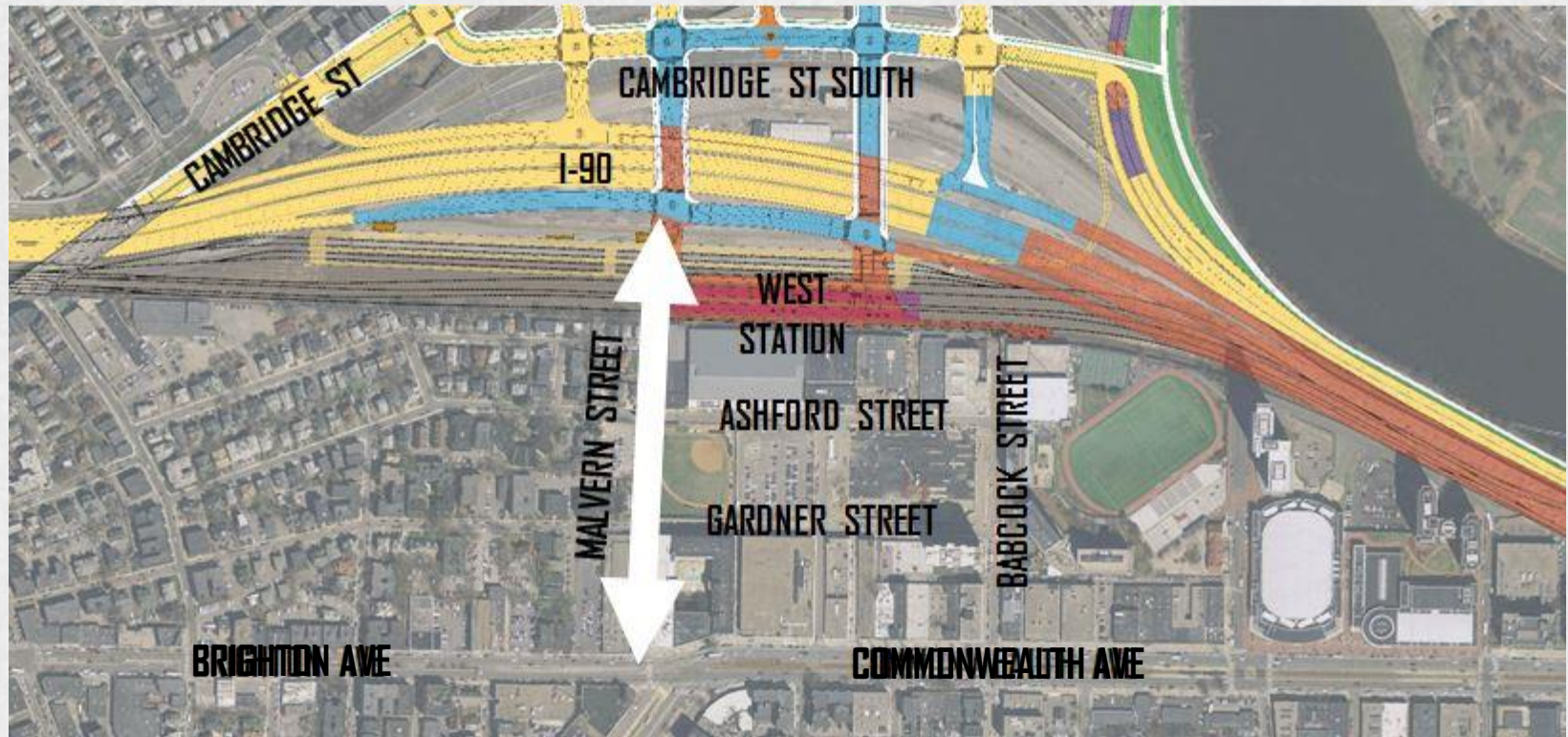
"I live in Brookline, a few blocks south of Commonwealth Avenue... I fully support the complete streets ideas we've heard tonight...a bike and pedestrian option on those [Malvern Street] would be fantastic.

At the December meeting, MassDOT said that that would lead to an extra car burden of up to 20,000 cars per day. Once they hit it [Commonwealth Avenue], they'll want to continue south, including through the main north/south streets in Brookline: Maple, Babcock, Pleasant, St. Paul, and Amory.

There will be a huge impact on those streets, which will all be negative. Those are all residential streets. Most of those cars would be cutting through, probably driving too fast. There are enough dangerous drivers already in north Brookline."

North/South Vehicular Connection

- Malvern Street
- Full two-way connection
- CTPS projected traffic volumes



North/South General Purpose Vehicular Connection



Summary of Potential Impacts:

- Congestion at I-90 ramps
 - Heavy North-South flow conflict
- Packard's Corner Impact
- Increased Neighborhood Traffic
- BU West Campus Pedestrian Environment

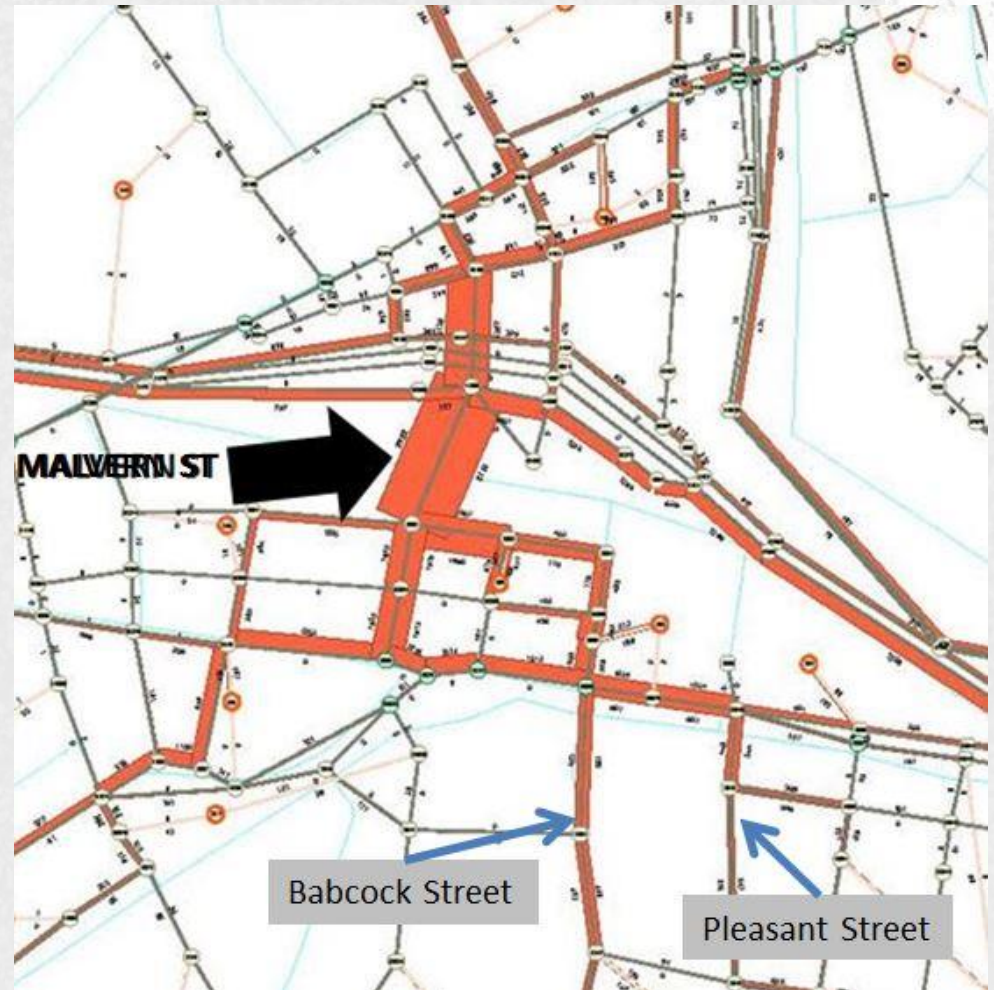


76 ASHFORD STREET
(LOOKING NORTH)

North/South Vehicular Connection -CTPS projected traffic volumes (year 2040)



- AM Peak: 1,727 vph
 - 1,065 Northbound
 - 662 Southbound
- PM Peak: 2,112 vph
 - 1,052 Northbound
 - 1,060 Southbound
- Daily: ~21,000+
- Shows ~4% higher volumes than when 2035 was run for earlier 3K series



Source: CTPS select link analysis for Malvern St

North/South Transit-Only Connection Four Options



Option 1

Malvern Street two-way connector



Option 1: Packard's Corner Signal Impact



This left turn is currently not allowed at the Packard's Corner intersection.

300 ft

- Geometric and Signal modifications required
- Traffic Signal delays due to long clearance time for Left turn exit
- Flow out from Malvern conflicts with heavy E-W flow on Comm Ave
- Flow N-S on Malvern conflicts with heavy I-90 ramp movements
- Private Property Takings required

Option 2

Malvern St & Babcock St



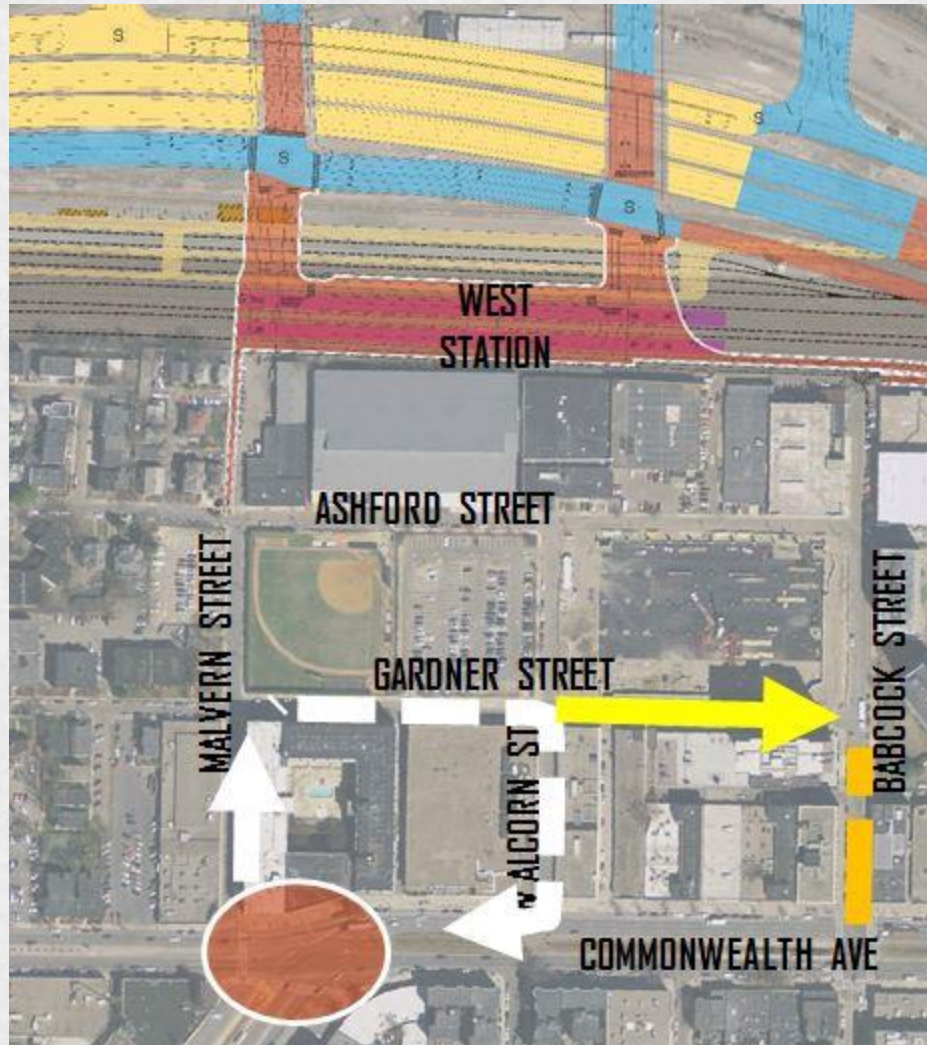
Option 2 Additional Impacts



Potential One-Way
Malvern Street NB
between Comm Ave
and Gardner St.

Would then require
Gardner St
EB traffic to use W.
Alcorn Street

Reduces impacts
to Packard's
Corner



Requires One-Way
Gardner St EB and
parking restrictions
for Bus Turns
to Babcock Street

Remove Parking on
Babcock St to
Introduce 2nd SB Lane

Option 3

Malvern St & Buick St



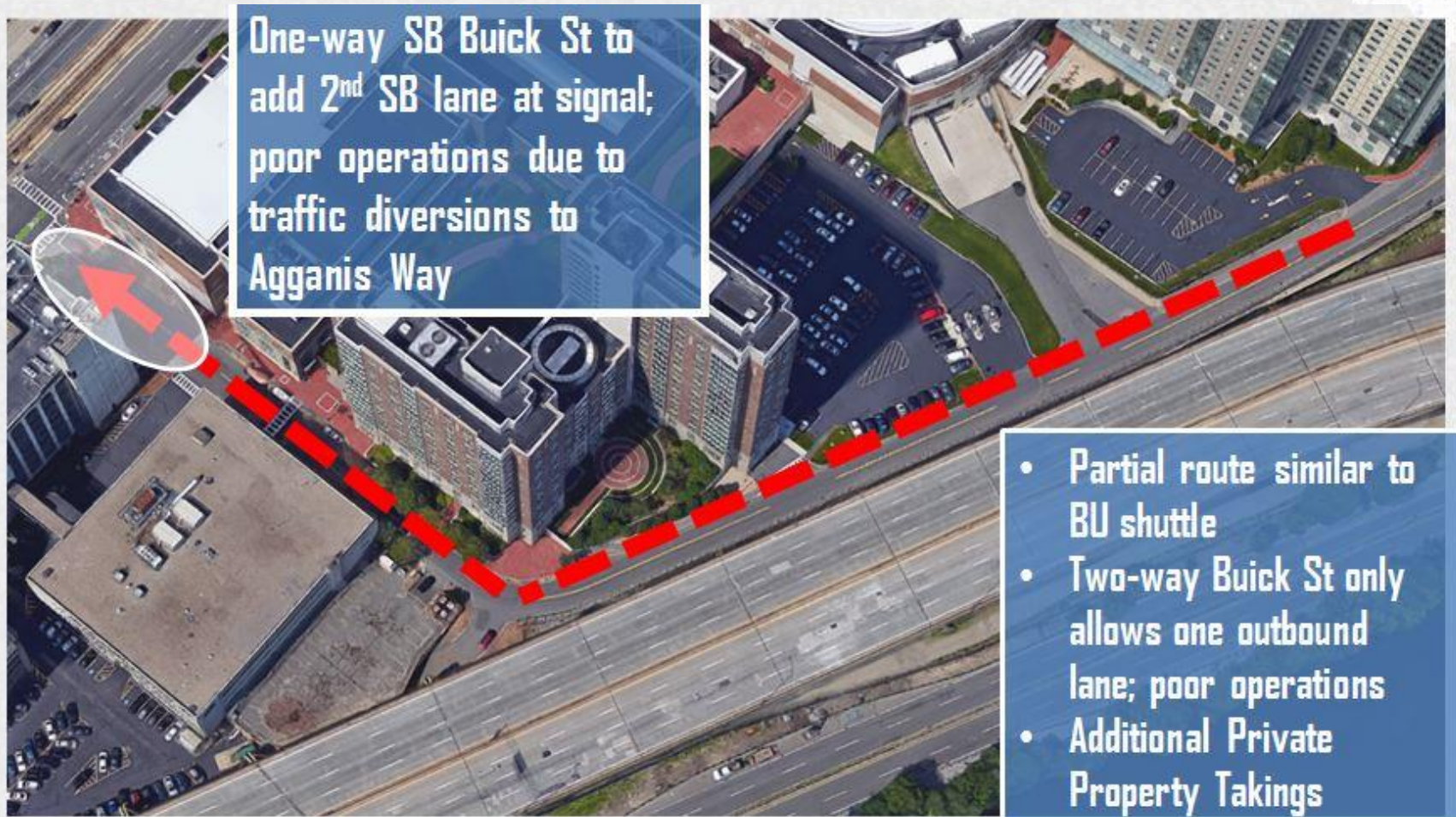
Option 3

Impacts Harry Agganis Way & Buick Street



Option 3

Impacts Harry Agganis Way & Buick Street



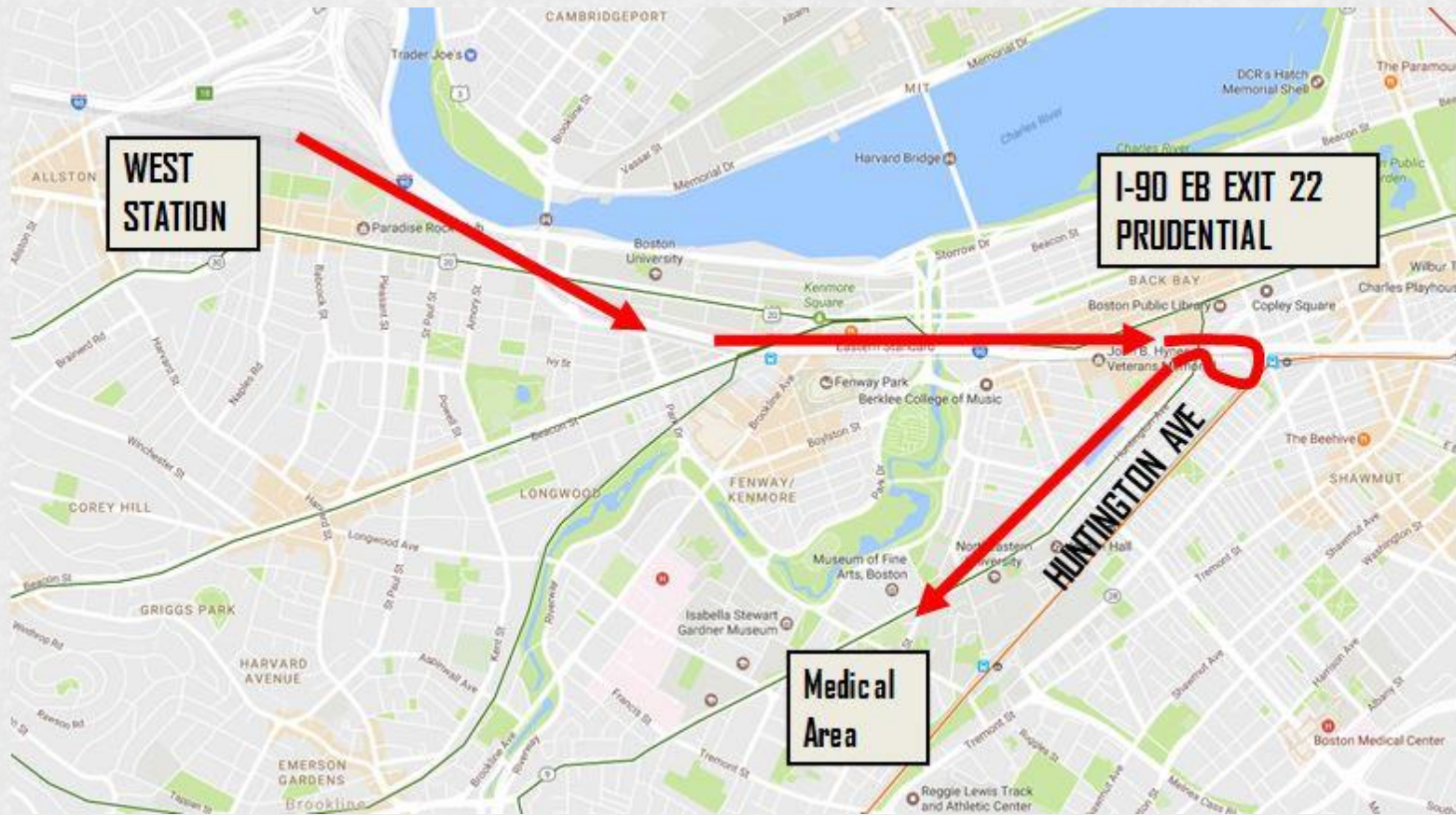
Option 4

Malvern St with Existing Street Network



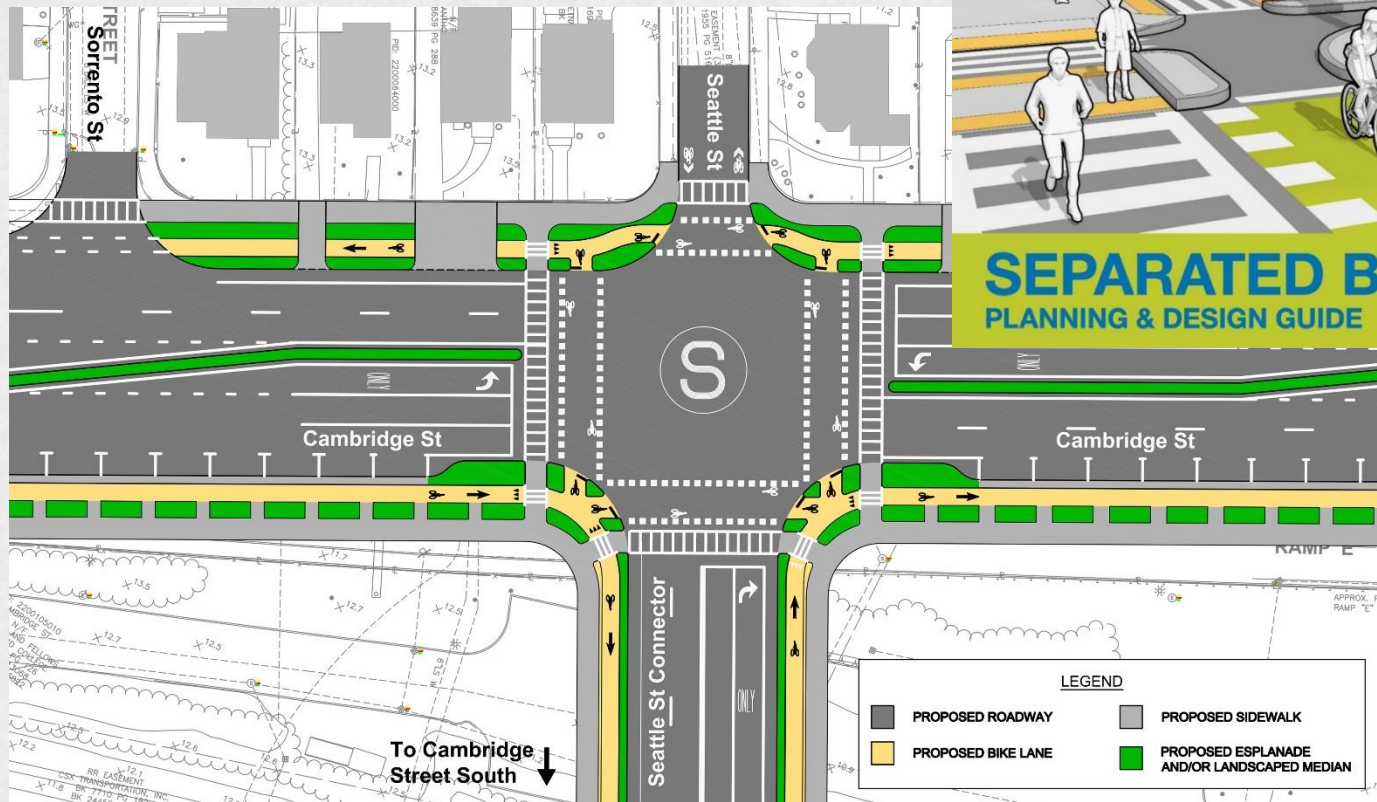
Option 4

Malvern St with Existing Street Network



Elements Consistent with Earlier 3K Series I

- Separated bicycle facilities on all roadways (minus mainline highway)
- Fully protected intersections
- Application of MassDOT Complete Streets guidelines throughout



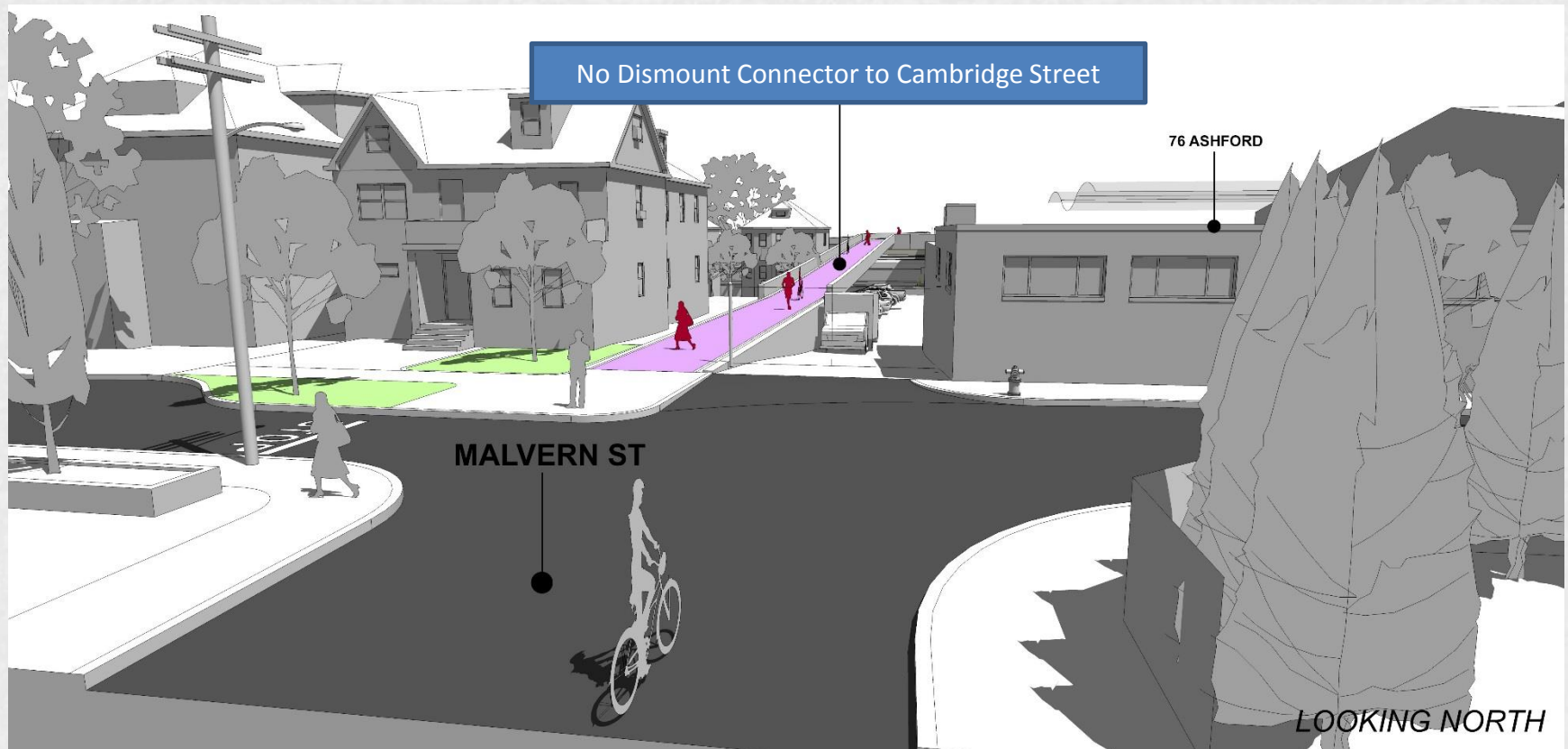
Elements Consistent with Earlier 3K Series II

- New, strong direct link for cyclists and pedestrians from Lower Allston to the Dudley White Path



Elements Consistent with Earlier 3K Series III

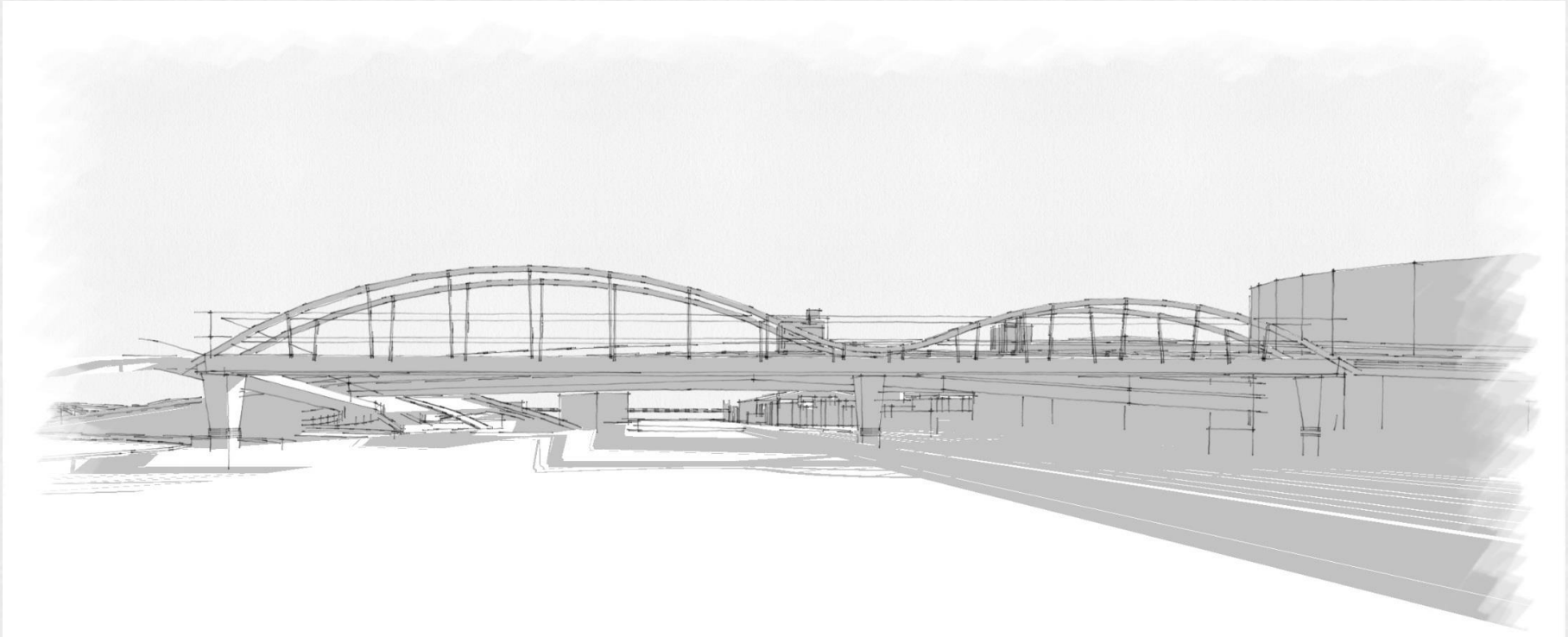
- “Opening Day” bicycle/pedestrian connections from Commonwealth Avenue to Cambridge Street



Elements Consistent with Earlier 3K Series IV



- Seeking to make Franklin Street footbridge an early action item

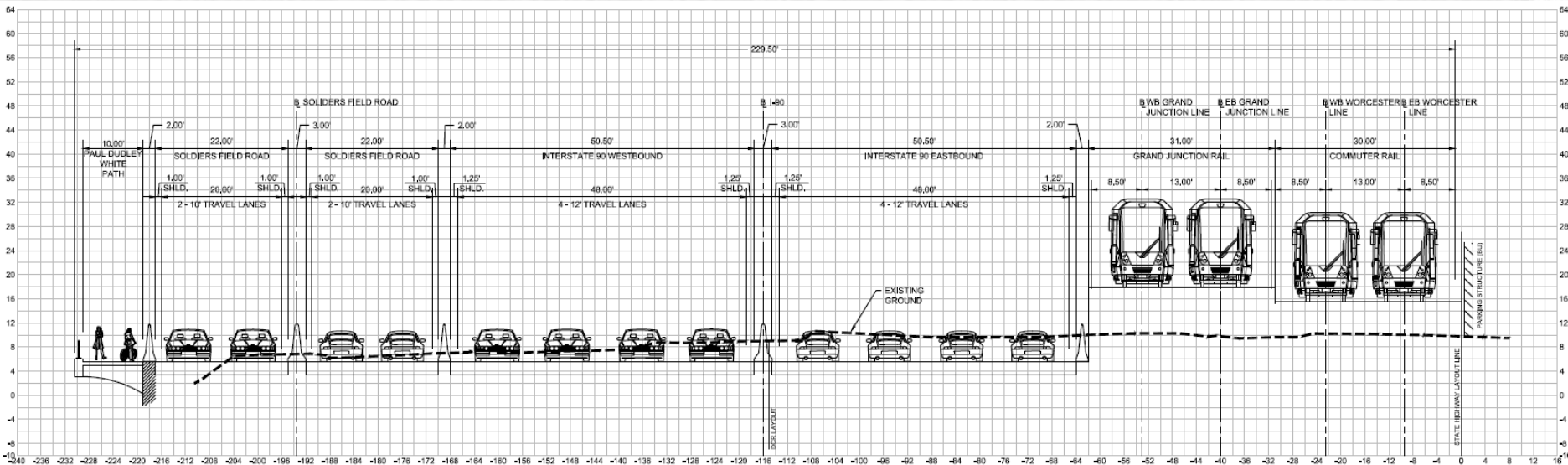


What to Expect in the DEIR

- The Draft Environmental Impact Report (DEIR) will cover:
 - 3K-Refined
 - Throat Variants:
 - I-90 roadway viaduct (bridge) like today
 - All at-grade (I-90/SFR/RR Lines) – originally advanced by ABC
 - Rail viaduct over at-grade I-90 – originally advanced by Ari Ofsevit
 - All to be designed to same level for analysis purposes
 - All options to be analyzed for:
 - Noise
 - Traffic
 - Air quality
 - Environmental justice
 - Economic development
 - *And much more*
 - Anticipated filing during 2017

Full Analysis of "Throat Variants"

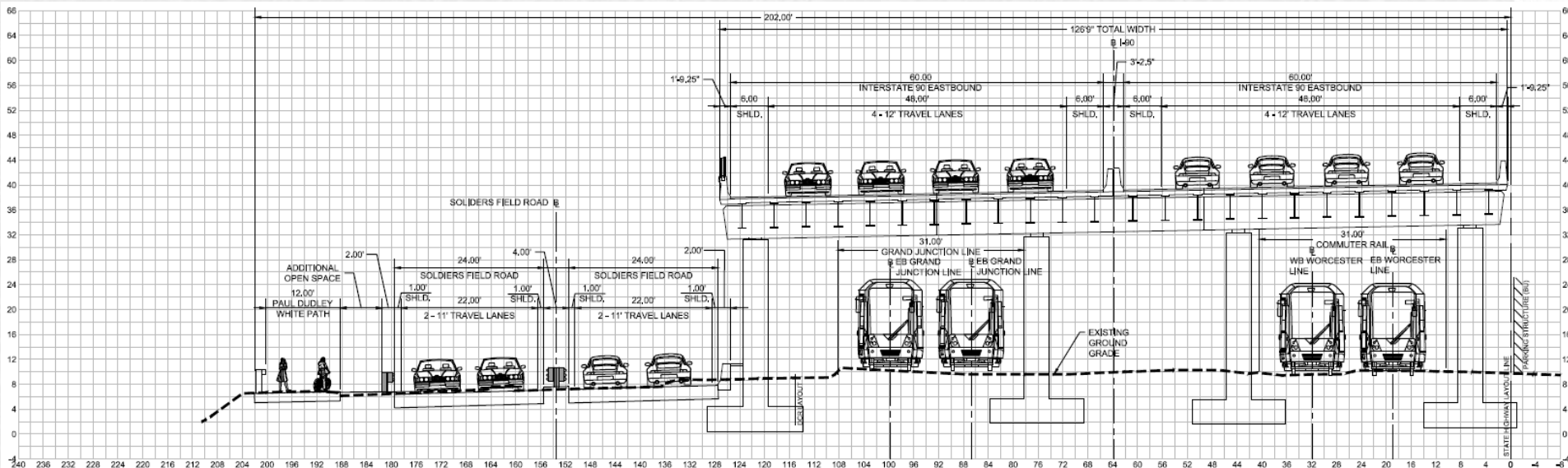
- All at Grade (originally advanced by ABC)



Full Analysis of "Throat Variants"

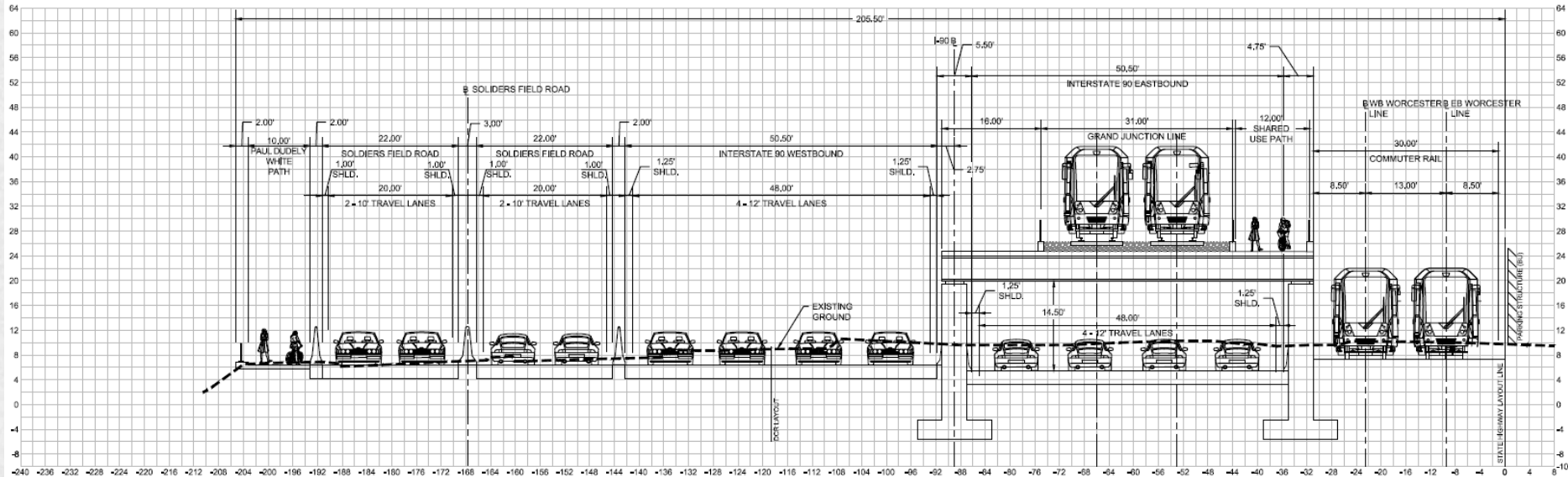


- I-90 Roadway Viaduct



Full Analysis of "Throat Variants"

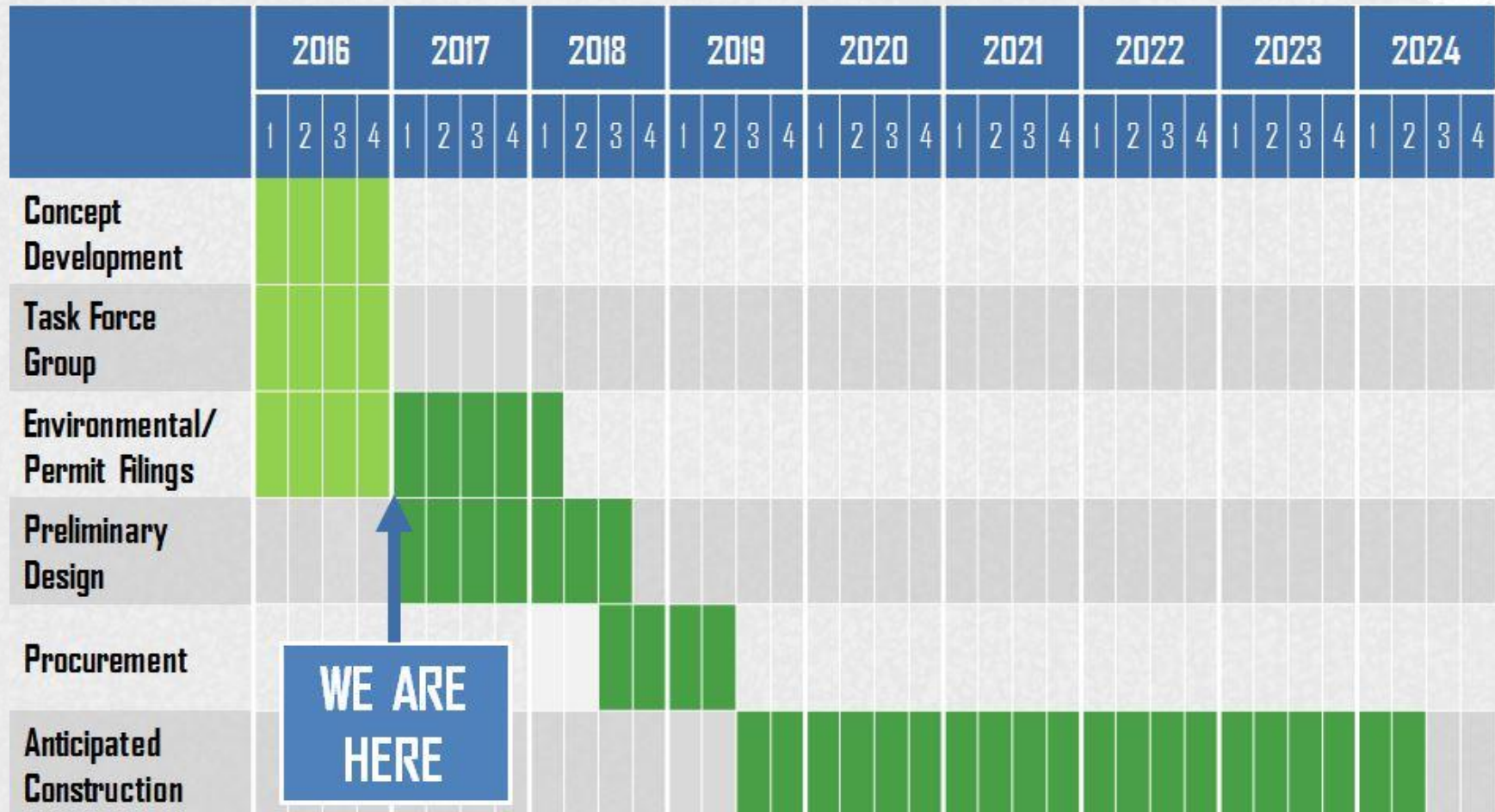
- Rail viaduct over at-grade I-90 (originally advanced by Ari Ofsevit)



Next Steps

- Reconvene taskforce in advance of DEIR filing
- Advance Preferred Alternative to Preliminary Design

Preliminary Project Timeline



Question & Comments

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Attn: Bridge Project Management - Project File No: 606475

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