I-90 ALLSTON INTERCHANGE
A MULTIMODAL TRANSPORTATION PROJECT
MASSDOT/FMCB JOINT MEETING
May 20, 2019 – MASSDOT BOARD ROOM
Presentation Overview

• Project Schedule

• Project Status Update
  – Progress since February
  – FHWA NEPA Actions
  – CTPS Modeling
  – West Station Flip Analysis
  – Throat Area Alternative (graphics)
  – Construction Staging Challenges

• Upcoming Task Force Meetings
# Project Schedule

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<tr>
<th>2019</th>
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- **Concept Development**
- **Task Force Group**
- **MEPA/NEPA/Permit Filings**
- **Preliminary Design**
- **DB Procurement**
- **Anticipated Construction**

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**WE ARE HERE** 8 to 10 Years
Progress since February

- Continued Advancing new Preferred Throat Alternative
  - Continued Highway At-Grade Hybrid (Soldiers Field Road over I-90 WB) Concept Design including Construction Staging
  - Developed Highway At-Grade “Modified” Hybrid (Soldier Field Road over I-90 EB) Concept Design including Construction Staging

- Continued Coordination with MBTA and Harvard University on West Station Flip

- Advancing supplemental CTPS analysis

- Conducted meetings with MWRA and BWSC on major water, sewer and drain utility conflicts associated with Hybrid and Modified Hybrid Variations of the Preferred Alternative
Progress since February – cont.

• Continued Conducting Subsurface Investigations in BPY
• Conducted February, March and April Task Force Meetings on:
  – Preliminary horizontal and vertical alignments of Hybrid and Modified Hybrid Variations of the Preferred Alternative
  – Discussion of utility conflicts associated with Hybrid and Modified Hybrid Variations of the Preferred Alternative
  – Discussion of NEPA Class of Action and regulatory process
  – Initial presentation of conceptual construction staging strategy
FHWA NEPA Actions and Update

• MassDOT submitted a Class of Action (COA) Letter to FHWA in March.
• FHWA responded to the COA Letter in May.
• FHWA indicates that NEPA COA will be an Environmental Impact Statement (EIS).
• Notice of Intent (NOI) anticipated in summer of 2019 formally kicking off the NEPA process.
• NEPA process from NOI to Record of Decision (ROD) expected to take approximately 2 years.
CTPS Modeling Update

CTPS has been working primarily in three areas:

- **Land use assumptions**
  - CTPS has been working with MassDOT, MAPC, and other stakeholders to finalize the land use assumptions for the future year no-build scenarios (year 2030 and 2040) for input into the regional travel demand model
  - CTPS is currently working with MassDOT, MAPC, and other stakeholders to develop the future build land use assumptions

- **Calibration of base year model**
  - CTPS has completed the calibration of the 2016 base year model to accurately reflect existing travel conditions for both of the highway and transit modes

- **Review of future year transportation alternatives**
  - CTPS has been reviewing the highway and transit assumptions for the build alternatives
CTPS Modeling Update

Next Steps

• Use the recently created no-build land use to develop future no-build scenarios for 2030 and 2040

• Evaluate alternatives for 2030 and 2040 once the build land use assumptions are finalized for input into the regional travel model
West Station Flip Analysis Update

- Harvard approached MassDOT with an alternative West Station and Beacon Park Layover Yard layout.
- Harvard’s alternative “Flips” West Station and the Worcester Main Line (WML) to the north, shifting the layover yard to the south, & offer suggests a buffer park in place of the WML tracks.
- MassDOT & MBTA expressed several operational concerns with Flip option and refinements.
- Harvard stressed its goals for a technically feasible/economically viable project.
  - The IRT Throat option afforded a superior air rights opportunity utilizing the east end of Beacon Park Yard.
  - Future Grand Junction passenger service envisioned as a key development need.
- MassDOT and Harvard tentatively agreed to a Modified Flip to satisfy the most essential rail operations and Air Rights requirements.
Flip Option

- Cambridge St Bypass Rd
- Worcester Main Line Tracks
- Layover Yard (below viaduct)
- Grand Junction Tracks
- Air-Rights Development
- Buffer Park
- Noise Barrier
- Transitway
- Future Building
Modified Flip Option – with Cambridge St Bypass

- Cambridge St Bypass (by others)
- WML Station Tracks
- West Station Busway
- Layover Yard
- Grand Junction Tracks
- Noise Barrier
- WML Express Tracks
- Transitway
- Expanded Air Rights Dev
- 76 Ashford St
Flip-Family: Inbound Bus Circulation
Flip-Family: Outbound Bus Circulation

Bus Station

Drop-off zone

Cambridge Street Bypass Road

Bus Layover

Worcester Express Tracks

Noise Barrier Wall

Transitway
## Flip Comparison

<table>
<thead>
<tr>
<th>Feature</th>
<th>DEIR</th>
<th>Flip</th>
<th>Modified Flip</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tracks &amp; Platforms</strong></td>
<td>2 WML &amp; 2 GJR; keeps WML alignment 3 platforms; walk-up access</td>
<td>2 WML &amp; 2 GJR; alters WML alignment 3 island platforms</td>
<td>2+1 WML &amp; 2 GJR maintains WML alignment 2 island platforms</td>
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<tr>
<td><strong>WML Speed</strong></td>
<td>Maintain current (79 mph through station area)</td>
<td>45 - 50 mph through station area</td>
<td>45-50 thru station 79 mph on WML</td>
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<tr>
<td><strong>Rail Service</strong></td>
<td>Favors maintaining/expanding service along WML</td>
<td>Favors future GJR service &amp; directs all WML trains to station</td>
<td>Balances future GJR service expanding high speed &amp; express ability along WML</td>
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<tr>
<td><strong>Yard</strong></td>
<td>4 tracks/8 layovers, access via GJR</td>
<td>4 tracks/8 layovers access via WML</td>
<td>4 tracks/8 layovers access via flip WML</td>
</tr>
<tr>
<td><strong>Bus Access</strong></td>
<td>Access from Bus Loop and Transit way</td>
<td>Access from Camb. St bypass w/transitway connection</td>
<td>Access from Cambridge St bypass w/transitway connection</td>
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<tr>
<td><strong>Pedestrian Access</strong></td>
<td>South via Malvern and Babcock; north via bus loop</td>
<td>South via Malvern; north via Camb. St bypass; west via path from Franklin St</td>
<td>South via Malvern; north via Camb. St bypass</td>
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<tr>
<td><strong>Air Rights</strong></td>
<td>Limits opportunities due to access constraints</td>
<td>Camb. St bypass provides access to land area east of station and yard</td>
<td>Camb. St bypass provides access to land area east of station and yard</td>
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</table>
Highway At-Grade “Modified” Hybrid with Elevated SFR
Highway At-Grade “Modified” Hybrid with Elevated SFR

HYBRID - SFR STACKED OVER I-90 EB
SECTION AT NARROWEST POINT ALONG CHARLES RIVER
APPROX. STA 160+50
Throat Area Construction Staging Considerations

• Maintain all modes of travel
  – PDW Path Detour or Temporary Floating Bridge
  – 6 I-90 travel lanes 3 lanes EB/3 lanes WB
  – 4 SFR travel lanes 2 lanes EB/2 lanes WB
  – Minimize single track operations on WML Commuter Rail between Boston Landing and Commonwealth Ave. (CP 4 and CP 3)
  – Grand Junction Rail closed for majority of construction duration
  – Site investigations for temporary Commuter Rail Layover location
Throat Area Construction Staging Highlights

- Staging concepts are preliminary and several elements need further study/investigations including but not limited to:
  - Consideration of Temporary PDW Path on Floating Bridge
  - Sizing safe work zones for construction equipment and access
  - Minimize duration of 1 track Worcester Mainline services between Boston Landing and Commonwealth Ave
  - Grand Junction Bridge replacement over I-90 and SFR
  - SFR Viaduct transitions at ‘throat’ limits
  - Temporary I-90 alignments horizontal and vertical geometry
  - Major utility relocations and continued coordination with utility owners
  - Minimize overall construction staging durations

- Assessing extent of Temporary River Impacts to construct SFR Viaduct (SFR over WB or EB) and need to minimize disruption to I-90/SFR travel lanes and WML Commuter Rail operations
### WML Single Track - Staging Concept Year 3

<table>
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<th>Description</th>
<th>Status</th>
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<td>INTERSTATE 93 EB</td>
<td>3 LANES</td>
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<tr>
<td>INTERSTATE 93 WB</td>
<td>3 LANES</td>
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<tr>
<td>SOLDIERS FIELD ROAD EB</td>
<td>2 LANES</td>
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<tr>
<td>SOLDIERS FIELD ROAD WB</td>
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<td>I-90 RAMPS</td>
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<td>CAMBRIDGE STREET</td>
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<td>PAUL DUDLEY WHITE PATH</td>
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<tr>
<td>WORCESTER COMMUTER RAIL</td>
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<tr>
<td>GRAND JUNCTION RAIL</td>
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- **Permanent Highway/Roadway Construction**  [Color Code]
- **Temporary Highway/Roadway Construction**  [Color Code]
- **Previous Construction - Open to Traffic**  [Color Code]
- **Previous Construction - Closed to Traffic**  [Color Code]
- **Track Work Zone**  [Color Code]

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**Figure 15**

1. **EB SFR Viaduct Conceptual Construction Stage 4**
2. 100-Bay Interchange Project
3. Draft Environmental Impact Report

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**MAP**

- **ALLSTON**
- **massDOT**

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**DRAFT**
WML Single Track – Staging Concept

• Worcester Commuter Rail line will remain double-tracked between Worcester and Boston Landing Station, and between Commonwealth Ave and South Station.
  – Boston Landing Station may operate on both tracks

• During a portion of the construction of the Allston I-90 project, an approximately 1 mile segment of the line must be single-tracked between Boston Landing Station and Commonwealth Ave.

• While construction is not expected to start until 2022, MassDOT Highway Division and the MBTA are working now to evaluate opportunities to reduce the time required for single-tracking and reduce the impacts on this segment
  – Rail crossovers provided at these locations will minimize customer impacts
WB SFR Viaduct - Final Condition

211 ft +/- Overall Final Dimension at Narrowest Location (includes 7 ft ± of BU Property)

Legend
- Temp I-90/SFR
- Final I-90
- Temp/Final WML/GJ
- Final SFR Viaduct

WB SFR Viaduct
I-90 WB
I-90 EB
2 GJR and 2 WML
3-D Visualizations – SFR over I-90 WB
3-D Visualization – SFR over I-90 WB
EB SFR Viaduct - Final Condition

211 ft +/- Overall Final Dimension at Narrowest Location
(includes 7 ft ± of BU Property)

Legend
- Temp I-90/SFR
- Final I-90
- Temp/Final WML/GJ
- Final SFR Viaduct
3D Visualizations- SFR over I-90 EB
3-D Visualization – SFR over I-90 EB
Upcoming Task Force Meetings

May 23

- Continued Conceptual Construction Staging Strategy, Environmental Permitting, including MEPA/NEPA, 106, 4f, WPA
- Presentation of virtual 3D final build graphics

June 20

- Progress update on CTPS Travel Demand Model
- Update on West Station ‘Flip’ collaboration efforts

July 18, August 14, September 12 and October 9

- Meeting agendas to follow