massDOT
Massachusetts Department of Transportation
Highway Division

I-90 Allston Multimodal Project, Boston, MA

Notice of Project Change

INTERSTATE 90
ALLSTON
INTERCHANGE

Appendix B | Responses to Frequent Comments on the DEIR

I-90 Allston Multimodal Project
Boston, MA

DRAFT Notice of Project Change
Appendix B: MEPA DEIR Frequent Comments and Responses

Submitted to:

Massachusetts Department of Transportation

June, 2022

MEPA DEIR: Frequent Comments and Responses

- **HA-1. Request the selection of the All At-Grade variation as the Preferred Alternative for the Allston I-90 Interchange Project. It is the lowest cost option, it minimizes construction disruption and schedule risk, it best enhances pedestrian/bicycle connectivity and safety, it supports complementary river's edge modifications requested by stakeholders, it allows for development and place making opportunities above the highway, and the ability to develop air rights in the future.**

Response: MassDOT has identified the 3L Re-alignment Alternative as the Preferred Interchange Alternative for the Project. This 3L Re-alignment Alternative represents the alternative that responds to the stakeholder comments from the MEPA process to date and addresses the Secretary's Certificate comments on the DEIR, as advanced from DEIR Alternative 3K. See Section 2.2.2.1 of the NPC for further discussion of the 3L Re-alignment interchange.

3K-ABC has been updated to the Modified At-Grade Throat Area option. See Section 2.2.2.2 of the NPC for a description of the Modified At-Grade option. MassDOT recognizes the immense public and stakeholder support for an at-grade Throat Area. Further, the preliminary analysis described in this NPC has identified many potential benefits associated with the Modified At-Grade option, such as improvements to I-90 geometry with flatter and straighter alignment, proposed bicycle and pedestrian improvements designed with user experience in mind and visual improvements for surrounding neighborhoods and users by eliminating the visual barrier of the elevated viaduct. Therefore, MassDOT has publicly announced it will focus on advancing the Modified At-Grade design for the I-90 Allston Multimodal Project which comes after significant stakeholder engagement as well as input and support from elected officials and the Project Task Force, but will continue to assess each alternative considered in detail in the SDEIR so readers can evaluate their comparative merits.

- **OS-1. Take advantage of this unique opportunity to create new parkland. Evaluate additional opportunities to improve park users' experience through widened space between Soldiers Field Road (SFR) and the Dr. Paul Dudley White Path (PDW Path). Increase the amount and quality of parkland along the river in this area (extend access into the river by means of a boardwalk or other structures). Supports the expansion of parkland and improved connectivity to the Charles River.**

Response: The updated Project Need recognizes the Allston/Brighton neighborhood contains fewer acres of protected open space per 1,000 residents compared to city averages according to the City of Boston Open Space and Recreation Plan 2015-2021 and MassDOT has included several multimodal elements in the Purpose and Need directly related to pedestrian and bicycle connections as well as the Charles River Reservation:

- Upgrade the PDW Path to provide a two-way pedestrian and bicycle facility.
- Provide or allow for connections from the Allston, Brighton, Brookline and Boston University (BU) neighborhoods to the Charles River Reservation.
- Land use planning efforts in the area anticipate the potential for a large, new mixed-use district in North Allston facilitated by a multimodal network of streets, paths, rail and transit facilities within the Project Area.

These elements will provide improved publicly accessible parkland and open space as well as allow for access to the Charles River Reservation within the Project Area. To that end, the currently proposed 3L Re-alignment alternative does expand and enhance publicly accessible parkland and open space within the Project Area when compared to existing conditions. This alternative proposes to realign SFR to provide more publicly accessible parkland along the Charles River and the PDW Path.

Dedicated pedestrian and bicycle infrastructure is also an important element of the Project. The Project under the 3L Re-alignment Alternative will provide extensive bicycle and pedestrian infrastructure improvements including creation of new east-west at-grade connection to the Charles River Reservation via Cambridge Street South and the replacement of the existing Franklin Street bridge over I-90 with a new pedestrian and bicycle bridge. The new

pedestrian and bicycle bridge would meet Americans with Disabilities Act/Massachusetts Architectural Access Board (ADA/AAB) requirements and maintain connections from the Franklin Street/Lincoln Street area to Cambridge Street. The 3L Re-alignment Alternative also proposes to enhance the proposed bicycle/pedestrian connection from West Station to Commonwealth Avenue via Malvern Street by sizing the transitway structure to accommodate transit bus use in addition to the bike and pedestrian path originally considered. Grade separation of Cambridge Street South and Stadium Way Connector will also improve bicycle/pedestrian connectivity and safety between the community and the Charles River Reservation (elimination of traffic signal delays and vehicular conflicts) and improve traffic flow along the Cambridge Street South corridor (elimination of potential congestion associated with "short blocks"). Finally, this alternative will also provide or allow for a north-south connection to the Charles River and provide separation of bicycle and pedestrian paths to the greatest extent possible along the river due to the realignment of SFR as discussed above.

In addition, MassDOT will continue to advance development of a shared use pedestrian and bicycle path that will connect Franklin Street to the West Station area and the Agganis Way area along the southern boundary of Beacon Park Yards (BPY), creating additional east-west connection to the potential north-south connection from Agganis Way area to the Charles River Reservation.

In the Throat Area, planted buffers between SFR and the PDW Path will improve park user experience. Native plantings for bank restoration, storm water treatment and park aesthetics will improve the quality of the parkland for users and will provide ecological benefits. Connectivity to the Charles River is improved by allowing for new access from abutting properties to the River, allowing for overlook areas within the park and not precluding future access to the water's edge through more gentle bank slopes where possible.

- **LU-1. The Draft Environmental Impact Report (DEIR) does not comply with the City of Boston's 2016 Placemaking Report, the Imagine Boston 2030 plan, and the Go Boston 2030 plan. The DEIR is incongruous with existing and on-going planning efforts of Focus40, Go Boston 2030 and Imagine Boston 2030 and fails to comply with the City's planning efforts of the 2016 Placemaking Report.**

Response: The 3L Re-alignment Alternative addresses a number of the goals of the City of Boston's 2016 Placemaking Study. There is increased public access to the Charles River parkland which includes an improved connection to Cambridge and River Streets, the possibility of an improved connection to PDW east of the Project Area and the possibility for future connections to the BU campus and the BU Bridge/Commonwealth Avenue. The amount and quality of the parkland along the River is improved through the realignment of SFR, introduction of buffers between the park and SFR, new pathways, bank restoration with new native plantings and regrading, and storm water treatment. Allowing for pedestrian and bicycle access from adjacent neighborhoods along Cambridge Street South, sets a framework for a publicly accessible flexible open space system that can be developed as part of future development plans.

The grid of new surface streets aligns with the adjacent neighborhood to allow for connectivity for all users. Pedestrian and bicycle connections to West Station from neighborhoods on both sides of the Project Area provide multi-modal connectivity and a street-grid that can better integrate future development with existing neighborhoods. Continuous street tree plantings along major streets will help to provide a more comfortable walking and biking experience for non-vehicular users.

The Imagine Boston 2030 plan identifies Beacon Yards as an area to expand neighborhoods, provide mixed-use housing, encourage job growth, and stitch together the physical fabric of the city. Specific to Beacon Yards, the plan notes:

- Setting the stage for mixed-use transit-oriented neighborhood

As described in the Project's Purpose and Need, the new proposed interchange will support a large, new mixed use development in North Allston. New streets have been aligned to connect to the adjacent neighborhood, where desirable, allowing for the future development and additional streets to better knit with the neighborhood. Safe

crossings and designated pedestrian and bicycle paths are provided to West Station and to the Charles River.

- Walkable Street and protected biking links between Allston and the Charles River

Allston is proposed to be connected to the Charles River through separated bicycle and pedestrian paths along Cambridge Street South with an at-grade crossing of SFR.

- Placemaking through open space and street level retail

Bicycle and pedestrian separated paths through the Project Area north-south and east-west provide a framework for an open space system that can be part of the future development of the Project Area. Likewise, street right-of-way (ROW) will allow for comfortable sidewalks and access to any future retail development.

- Transit hub at West Station and dedicated berthing areas to support connecting commuter rail customers between West Station and destinations such as Harvard Square, Kendall Square and the LMA.

Please see WS-4 for a description of West Station and its inclusion in the Project.

➢ **AQ-1. This project and its DEIR fall short of state-level commitments such as the GWSA of 2008, Massachusetts Executive Order No. 569 and Governor Baker's support for U.S. Climate Alliance. Under the Global Warming Solutions Act, Massachusetts must cut its greenhouse gas emissions by 25% below 1990 emissions levels by 2020 and at least an 80% reduction by 2050. This project needs to address immediate and long-term environmental issues and greenhouse gas reductions.**

Response: The SDEIR will include a revised mobile-source GHG analysis that will evaluate both motor vehicle, locomotive and transit service at West Station, and locomotive activity at the BPY layover area. The GHG analysis will also evaluate mitigation measures to reduce emissions, such as new pedestrian and bicycle path and facilities, and improved traffic operations. As part of the mitigation evaluation, the SDEIR will include reviewing MassDOT's Transportation Planning Greenhouse Gas Reduction Program including CMAQ GHG reduction tools to assess the benefits of potential traffic mitigation measures proposed for the Project.

➢ **AQ-2. Reduce air pollution from vehicle exhaust emissions and mitigate. Address impacts to residents in neighboring communities.**

Response: The DEIR included extensive air emissions calculations from motor vehicles on I-90 and local roads in the Project Area, and locomotives activity at the proposed West Station and in the BPY layover area. These projected emissions were included into air dispersion modeling analyses. Air dispersion modeling was performed to assess air quality impacts in the Project Area and abutting neighboring areas. The results of the modeling analyses demonstrated compliance with the National Ambient Air Quality Standards (NAAQS). The NAAQS are established by U.S. Environmental Protection Agency to protect the public health and welfare.

➢ **WS-1. Review the assumptions used to calculate ridership at West Station using appropriate catchment area assumptions and in light of current ridership at Boston Landing and analysis of potential bus service crossing the interchange. Prepare an updated transit demand study for all public transportation elements including West Station, north/south buses operating across the site, and other related elements with a catchment area and land use assumptions for analysis that includes zones north and south of the rail alignment.**

Response: CTPS modeling and methods for the Project have been revised and updated since the filing of the MEPA DEIR to account for the latest future transit improvements expected in the area as well as updates to Project elements. The transit-related ridership results of the revised CTPS modeling will be documented in the SDEIR and subsequent documents. The modeled Build Alternative scenarios now include an earlier horizon year

time frame for implementation of a multi-modal West Station and for potential bus/shuttle operations serving West Station, including the following service connections to/from points north and south of West Station:

- Harvard - West Station Shuttle
  - Operating every 10 minutes during peak periods; every 15 minutes midday; every 20 minutes nighttime
- Kendall/Central - West Station Shuttle
  - Operating every 10 minutes during peak periods; every 15 minutes midday; every 20 minutes nighttime
- Ruggles/LMA – West Station Shuttle
  - Operating every 10 minutes during peak periods; every 15 minutes midday; every 20 minutes nighttime
- MBTA Bus Route 64 diversion through West Station
  - Service modeled to investigate the benefits of operating all No Build Alternative trips rerouted to serve West Station via the proposed Malvern Connector
- MBTA Bus Route 66 diversion through West Station
  - Service modeled to investigate the benefits of operating every third trip during peak periods rerouted to serve West Station via the proposed Malvern Connector

The modeled Build Alternative scenarios include the addition of a new commuter rail stop along the Worcester Main Line (WML) at West Station, with passenger rail service frequency to West Station that satisfies the MBTA Service Delivery Policy for commuter rail operations. These modeling assumptions are consistent with MassDOT's service planning procedures for new or infill stations. Actual service delivery to West Station will commence per the MBTA Service Delivery Policy standard and will grow in accordance with demand.

The bus and transit infrastructure throughout the Project are being designed to not preclude future service updates. No new track or bus infrastructure will become necessary to increase passenger service or capacity at West Station.

- **WS-2. West Station needs to be included now, not in 2040. West Station will be a transit hub. Long range plans show that we need West Station to serve commuter rail connections to South Station, the western suburbs, Worcester, and North Station. It would be connected to all nearby bus lines. The assertion that West Station will NOT be built until "demand builds" is an unacceptable conclusion of MassDOT's DEIR.**

Response: Many comments were received requesting clarification of Project phasing and/or specifically requesting the construction of West Station be accelerated. As described in Section 2.3.22, MassDOT is no longer relying on the phased project plan described in the MEPA DEIR. The Project will be built under a single project scenario. MassDOT has committed to building West Station as part of the Project and prior to the end of construction, anticipated to be in 2032. The 2032 timeframe is the earliest feasible date for the construction of the full West Station, due to constructability constraints described below. West Station is envisioned as a multi-modal transportation hub, connecting commuter rail, bus, shuttle, private vehicle, and bicycle and pedestrian facilities.

MassDOT will further evaluate whether construction of the permanent West Station rail facility can be accelerated. However, the Project Team foresees little opportunity to build a functional station in the proposed Modified Flip alignment without impacting or being impacted by construction of the relocated I-90 highway immediately adjacent to and partly above the rail station and tracks.

- **WS-3. We request further evaluation of locating the permanent West Station north of the Rail Layover Facility rather than the current configuration in the plan and look forward to a more substantive review of this option. We see significant advantages to flipping the location of West Station and the Rail Layover Facility while moving West Station slightly to the west. This further refinement of moving the permanent West Station to the west under the "flip" option takes full advantage of the geometry of the highway alignment by tucking West Station in the most northerly location to more efficiently**

utilize available real estate and to deliver maximum benefits. These benefits include moving the Rail Layover Facility northward as well, creating more space between the neighborhood and the rail lay-up facility and providing the opportunity for a larger bus facility on the air rights deck.

Response: The Project is now advancing a rail concept known as the "Modified Flip," which locates West Station to the north side of BPY and slightly west of the position presented in the DEIR, with bus access available from the new interchange and points north. The proposed rail yard (lay-up facility) has also been adjusted to abut the West Station Layout to the north. Please see Section 2.2.2.3 for additional information. Further details will be provided in subsequent environmental review documents.

- **WS-4. We absolutely need West Station. There is nothing "visionary" about this. It is a necessity. West Station opens the way both to quick gains and long-term transportation innovation. West Station need not be luxurious, but it does need to be designed to accommodate further innovative developments in public transportation, by both rail and bus. This entire area is densely populated and rapidly expanding both in terms of population and as an engine of regional economic growth. West Station will surely become a major transportation hub as well as a catalyst for further economic development. This is a must-do project.**

Response: The need for West Station is described in the Project's updated Purpose and Need. Further, the Project Purpose includes: "Reconfigure transit and commuter rail facilities, including the construction of a new West Station and infrastructure supporting mid-day commuter rail operations." Therefore, West Station will be included in all Project build alternatives fully evaluated in the SDEIR.

- **WS-5. MassDOT proposes to immediately introduce into Allston a new facility for mid-day storage of trains. These trains would need to navigate the single track in the opposite direction from the commuter flow, further complicating rail operations, as well as disrupting the I-90 construction process. The locomotive activity at this layover facility would increase noise and air pollution in Allston, degrade conditions for walking and bicycling, and preclude environmentally-friendly transit oriented development on those acres. MassDOT should be required to provide proof of the "ghost trains" that it claims to run without passengers due to a lack of layover space. MassDOT should be required to study using those trains to increase mid-day service instead of parking them in Allston. It is unacceptable that MassDOT's Allston DEIR perpetuates outdated thinking (using valuable acres of urban land for rail layup) while it should instead support better mid-day service. The FEIR should evaluate increasing off-peak commuter rail service between Worcester and Boston—obviating the need to build a layover area to store idle trains in Allston.**

Response: The Project Purpose and Need (see Sections 2.1 of the NPC) describes the reasons for including midday commuter rail storage space at BPY to serve the MBTA's South Side commuter rail system. MassDOT and the MBTA have conducted detailed studies to analyze the required size and location(s) necessary to accommodate the midday rail storage needs. The MBTA identified and analyzed 28 initial alternatives for layover, ultimately selecting a combination of three locations to satisfy the existing and projected future midday layover deficit through 2040. No single facility offers sufficient track storage space to satisfy all of the identified storage needs once the proposed expansion of South Station is completed and the anticipated service plans are actualized. BPY represented one of the three chosen locations identified by the MBTA. While the overall site selection alternatives analysis was conducted as part of SSX NEPA and Massachusetts Policy Act (MEPA) processes, the Project was designated for completion of the environmental impact assessment and identification of required mitigation related to the design alternatives for the BPY layover yard. This designation was made because the design of the BPY layover yard is dependent on the final configuration of the highway interchange.

MassDOT and MBTA are continuing to evaluate layover needs in light of current and projected needs and will report its findings in the SDEIR.

- **WS-6. It is important to maintain two commuter rail tracks through the project area on weekdays at rush hour throughout the construction time period. The DEIR assumes that a single track will be acceptable during construction and does not analyze the differences between the proposals in this regard.**

Response: MassDOT understands the concern expressed by many that the WML must retain two tracks throughout the construction period. It is not MassDOT's purpose or intent to reduce the capacity of the WML during construction, but in order to build the Project within the Throat Area, the design builder may be forced to reduce mainline service to a single track due to a lack of horizontal space to perform active construction, including retaining walls on each side of the track (along Buick Street and BU, and between the WML and GJR) while maintaining highway traffic and also allowing pathways/construction haul roads into and out of the work site. MassDOT is concerned that phases of construction that require overhead demolition, as well as periods when either the WML or the proposed Grand Junction tracks and retaining structures are built on adjusted alignments and profiles would severely restrict WML operations.

MassDOT and MBTA will continue to work collaboratively and cooperatively to maximize availability of two revenue tracks during all peak periods of commuter rail operations in a safe manner and without interruption. MBTA Railroad Operations has specific criteria which must be adhered to by the design-build entity during active construction operations. The potential for contractor related operations to completely disrupt rail operations during weekday peak periods will not be allowed.

If it becomes necessary, the single-track operation would be limited to the relatively short length of WML track within the Project Area. For analysis purposes, the Project Team has conservatively estimated that the single-track operation would be up to one mile in length at a maximum but would most likely be shorter. For the I-90 construction phase, MassDOT would require the contractor to maintain two-track service through Boston Landing before converging to a single track. Divergence back to double track would be made at the Commonwealth Avenue overpass.

The Project Team modeled a scenario where the WML is temporarily operated as a single-track during construction with the following assumptions and findings:

Assumptions

- Construction phasing was evaluated with single track outage between CP-3 (Commonwealth Avenue area) and CP-4 (Cambridge Street area), about 1 mile long.
- Reduced track speeds during construction to 30 MPH through for the entirety of the single-track section
- Utilized the existing WML schedule/levels of service

Findings

- No perceivable impact to the daily rider
- Train 503, a reverse commute trip, is the only train impacted directly by the track outage,
    - The simulation resulted in roughly a 2-3 minute hold at South Station
    - Could be mitigated with a minor schedule adjustment
- Assuming services are operating on time, no other anticipated delays or impacts to schedule times would be expected as a result of project construction

MassDOT does not intend to unduly restrict the design builder from completing the Project in the most feasible and expeditious manner available. MassDOT will restrict the contractor's option to limit single-track operations except when absolutely necessary to access a track area for active construction, and to maintain at least one WML track in service during all weekday periods from the normal start of rail service in the morning through the pm peak period. Full nightly or weekend closures may be allowed. Along with other mitigation, the MBTA would implement supplemental bus service operating between Boston Landing Station and downtown locations during any nightly or weekend service outages.

- **NO-1. We ask that all available means are used to decrease future noise over current levels and that project changes do not lead to new noise being deflected to Cambridge. MassDOT should look beyond noise reduction standards of MassDOT and FHWA to reduce noise from the project in any way possible. Further evaluate alternatives and include mitigation of noise to Magazine Beach and Cambridgeport with strategies including attractive noise walls along the Turnpike throat area, such as transparent ones being widely used now on other highway projects.**

Response: Section 2.3.11 summarizes the results of a preliminary noise and vibration analysis that evaluated changes in noise and vibration conditions with the 3L Alternative compared to existing conditions and the 3K Alternative evaluated in the DEIR, including receptors at Magazine Beach and Cambridgeport.

In the SDEIR, operational and construction noise and vibration impact will be assessed including a quantitative analysis of highway, rail, and transit Project components in accordance with FHWA regulation 23 CFR 772, MassDOT Type I and Type II Noise Abatement Procedures, and the Federal Transit Administration "Transit Noise and Vibration Impact Assessment" guidance manual. MassDOT will evaluate the potential for inherent Project design features (i.e., roadway alignments, retaining walls, and parapet walls) to reduce noise in the surrounding communities. Some of the design features may improve noise conditions and will be evaluated further. MassDOT will also evaluate potential noise abatement measures, such as noise walls, in accordance with FHWA, MassDOT, and FTA guidelines where there would be noise impact. Construction noise will be analyzed using the methods in FHWA's Roadway Construction Noise Model and noise control measures will be evaluated. Construction vibration will be analyzed using methods in the FTA's "Transit Noise and Vibration Impact Assessment" guidance manual.

Changes in the roadway network with the 3L Re-alignment Alternative within the interchange area, such as removing the West Connector, restoring the SFR westbound off-ramp to Cambridge Street, or removing the North Connector Road, will not likely result in substantial changes to the design-year noise levels at existing noise receptors compared to the alternative evaluated in the DEIR. The potential enhancement to allow transit buses on the Malvern Street Transitway could result in additional noise impacts compared to the DEIR alternative which did not preclude this feature, but did not include it in the noise analysis. Transit bus operations on the Malvern Street Transitway would be in close proximity to residential properties on Malvern Street and the eastern end of Wadsworth Street. The potential for noise impact due to the Malvern Street connector will be assessed and the need for noise abatement will be evaluated.

The FHWA noise model used to evaluate the proposed Project and each throat option has been validated against field measurements thereby showing that it accurately reflects the actual noise conditions which may include contributions of noise from truck air-compression braking. The FHWA noise model accounts for the differences in noise due to the acceleration and deceleration of automobiles and trucks as a function of roadway grade. In accordance with FHWA regulations and the MassDOT noise policy, noise has been evaluated based on the energy-average noise level (Leq) which accounts for all sound within a period (i.e. loudest hour). This noise metric does account for the full range of noise conditions including maximum noise levels, but does not solely rely on individual instantaneous maximum noise conditions. Substantial research has shown that human annoyance correlates to longer-term noise conditions that are represented with the Leq noise metric. The train and traffic noise models account for the elevation of each source of noise within each throat option. The model accounts for the different sound propagation characteristics associated with the height of noise sources and the presence of intervening objects, terrain, and type of ground cover.

For all variations evaluated in the DEIR, design-year noise levels would exceed the NAC in some locations, but noise walls in the Throat Area were found not feasible and reasonable mitigation according to the MassDOT statewide noise abatement policy and FHWA regulations based on safety, constructability, acoustical effectiveness and cost-effectiveness. The DEIR concluded that noise levels would approach or exceed the NAC at BU's Nickerson Field for all three variations and that a 650 feet long and 12-foot tall noise wall (including an 8-foot tall noise all on the highway viaduct for the 3K-HV variation) would be feasible and reasonable and may be recommended for construction depending on the viewpoints of benefited receptors.

A full noise analysis will be provided in the SDEIR of the 3L alternative and all three Throat Area options, and a more detailed description of anticipated noise updates is included in Section 2.3.11.

- **MI-1. There is insufficient Project mitigation, both of construction impacts and long-term impacts. MassDOT has elected to follow a course of minimal mitigation throughout the project area. A core set of mitigation measures for the project should include the following:**
  - **Construction of significantly improved paths along the river.**
  - **Integrated planning of the riverfront from River Street to the BU Bridge.**
  - **Early Phase I inclusion of West Station, crosstown bus, pedestrian and bike connections.**
  - **Pro-active bus system planning to serve construction period mitigation needs.**
  - **Phase I inclusion of air rights platforms with landscaping adjacent to pedestrian access to West Station.**
  - **Noise mitigation for the Charles River pathway system (which would also benefit Cambridge)**
  - **MassDOT should provide a detailed action plan to mitigate impacts from years of disruption, reduce construction noise, and effectively manage expected heavier traffic on Memorial Drive, Western Avenue, Massachusetts Avenue, the many bridges over the Charles River, and Cambridgeport and Riverside neighborhood streets.**

Response: The SDEIR will include a discussion of proposed mitigation for adverse operational and construction impacts created by the Project. Mitigation for temporary impacts during construction will be located within the Project limits and outside Project limits, with the external mitigation to include traffic management, including construction haul routes, periodic public traffic detours, train re-routing and re-scheduling, and public outreach for alternative travel. Construction noise and vibration will also be mitigated by implementing best management practices (BMPs) to reduce noise and vibration levels at the equipment, in the path, and/or at the receiver.

MassDOT is continuing to explore potential mitigation measures for unavoidable adverse environmental impacts and construction period impacts. To date, the public has provided many suggestions for minimization and mitigation measures which will be reviewed for practicability and feasibility during preparation of the SDEIR and FEIR.

- **TR-1. The Project fails to provide a comprehensive approach to meeting the needs of walkers, runners and cyclists. A truly multi-modal project must provide good walking and bicycling access throughout the project area. I urge MassDOT to choose a design that embraces all transportation modes: pedestrian, bicycle, rail and, of course, vehicle. Retaining flexibility for future development and transportation upgrades - especially public transit, pedestrian and bicycle improvements - is critically important.**

Response: Dedicated pedestrian and bicycle infrastructure is an important element of the Project. The design of the pedestrian and bicycle facilities will be consistent with the latest MassDOT and City of Boston Complete Streets guidelines. The Project under the 3L Re-alignment Alternative will provide extensive bicycle and pedestrian infrastructure improvements including the creation of a new east-west at-grade connection to the Charles River Reservation via Cambridge Street South and the replacement of the existing Franklin Street bridge over I-90 with a new pedestrian and bicycle bridge. The new pedestrian and bicycle bridge would meet Americans with Disabilities Act/Massachusetts Architectural Access Board (ADA/AAB) requirements and maintain connections from the Franklin Street/Lincoln Street area to Cambridge Street. The 3L Re-alignment Alternative also proposes to enhance the proposed bicycle/pedestrian connection from West Station to Commonwealth Avenue via Malvern Street by sizing the transitway structure to accommodate transit bus use in addition to the bike and pedestrian path originally considered. Grade separation of Cambridge Street South and Stadium Way Connector will also improve bicycle/pedestrian connectivity and safety between the community and the Charles River Reservation (elimination of traffic signal delays and vehicular conflicts) and improve traffic flow along the Cambridge Street South corridor (elimination of potential congestion associated with “short blocks”).This alternative will also provide or allow for a north-south connection to the Charles River and provide separation of bicycle and pedestrian paths to the greatest extent possible along the river. In addition, MassDOT will continue to advance development of a shared use path from Franklin Street to Agganis Way and the Charles River Reservation into the design of the Modified Flip and the Project’s Build Alternative.

- **TR-2. Project must not compromise train service on Worcester Line. The three potential options for replacing the viaduct do not take into account the full impact to the Worcester Line. MassDOT's assumption that the highway will be reduced to three lanes and that the Worcester Line will be reduced to one track is unacceptable to communities that have been fighting for decades for better train service. The DEIR assumes that a single-track bottleneck will be acceptable during construction and does not analyze the differences between the proposals in this regard.**

Response: Please see the response to WS-6 above.

All three Throat Area options would require the construction closures to the WML described in the response to WS-6.

- **PB-1. The project should take advantage of this unique opportunity to . . . improve bicycle and pedestrian access and use and improve the public's access to and use of the Charles River Reservation. Bicycle and pedestrian routes across the new I-90 configuration must include pathways and crossings for the abutter communities of Brookline, Allston, and Cambridge, and must provide substantial and accessible public entry points to a revitalized Charles River parkland.**

Response: See Response to OS-1. The updated Project Need recognizes the Allston/Brighton neighborhood contains fewer acres of protected open space per 1,000 residents compared to city averages according to the City of Boston Open Space and Recreation Plan 2015-2021 and MassDOT has included several multimodal elements in the Purpose and Need directly related to pedestrian and bicycle connections as well as the Charles River Reservation:

- Upgrade the PDW Path to provide a two-way pedestrian and bicycle facility.
- Provide or allow for connections from the Allston, Brighton, Brookline, and BU neighborhoods to the Charles River Reservation.
- Land use planning efforts in the area anticipate the potential for a large, new mixed-use district in North Allston facilitated by a multimodal network of streets, paths, rail and transit facilities that will provide improved connectivity for pedestrians, bicyclists and transit users.

These elements will provide improved publicly accessible parkland and open space as well as allow for access to the Charles River Reservation within the Project Area. To that end, the currently proposed 3L Re-alignment Alternative, as described in the Project Change Description, does expand and enhance publicly accessible parkland and open space within the Project Area when compared to existing conditions. This alternative proposes to realign SFR to provide more publicly accessible parkland along the Charles River and the PDW Path.

Dedicated pedestrian and bicycle infrastructure is also an important element of the Project. The Project under the 3L Re-alignment Alternative will provide extensive bicycle and pedestrian infrastructure improvements including separation of bicycle and pedestrian paths along the river due to the realignment of SFR as discussed above. As described in the Project Change Description, this alternative also includes the creation of new connections to SFR and the replacement of the existing Franklin Street bridge over I-90 with a new pedestrian and bicycle bridge. The new pedestrian and bicycle bridge would meet ADA/AAB requirements and maintain connections from the Franklin Street/Lincoln Street area to Cambridge Street. Further, the 3L Re-alignment Alternative proposes to enhance the proposed bicycle/pedestrian connection from West Station to Commonwealth Avenue via Malvern Street by enlarging the proposed structure to accommodate transit bus use. Grade separation of Cambridge Street South and Stadium Way Connector will also improve bicycle/pedestrian connectivity and safety between the community and the Charles River Reservation (elimination of traffic signal delays and vehicular conflicts) and improve traffic flow along the Cambridge Street South corridor (elimination of potential congestion associated with "short blocks").

In addition, MassDOT will continue to advance development of a shared use path from Franklin Street to Agganis Way and the Charles River Reservation into the design of the Modified Flip and the Project's Build Alternative.

- **PB-2. Study how separate paths for biking and walking can be provided in the entire section of Charles River Parkland from the River Street Bridge to the BU Bridge, including the "throat", for all viaduct and at-grade options. This study should include consideration of a boardwalk (both temporarily during construction and as a permanent structure) and the use of fill, and how to mitigate impacts on the river by restoring today's degraded bank into a "living shoreline" of native vegetation.**

Response: Separated pedestrian and bicycle facilities are provided with varying limits of the PDW Path for each of the Throat Area options as described in Sections 2.2.2.2 and 2.3.7 of the NPC. In addition, current design of the Modified At-Grade option includes placing the PDW Path on a boardwalk within the Throat Area.

The entire park adjacent to the Charles River will be improved by the Project creating significant parkland where none exists today. See Section 2.3.4 Open Space and Recreation for a complete discussion of the proposed park improvements.

The river bank will be restored in accordance with recommendations noted in DCR's Lower Charles River Riverbank Vegetation Management Plan. Where possible, slopes will be lessened to create a more stable bank and the bank will be planted with a diverse native planting including trees, shrubs and perennials. Plantings will be selected to improved biodiversity. The treatment of storm water and associated plantings will be integrated with the park and riverbank planting plan.

All options provide the opportunity to improve the banks of the river at the end of the Project. Several shoreline treatment options for the Modified At-Grade Throat Area Option have been proposed and are described in Section 2.3.12 of the NPC.

- **PB-3. The Project fails to provide a comprehensive approach to meeting the needs of walkers, runners and cyclists. A truly multi-modal project must provide good walking and bicycling access throughout the project area. The Project as described in the DEIR provides most of the walking and biking connections through sidewalks or on-street facilities – a necessary but insufficient plan. We need better accommodations for walking and biking along the Charles River. The river's edge is still another major concern. The project's site includes the most narrow and crowded section of the Paul Dudley White bike path. None of MassDOT's proposals create a park-like shore with adequate pedestrian and bike paths. Only a narrow strip of un-landscaped riverfront—very similar to what exists today – is provided on the shoulder of the highway. Paths allow walkers and bikers to move efficiently and are a major responsibility of MassDOT. For a half mile along the Charles River, better more accommodating paths are NOT included as part of MassDOT's DEIR. The riverfront walk/bike infrastructure that has been proposed is inadequate and unacceptable. Residents and visitors deserve a plan for the banks of the Charles River commensurate with the setting and 21st century planning standards.**

Response: See Response to OS-1. The updated Project Purpose and Need includes several multimodal elements in the Purpose and Need directly related to pedestrian and bicycle connections as well as the Charles River Reservation:

- Upgrade the PDW Path to provide a two-way pedestrian and bicycle facility.
- Provide or allow for connections from the Allston, Brighton, Brookline, and BU neighborhoods to the Charles River Reservation.
- Land use planning efforts in the area anticipate the potential for a large, new mixed-use district in North Allston facilitated by a multimodal network of streets, paths, rail and transit facilities within the Project Area.

Dedicated pedestrian and bicycle infrastructure is an important element of the Project. The Project under the 3L Re-alignment Alternative will provide extensive bicycle and pedestrian infrastructure improvements including creation of new east-west at-grade connection to the Charles River Reservation via Cambridge Street South and the replacement of the existing Franklin Street bridge over I-90 with a new pedestrian and bicycle bridge. The new pedestrian and bicycle bridge would meet ADA/AAB requirements and maintain connections from the Franklin Street/Lincoln Street area to Cambridge Street. The 3L Re-alignment Alternative also proposes to enhance the proposed bicycle/pedestrian connection from West Station to Commonwealth Avenue via Malvern Street by sizing the transitway structure to accommodate transit bus use in addition to the bike and pedestrian path originally considered. Grade separation of Cambridge Street South and Stadium Way Connector will also improve bicycle/pedestrian connectivity and safety between the community and the Charles River Reservation (elimination of traffic signal delays and vehicular conflicts) and improve traffic flow along the Cambridge Street South corridor (elimination of potential congestion associated with "short blocks"). This alternative will also provide or allow for a north-south connection to the Charles River and provide separation of bicycle and pedestrian paths to the greatest extent possible along the river.

In the Throat Area, sloped and planted buffers between SFR and the PDW Path will improve park user experience. Native plantings for bank restoration, storm water treatment and park aesthetics will improve the quality of the parkland for users and will provide ecological benefits. Connectivity to the Charles River is improved by allowing for new access from abutting properties to the river, allowing for overlook areas within the park and not precluding future access to the water's edge through more gentle bank slopes where possible.

- **PB-4. Add design of an underpass for pedestrians and cyclists under both the River Street and Western Avenue Bridges on the Boston side of the Charles River to plans for reconstruction of those bridges in the future.**

Response: A proposed pedestrian/bicycle underpass at the River Street bridge, if feasible, permittable or even desirable, is beyond the scope of this Project. Such an underpass would not eliminate the need to also provide pedestrian and bicycle facilities/connections at the SFR/River Street intersection.

- **PB-5. The Franklin Street Bridge is proposed as an "early action item." The timing of its construction should be clarified. Mitigation proposed by MassDOT is inadequate and should include construction of the Franklin Street Bridge in Stage 1 or earlier.**

Response: Many comments were received requesting clarification of Project phasing and/or specifically requesting the construction of the Franklin Street Bridge be constructed as an early action item. MassDOT is no longer relying on the phased Project plan described in the 2017 MEPA DEIR. The Project will be built under a single project scenario. MassDOT has committed to building the Franklin Street Bridge as part of the Project and prior to the end of construction, anticipated to be in 2032. Further, MassDOT is considering construction of the Franklin Street Bridge as early as possible during Project construction. Construction phasing will be further described in the SDEIR. Mitigation is also discussed in response to MI-1 above and will be further described in the SDEIR.

- **PB-6. Create the proposed People's Pike pedestrian and bicycle path between Franklin Street and the Charles River.**

Response: Please see responses to RA-1 and WS-3. MassDOT will continue to advance development of a shared use path from Franklin Street to Agganis Way and the Charles River Reservation into the design of the Project's Build Alternative.

- **RA-1. Fully evaluate the possibility of shifting the rail lines away from the abutting homes and creating an at-grade, off-road walk/bike path from the Regina Pizzeria end of Harvard Ave to West Station and over the at-grade highway to the Charles River.**

Response: As indicated in the response to WS-3 and Section 2.5.2 of the NPC, the Project will be carrying forward the updated Modified Flip West Station and Rail Layout. The SDEIR will discuss the transportation reliability needs for the Worcester Main Line and the desire to create an at-grade path between the Regina Pizzeria (Allston Depot) site and West Station. Please see Section 2.2.2.3 for additional information. Further details will be provided in subsequent environmental review documents.

- **RA-2. Study how to upgrade the Grand Junction railroad linking West Station, Kendall Sq. and North Station, and enhance the Grand Junction Bridge to become a walk/bike connection between the Charles River parkland in Cambridge and Boston.**

Response: The involvement of the Grand Junction Line in the Project is due to its location in the interchange area, rather than a purpose or need of the Project. This infrastructure will need to be adjusted to accommodate any of the Build alternatives to varying degrees since it is physically located in the Project Area. The Project proposes to reconstruct the GJR only as necessary to maintain the existing nonrevenue operation that carries equipment between the MBTA Commuter Rail Maintenance Facility and its south side operation. Understanding that there is a potential for a future project that would bring passenger service to West Station via the Grand Junction, MassDOT is also ensuring that the Project infrastructure will incorporate two new Grand Junction tracks and signal infrastructure within the defined Project Area to avoid the need for a future project to re-enter this congested area and potentially rebuild other Project elements. MassDOT has carried forward two design concepts (SFR Hybrid and Modified At-Grade) that would necessitate reconstruction of the bridge over SFR as an action brought on by other Purpose and Need improvements.

- **RA-3. Evaluate increasing off-peak commuter rail service between Worcester and Boston to obviate the need to build layover storage for idle trains in Allston. (WS-5)**

Response: Regardless of the type or frequency of service, trains will always need to be cycled out of revenue service for daily maintenance. Increasing service of any kind, including off-peak rail service between Worcester and Boston, could potentially increase the need for layover space. MBTA is continually assessing service delivery in light of service demand, operational and budget factors. The MBTA system is built around the ability to manage peak period demand, in part by locating trains within a short distance of the terminal stations. This Project will not change that protocol.

- **RA-4. Replace the Grand Junction Rail Line with a two-track profile with an adjacent community path. West Station will support the Grand Junction rail line as an urban rail connection that can take commuters off regional highways and reduce congestion on local roads. The Grand Junction can accommodate urban rail and a bicycle and pedestrian path that is being designed for construction in Cambridge.**

Response: Please see the response to RA-2 above.

- **RA-5. Why couldn't part of the existing Allston Depot (Regina's Pizza) be used for inbound and a platform for outbound be constructed?**

Response: For railroad operations purposes the Allston Depot has been determined to not be a feasible location for a station because it is located approximately 2,000 feet from the existing Boston Landing Station. The location for the proposed West Station was determined by a balancing of railroad operations, projected ridership, and other transportation needs. As described in the DEIR, "[t]the proposed station location centralizes West Station between the adjacent Boston Landing and Yawkey [now Lansdowne] stations, which will allow train sets to accelerate [most] efficiently between them." Due to its proximity to I-90, the MBTA Green Line, and existing and proposed street grid, the proposed location of West Station provides a desirable geography for multi-modal connections among and between commuter rail, bus, shuttle, private vehicle, and bicycle and pedestrian facilities.

The chosen location supports MassDOT's commitment with Harvard for a technically feasible and economically viable use of the Beacon Park Yards property.

- **PC-1. Present the cost of the Highway Viaduct and All At-Grade Throat variants in identical formats and breakdowns. Quantify the total differential life-cycle cost savings that MassDOT will accrue under the All At-Grade variation as compared to the Highway Viaduct. A more comprehensive, direct "apples to apples" comparison that fully explores each "throat" option - complete with full costs of reconstructing the Grand Junction Railroad Bridge over Soldiers Field Road, and full operational costs of each option over time.**

Response: Cost of all proposed alternatives will be further evaluated in the SDEIR.

- **VC-1. Study the long-term implications of building a highway viaduct in the context of maintenance and other costs over time. Life-cycle costs of this alternative could presumably be higher but this was not studied in the document.**

Response: Cost of all proposed alternatives will be further evaluated in the SDEIR.

- **TF-1. Traffic: Include bypass road between Cambridge Street and I-90 ramps.**

Response: Harvard University has described a concept in which they propose a new viaduct structure within BPY that would provide a connection between Cambridge Street and the proposed highway interchange eastbound on-ramp /Cattle Drive Connector. The bypass road would largely serve the private development interests of Harvard University by at least two measures:

- It would provide direct access to an expected air rights development located within BPY above the rail and transit facilities and south of the I-90 mainline alignment.
- It would divert some traffic from proposed roadways within the future Beacon Park Yard development.

The eastern segment of the bypass road (from Seattle Street Connector/Malvern Street Transitway to the eastbound on-ramp/Cattle Drive Connector) is included in the 3L Re-alignment Alternative for the purpose of providing vehicular access/egress between West Station and the eastbound on-ramp/Cattle Drive Connector. The western segment of the bypass road (between Cambridge Street and Seattle Street Connector/Malvern Street Transitway) would be a new element of the Project. With or without the western segment, use of the Malvern Street Transitway would be restricted to transit vehicles, pedestrians and bicyclists.

The SDEIR will include an analysis of providing a two-way roadway connection between Cambridge Street and the eastbound on-ramp/Cattle Drive Connector as a potential refinement of the 3L Re-alignment Alternative, including an assessment of the benefits and impacts of this connection on traffic circulation and operations.

- **TF-2. Traffic: Retain right turn from Soldiers Field westbound off ramp onto River Street.**

Response: The proposed 3L Re-alignment Alternative preserves the existing SFR westbound off-ramp to Cambridge Street/River Street. However, that ramp will be modified to provide only one lane for right turns onto River Street eastbound and thru traffic to the SFR westbound frontage road. Left turns onto Cambridge Street westbound will be prohibited.

- **TF-3. Traffic: Do not include a Malvern Street/Commonwealth Avenue roadway connection that is open to general traffic. Prevent traffic impacts to North Brookline neighborhood.**

Response: The 3L Re-alignment Alternative will not include a connection to Commonwealth Avenue that is open to general traffic. The proposed Malvern Street Transitway will be restricted to pedestrians, bicyclists and transit vehicles. No further traffic or environmental analysis in north Brookline is required.

- **TF-4. Traffic: Reduce the widths of the streets and/or reduce number of lanes in the proposed street grid; create human-scaled multi-modal streets.**

Response: A by-product of the reconfiguration of the existing I-90 mainline and grade-separated ramp system is the creation of an at-grade urban street grid that will serve the new development within the former BPY. Each of the streets within this new grid will provide facilities for pedestrians and bicyclists as well as for vehicular traffic. The design of the pedestrian and bicycle facilities will be consistent with the latest MassDOT and City of Boston Complete Streets guidelines, and the vehicular cross-sections minimized to the extent practicable.

However, this Project is also an interchange modification project and adequate infrastructure/capacity must also be provided for the safe and efficient operations of vehicular traffic entering and exiting I-90. Currently, that number is 80,000 vehicles per day, which is expected to grow in the future with the 8 million square feet of new development assumed by 2040 within the BPY and Harvard's Enterprise Research Campus (ERC). If insufficient capacity is provided within the new street network, then congestion and grid lock will result, with an accompanying degradation of the air quality within the Project Area. Additionally, without the appropriate capacity provided at the I-90 ramps, drivers will seek other routes through the community such as North Harvard Street, Western Avenue, Lincoln Street and Everett Street to avoid congestion within the new street grid. This would negatively impact existing residential neighborhoods in close proximity to the Project and it is of critical importance to MassDOT to avoid this outcome.

- **TF-5. Traffic: Include a connection between I-90 interchange/West Station and Commonwealth Avenue that will provide north-south bus connectivity and a pedestrian/bicycle connection.**

Response: The 3L Re-alignment Alternative includes a north-south connection between Cambridge Street/West Station and Commonwealth Avenue. This connection will be limited to transit vehicles, pedestrians and bicyclists. The connection will be made via Malvern Street. This Project will only construct the physical connection to Malvern Street; the determination of future bus service routes, stops, frequencies, etc. will be made by others and will likely be based on the recommendations from the separate Long-Term Transit Study being prepared by MAPC along with input from the community and stakeholders.

- **TF-6. Traffic: Include public transit improvements with a multi-modal West Station.**

Response: A multi-modal West Station which will serve commuter rail and bus passengers will be constructed as part of this Project. The Project will also include a north-south connection between Cambridge Street/West Station and Commonwealth Avenue via Malvern Street (known as the Malvern Street Transitway) that will be limited to transit vehicles, pedestrians and bicyclists. This north-south connection will allow for future "crosstown" bus routes between Allston/Cambridge and Brookline/LMA. The north-south Malvern Street transitway will be constructed as part of the Project. MassDOT has committed to building West Station as part of the Project and prior to the end of construction, anticipated to be in 2032. The 2032 timeframe is the earliest feasible date for the construction of West Station, due to constructability constraints described in the response to WS-2 above.

- **PW-1. Reconstruct Pike to be as narrow as possible.**

Response: The proposed width of I-90 for each Throat Area option is described in Section 2.2.2.2 of the NPC. These shoulder and travel lane designs include the minimum acceptable widths. Any narrower configuration would degrade the operations of the roadway, especially for maintenance activities, leading to unacceptable impacts for users of I-90 and posing safety concerns.

- **NB-1. The no-build option should be removed from consideration.**

Response: MEPA and NEPA regulations require the evaluation of a No-Build alternative be included in the environmental impact analyses. In fact, MEPA has specifically required MassDOT to include evaluation of a No Build alternative in subsequent environmental filings (see page 11 of the MEPA Certificate on the DEIR).

- **PP-1. Public participation during development of the FEIR is essential to the success of the project. MassDOT should continue to engage with the community and existing Task Force, and ensure representation from affected communities, e.g. Brookline and Central Mass. Commuters. There needs to be more representation from Central Massachusetts business community.**

Response: Over the course of the Project development process to date, the design team has been involved in dozens of public information meetings, meetings of the Project Task Force, and briefings to community groups. Going forward during the state and federal environmental review processes, MassDOT's Project Team will continue the following public involvement efforts:

- Public information meetings will be held at appropriate times such as the submission of major environmental documents for comment by the community. Meetings will continue to take place in impacted communities including Allston, Brighton, Brookline, and Cambridge. The focus will continue also on Framingham and Worcester as commuting focal points by both I-90 and the Worcester Mainline in MetroWest and Central Massachusetts respectively. If pandemic-based restrictions on large gatherings remain in place, virtual meetings will be used instead. Translated flyers and meeting materials will be available in Amharic, Haitian Creole, Russian, Spanish and Simplified Chinese to help reach linguistic populations. Major documents will be made available in the public libraries in Allston, Brighton, Boston (Copley Main Library), Brookline, Cambridge, Framingham, and Worcester as such libraries are open under COVID-19 health restrictions. Multiple copies of the documents will be provided to each library to allow community members to take them home for a period of 72 hours prior to return to ensure fairness to other readers. If no libraries are open, the Project Team will make copies available by mail through the Project's public involvement specialist.
- MassDOT and its Project Team will, as they have to date, support the hearings of involved governmental entities outside MassDOT such as the local conservation commissions, both through attendance and documentation of such meetings, but also through boosting meeting notifications about such meetings through local newsprint and the Project's email distribution list.
- Meetings of the Project Task Force will continue, physically or virtually based on the directives issued by public health authorities. It will be the goal of MassDOT to meet with the Project Task Force at least quarterly, and more often when additional input is needed or to announce the submittal of a major environmental document. At times when less input is needed, such as when major environmental documents are being prepared, the time between meetings may extend as much as five months.
- Briefings to distinct community groups such as the Allston-Brighton CDC and the Brookline Transportation Committee will continue to be available upon request as will site walks for interested community members, Project Task Force members, agency staff from cooperating agencies etc. Again, these will be held as public health mandates allow.
- Detailed records of all of the above interactions with the public will be created and posted to the Project website once approved by MassDOT.
- The Project website will remain active as a 24-hour informational portal and will be updated to reflect the Project's phase of development as it moves through the environmental process for both MEPA and NEPA.
- The Project's stakeholder database will be maintained and continue to expand. It currently numbers in excess of 3,000 entries, ensuring that anyone who comes into contact with the Project will be kept up to date with information about it.
- The Project Team will continue to support media inquiries as they are channeled to it by MassDOT's press office.
- Informational fact sheets will be produced at key Project milestones and disbursed online, in the depository libraries referenced above, and at public meetings.