Appendices

Appendix A – Miro Board Instructions

Appendix B – Letter from ABC, Co-signed by CLF, Dated July 26, 2024, revised July 27, 2024

Appendix B Update – Letter from ABC, Co-signed by CLF and WalkMassachusetts, Dated July 26, 2024, revised August 3, 2024

Appendix C - Modified Riverbank and Paul Dudley White (PDW) Path Options Matrix

Appendix A: Miro Board Instructions

APPENDIX A – MIRO BOARD INSTRUCTIONS

NOTE: This Miro board Activity is intended as a Working Group exercise only. The results will not indicate official ranking of alternatives. The information will be used for the project team to understand majority preferences to be expressed to regulators and permitting authorities.

Link: https://miro.com/app/board/uXjVK1T_EW0=/?share_link_id=85742638495

Miro board Activity Instruction:

1. The purpose for this Miro board activity is for Core Working Group members to rank Shoreline Options in order of preference 1 through 5, as to represent interests from the Stakeholder group they represent.
    a) 1 being the highest rank or most preferred, and 5 being the lowest rank or least preferred.
    b) The Working Group Sketches A, B, C and D will count as one ranking, with comment placed below the preferred sketch A through D.
    c) Comment may include additional text to reflect any notes or caveats relative to the option and assigned rank.
2. The Miro board exercise is intended for Working Group members or alternates only. Therefore, one set of ranking will be considered from each Working Group Stakeholder representative.
3. All additional comments may be placed in the priority columns to represent Stakeholder's top Shoreline priorities.
4. Miro board will be open for Ranking and Priority comments through 5pm on 8/6/24.

Instructions for mouse:

- Zoom In/Out = scroll wheel on the mouse
- Move/Pan view = right click and hold on the board and drag mouse

Instructions for touchpads:

- Zoom In/Out = with two fingers, pinch to zoom
- Move/Pan View = with two fingers, swipe

Commenting:

1) Click on the graphic or note that you would like to comment on
2) Select the comment feature
3) Type in your comment
4) Move the point to the relevant part of the graphic

Appendix B: Letter from ABC, Co-signed by CLF

July 26, 2024, revised July 27, 2024

Ms. Susan Harrington
Project Manager
Massachusetts Department of Transportation (MassDOT)
10 Park Plaza, Boston, MA 02116

Subject: New Option 5 Design Concept: Throat/River Edge, I-90 AMP

Dear PM Harrington:

MassDOT has provided the Task Force–and, more recently, the Working Group–with four design options (and modifications to each) for the Throat/River Edge area of the I-90 Allston Multimodal Project. We thank the MassDOT team for all of its hard work. A Better City has collaborated with co-signatories listed below and other key stakeholders to build on those ideas and develop the attached new Option 5 and specific recommendations for, hopefully, a new consensus design concept.

The Option 5 cross-section is 38-feet (maximum) in width at the narrowest part of the Throat, and thus satisfies MassDOT's objective to limit river fill to less than one-acre in accord with New England District of the U.S. Army Corps of Engineers (USACE) General Permit regulations.

Working from the new river edge in, Option 5 contains a sloped natural river edge similar to what MassDOT showed the Working Group on Tuesday, except our edge runs between El. -1 and El. 2.5 (NAVD88 datum) which then transitions to a very short (about 2-foot) stepped granite block wall. We believe starting the new edge below El. 0 is extremely important both to minimize wave reflection and to allow river users needing to gain rapid and safe egress out of the water be able to do so. The plans note that locked gates or other means to provide for DCR maintenance require further study. We are confident that matter can be resolved.

With respect to pedestrian and bicycle accommodations, a single, shared multi-use pathway is not acceptable here. For that reason, we strongly recommend the separated pedestrian and bicycle paths depicted in Option 5. The pedestrian path is 8-feet wide, and grade separated from the cycle-track by a standard granite curb. The two-way cycle track is 14-feet wide in accordance with MassDOT design standards and in full support of city/state climate change and public health objectives.

We ask that MassDOT, in the Throat, provide for underground stormwater collection and infiltration for both DCR and MassDOT project properties. The underground tanks and other green infrastructure as shown conceptually in our plans should be sized and scaled to the capacity needed for the projected lifespan of the project, or 2070 at a minimum, in line with current

forecasted predictions, and commiserate with MassDOT's obligation to ensure its infrastructure is designed to withstand increased environmental stress due to climate change.

Option 5 includes a landscape buffer between the new river park spaces and Soldiers Field Road (SFR) in the Throat. This important planting area is about 6.5-feet wide–more than sufficient to grow large shade trees. We are confident that the SFR and park space interface can be designed to minimize if not preclude any possible infrastructure damage from tree growth. To provide for the various widths as shown in Option 5, the plan calls for reducing the width of the lanes on SFR from 10.5-feet to 10.0-feet, in accordance with DCR Parkway Design Guidelines. Finally, Option 5 improves upon the At-Grade Option goal of having no roadway in the river by moving SFR two-feet further away from it.

We believe this new option provides the basis for further collaborative work among all project stakeholders. It will take, as it likely will for other unresolved major project design issues, leadership, compromise, and a concerted effort to get there. Option 5 represents that needed compromise and consensus, as it: (a) Has no pile-supported elevated boardwalk in the river; (b) Limits the cross-section of river fill to 38-feet in width; (c) Includes a sloped natural river edge; (d) Provides for separated–not shared–paths for pedestrian and cyclists that fully conform to MassDOT design guidance and future environmental and health objectives; and (e) Creates space sufficient to house large shade trees and other landscaping to help buffer the new river edge park from SFR.

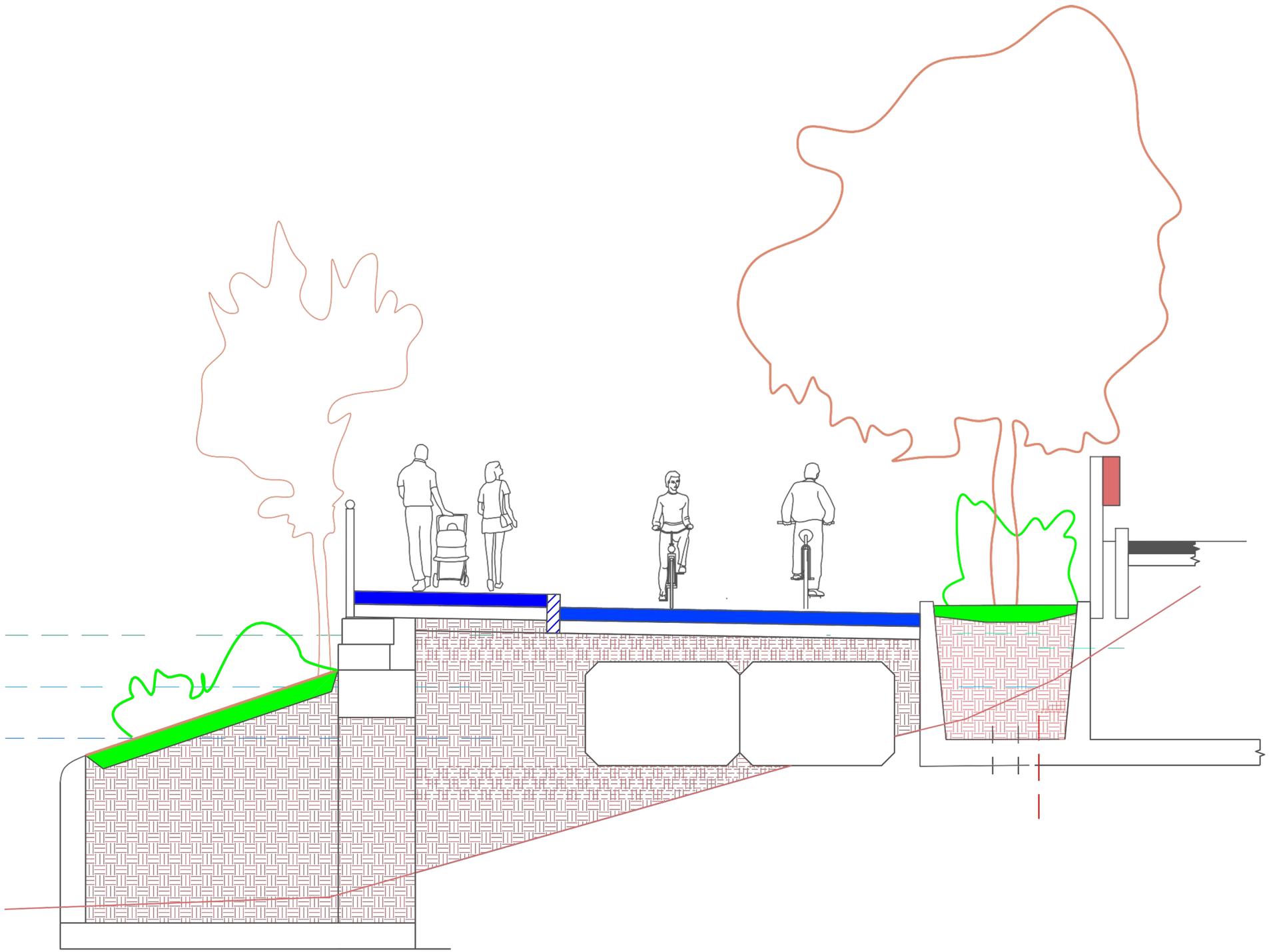
We would like to discuss this new option and set of recommendations with you prior to the next Working Group meeting scheduled for Tuesday, July 30th, if possible. Our goal here is to contribute to the discussions of the Working Group and, hopefully, Task Force deliberations. As always, we look forward to continued collaboration with you and others to help expedite and move this project forward.

Sincerely,

Kate Dineen
President and CEO

Brittenyn Jenkins
Brittenyn Jenkins
Vice President, Environmental Justice
Conservation Law Foundation

cc: Jonathan Gulliver, Highway Administrator
Carrie Lavallee, Chief Engineer
Chris Osgood, City of Boston



1. Base taken from MassDOT Slide Deck Option 1 as presented to Task Force on June 10, 2024
2. Cross-Section looking eastward towards downtown Boston.
3. See Sheet #2 for dimensions and additional notes.
4. Buffer trees between SFR and PDW shall be 5" caliper (min.) to maximize shade.
5. Pedestrian railing to have locked gates and/or other means of egress as needed for maintenance of river edge in Throat. Requires further study.
6. Barrier height between SFR and I-90 shall be raised to reduce highway noise impacts on Paul Dudley White pathways and river edge.

Sheet Title:

ABC Analysis
I-90 Allston Multimodal Project
Throat Area/River Edge

New Conceptual Design: Option 5: Retained Fill/ Sloped River Edge

Rev. 3.6

Date: 7/26/24

Scale: 1"=50'

Drawn by: GAB

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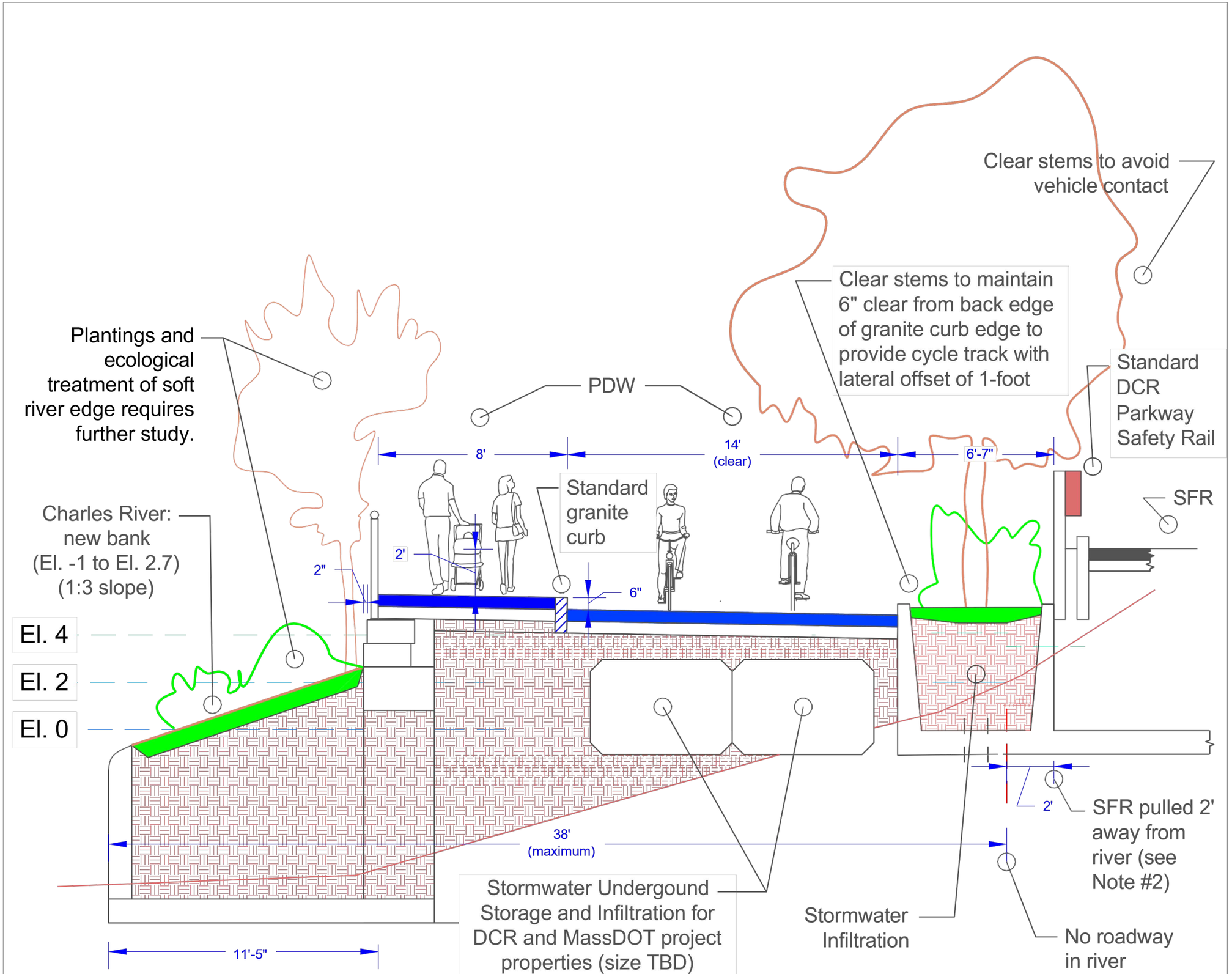
Sheet:

Sheet 1 of 2



1. To provide the additional width of 2' needed to accommodate this Throat/River Edge design concept, SFR lanes shall be reduced from 10'-6" to 10'-0" (see DCR Historic Parkway Preservation Treatment Guidelines dated 2007).

2. Excerpt, MassDOT Separated Bike Lane Planning & Design Guide (2015), Section 3.3.2, Exhibit 3I: Bike Lane Widths for Two-way Operation, pp. 31.:

Bidirectional Bicyclists/ Peak Hour	Bike Lane Width (ft.)	
	Rec.	Min.*
<150	10.0	8.0
150-400	11.0	10.0
>400	14.0	11.0

* A design exception is required for designs below the minimum width.

EXHIBIT 3I: Bike Lane Widths for Two-way Operation

Sheet Title:

ABC Analysis
I-90 Allston Multimodal Project
Throat Area/River Edge

New Conceptual Design: Option 5: Retained Fill/ Sloped River Edge

Rev. 3.6

Date: 7/26/24

Scale: 1"=50'

Drawn by: GAB

A BETTER CITY

Sheet:

Sheet 2 of 2

Appendix B Update: Letter from ABC, Co-signed by CLF and Walk-Massachusetts

July 26, 2024, revised August 3, 2024

Ms. Susan Harrington
Project Manager
Massachusetts Department of Transportation (MassDOT)
10 Park Plaza, Boston, MA 02116

Subject: New Option 5 Design Concept: Throat/River Edge, I-90 AMP

Dear PM Harrington:

MassDOT has provided the Task Force–and, more recently, the Working Group–with four design options (and modifications to each) for the Throat/River Edge area of the I-90 Allston Multimodal Project. We thank the MassDOT team for all of its hard work, including the effort taken to show our new Option 5 at the Working Group meeting on Tuesday. A Better City has collaborated with the two co-signatories listed below and other key stakeholders to build on those ideas and develop the attached new Option 5 and specific recommendations for, hopefully, a new consensus design concept.

The Option 5 cross-section is 38-feet (maximum) in width at the narrowest part of the Throat, and thus satisfies MassDOT's objective to limit river fill to less than one-acre in accord with the New England District of the U.S. Army Corps of Engineers (USACE) General Permit regulations.

Working from the new river edge in, Option 5 contains a sloped natural river edge similar to what MassDOT showed the Working Group, except our edge runs between El. 0 and El. 3.75 (NAVD88 datum) and now transitions at its top without the need for a vertical wall. We believe starting the new river edge at El. 0 is extremely important both to minimize wave reflection and to allow river users needing to gain rapid and safe egress out of the water be able to do so. The attached updated plans show a safety railing is no longer required because the adjacent vertical drop is now less than 30". We revised this part of the design in response to two key comments made at this week's Working Group. First, we believe it satisfies the Charles River Alliance of Boaters request to see the new soft river edge slope begin at El. 0–not the higher El. 1.5 currently shown for Options "A" thru "C". Further, we believe the change to delete the railing helps address comments made by the Department of Conservation and Recreation and City of Boston that work crews be given ready access to maintain the new soft slope. This improved design also provides more space and plantings on the new river edge to be located above the height of typical water levels and adds 0.7 feet in width

to the landscaped buffer between the new river park space and Soldiers Field Road (SFR).

With respect to pedestrian and bicycle accommodations, a single, shared multi-use pathway is not acceptable here. For that reason, we strongly recommend the separated pedestrian and bicycle paths depicted in Option 5. The pedestrian path is 8-feet wide, and grade separated from the cycle-track by a standard granite curb. The two-way cycle track is 14-feet wide in accordance with MassDOT design standards and in full support of city/state climate change and public health objectives.

We ask that MassDOT, in the Throat, provide for underground stormwater collection and infiltration for both DCR and MassDOT project properties. The underground tanks and other green infrastructure as shown conceptually in our plans should be sized and scaled to the capacity needed for the projected lifespan of the project, or 2070 at a minimum, in line with current forecasted predictions, and commensurate with MassDOT's obligation to ensure its infrastructure is designed to withstand increased environmental stress due to climate change.

Option 5 includes a landscape buffer between the new river park spaces and Soldiers Field Road (SFR) in the Throat. This important planting area is about 7.25-feet wide–more than sufficient to grow large shade trees. We are confident that the SFR and park space interface can be designed to minimize if not preclude any possible infrastructure damage from tree growth. To provide for the various widths as shown in Option 5, the plan calls for reducing the width of the lanes on SFR from 10.5-feet to 10.0-feet, in accordance with DCR Parkway Design Guidelines. Finally, Option 5 improves upon the At-Grade Option goal of having no roadway in the river by moving SFR two-feet further away from it. The co-signatories support the narrowing of SFR lane widths from 10.5-feet to at least 10-feet per DCR guidelines in order to allocate 2-feet of additional space to the new soft sloped river edge, separate pedestrian and bicycle paths, and buffer landscaped space. That said, please note that further discussion about the number and width of highway and parkway lanes may continue under separate cover as each co-signatory may wish to pursue.

We believe this new option provides the basis for further collaborative work among all project stakeholders. It will take, as it likely will for other unresolved major project design issues, leadership, compromise, and a concerted effort to get there. Option 5 represents that needed compromise and consensus, as it: (a) Has no pile-supported elevated boardwalk in the river; (b) Limits the cross-section of river fill to 38-feet in width; (c) Includes a sloped natural river edge; (d) Provides for separated–not shared–paths for pedestrian and cyclists that fully conform to MassDOT design guidance and future environmental and health objectives; and (e) Creates space sufficient to house large shade trees and other landscaping to help buffer the new river edge park from SFR.

We would like to discuss this new option and revised set of recommendations with you prior to the next Working Group meeting scheduled for Tuesday, August 13th. Our goal here is to contribute to the discussions of the Working Group and, hopefully, Task Force deliberations. To that end, we request that MassDOT hold an in-person design charette open to all stakeholders to discuss the various options for the Throat/River Edge, including the enclosed. The requested charette could help to gather and address feedback from a broader array of stakeholders in the interest of strengthening and advancing a consensus-based approach.

As always, we look forward to continued collaboration with you and others to help expedite and move this project forward.

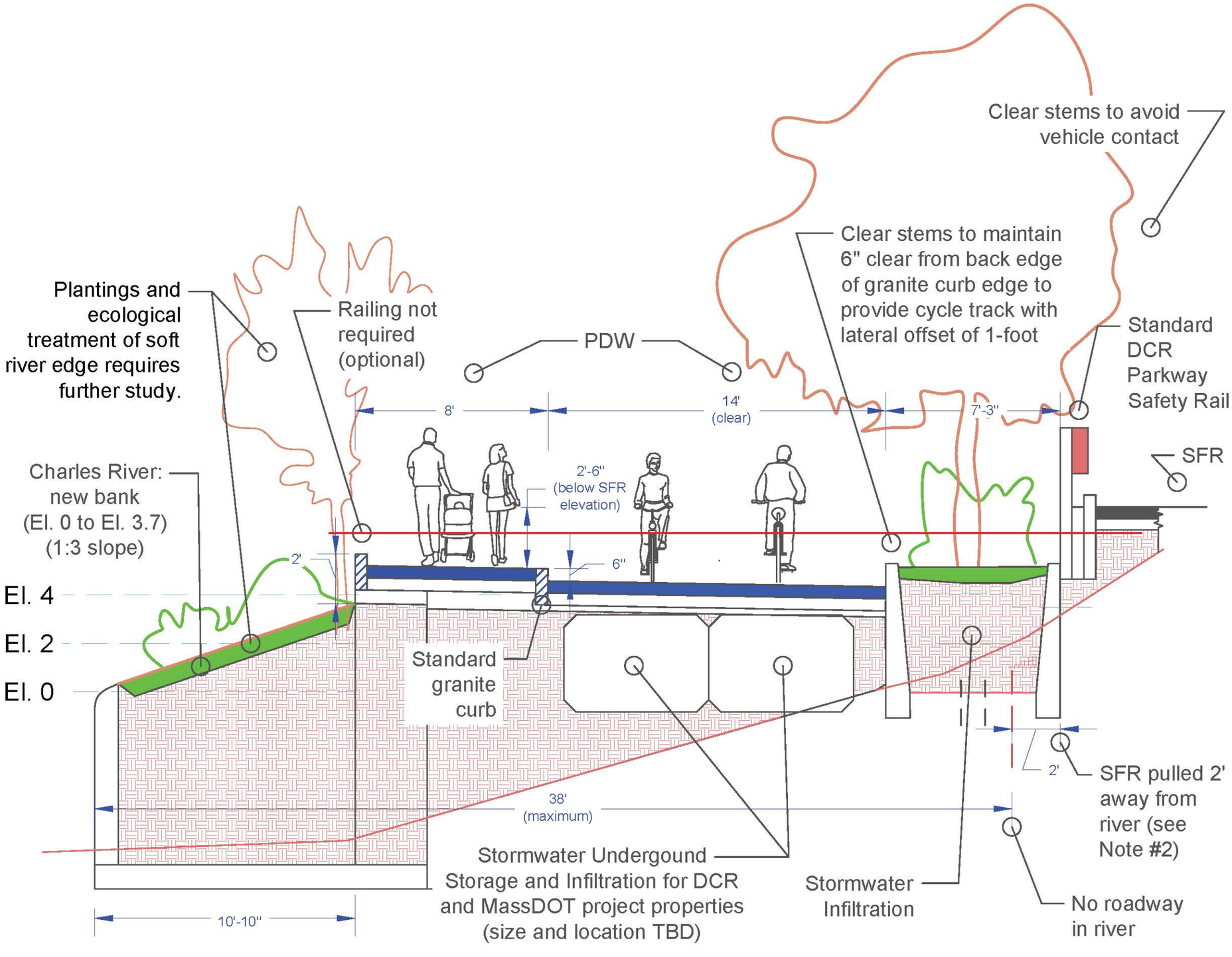
Sincerely,

Kate Dineen
President and CEO

Brittany N. Jenkins
Vice President, Environmental Justice
Conservation Law Foundation

Brendan Kearney
Co-Executive Director
WalkMassachusetts

cc: Jonathan Gulliver, Highway Administrator
Carrie Lavallee, Chief Engineer
Chris Osgood, City of Boston



1. To provide the additional width of 2' needed to accommodate this Throat/River Edge design concept, SFR lanes shall be reduced from 10'-6" to 10'-0" (see DCR Historic Parkway Preservation Treatment Guidelines dated 2007).

2. Excerpt, MassDOT Separated Bike Lane Planning & Design Guide (2015), Section 3.3.2, Exhibit 3I: Bike Lane Widths for Two-way Operation, pp. 31.:

Bidirectional Bicyclists/ Peak Hour	Bike Lane Width (ft.)	
	Rec.	Min.*
<150	10.0	8.0
150-400	11.0	10.0
>400	14.0	11.0

* A design exception is required for designs below the minimum width.

EXHIBIT 3I: Bike Lane Widths for Two-way Operation

Sheet Title:

ABC Analysis
I-90 Allston Multimodal Project
Throat Area/River Edge

New Conceptual Design: Option 5: Retained Fill/ Sloped River Edge

Rev. 4.0

Date: 8/2/24

Scale: 1"=50'

Drawn by: GAB

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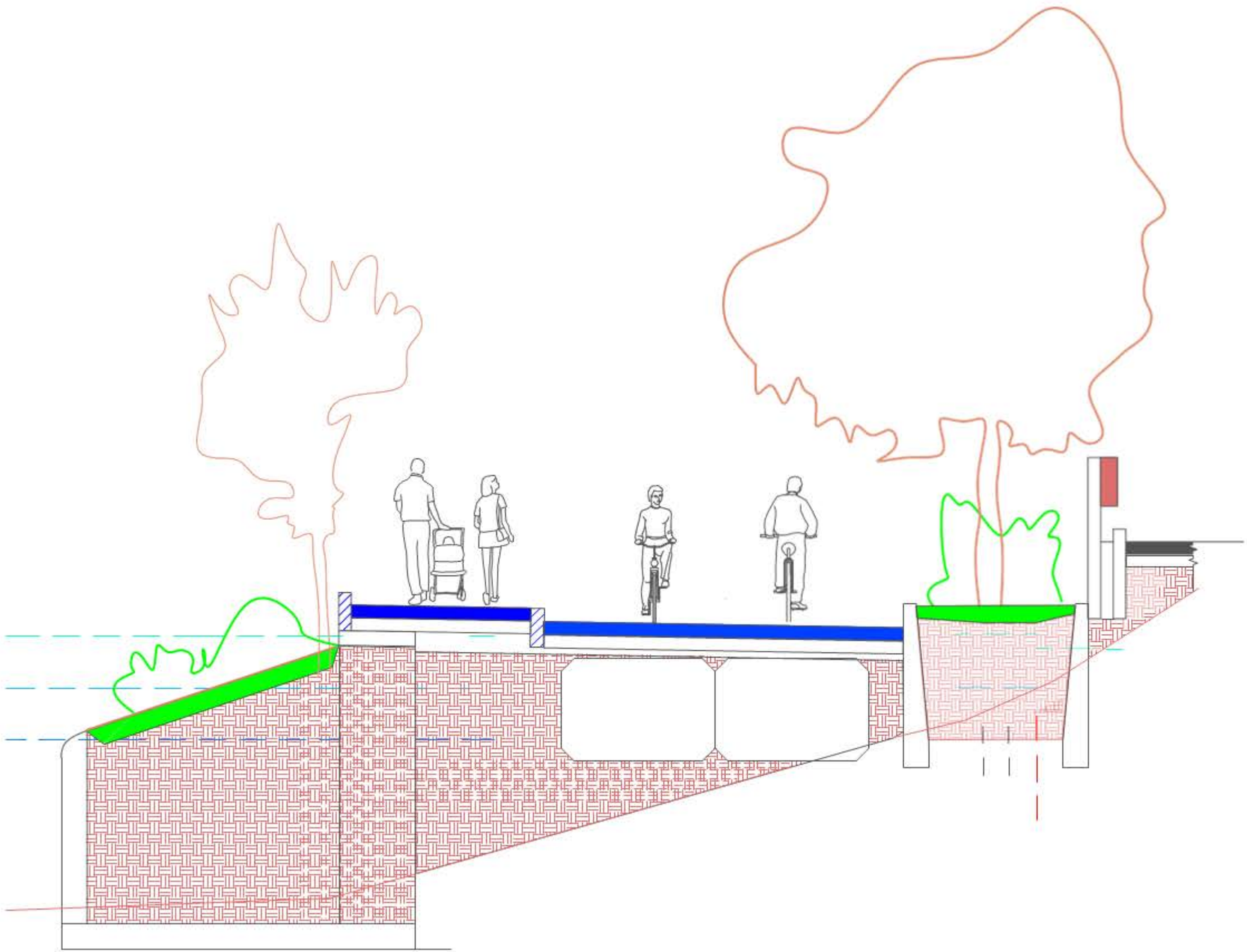
Sheet:

Sheet 2 of 2



1. Base taken from MassDOT Slide Deck Option 1 as presented to Task Force on June 10, 2024
2. See Sheet #2 for dimensions and additional notes.
3. Buffer trees between SFR and PDW shall be 5" caliper (min.) to maximize shade.
4. Pedestrian railing is not required nor shown. Pedestrian safety and egress for maintenance of river edge in Throat requires further study.
5. Barrier height between SFR and I-90 shall be raised to reduce highway noise impacts on Paul Dudley White pathways and river edge.
6. The cross-section needed to accommodate the Agganis Promenade requires further study.

Sheet Title:

ABC Analysis
I-90 Allston Multimodal Project
Throat Area/River Edge

New Conceptual Design: Option 5: Retained Fill/ Sloped River Edge

Rev. 4.0

Date: 8/2/24

Scale: 1"=50'

Drawn by: GAB

A BETTER CITY

Sheet:

Sheet 1 of 2

Appendix C: Modified Riverbank and Paul Dudley White (PDW) Path Options Matrix

Modified Riverbank and Paul Dudley White (PDW) Path Options Matrix

DRAFT FOR DISCUSSION PURPOSES

Option	Criteria	Option 1: Solid Fill Modified	Option 2: Varied Shoreline Edge/Pile Supported Walkway Detached from Shoreline Modified	Option 3: Solid Fill and Fill/Pile Supported Walkway Along Shoreline Modified	Option 4: Pile Supported Walkway Along Shoreline Modified
Description		• Revised concept with all elements located on fill • PDW Path width consists of bike (12') and ped (8') paths at different elevations • Two 6' planted buffers • 6' of separation between SFR and PDW Path • Stepped shoreline to reduce wave reflection	• Combination of edge treatments (sloped shoreline and retaining walls) • PDW Path on 20' clear pile supported walkway in Charles River • Planted buffer between SFR and PDW Path varies from 8' to 10' in wall sections • Planted shoreline or hard-edge treatment • Either single pier or pile supported PDW Path • Potential to raise PDW Path	• Combination of solid fill and fill/pile supported walkway • PDW Path on 20' clear on either fill or fill/pile supported walkway attached to shoreline • 8' (fill) to 20' (walkway) wide planted buffer between PDW Path and walkway • Shoreline plantings in fill area distributed along shoreline • Potential for floating wetlands (maintained by others)	• PDW Path on 20' clear pile supported walkway attached to shoreline • 22' wide planted buffer between PDW Path and SFR • Vertical granite wall with no shoreline plantings • Potential for floating wetlands (maintained by others)
Intent	Original Design Intent for Each Alternative	• Developed to address comments about PDW Path on pile supported walkway • Addresses historic concerns • All project infrastructure located on fill • +/- 43,000 sq. ft. of total permanent impacts	• Varied shoreline treatments based on separation between SFR and Charles River • Improves parkway experience • Wall section like existing granite wall treatments elsewhere on the Charles River • Planted areas provide ecological restoration or habitat opportunities	• Shoreline treatments address DCR's concerns related to maintenance access • On-grade path provides planted shoreline treatment • Pile supported walkway limits fill impacts in Charles River • Pile supported walkway provides planted roadway buffer • Optional sheet pile toe to provide habitat structure and continuous corridor	• Reduce landscape buffer width and PDW Path on piles to minimize impacts to Charles River • Reduced landscape areas mean narrow buffer between PDW Path users and SFR vehicles • Granite retaining wall supports landscape buffer and SFR • Consistent edge treatment for throat area • Planted roadway buffer improves parkway experience
Impacts Note: All options have less than 1 acre of fill in River	1. Impacts below elevation 2 NAVD88 (WUS/OHW) 2. Land Under Water (LUW) 3. Inland Bank 4. Bordering Land Subject Flooding (BLSF) Flood Storage	OHW Permanent fill: +/- 43,000 sf Dredge: 5,000 to 10,000 cy LUW: 34,000 sf Bank: 1,600 lf BLSF: 5,100 cf	OHW Permanent fill: +/- 40,000 sf Dredge: 5,000 to 10,000 cy LUW: 33,000 sf Bank: 1,700 lf BLSF: 5,100 cf	OHW Permanent fill: +/- 41,000 sf Dredge: 5,000 to 10,000 cy LUW: 32,000 sf Bank: 1,600 lf BLSF: 5,200 cf	OHW Permanent fill: +/- 29,000 sf Dredge: 5,000 to 10,000 cy LUW: 20,000 sf Bank: 1,500 lf BLSF: 5,500 cf
Environmental Permitting Compliance	Meets regulatory requirements	(USCG Army Corps, DEP Wetland Waterways) • Meets 404 GP • No USCG required • 401 Water Quality Cert for Fill and Dredge • Ch 91 Variance for non-Water Depending Fill • (2) 6' buffers between SFR & PDW Paths available for treatment of path stormwater in bioretention areas	• Meets 404 GP • USCG Bridge Permit required • 401 Water Quality Cert Fill and Dredge • Ch 91 Variance for non-Water Depending Fill • 8' to 10' Vegetated area not suitable for stormwater treatment	• Meets 404 GP • USCG Bridge Permit required • 401 Water Quality Cert Fill and Dredge • Ch 91 Variance for non-Water Depending Fill • 8' buffer between SFR & PDW Paths available for treatment of path stormwater in bioretention area	• Meets 404 GP • USCG Bridge Permit required • 401 Water Quality Cert Fill and Dredge • Ch 91 Variance for non-Water Depending Fill • 20' buffer between SFR & PDW Path available for treatment of path stormwater in bioretention area
Section 4 (f) and Section 106 Compliance	1. Mitigates Parkland Impacts	• Improved publicly accessible parkland throughout Project Area • Net gain in overall parkland acreage	• Improved publicly accessible parkland throughout Project Area • Net gain in overall parkland acreage	• Improved publicly accessible parkland throughout Project Area • Net gain in overall parkland acreage	• Improved publicly accessible parkland throughout Project Area • Net gain in overall parkland acreage
	2. Recreates Parkway Experience	• Provides tree lined Parkway on River Side	• Provides tree lined Parkway on River Side • Planted buffer varies	• Provides tree lined Parkway on River Side	• Provides tree lined Parkway on River Side
	3. Visual Improvement	• All options remove Viaduct • Planted buffers provided in throat	• All options remove Viaduct • Planted buffers provided in throat	• All options remove Viaduct • Planted buffers provided in throat	• All options remove Viaduct • Planted buffers provided in throat
	4. Charles River Watersheet	• Does not introduce new structure in river.	• Introduces new structure in river.	• Introduces new structure in river.	• Introduces new structure in river.
	5. Vertical Walls and Planted Slopes	• Stepped Vertical Granite wall at water's edge may be inconsistent with other sections of Charles River Reservation	• Vertical granite wall consistent with other section of Charles River Reservation • Planted slope provided in some sections	• Planted slope provided in some sections • Vertical wall at water's edge shielded from view due to walkway structure (wall could be constructed with granite to remain consistent with other sections of Charles River Reservation)	• Vertical wall at water's edge shielded from view due to walkway structure (wall could be constructed with granite to remain consistent with other sections of Charles River Reservation)
Ecological Interests	1. Provides Riverbank Plantings/Habitat at River's Edge	• No riverbank plantings provided	• Provides most riverbank plantings of any alternative but hard to maintain • Ecological benefits may be temporary. • High potential for riverbank plantings to be overrun with invasives (access only from river)	• Riverbank plantings provided where practical • Potential for Floating Wetland in supported walkway sections	• Potential for Floating Wetland • No riverbank plantings

Modified Riverbank and Paul Dudley White (PDW) Path Options Matrix

DRAFT FOR DISCUSSION PURPOSES

Option	Criteria	Option 1: Solid Fill Modified	Option 2: Varied Shoreline Edge/Pile Supported Walkway Detached from Shoreline Modified	Option 3: Solid Fill and Fill/Pile Supported Walkway Along Shoreline Modified	Option 4: Pile Supported Walkway Along Shoreline Modified
				• Riverbank plantings are more easily maintained and could provide ecological benefits for longer periods of time	
	2. Provide upland plantings along SFR	• Upland plantings provided	• Upland plantings provided	• Upland plantings provided	• Upland plantings provided
DCR interests	1. Public Safety	• Good emergency access from walkway and SFR • Does not require vehicular turnout • Separated pedestrian and bike path allow for safety for recreational users from bikers	• Limited emergency access from SFR to Boardwalk in river • Requires turnout on SFR and connection to path midpoint • Shared use path with no separation between pedestrians and bikers could raise safety concerns for pedestrians • Will require signage and enforcement to reduce bike speeds	• Good emergency access from walkway and SFR • Does not require vehicular turnout • Shared use path with no separation between pedestrians and bikers could raise safety concerns for pedestrians • Will require signage and enforcement to reduce bike speeds	• Good emergency access from walkway and SFR • Does not require vehicular turnout • Shared use path with no separation between pedestrians and bikers could raise safety concerns for pedestrians • Will require signage and enforcement to reduce bike speeds
	2. Recreation Experience	• Planted buffer between SFR and PDW Path allows for separation from parkway • Pedestrians at lower elevation than bikers – allowing more separation and improved experience • On fill design allows for rest and refuge opportunities for river users	• Planted buffer between SFR and PDW Path allows for separation from parkway • Walkway structure disconnected from land, allows for separation between SFR and PDW Path • Limited to no opportunities for refuge/rest along shoreline for river users	• Planted buffer between SFR and PDW Path allows for separation from parkway • Shoreline fill locations allow opportunities for rest and refuge for river users	• Planted buffer between SFR and PDW Path allows for separation from parkway • Potential for floating wetlands along edge to enhance experience • Limited to no opportunities for refuge/rest along shoreline for river users
	3. Stormwater Management	• (2) 6’ buffers between SFR & PDW Paths available for treatment of path stormwater in bioretention areas	• 8’ to 10’ vegetated area between SFR and PDW Path not available for stormwater treatment of Path because it is not connected • Ability to redirect path bridge drainage to upland area may be possible	• 8’ to 20’ buffer between SFR and PDW Path available for treatment of path stormwater in bioretention area	• 20’ buffer between SFR & PDW Path available for treatment of path stormwater in bioretention area if walkway is connected to shoreline
	4. Park and Parkway Aesthetic	• Most closely maintains the look and feel of a DCR park and parkway for both path and parkway users • Separated path for pedestrians and bikers similar to other areas outside of project boundaries	• Planted buffer between SFR and PDW Path enhances parkway experience • Raised structure in water may differ from typical feel of a DCR path and parkway	• Planted buffer between SFR and PDW Path enhances parkway experience • Sections on fill closely maintain the look and feel of a DCR park and parkway • Boardwalk sections may differ from typical feel of a DCR path and parkway	• Planted buffer between SFR and PDW Path enhances parkway experience • Floating wetlands enhance experience for path users • Raised structure may differ from typical feel of a DCR path, although still connected to land
	5. Maintenance and Access	• Good maintenance access from PDW Path and SFR to path and planted strips • Easy to maintain planting with all elements located on land • No riverbank plantings	• Limited access to PDW Path located in river • Limited access to lower terraced area • Snow clearing on a structure can be challenging • River’s edge plantings hard to maintain in terraced section and planted embankment where access to planting is only from water • Potential issues with invasive species management	• Good access to PDW Path due to connectivity to shoreline • River’s edge plantings in solid fill section are easier to maintain • No riverbank planting to maintain in fill/pile supported walkway section • Need to determine how to maintain floating wetlands if implemented	• Good access to SFR buffer from PDW Path or SFR due to connectivity to shoreline • No river edge plantings to maintain • Need to determine how to maintain floating wetlands if implemented
	6. Winter/Cool Weather Considerations	• Solid fill; easy access for de-icing, will freeze later than boardwalk options	• Boardwalk will freeze quicker than solid fill	• Boardwalk section will freeze quicker than solid fill • Sections of path on fill, will freeze slower; easier access for de-icing	• Boardwalk will freeze quicker than solid fill
	7. Future Modifications	• Only option that allows future widening and/or alteration of the shoreline cross section	• Would need to be completely torn down/rebuilt to modify width or cross section	• Would need to be completely torn down/rebuilt to modify width or cross section	• Would need to be completely torn down/rebuilt to modify width or cross section
River Users Interests	1. Wave reflection from Vertical walls	• Wave reflection mitigated by stepped shoreline	• Wave reflection where Vertical walls proposed. Length of Vertical walls is limited	• Possible wave reflection where wall under fill/pile supported walkway is proposed • Potential to reduce wave reflection using floating wetlands	• Possible wave reflection where wall under fill/pile supported walkway is proposed • Wave reflection from vertical walls • Potential to reduce wave reflection using floating wetlands

Modified Riverbank and Paul Dudley White (PDW) Path Options Matrix

DRAFT FOR DISCUSSION PURPOSES

Option	Criteria	Option 1: Solid Fill Modified	Option 2: Varied Shoreline Edge/Pile Supported Walkway Detached from Shoreline Modified	Option 3: Solid Fill and Fill/Pile Supported Walkway Along Shoreline Modified	Option 4: Pile Supported Walkway Along Shoreline Modified
	2. Reduction in River width	• Reduction in river width • 16’ from Buoy Line	• Reduction in river width	• Reduction in river width but pile supported walkway is closer to shore so reduced encroachment) • Supported Sections 12’ & Fill Sections 4’ from Buoy Line	• Reduction in river width but pile supported walkway is closer to shore so reduced encroachment) • Walkway 10’ from Buoy Line
	3. Navigation impact from walkway in the river	• No walkway in river	• Walkway in river	• Portion of PDW Path is solid fill at grade • Portion of fill/pile supported walkway in river (walkway can be pushed closer to SFR to reduce navigation impacts)	• Walkway in river is navigation impact but located closer to shoreline than other options
	4. Egress from river to landside	• Informal egress along length of new wall • Informal egress at new parkland	• Shoreline access limited by walkway, landside egress limited by steep slopes • Informal egress at new parkland	• Two shoreline fill locations evenly distributes river user refuge areas through the Throat Area • Informal egress at new parkland	• No egress along length of new wall • Informal egress at new parkland
Stakeholder Interests	1. Separation of SFR from PDW Path	• 8 ft of separation between SFR and PDW Path (could be expanded to 16 ft but would eliminate buffer between ped and bike paths)	• +/- 24 ft of separation between SFR and PDW Path	• +/-14’ to 22’ of separation between SFR and PDW Path	• +/- 22’ of separation between SFR and PDW Path
	2. Separated Pedestrian and Bicycle Facilities	• All Options provide 20’ clear PDW Path/separated facilities consistent with NPC filing	• All options provide 20’ clear PDW Path /separated facilities consistent with NPC filing	• All options provide 20’ clear PDW Path /separated facilities consistent with NPC filing	• All options provide 20’ clear PDW Path /separated facilities consistent with NPC filing
	3. Expanding the usable/accessible parkland in the CRR.	• All Options expand usable parkland	• All Options expand usable parkland	• All Options expand usable parkland	• All Options expand usable parkland