Agenda

- Project Location
- Project Scope & Schedule
- Design Parameters from EIS/ROD
- Design Intent
- Rail and Bicycle-Pedestrian Bridges
- Retaining Walls and Landscape Design
- Maine Avenue SW: Bridges and Retaining Walls
Project Location

- Bicycle-Pedestrian Bridge
- Potomac River Bridge
- Ohio Drive SW (W) Bridge
- WMATA / I-395 Bridge
- Washington Channel Bridge
- Maine Avenue SW Bridge
- Potomac River
- Mount Vernon Trail
- George Washington Memorial Parkway
- Arlington, VA
- District of Columbia
- West Potomac Park
- East Potomac Park
- Long Bridge
- Potomac River Bridge over Ohio Drive SW (W)
- WMATA Yellow Line
- Ohio Drive SW (E) Bridge
- Maine Avenue SW Pedestrian Bridge
- Washington Channel
- Arlington, VA
- District of Columbia

Begin Project Limit
- RO Interlocking

End Project Limit
- LE Interlocking
Project Location: Bicycle-Pedestrian Bridge
### Project Scope

The Project corridor is separated into four areas to reflect the varying site conditions and the transition from parkland to an urban context.

<table>
<thead>
<tr>
<th>Area</th>
<th>Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 GW Parkway</td>
<td>• Potomac River Rail Bridge (extends over the Parkway and Potomac River)</td>
</tr>
<tr>
<td></td>
<td>• Potomac River Bicycle-Pedestrian Bridge (extends over the Parkway and Potomac River to Long Bridge Park)</td>
</tr>
<tr>
<td>2 Potomac River</td>
<td>• Potomac River Rail Bridge (extends over the Parkway and Potomac River)</td>
</tr>
<tr>
<td></td>
<td>• Potomac River Bicycle-Pedestrian Bridge (extends over the Parkway and Potomac River)</td>
</tr>
<tr>
<td></td>
<td>• Retaining Walls and Landscape Design</td>
</tr>
<tr>
<td>3 East &amp; West Potomac Parks</td>
<td>• Potomac River Bicycle-Pedestrian Bridge Landing</td>
</tr>
<tr>
<td></td>
<td>• WMATA/I-395 Bridge</td>
</tr>
<tr>
<td></td>
<td>• Ohio Drive SW (East) Bridge</td>
</tr>
<tr>
<td></td>
<td>• Washington Channel Rail Bridge</td>
</tr>
<tr>
<td></td>
<td>• Retaining Walls and Landscape Design</td>
</tr>
<tr>
<td>4 Maine Avenue SW Area</td>
<td>• Maine Avenue SW Rail Bridge</td>
</tr>
<tr>
<td></td>
<td>• Retaining Walls</td>
</tr>
<tr>
<td></td>
<td>• Maine Avenue SW Pedestrian Bridge</td>
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</tbody>
</table>
**Project Schedule**

**DDOT Led**

**2011-2016 Pre-NEPA**
- 2011 FRA ARRA Grant
- Phase I Study 2012-2015
- Phase II Study 2015-2016
- DDOT-DRPT Partnership through MOU

**2016-2020 NEPA**
- 2016 FRA TIGER Grant
- FEIS/ROD Complete September 2020
- Long Bridge Act December 2020
- Identified Mitigation Commitments & Permit Identification

**2021-2023 Preliminary Engineering (PE)**
- Design 15% to 30%
- Determine Project Delivery Method
- Begin Environmental Mitigation & Permits
- Agreements with Partner Organizations

**2023-2030 Final Design & Construction**
- Design-Bid-Build or Alternative Project Delivery
- Land Acquisition Activities
- Permitting
- Final Design & Construction

**VPRA Led**

**2015-2016 Phase II Study**
- DDOT-DRPT Partnership through MOU

**2016-2020**
- DDOT-DRPT Partnership through MOU

**2016 FRA TIGER Grant**
- Long Bridge Act December 2020
- Identified Mitigation Commitments & Permit Identification

**2017-2018**
- Identified Mitigation Commitments & Permit Identification

**2021-2023 Preliminary Engineering (PE)**
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**2023-2030 Final Design & Construction**
- Design-Bid-Build or Alternative Project Delivery
- Land Acquisition Activities
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- Final Design & Construction
Design Parameters from EIS/ROD

<table>
<thead>
<tr>
<th>GW PARKWAY</th>
<th>POTOMAC RIVER</th>
<th>EAST &amp; WEST POTOMAC PARKS</th>
<th>MAINE AVENUE SW AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatible vocabulary with George Washington Memorial Parkway</td>
<td>Consistent, compatible vocabulary with historic railroad bridge</td>
<td>Use of retaining walls to reduce footprint</td>
<td>Use of retaining walls to reduce footprint</td>
</tr>
<tr>
<td>Rail Bridge: Steel through-plate girder structure</td>
<td>Rail Bridge: Steel through-plate girder structure</td>
<td>Design walls to be compatible with character of existing resources and appropriate for context of the Monumental Core</td>
<td>Design of walls to be compatible with character of existing resources and appropriate for context of the Monumental Core</td>
</tr>
<tr>
<td>Bicycle-Pedestrian Bridge: Pre-fabricated truss spans</td>
<td>Rail Bridge: Piers &amp; retaining walls similar in size and form to historic piers and walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle-Pedestrian Bridge: Connection to Long Bridge Park, Long Bridge Aquatic &amp; Fitness Center, Mount Vernon Trail</td>
<td>Bicycle-Pedestrian Bridge: Pre-fabricated truss spans</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bicycle-Pedestrian Bridge: Single-column concrete piers w/concrete caps</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bicycle-Pedestrian Bridge: Opportunity for interpretive displays to communicate Long Bridge corridor history</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Design Intent**

**Landscaping**

- Restore historic landscapes planned in parkland around rail corridor
- Screen existing and proposed rail bridges and walls
- Bicycle-Pedestrian Ramp landscaping design to address safety concerns and maximize visibility of users

**Retaining Walls, Piers & Abutments**

- Granite block masonry stone cladding proposed
- Design vocabulary within the GW Parkway will be consistent with Parkway design vernacular
- Approximate, without replicating, the existing historic rail corridor not the surrounding highway corridor.

**Bridge Type**

- Weathering steel girders
- Through girders over GW Parkway, Potomac River, I-395, and Maine Ave SW
- Deck girders over Ohio Drive SW (East) and Washington Channel
GW Parkway Rail Bridge

Existing GW Parkway Rail Bridge (1904)

GW Parkway-Potomac River Rail Bridge

- Number of Spans: Two 100-foot-long spans over the GW Parkway roadway.
- Superstructure: Weathering Steel Arched Through Girders
- Substructure: Abutment A – Cantilever Abutment with Stone cladding
  Pier 1 and 2 – Wall Piers with Stone cladding

Rendering of proposed Rail Bridge over GW Parkway
### Mount Vernon Trail (MVT) Rail Bridge

**Number of Spans:** One approximately 75-foot span over MVT

**Superstructure:** Weathering Steel Through Girders

**Substructure:** Pier 3, 4 – Concrete Column Piers

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![Existing Mount Vernon Trail](image1)

![Rendering of Proposed Rail Bridge over Mount Vernon Trail](image2)
GW Parkway Bicycle-Pedestrian Bridge

1. Rendering of Proposed Bicycle-Pedestrian Bridge over GW Parkway

2. Rendering of Proposed Bicycle-Pedestrian Bridge Ramp over Mount Vernon Trail

3. Renderings of Proposed Bicycle-Pedestrian Ramp and Stair over Mount Vernon Trail
Potomac River Rail Bridge

Long Bridge (1904)

Existing Potomac River Pier

Rendering of Proposed Rail Bridge over the Potomac River

Potomac River Rail Bridge

<table>
<thead>
<tr>
<th>Number of Spans</th>
<th>22 approach spans and one navigational channel span over the Potomac River. Spans vary from approximately 80 feet to 130 feet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superstructure</td>
<td>Weathering Steel Through Girders with depths of approximately 12 feet</td>
</tr>
<tr>
<td>Substructure</td>
<td>Pier 5 – 26 – Wall Piers</td>
</tr>
</tbody>
</table>
Potomac River Rail Bridge Pier

Note: The existing bridge stone masonry is red due to over-time rust staining from the steel above. The proposed stone is intended to match the original existing stone masonry color.

<table>
<thead>
<tr>
<th>Pier Element</th>
<th>Existing Long Bridge River Pier</th>
<th>Proposed Potomac River Rail Pier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestal</td>
<td>30&quot; Deep Granite Blocks</td>
<td>Varying Height Reinforced Concrete</td>
</tr>
<tr>
<td>Granite Coping</td>
<td>10'-8&quot; Wide</td>
<td>11'-8&quot; Wide</td>
</tr>
<tr>
<td>Coping Overhang</td>
<td>4&quot;</td>
<td>Matches Existing</td>
</tr>
<tr>
<td>Granite Cap Chamfer</td>
<td>6&quot;</td>
<td>Matches Existing</td>
</tr>
<tr>
<td>Granite Coping Elevation</td>
<td>Approx. El. 19.5'</td>
<td>El 20.0'</td>
</tr>
<tr>
<td>Stem Geometry</td>
<td>Battered in all directions</td>
<td>Not Battered, Constant Width and Length</td>
</tr>
<tr>
<td>Upstream End</td>
<td>Ice Breaker Nose, Tapered</td>
<td>Matches Existing</td>
</tr>
<tr>
<td>Downstream End</td>
<td>Rounded End, Battered</td>
<td>Rounded End, Not Battered</td>
</tr>
<tr>
<td>Architectural Treatment</td>
<td>Granite Blocks</td>
<td>Granite Block Veneer, Matches Existing Sizing</td>
</tr>
<tr>
<td>Top of Granite Pile Cap</td>
<td>Below Mean Low Water</td>
<td>Minimum 1’ above Mean High Water</td>
</tr>
</tbody>
</table>
Potomac River Bicycle-Pedestrian Bridge

Rendering of Proposed Bicycle-Pedestrian Bridge over the Potomac River

Rendering of Proposed Bicycle-Pedestrian Bridge Piers over the Potomac River

Rendering of Proposed Bicycle-Pedestrian Bridge from Bridge Deck
Ohio Drive SW (West) Bicycle-Pedestrian Bridge

Rendering of Proposed Bicycle-Pedestrian Bridge Ramp at Ohio Drive SW (west)

T-Intersection Concept

Plan of Proposed Bicycle-Pedestrian Bridge Ramp at Ohio Drive SW (west)
I-395 Rail Bridge

Existing Rail Bridge over I-395 (1959)

Rendering of Proposed Rail Bridge over I-395

<table>
<thead>
<tr>
<th>WMATA/I-395 Rail Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td><strong>Number of Spans</strong></td>
</tr>
</tbody>
</table>
Ohio Drive SW (East) Rail Bridge

Existing Rail Bridge over Ohio Drive SW (East) - 1904

Between 14th Street SW Bridge and I-395 Off-Ramp providing access between East and West Potomac Parks

Number of Spans
Two steel deck plate girder spans of equal length crossing Ohio Drive SW (East)

Rendering of Proposed Rail Bridge over Ohio Drive SW (East)
Washington Channel Rail Bridge

**Location**
Adjacent to 14th Street SW Off-Ramp Bridge and East Potomac Park

**Number of Spans**
Three steel deck plate girder spans of equal length crossing Washington Channel
Overview

Proposed Stone Pattern
- Broken Ashlar
- Large Block Ashlar


Historic Image of 14th Street and Long Bridge Rail Corridor With Landscape Screening

Source: District Department of Transportation (DDOT) Library, DDOT Historic Collection
GW Parkway - Wall A

Retaining Wall and Landscape Design

Proposed Stone Pattern
Broken Ashlar

Wall A Elevation & Landscaping

Wall A Landscaping Plan View

End Wall "A" STA. 4017+93.3
Begin Wall "A" STA. 4016+75.0

PROPOSED TOP OF RAIL

Approximate Finish Grade

Proposed Canopy Tree
Proposed Flowering Tree
Existing Canopy Cover
East & West Potomac Parks – Wall C

Retaining Wall and Landscape Design

Wall C Elevation & Landscaping

PROPOSED TOP OF RAIL

END WALL "C" STA. 4050 +76.0 (TRACK 4)

BEGIN WALL "C" STA. 4047 +92.7 (TRACK 4)

APPROXIMATE FINISH GRADE

Proposed Stone Pattern – Large Block Ashlar

Wall C Landscaping Plan View

PROPOSED CANOPY TREE
PROPOSED FLOWERING TREE
PROPOSED EVERGREEN TREE
Retaining Wall and Landscape Design

Proposed Stone Pattern: Large Block Ashlar

Rendering of proposed Wall G with Landscape
Maine Avenue SW Rail Bridge

Existing Rail Bridge over Maine Avenue SW - 1905

Existing Sidewalk Width

11.5 ft. (max. existing width)

Rendering of Proposed Rail Bridge over Maine Avenue SW

- indicates proposed abutment
- indicates removal of existing abutment

TRANSFORMING RAIL IN VIRGINIA
Maine Avenue SW Pedestrian Bridge

- **Design Intent**: Coordination with private owners of pedestrian bridge on the Design Intent is ongoing.
- Existing pedestrian bridge is privately owned by the Portals Development Associates Limited Partnership and serves Republic Properties and the Mandarin Oriental Hotel.
- Existing rail and pedestrian bridges to be removed and replaced.
- The current pedestrian bridge does not provide an accessible route.
  - Options for accessible routes are being explored.
- South end includes stairs and a 6ft-wide accessible ADA ramp.
  - Including both a ramp and stairs reduces the potential conflicts for the ramp users.
Maine Avenue SW - Walls J and K

Retaining Wall and Landscape Design

Proposed Stone Pattern
Large Block Ashlar

Proposed Retaining Wall J at 14th Street Off-Ramp

Proposed Retaining Wall K at Washington Marina Parking Lot

Proposed Wall “J”

Proposed Wall “K”
Maine Avenue SW - Wall L

Retaining Wall and Landscape Design

Existing Retaining Wall

Proposed Retaining Wall L at Portals Driveway

PROPOSED POTOMAC - LARGE BLOCK ASHLAR

PROPOSED CANOPY TREES
PROPOSED EVERGREEN TREES
PROPOSED UNDERSTORY TREES

Wall L Elevation & Landscaping
QUESTIONS?