Executive Director's Recommendation
Commission Meeting: July 7, 2022

PROJECT
The Long Bridge Corridor Project
George Washington Memorial Parkway
Arlington, Virginia, and Southwest,
Washington, DC

SUBMITTED BY
United States Department of the Interior,
National Park Service

REVIEW AUTHORITY
Federal Projects in the District / Federal
Projects in the Environs
per 40 U.S.C. § 8722(b)(1) and (d)

NCPC FILE NUMBER
7819

NCPC MAP FILE NUMBER
75.00.01(00.00)45516

APPLICANT’S REQUEST
Approval of preliminary site
development plans

PROPOSED ACTION
Approve preliminary site
development plan with comments

ACTION ITEM TYPE
Staff Presentation

PROJECT SUMMARY

The National Park Service (NPS) in coordination with the Virginia Passenger Rail Authority (VPRA) has submitted preliminary site development plans for widening the existing railroad corridor between the RO Interlocking (near the Pentagon in Virginia) and LE Interlocking (near L’Enfant Plaza in Washington, DC). The project would improve portions of a 1.8-mile corridor segment with two new tracks, resulting in four future tracks in total. Future railway improvements would be on George Washington (GW) Memorial Parkway property, as well as in the Potomac River and East Potomac Park in the District of Columbia. In addition, the project would construct a new bicycle-pedestrian bridge (parallel to the new Long Bridge) between Long Bridge Park (Arlington, VA) and East Potomac Park (District of Columbia). The purpose of the corridor expansion is to increase railroad capacity between Virginia and the District of Columbia while alleviating the rail congestion caused by the existing two-track Long Bridge.

The Commission has different review authorities over the project area with its location across two different jurisdictions – Virginia and the District of Columbia. The National Capital Planning Act provides the Commission with advisory review authority over the project area within Virginia and approval authority over the project area within the District of Columbia. However, the Commission has a singular review focus related to the project in protecting NPS parkland and preserving the character of the broader Monumental Core area with its historic and culturally significant monuments, memorials, and viewsheds. In the future, federal parkland (under the control of the National Park Service) would be conveyed to VPRA for the new railway and pedestrian/bicycle crossings between Arlington County, Virginia and partially through East Potomac Park.
KEY INFORMATION

• The corridor improvement project was developed through an extensive multi-year alternative analysis and environmental review process pursuant to the National Environmental Policy Act (NEPA).
• The project sponsor, the Virginia Passenger Rail Authority (VPRA), is responsible for promoting, sustaining, and expanding the availability of passenger and commuter rail service in the Commonwealth of Virginia. VPRA was formed in 2020 by the Virginia General Assembly.
• The current total cost of expanding corridor capacity is estimated at $1.8 billion, with current project funding partners that include VPRA, Amtrak, and Virginia Railway Express (VRE). The corridor project has been accepted into the Federal Transit Administration’s (FTA’s) Capital Investment Grant Program for Core Capacity improvements and VPRA is anticipating federal funding in a future federal budget.
• The Long Bridge rail crossing has connected Virginia and the Nation’s Capital for more than 200 years. While the existing railroad bridge structure dates to 1904, it has experienced modifications to keep it up to safety standards and in a state of good repair.
• VPRA plans to submit site development plans for future corridor-related improvements on District of Columbia property to NCPC that will include a widened 4-track railway bridge over Maine Avenue SW.

RECOMMENDATION

Approves the preliminary site development plans for improvements to National Park Service property, which is part of a 1.8-mile corridor expansion between the RO Interlocking near the Pentagon in Arlington, Virginia, and LE Interlocking near L’Enfant Plaza in the District of Columbia.

Notes the project would result in a continuous railroad bridge over the George Washington Memorial Parkway, Mount Vernon Trail, Potomac River, Ohio Drive, SW (West); Interstate-395; Ohio Drive SW (East); and the Washington Channel.

Notes the existing Long Bridge is listed on the National Register and is also a contributing element to the East and West Potomac Parks and George Washington Memorial Parkway Historic Districts.

Notes there are historic resources throughout the project area in addition to the existing Long Bridge crossing and VPRA has sought to avoid any adverse visual impacts to these resources from the project through location, design, and elevation considerations.

George Washington Memorial Parkway, Mount Vernon Trail, Potomac River, Ohio Drive SW Section

Supports the overall design approach for the new Long Bridge crossing, which replicates approximates many features of the existing historic Long Bridge including its structure, material,
and form, with steel through girders and similar pier spacing (a requirement of the Section 106 Programmatic Agreement) to avoid any adverse visual impacts to historic resources within and near the project area.

Finds the new proposed Long Bridge design, which is only 40-feet to the north of the existing historic crossing, complements the existing Long Bridge design without overwhelming its historic character.

Finds the proposed Long Bridge design is appropriate given its relationship to the historic bridge; however, there is an opportunity to think more broadly about future bridge designs if any of the other bridges within the 14th Street Bridge Complex were to be reconstructed.

Requests VPRA continue to refine the level of architectural detailing for the new Long Bridge steel structure and size of the bridge piers.

Finds the use of Ashlar stone cladding for the new bridge piers, abutments, and walls near the GW Memorial Parkway to be compatible in character to other Parkway elements.

Supports the proposed bridge as an important multi-modal connection across the Potomac River, with direct connections to Long Bridge Park, Mount Vernon Trail, and East Potomac Park.

Notes VPRA selected the proposed truss design based on its necessary length, required clearances, and intended use, and these factors were described through the project’s NEPA process.

Finds the proposed design appears overly complicated and large in scale, which may diminish the user experience for pedestrians and bicyclists, as well as other users of East Potomac Park and the George Washington Memorial Parkway.

Recommends VPRA explore a design with a wider cross-section to accommodate greater pedestrian/cyclist volumes and bi-directional travel and passing movements.

Finds a more neutral color would be more appropriate for the bridge based on its surrounding context adjacent to the Monumental Core area and federal parkland.

Requests continued design coordination with the National Park Service, Commission of Fine Arts, District of Columbia State Historic Preservation Office, District Department of Transportation, and National Capital Planning Commission to simplify the bridge’s appearance; to improve open views from the bridge; and to reduce its visual presence.

Ohio Drive SW (East) and Washington Channel Crossings
Notes the Ohio Drive (East) and the Washington Channel overpasses are considered to be historic within the context of the East and West Potomac Park Historic District, and VPRA is required to resolve any adverse effects from the proposed demolition and reconstruction of the bridges.

Notes the Long Bridge Programmatic Agreement specifies that project elements introduced into NPS-administered properties would be designed to be compatible with the character of existing resources and appropriate for the context of Washington, DC’s Monumental Core.

Notes VPRA has committed to minimizing adverse effects through measures that include regular design review by NCPC, CFA, NPS, DC SHPO, and DDOT staff; documentation of the existing bridge designs; and reusing portions of the existing Ohio Drive SW (East) and Washington Channel bridges in the new reconstructed structures.

Requests VPRA consider new designs with bridge piers that provide greater ground-level visibility (with column piers), original stone from the existing structures (if available), and parapet wall detailing to add more depth and visual interest.

Retaining Walls / Landscaping

Supports the proposed design of the new retaining walls along the Long Bridge Corridor through East Potomac Park with granite large block Ashlar cladding, which is the same stone used to construct to approximate the historic Long Bridge piers, abutments, and retaining walls.

Supports the landscape design approach to screen sections of the existing bridges and proposed new structures/walls with a mix of canopy, flowering, and evergreen trees.

Notes the landscape design is based on the historic park planting plans for the George Washington Memorial Parking (1932 Simonson Planting Plan), East Potomac Park (1969 Screening Plan at East and West Potomac Parks) and other relevant cultural landscape inventories and National Register documents.

 Recommends the design team use ornamental and canopy trees near the bicycle/pedestrian entry/exit areas and vehicle parking areas to provide visual interest and shade and consider landscaping along the new retaining walls that allows for views of the new stone-cladding.

 Recommends the design team explore ways to incorporate pollinators into the proposed landscape design pursuant to federal policies.

Additional Information

Requests the following additional information from the applicant in the final project submission to NCPC:

- Landscape plans that include a detailed tree removal inventory and future tree replacement locations/inventory table based on NCPC Policy FE.G.2;
• Lighting strategy/plans for the new rail and pedestrian-bicycle bridges;
• Information on how the project would comply with current federal flood risk management guidelines, and whether this addresses the standards identified in Executive Order 13690; and
• Signage Plan for the new pedestrian-bicycle Potomac River bridge crossing.

PROJECT REVIEW TIMELINE

<table>
<thead>
<tr>
<th>Previous actions</th>
<th>None.</th>
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<tr>
<td>Remaining actions (anticipated)</td>
<td>Winter 2022/23 – Final site development plan approval</td>
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PROJECT ANALYSIS

Executive Summary

Staff analyzed the National Park Service submission per NCPC Comprehensive Plan’s policies as well as the corridor project’s Environmental Impact Statement (EIS) and Section 106 Programmatic Agreement (PA). The project is consistent with a number of Comprehensive Plan policies that pertain to regional transportation, parks and open space, and historic preservation. The project is important for maintaining our local, regional, and national railway network as a viable and efficient means of passenger rail service. The current preliminary project submission shows the direction of the project as consistent with regional federal planning policies and previous NEPA and Section 106 study documents. Therefore, staff recommends the Commission approve the preliminary site development plans for improvements to National Park Service property, which is part of a 1.8-mile corridor expansion between the RO Interlocking near the Pentagon in Arlington, Virginia, and LE Interlocking near L’Enfant Plaza in the District of Columbia.

Context

The Long Bridge Corridor expansion area parallels the existing two-track CSXT rail corridor (between the Pentagon and L’Enfant Plaza). The proposed improvement area parallels the existing Long Bridge railroad crossing over the George Washington (GW) Parkway, Mount Vernon Trail, Potomac River, Ohio Drive SW (West), and Interstate-395. East of I-395, the area merges with an existing CSXT railroad Right-of-Way (ROW), which continues east over Ohio Drive SW (East) and the Washington Channel. The existing Long Bridge crossing is considered to be a contributing element to the East and West Potomac Parks Historic District (District of Columbia) as well as the GW Memorial Parkway and Mount Vernon Memorial Highway Historic Districts in Virginia.

The project area encompasses federal parkland (GW Parkway and East Potomac Park, which is part of the National Mall and Memorial Parks), open water (Potomac River), and an urban landscape (Southwest Commercial District) with uses that include paved areas, vegetation, managed lawns, and planted ornamental trees and shrubs. In general, the corridor gradually
transitions from a parkway setting (GW Memorial Parkway in the west), through an urban park (East Potomac Park), to a more urban setting as it continues into DC’s Southwest Commercial District in the east.

The project area spans the Potomac River between two existing bridges – the WMATA Metrorail Yellow Line bridge (north) and existing Long Bridge to the south. Both bridges are part of a complex of five bridges between Washington, DC and Arlington, Virginia, which is sometimes referred to as the 14th Street Bridges Complex. In addition to the Long Bridge and WMATA bridge, there are three highway bridges – the George Mason Memorial Bridge, Rochambeau Memorial Bridge, and Arland D. Williams Memorial Bridge.

**Purpose and Description**

The purpose of the corridor expansion is to create greater railroad capacity between Virginia and the District of Columbia while alleviating the rail congestion caused by the existing two-track Long Bridge. The NPS project area is part of the planned 1.8-mile corridor improvement effort between the Pentagon (RO Interlocking) in Arlington, Virginia, and L’Enfant Plaza (LE Interlocking) near 10th Street SW in the District of Columbia. Currently, there is insufficient capacity, resiliency, and redundancy to accommodate projected future demand for rail service along the corridor, and the project would help the railway corridor segment to continue to operate as a critical link in the local, regional, and national railway network.

The NPS project submission is separated into three geographic areas based on NPS jurisdiction and landscape typology as follows: the George Washington Memorial Parkway, Potomac River, and East Potomac Park areas. Each section would encompass different types of proposed project improvement features as summarized in the following table.

| GW Memorial Parkway       | • New Long Bridge railway crossing  
|                          | • New bicycle-pedestrian bridge  
|                          | • New retaining walls and landscaping  |
| Potomac River            | • New Long Bridge railway crossing  
|                          | • New bicycle-pedestrian bridge  |
| East Potomac Park        | • New Long Bridge railway crossing  
|                          | • New bicycle-pedestrian bridge  
|                          | • New I-395 rail crossing  
|                          | • New reconstructed Ohio Drive SW (East) rail crossing  
|                          | • New reconstructed Washington Channel rail crossing  
|                          | • Retaining walls and landscape design  |

*The two existing tracks would remain in place and continue to operate during the project’s construction phase.*

Starting in the west, adjacent to Long Bridge Park, two new Virginia Passenger Rail Authority (VPRA) tracks would align east within a separate two-track Right-of-Way (ROW) parallel to the
existing two-track CXST ROW. The new tracks (40-feet to the north of the existing CSXT tracks) would cross over the GW Memorial Parkway, Mount Vernon Trail, Potomac River, Ohio Drive SW (West), and Interstate-395 via a single continuous new elevated bridge structure. The new tracks would continue east where they would merge into the existing CXST track ROW, which would be widened (with retaining wall sides) and new adjacent landscaping. Once within the ROW, the VPRA tracks would span over Ohio Drive SW (East) and the Washington Channel via new reconstructed 4-track overpass structures. Staff recommends the Commission note the project would result in a continuous railroad bridge over the George Washington Memorial Parkway, Mount Vernon Trail, Potomac River, Ohio Drive, SW (West); Interstate-395; Ohio Drive SW (East); and the Washington Channel.

The existing Long Bridge is designed as a through plate girder bridge with granite piers (from Port Deposit, Maryland), comprised of 22 through girder spans and a double span swivel swing truss for a total of 24 spans over the Potomac River, which totals approximately 2,530 feet in length. The structure contains elements of the original 1904 Long Bridge (the swing span and 12 piers) and additional improvements (the girder spans and 11 piers) that were added in 1942 to reinforce the crossing and accommodate the movement of heavier goods. The existing Long Bridge crossing accommodates two railroad tracks with a 36’-6” width and narrowing to 28’-8” at its swing truss section. The vertical clearance under the bridge is limited to 20 feet at the swing truss, which is also the location of the navigational channel in the Potomac River.

The new Long Bridge section over the GW Memorial Parkway would reflect the slightly arched span undersides and steel superstructure of the existing historic bridge, with piers that would be constructed of traditional Parkway materials. The new solid piers would consist of broken Ashlar stone cladding with fine pointed stone shapes and course pointed accents (finish), colored with light tan, gold, brown, blue shades, and occasional darker interspersed shaded stones. The new railway bridge would reflect the existing bridge over the Mount Vernon Trail (with similar GW Parkway piers), Potomac River, Ohio Drive (West), and I-395 with a straight (non-arched undersides) through truss design. However, the two piers closest to the Mount Vernon Trail would have columns to help reduce its potential tunneling effect (over the Trail) and to increase trail user visibility. The new bridge piers would be constructed of Port Deposit Granite further to the east over the Potomac River and across East Potomac Park, which is the same material as the existing historic Long Bridge piers.

The existing Long Bridge is listed on the National Register and is also as a contributing element to the East and West Potomac Parks and George Washington Memorial Parkway Historic Districts. The corridor project’s Section 106 Programmatic Agreement (PA), developed as part of the NEPA environmental review phase, describes the rationale for the bridge design with its vertical clearance, visual appearance, and alignment that closely references the existing historic bridge crossing to avoid potential adverse effects that may arise from a less compatible type of new bridge structure. In addition, the new Long Bridge crossing would have piers that directly align with the existing historic piers for aesthetic continuity and functionality purposes. Staff recommends the Commission note the existing Long Bridge is listed on the National Register and is also a contributing element to the East and West Potomac Parks and George Washington Memorial Parkway Historic Districts. Furthermore, staff recommends the Commission note
there are historic resources throughout the project area in addition to the existing Long Bridge crossing and VPRA has sought to avoid any adverse visual impacts to these resources from the project through location, design, and elevation considerations.

In addition to and parallel to the new Long Bridge rail crossing, VPRA would construct a new bicycle-pedestrian bridge to establish a new multi-modal crossing between Long Bridge Park, Mount Vernon Trail, and East Potomac Park. The new bridge would align parallel to the new Long Bridge, situated approximately 25-feet to the north. The bridge’s proposed truss design would be appropriate for its length, required clearances, and intended use. The new crossing is intended as 4(f) mitigation for the corridor project’s required change in use.

The bridge span over I-395 would be supported by concrete column piers and east of the VPRA/CSXT track merge, the project would construct new steel deck plate girder spans over Ohio Drive (East) and Washington Channel, with concrete parapet walls. The proposed designs are consistent with CSXT standards and would allow continued two-track rail operations during the project’s five-year construction phase. VPRA is obligated to comply with CSXT design standards; however, discussions continue amongst DDOT, Commission of Fine Arts (CFA), NPS, NCPC, VPRA, Virginia Department of Historic Resources (VDHR), and District of Columbia State Historic Preservation Office (DC SHPO) related to potential design changes that may be more compatible with adjacent NPS property.

The project would construct new retaining walls in multiple locations to enable the new elevated railroad bridge across East Potomac Park, replacing the side berms that exist today. The retaining walls would be constructed with Port Deposit Granite large block Ashlar cladding to reflect existing historic Long Bridge materials, and VPRA would plant new canopy, flowering, and evergreen trees adjacent to the new walls as mitigation and for screening purposes. The landscape design for the GW Parkway grounds would mimic the historic 1932 Simonson Planting Plan as well as several other plans that include multiple cultural landscapes inventories and other historic reference documents.

The new VPRA tracks would be fully contained within a new ROW established through a future conveyance of federal property (currently under the jurisdiction of the NPS) to the VPRA per Congressional legislation. The transfer would be fully completed prior to the start of construction. The new ROW would span from near the Pentagon (in the west) to the ROW “merge” area (just east of the I-395 bridge crossing) where the new VPRA ROW would combine with the existing CSXT two-track ROW. Continuing further to the east, the new VPRA tracks would be fully contained within the existing CSXT ROW until the corridor’s eastern terminus at L’Enfant Plaza. The new pedestrian-bicycle Potomac River bridge crossing would also be within the future VPRA conveyance area as well.

**Analysis**

Staff analyzed the NPS project submission per NCPC Comprehensive Plan’s policies as well as the corridor project’s Environmental Impact Statement (EIS) and Section 106 Programmatic Agreement. The NPS project is consistent with a number of Comprehensive Plan policies that
pertain to regional transportation, parks and open space, and historic preservation. The project is important to maintaining our local, regional, and national railway network as a viable and efficient means of passenger rail operations. The following comments are provided to help guide the National Park Service and Virginia Passenger Rail Authority as they continue to develop site development plans for NPS property in anticipation of a future final review submission to NCPC.

George Washington Memorial Parkway, Mount Vernon Trail, Potomac River, Ohio Drive SW Section

The NPS submission describes the design approach for the new Long Bridge crossing as replicating many features of the existing historic bridge including its structure, material, and form, with steel through girders and similar pier spacing to avoid any adverse visual impacts to resources within and near the project area. Staff concurs with this approach, which was developed over the course of many years during the project’s alternatives analysis and NEPA/Section 106 phases. Staff recommends the Commission support the overall design approach for the new Long Bridge crossing, which replicates approximates many features of the existing historic Long Bridge including its structure, material, and form, with steel through girders and similar pier spacing (a requirement of the Section 106 Programmatic Agreement) to avoid any adverse visual impacts to historic resources within and near the project area.

The new Long Bridge would be one of seven future bridges within the 14th Street Bridges Complex and set-back from the other three highway bridges near the south-side of the Complex. Based on the design similarities between the existing and new Long Bridges, staff believes the new Long Bridge would complement the existing bridge without overwhelming its recognizable historic character. Staff recommends the Commission find the new proposed Long Bridge design, which is only 40-feet to the north of the existing historic crossing, complements the existing Long Bridge design without overwhelming its historic character. In addition, staff recommends the Commission find the proposed Long Bridge design is appropriate given its relationship to the historic bridge; however, there is an opportunity to think more broadly about future bridge designs if any of the other bridges within the 14th Street Bridge Complex were to be reconstructed.

Based on on-going design coordination meetings between staff from NCPC, VPRA, NPS and other stakeholder agencies, staff believes VPRA should continue to refine the level of architectural detailing for the new Long Bridge steel structure and size of the bridge piers. This was also a comment made recently by the United State Commission of Fine Arts. Therefore, staff recommends the Commission request VPRA continue to refine the level of architectural detailing for the new Long Bridge steel structure and size of the bridge piers.

The project would use Ashlar stone cladding for piers, abutments, and walls near the GW Memorial Parkway so that the new crossing is compatible with existing Parkway elements. Staff supports of the proposal to use Ashlar cladding to maintain the character of the Parkway setting. Therefore, staff recommends the Commission find the use of Ashlar stone cladding for the new bridge piers, abutments, and walls near the GW Memorial Parkway to be compatible in character to other Parkway elements.
New Arlington Virginia-East Potomac Park Pedestrian-Bicycle Bridge

Staff notes the project would construct the only free-standing bicycle-pedestrian crossing over the Potomac River within the District of Columbia, connecting an extensive network of bicycle and walking trails that include the Mount Vernon Trail (MVT) and the popular biking and running route around Haines Point. The new bridge would also provide a direct connection to Long Bridge Park. Staff recommends the Commission support the proposed bridge as an important multi-modal connection across the Potomac River, with direct connections to Long Bridge Park, Mount Vernon Trail, and East Potomac Park.

NCPC staff concurs with a recent CFA comment that the new design should prioritize the pedestrian and cyclist user experience and the proposed design may diminish the user experience (through obscured outward views), as well as other East Potomac Park and George Washington Memorial Parkway users based on its scale and visual complexity. However, the truss design was developed through the project’s earlier NEPA process as previously noted based on its structural characteristics and intended use. Staff recommends the Commission note VPRA selected the proposed truss design based on its necessary length, required clearances, and intended use, and these factors were described through the project’s NEPA process. Furthermore, staff recommends the Commission find the proposed design appears overly complicated and large in scale, which may diminish the user experience for pedestrians and bicyclists, as well as other users of East Potomac Park and the George Washington Memorial Parkway.

As a new bridge that is meant for pedestrian and cyclist use, staff believes that VPRA should maximize the width of the crossing to accommodate future pedestrian/cyclist travel as much as possible, with adequate space for bi-directional travel and passing movements. The cross-river connection would likely be well-utilized with its location between two heavily used routes (Mount Vernon Trail and Ohio Drive). Therefore, staff recommends that the Commission recommend VPRA explore a design with a wider cross-section to accommodate greater pedestrian/cyclist volumes and bi-directional travel and passing movements.

Bridge renderings show its readily apparent nature, and staff encourages VPRA to consider ways to “lighten” the look of the bridge to reduce its visual presence in the area. As such, staff believes VPRA should continue to work with NPS, CFA, DC SHPO, VDHR, DDOT, and NCPC to continue to refine the design. Potential design modifications may include reducing the size of the bridge elements and painting the structure with a color that better blends in with background features. Staff recommends that the Commission find a more neutral color would be more appropriate for the bridge based on its surrounding context adjacent to the Monumental Core area and federal parkland. In addition, staff recommends the Commission request continued design coordination with the National Park Service, Commission of Fine Arts, District of Columbia State Historic Preservation Office, District Department of Transportation, and National Capital Planning Commission to simplify the bridge’s appearance; to improve open views from the bridge; and to reduce its visual presence.

Ohio Drive SW (East) and Washington Channel Crossings
VPRA has committed to designing all new project elements on NPS-administered properties to be compatible with the character of existing resources and appropriate for the context of Washington, DC’s Monumental Core. As these overpass structures are deemed historic, VPRA has held regular Section 106 coordination meetings with stakeholder agencies (and will continue to convene such meetings) to develop new designs that are as sensitive as possible to their context. A recent “post-review discovery” memorandum spells out a design development process and measures that VPRA would undertake to comply with the project’s Section 106 Programmatic Agreement. Therefore, staff recommends the Commission reflect the following points as part of its official action language:

- Note the Ohio Drive (East) and the Washington Channel overpasses are considered to be historic within the context of the East and West Potomac Park Historic District, and VPRA is required to resolve any adverse effects from the proposed demolition and reconstruction of the bridges.

- Note the Long Bridge Programmatic Agreement specifies that project elements introduced into NPS-administered properties would be designed to be compatible with the character of existing resources and appropriate for the context of Washington, DC’s Monumental Core.

- Note VPRA has committed to minimizing adverse effects through measures that include regular design review by NCPC, CFA, NPS, DC SHPO, and DDOT staff; documentation of the existing bridge designs; and reusing portions of the existing Ohio Drive SW (East) and Washington Channel bridges in the new reconstructed structures.

Staff believes that VPRA should consider several potential design modifications, some of which may require a waiver from CSXT, to include bridge piers that provide greater ground-level visibility with the potential use of column piers, original stone from the existing structures (if available), and parapet wall detailing to add more depth and visual interest. Greater ground visibility would reduce potential tunneling effects that may arise with the use of solid piers. Use of stone from the existing structures would help reflect the historic bridges and additional parapet wall detailing would help break-up the potential expansive plain look of the current designs. Therefore, staff recommends the Commission request VPRA consider new designs with bridge piers that provide greater ground-level visibility (with column piers), original stone from the existing structures (if available), and parapet wall detailing to add more depth and visual interest.

**Retaining Walls / Landscaping**

Pursuant to VPRA’s design approach for the project, which is to replicate approximate historic features, new retaining walls would be constructed of granite large block Ashlar cladding to reflect the historic materials and look of the existing historic Long Bridge. Staff supports the use of granite large block Ashlar cladding as part of the design approach, a historic material in the corridor area. Therefore, staff recommends the Commission support the proposed design of the new retaining
walls along the Long Bridge Corridor through East Potomac Park with granite large block Ashlar cladding, which is the same stone used to construct to approximate the historic Long Bridge piers, abutments, and retaining walls.

Staff supports the use of evergreen, flowering, and canopy trees to help screen the new retaining walls within the NPS project area, as well as the new landscaping that is based on the historic planting plans for the GW Memorial Parkway, East Potomac Park, and other historic resources. Staff believes the design team should consider focusing ornamental and canopy trees near the bicycle/pedestrian entry/exit areas and vehicle parking areas to provide visual interest and shade. Also, VPRA should consider landscaping that allows for intermittent views of the new stone-cladded retaining walls, which would also preserve outward views of the surrounding area from passing trains. Therefore, staff recommends the Commission provide the following comments to NPS and VPRA:

- Support the landscape design approach to screen sections of the existing bridges and proposed new structures/walls with a mix of canopy, flowering, and evergreen trees.

- Note the landscape design is based on the historic park planting plans for the George Washington Memorial Parking (1932 Simonson Planting Plan), East Potomac Park (1969 Screening Plan at East and West Potomac Parks) and other relevant cultural landscape inventories and National Register documents.

- Recommend the design team use ornamental and canopy trees near the bicycle/pedestrian entry/exit areas and vehicle parking areas to provide visual interest and shade and consider landscaping along the new retaining walls that allows for views of the new stone-cladding.

Given the size of the NPS project area, there may be opportunities to plant pollinator-supportive flowers and landscaping to support our national strategy to promote the health of Honeybees and other pollinators. The policy was originally developed under the Obama Administration and continues as part of federal planning and project development. Therefore, staff recommends that the Commission recommend the design team explore ways to incorporate pollinators into the proposed landscape design pursuant to federal policies.

Additional Information

VPRA should continue to refine project plans to develop more detailed information related to lighting, signage, tree removal/mitigation and renderings to be submitted to NCPC as part of the final submission. Staff recommends that the Commission request the following additional information from the applicant in the final project submission to NCPC:

- Landscape plans that include a detailed tree removal inventory and future tree replacement locations/inventory table based on NCPC Policy FE.G.2;
- Lighting strategy/plans for the new rail and pedestrian-bicycle bridges;
• Information on how the project would comply with current federal flood risk management guidelines, and whether this addresses the standards identified in Executive Order 13690; and
• Signage Plan for the new pedestrian-bicycle Potomac River bridge crossing.

CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE

Comprehensive Plan for the National Capital

The Project supports a number of planning goals outlined in NCPC master planning efforts. It also makes no change to the District of Columbia’s comprehensive plan. By providing additional rail, pedestrian, and bicycle infrastructure, this project reinforces smart growth and sustainability development planning principals.

National Environmental Policy Act

The Federal Railroad Administration (FRA) and District Department of Transportation (DDOT) conducted a multi-year alternatives development and screening process to identify potential Action Alternatives (to increase railway capacity across the Potomac River) for evaluation through an Environmental Impact Statement (EIS). Leading up to the EIS, FRA and DDOT identified a broad range of potential crossing concepts along with the results of a two-phase feasibility study, which incorporated input from agency, public, and railroad operator (CSXT, Amtrak, and VRE) outreach.

Following initiation of the EIS, FRA and DDOT screened potential project concepts through a two-level process using feasibility criteria and metrics based on the project’s Purpose and Need statement. The screening process resulted in two Action Alternatives (A and B) that were evaluated through an EIS, both of which, involved expansion of the existing railway corridor to four tracks and a double Potomac River bridge crossing. Both alternatives proposed a new two-track railroad bridge, with Alternative A maintaining the existing Long Bridge crossing and Alternative B replacing the existing Long Bridge crossing.

FRA and DDOT selected Alternative A (single new bridge crossing) as the Preferred Alternative, which led to the development of the current project. FRA and DDOT determined that the Preferred Alternative would have fewer impacts, a shorter construction duration, and a lower capital cost compared to Alternative B. In addition, replacing the existing Long Bridge crossing would have minimal operational benefits compared to maintaining the Bridge. As outlined in the EIS Record of Decision (ROD), VPRCA has committed to a range of additional measures to avoid, minimize, and mitigate adverse effects to natural resources.

National Historic Preservation Act

NCPC was a Consulting Party during the project’s Section 106 process; is a Programmatic Agreement (PA) Signatory; and continues to participate in the project’s design development along with VPRCA, NPS, CFA, DC SHPO, VDHR, and DDOT. During the project’s earlier
NEPA/Section 106 process, DDOT and FRA met with the Consulting Parties four times during key milestones to review the Area of Potential Effects; to identify historic properties; to assess potential effects; and to propose minimization and mitigation measures. The Programmatic Agreement (PA) was finalized and signed in July 2020 to outline agency roles and responsibilities, resolution of adverse effects, and review procedures.

**CONSULTATION**

**Coordinating Committee**

Without objection, the Committee forwarded the proposed preliminary site development plans to the Commission with the statement that the proposal has been coordinated with all participating agencies. The DC SHPO is coordinating on this project subject to ongoing consultation in accordance with the existing Long Bridge Project Programmatic Agreement and the memorandum FRA recently circulated to signatories to identify the measures that will be implemented to mitigate the newly identified adverse effects associated with demolition and replacement of the railroad bridges over Ohio Drive, SW, the Washington Channel, and Maine Avenue, SW, as well as the pedestrian bridge over Maine Avenue, SW.
26 May 2022

Dear Ms. Hall:

In its public meeting of 19 May conducted by videoconference, the Commission of Fine Arts was pleased to hear an information presentation by the Virginia Passenger Rail Authority on the proposed expansion of the Long Bridge corridor, a 1.8-mile-long complex of bridges and embankments between Virginia and the District of Columbia. The Commission expressed general support for the project and provided the following comments for the development of a concept design.

The Commission members observed that this extensive new infrastructure would traverse several nationally significant landscapes, and they advised that the project as a whole should be considered a work of civic art, with a commensurate level of architectural detailing and material authenticity. For example, they commented that the proposed stone veneer should appear substantial enough to give the sense of supporting the full weight of the decks and train traffic above. In general, they said the new elements should be designed to be beautiful on their own; rather than attempting to screen the new construction with continuous vegetation, they instead recommended planting in drifts, which would reveal sections of the new stone-clad elements and provide train passengers with outward views. They expressed support for the new pedestrian bridge over the Potomac River, advising that its design should prioritize the experience of pedestrians and cyclists using the crossing; they also encouraged exploration of incorporating lighting into the bridge design, which would also help guide the selection of the bridge’s material colors.

The Commission looks forward to reviewing this project in the concept design phase. Please continue to coordinate with the staff in the preparation of future submissions and throughout the planning and design process.

Sincerely,

Thomas E. Luebke, FAIA
Secretary

Kym A. Hall, Area Director
Region 1 — National Capital Area
National Park Service
1100 Ohio Drive, SW
Washington, DC 20242

cc: Mark Colgan, VHB
    Katherine Younghbluth, Virginia Passenger Rail Authority
    Everett Lott, D.C. Department of Transportation
Executive Director’s Recommendation
NCPC File No. 7819

Mandarin Oriental Hotel

June 24, 2022

National Capital Planning Commission
401 9th Street NW
Washington, D.C. 20004

re: Long Bridge Corridor Project

Dear Commissioners,

We were recently made aware of the NCPC’s meeting on the Long Bridge Project scheduled for July 7. We are writing to formally express our concerns regarding the Project, particularly with respect to the Maine Avenue SW Phase.

Mandarin Oriental, Washington D.C. is a luxury hotel located at 1330 Maryland Avenue S.W. and has established an outstanding reputation both for its service as well as its optimal location adjacent to the Southwest Waterfront and Tidal Basin. It is also part of The Portals, a premier mixed-use development in the District.

While we have met with the Virginia Passenger Rail Authority periodically over the last several months in an attempt to understand the impact of the Long Bridge Project on our hotel, our key concerns have not yet been addressed. In particular, we are concerned about the impact of construction on our business and require that appropriate steps be taken to mitigate the impact on the Hotel. A second key issue for us is the Project’s plan to replace the pedestrian bridge. The pedestrian bridge is a core amenity for our guests and provides a link to the waterfront. We believe the Project should take into consideration views of the Hotel and the other Portals’ owners in the redesign.

While we appreciate the need for expanded rail service through the District, it is essential that our concerns be taken into consideration as Project planning continues. We welcome the opportunity to meet with you.

Sincerely,

Nicolas Dubort

Mandarin Oriental, Washington D.C.
1330 Maryland Avenue, S.W., Washington, D.C. 20024
Telephone +1 (202) 554 8588
(202) 787-6110, direct • adubort@mooh.com
www.mandarinoriental.com/washington

A Mandarin Oriental Hotel
Andrea Cowley Comments

Current list of design issues:

1. Ped/Bike decking is too narrow to provide sufficient margins for bidirectional traffic with bidirectional passing
   1. A 14" deck (presuming no loss from rail) can be split into 2 even 7" lanes
   2. Bicycle handlebars can reach as wide as 800mm/2'8"
   3. As the siding rail height is 42" from the deck, cyclists must cycle to the left of the railing, to avoid clipping the railing and becoming injured, cyclists may take a more inward stance, especially novices and those on difficult to control and heavy bicycles such as Cabi sharebikes
   4. Pedestrians do not tend to walk directly against the deck rail
   5. Passing distance without leaving the lane thus is reduced to a pessimal case of 15cm/6 inches. This represents less than 2 credit cards of distance between the outside rider and the rail edge
   6. I suggest increasing the deck width to 20" as a safety measure to increase the passing distance in the pessimal case to 18"
   7. Less critically, this allows two abreast cycling which is likely to encourage further use as bridge users feel less pressure to "keep up" as is seen on many local trails
2. Bridge deck rail height is too low to prevent cyclist falls
   1. The siding rail height is noted in drawing B-302 as being 42" high 9" taller than me and would exceed any safety provided by the rail by a significant margin
   2. Consider raising the rail height to 8" to increase safety
3. Bridge deck rail is directly vertical, which does not allow for full deck utilization by bicycles
   1. As discussed before, bicycles require space for handlebars, and for cyclist movement
   2. Cyclists are not likely to cycle close to obstacles such as rails
   3. A safety barrier that extends from the deck at an acute angle outward before rising vertically would allow full use of the deck by cyclists, further increasing the passing distance
4. The bridge is placed between a loud railway and highway, combined noise may be above safe exposure limits without hearing protections
   1. The Woodrow Wilson Memorial Bridge has clear barriers in place that protect users from falls and noise exposure, a similar barrier seems indicated
5. The 180 degree/double 90 degree turn on the east landing is not conducive to safety and traffic flow
   1. Please visit the Mt Vernon Trail on a Cabi at the Theodore Roosevelt Island Parking
   2. On heavy bicycles and with novice users, the double bend climb can be a significant challenge
   3. The bike/ped bridge on the east side lands in a parking lot that appears to have sufficient space to allow for a full length 1:20 climb without a bend
   4. Removing the bend will allow for better traffic flow and accessibility for novices
   5. Alternatives could include curves or shallow turns rather than sharp acute angles
6. A rescue plan should be created in conjunction with DC and Arlington Fire/EMS with electric utility vehicles pre-positioned at the Long Bridge park for rescue service use
   1. I did not see bridge capacity indicated in the drawings, and presumably navigating rescue equipment on the bridge would not be ideal in any case
   2. A low weight utility vehicle (such as Polaris brand ATV) should be considered as a supplement to ACFD/DCFD gear
   3. This could be kept on site at the Long Bridge park to prevent delays in moving equipment
7. A plowing plan should be created in conjunction with Arlington Parks to ensure plow equipment available can navigate the bridge/acquire new equipment
   1. This ped/bike bridge is posed to be a major commuter thoroughfare, proper plowing is essential to maintaining this link after it's construction
   2. A member of the Parks department should be contacted to ensure that proper equipment is available to keep the bridge deck clear and safe during winter weather events
   3. As above it is important to ensure that plowing equipment is light enough to operate on the bike/ped bridge
Arlington Bicycle Advisory Committee

Thank you for taking comments on the Long Bridge Project. We are excited that this project is underway.

The problem is that the proposed 14' wide bike/ped bridge is too narrow. Given the presence of vertical barriers on each side, the usable width will be only 8-10', too narrow for the bike/ped traffic now and in the coming years.

Given the difficulty and expense of widening a bridge, it is common and wise to "build for the future." For example, the recently-built W&OD Trail Bridge over Langston Blvd features a 20' clear width despite the rest of the W&OD trail being significantly narrower. We are grateful for that excellent bridge.

Given the length of the proposed Long Bridge, getting emergency services to the location of a bike/ped crash on the bridge will be difficult and slow. A wider bridge will serve in the interest of safety and access for emergency vehicles. It will be important to minimize bike/ped conflict and to ensure sufficient width for future use.

Page 22-12 of the Draft Long Bridge EIS indicated that "The materials and dimensions of the bridge would be confirmed in a final design phase following completion of the EIS." If now is not the time for public comments that this bridge must be wider, then when?

Thanks.
Yours sincerely,
Cynthia Palmer
chair, Arlington Bicycle Advisory Committee
Melissa Riggio Comments

To whom it may concern,

I am writing to share my thoughts on the Long Bridge proposed bike path width. My colleagues at Sustainable Mobility for Arlington County have put it very well below, and I echo their thoughts:

The proposed 14’ wide bike/ped bridge is too narrow. Given the presence of vertical barriers on each side, the usable width will be only 8-10’, too narrow for the likely bike/ped traffic when it opens, let alone what it will grow to over the useful life of the bridge.

Given the difficulty and expense of widening a bridge, it is common and wise to "build for the future". For example, the recently-built W&OD Trail Bridge over Langston Blvd features a 20’ clear width despite the rest of the W&OD trail being significantly narrower.

Given the length of the bridge, getting emergency services to the site of a bike/ped crash on the bridge will be difficult and slow. The bridge width should recognize this and strive to minimize bike/ped conflict by ensuring sufficient width for likely future traffic growth.

Page 22-12 of the Draft Long Bridge EIS indicated that "The materials and dimensions of the bridge would be confirmed in a final design phase following completion of the EIS". If now is not the time for public comments that this bridge must be wider, then when?

Please consider this as we proceed with the Long Bridge project.

Thank you for your time and consideration.
Best,
Melissa Riggio, biker and resident of Arlington (22201)
**Sustainable Mobility for Arlington County**

June 30, 2022

Members of the National Capital Planning Commission,

Thank you for providing the opportunity to comment as part of your review of the Long Bridge Project. I represent Sustainable Mobility for Arlington County, a small, scrappy 501c4 Advocacy Organization fighting for sustainable mobility options in Arlington, Virginia.

**Summary**

We are strongly supportive of the overall Long Bridge project. The additional rail capacity is crucial for growing rail transit in the region from Commuter Rail, which largely benefits white-collar office workers commuting into the downtown core, to Regional Rail which can benefit many more people by supporting non-commute trips throughout the region on weekends and outside traditional commute times or in traditional commute directions.

We are strongly supportive of the bicycle & pedestrian span proposed as mitigation and believe it is consistent with actions in the Transportation Element of the NCPC Comprehensive Plan such as “develop an integrated system of bicycle and pedestrian trails that provide connections throughout the region, including to and from federal destinations”.

However, we have serious concerns about the width of the bicycle & pedestrian span as currently designed; we believe it to be insufficient for the expected volumes of bicycle and pedestrian usage at the time it opens, and certainly insufficient for the growing volumes that will occur over the life span of the bridge. We believe the width to be insufficient for timely emergency access in the event of an emergency, and inconsistent with best practices for trail design that recommend providing separate space for pedestrians from those on wheels to prevent conflict between users traveling at different speeds on high-traffic facilities.

We urge the Commission to echo our feedback & request an updated design for the bicycle & pedestrian span that features a 20’ clear width.

**Clear Width vs Usable Width**

The currently proposed design features 14’ of clear width between the walls of the bridge. A 14’ trail at-grade through a park with no hazards on either side would be a high-capacity, low-stress, well-enjoyed trail. With little consequence to accidentally leaving the trail surface beyond a slightly bumpy ride for a few feet, trail users put the whole trail width to good use.

This same behavior does not hold true when there are nearby hazards, especially vertical hazards. Trail users shy away from these vertical elements, especially when they perceive that these hazards present a danger should they accidentally leave the trail surface and collide with them. The walls on each side of the bridge present just such a vertical hazard and result in a “usable width” of trail that is far narrower than the 14’ clear width.

Giving people options; building a sustainable future. susmo.org
Common trail standards recognize this behavior and call for a buffer distance between the usable portion of the trail and any vertical element. The Virginia Department of Transportation shared use path standards, for example, require 3’ of distance between the path and “lateral obstructions”. Assuming 3’ of the 14’ clear width is a necessary buffer from the walls on each side, this leaves a mere 8’ of usable trail width in the center of the bridge, this is narrower than the Mt Vernon Trail, W&OD Trail, Metropolitan Branch Trail, and the Custis Trail.

**Design for the Future**

It is not enough to ensure that the proposed bridge will be wide enough to accommodate current levels of bicycle & pedestrian traffic, it must be wide enough to accommodate the levels of bicycle & pedestrian traffic expected over its lifetime.

The region has passed significant and challenging emissions targets which will require dramatically expanding the use of non-motorized transportation. It is critical that NCPC support sufficient bike & pedestrian capacity across the Potomac.

While widening a trail on land is relatively routine, it is our understanding that widening a truss bridge like the one proposed is drastically more expensive and quite rare. We are likely to be stuck with the width that is built for decades to come.

Given the length and lack of curves on the bridge, it is likely that those on wheels will be inclined to reach relatively high speeds, potentially creating conflict with pedestrians. In trails with these sort of likely conflicts, especially when high volumes are also expected, it is a common mitigation to provide separate space for pedestrians and those on wheels. The minimum required width for this, however, is more than the 14’ of clear space currently allocated for the bridge.

**Emergency Access**

Given the length of the bridge, we think thought needs to be given to facilitating emergency access. If a crash or medical emergency happens in the center of the bridge, is a 14’ clear width sufficient to allow fast and easy emergency access, especially given the likely presence of other trail users?

**Not a Settled Issue**

Members of the public tried to raise this issue at the recent Long Bridge Virtual Public Meeting, but VPRA staff tried to indicate that the 14’ clear width was locked in place by the Environmental Impact Statement and was a settled issue that could not be changed.

This idea is utterly incompatible with the last opportunity that the public had to weigh in on this project. In the draft Environmental Impact Statement for the project, which is the last document the public had an opportunity to comment on, it was stated on page 22-12 that "The materials and dimensions of the bridge would be confirmed in a final design phase following completion of the EIS” (emphasis added). We will also note that we are unable to find any reference to the 14’ dimension for the bike &
pedestrian span in the “Combined Final Environmental Impact Statement/Record of Decision and Final Section 4(f) Evaluation” document posted to the Long Bridge Project website.

**Similar Bridges**

Finally, we wish to highlight that other recent bike & pedestrian bridges have been built with a significantly wider cross-section. The new bridge that carries the W&OD Trail over Langston Blvd has a 20’ clear width. The new Douglass Bridge includes two 18’ paths (one on each side). These are designs that are thinking about the future, and the Long Bridge span should as well.

**Conclusion**

Thank you for the opportunity to highlight this design issue with the Long Bridge bike & pedestrian span. I hope that it is useful as the Commission gives feedback on the project.

Christopher Slatt  
President, Sustainable Mobility for Arlington County  
chris@susmo.org  
703-539-7574
ONLINE REFERENCE

The following supporting documents for this project are available online at www.ncpc.gov:

- Submission Package
- NCPC Staff Summary Presentation

POWERPOINT (ATTACHED)

Prepared by Michael Weil
07/5/2022
Long Bridge Corridor Project

George Washington Memorial Parkway / Potomac River / East Potomac Park

Approval of Preliminary Site Development Plans

United States Department of the Interior / National Park Service
Project Summary

The National Park Service (NPS) has submitted preliminary site development plans as part of a corridor improvement project that would increase rail capacity along a 1.8-mile ROW section with two new tracks (4 future tracks total), crossing over the George Washington (GW) Memorial Parkway (in Virginia); Potomac River (District of Columbia); through East Potomac Park (District of Columbia); and over the Washington Channel (District of Columbia). The new trackage would parallel the current two-track ROW, separating from the ROW just to the west of the GW Parkway and aligning parallel to the Long Bridge (approximately 40-feet to the north) over the Potomac River, and then aligning closer to the existing ROW immediately to the east of I-395 in East Potomac Park. In addition, the project would construct a new bicycle-pedestrian bridge parallel (25-feet to the north) to the Long Bridge as mitigation for anticipated National Park Service (NPS) parkland impacts. The new bicycle-pedestrian bridge would connect Long Bridge Park and Mount Vernon Trail to East Potomac Park within the District of Columbia. In total, the Long Bridge Corridor Project would result in a new railway bridge, new pedestrian/bike bridge, new retaining walls, and new landscaping within a new widened railroad ROW, benefiting passenger rail operations that include Amtrak (carrying 1.3 million passengers annually) and Virginia Railway Express (carrying 4.5 million passengers annually).
Project Location

National Capital Region

Project Area
Project Location

Proposed Rail and Bicycle-Pedestrian Bridges over Potomac River

George Mason Memorial Bridge (I-395 S)
Rochambeau Memorial Bridge (14th Street SW)
Arland D. Williams Memorial Bridge (I-395 N)
Charles R. Fenwick Bridge (WMATA Yellow Line)
GW Parkway Rail Bridge
Proposed Potomac River Two-Track Rail Bridge
Long Bridge Park
Potomac River
Arlington, VA
District of Columbia
Historic Long Bridge

Aerial view of 1967 Long Bridge

View of 1967 Long Bridge from Virginia Shoreline
Existing Long Bridge view from Virginia Shoreline

Project Corridor
George Washington Memorial Parkway

<table>
<thead>
<tr>
<th>Phase</th>
<th>Structures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GW Parkway</td>
</tr>
<tr>
<td></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>
</tbody>
</table>
George Washington Memorial Parkway

**Proposed Stonework:**
The Potomac River Bridge and Wall A will approximate the historic character and aesthetics of existing bridges along GW Parkway.
- **Pattern** - Broken Ashlar
- **Finish** - Fine Pointed Stones with Course Pointed Accents
- **Color** - Light Tan/Gold/Brown/Blues with Occasional Darker Stones
George Washington Memorial Parkway

**Proposed: GW Parkway Crossing**

Design approximates the historic character of the existing Bridge crossings at the GW Parkway through an arched weathered steel span, stone-clad retaining walls and piers.

<table>
<thead>
<tr>
<th>Number of Spans</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Two equal length 100-foot-long spans over the GW Parkway roadway. The Bridge continues for 25 more spans over the MVT, Potomac River and Ohio Drive SW (West).</td>
</tr>
<tr>
<td>2</td>
<td>Superstructure: Weathering Steel Arched Through Girders</td>
</tr>
<tr>
<td>3</td>
<td>Substructure: Abutment A – Cantilever Abutment with Stone cladding, Piers 1 and 2 – Wall Piers with Stone cladding</td>
</tr>
</tbody>
</table>

**Potomac River Rail Bridge**

Proposed Rail Bridge Structure at GW Parkway

Bicycle-Pedestrian Bridge not shown for clarity of the Rail Bridge (upper), Bicycle-Pedestrian Bridge as proposed in front of Rail Bridge at GW Parkway (lower).
George Washington Memorial Parkway

Proposed: GW Parkway to Potomac River

- **Type:** Column piers. Instead of solid wall piers are intended to maximize visibility, safety, and security through the park. Typical wall piers would greatly reduce the overall park visibility and create a tunnel effect that would hinder the open, natural feel of the area. Additionally, the column piers create a natural transition point between the GW Parkway and the Long Bridge historical character.

- **Aesthetics:** Plain concrete column piers and pier caps.

![Diagram of GW Parkway to Potomac River](image)

Column Piers within GW Parkway used to reduce tunneling effect, maximizes visibility, safety, and security through the park.

### Potomac River Rail Bridge

<table>
<thead>
<tr>
<th></th>
<th>Number of Spans</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>One approximately 75-foot span over MVT. The bridge continues for 24 more spans over the Potomac River and Ohio Drive SW (West) to the North and for two spans over GW Parkway to the South.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Superstructure</th>
<th>Substructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Weathering Steel Through Circles</td>
<td>Pier 3, 4 – Concrete Column Piers</td>
</tr>
</tbody>
</table>

![Key Elevation to Potomac River Rail Bridge](image)
George Washington Memorial Parkway

Proposed: Retaining Wall A and Landscape Screening

Wall A
- **Location**: Wall A will run perpendicular to George Washington Memorial Parkway connecting the proposed Potomac River Railroad Bridge to the existing Long Bridge Park retaining wall.
- **Size**: It will be approximately 120 feet long and range from 3 to 22 feet in height.
- **Type**: The wall will consist of a modular block gravity wall system with a stone cladding.
- **Visibility**: Wall A will be screened by landscaping and partially blocked by the proposed Bicycle-Pedestrian bridge connection into Long Bridge Park.

**Piers 1-2**
- The piers of the Potomac River Bridge will approximate the historic character and aesthetics of existing bridges along GW Parkway.
- **Pattern**: Broken Ashlar
- **Finish**: Ripe Pointed Stones with Course Pointed Accents
- **Color**: Light Tan/Gold/Brown/Blues with Occasional Darker Stones

<table>
<thead>
<tr>
<th>Wall</th>
<th>Design Review Phase</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 – George Washington Memorial Parkway</td>
<td>Arlington County Long Bridge Park: Southwest end of the Project corridor.</td>
</tr>
</tbody>
</table>
George Washington Memorial Parkway

Proposed: GW Parkway Rail Bridge Abutments, Piers and Retaining Wall A

- The Abutment, Pier 1 and 2 and Wall A will have a light-colored stone cladding to approximate, without replicating, the historic character of the existing GW Parkway bridges.
- The stone cladding will consist of both course pointed and fine pointed stones, set in a broken-ashlar pattern, to resemble the existing GW Parkway bridges.
George Washington Memorial Parkway

Proposed: Landscaping Design Intent, Overall

- The landscaping design intent is to screen the existing bridges and the proposed structures and walls with vegetation. Historic Planting plans were compared with the tree survey that was completed as part of the Long Bridge Project by a certified Arborist. These Historic Planting plans informed the project landscape screening and Proposed Planting Palette.

- Primary Referenced Resources Provided by NPS:
  - Draft and Final Cultural Landscape Inventory (CLI)’s:
    - Mount Vernon Memorial Highway (MVMH) South to Alexandria
    - Lincoln Memorial
    - George Mason Memorial
    - LBJ Memorial Grove
    - East and West Potomac Parks

- Other References - GW Parkway
  - 2016 GW Parkway Lady Bird Johnson Park CLI
  - MVMH CLR Volumes 1 and 2
    (Includes Historic Planting Plans from 1930s, 1969-1980)
  - NATIONAL REGISTERS:
    - 7300297 LBJ Memorial Grove
    - 8100079 MVMH
    - 95000605 GW Parkway

1932 Simonson Planting Plan at GW Parkway
George Washington Memorial Parkway

Proposed: Landscaping Design Intent

GW Parkway

The landscaping design intent at GW Parkway is to screen the existing bridges and the proposed bridges with vegetation. The planting approach is:

- References 1932 Historic Planting Plan for species and screening design
- Flowering trees (dogwoods, redbuds, hawthorns)
- Evergreen trees to screen new piers and walls (hollies, pines)
- Shade trees planted for mitigation (oaks, elms, maples)
<table>
<thead>
<tr>
<th>2</th>
<th>Potomac River</th>
</tr>
</thead>
<tbody>
<tr>
<td></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>
</tbody>
</table>
Potomac River

Site Conditions: Potomac River Existing Bridges

Existing Structures will remain.

Long Bridge - 1904

The Long Bridge carries two tracks over the Potomac River, connecting Arlington, VA, and the District of Columbia. It consists of 22 approach spans and a through truss swing span over the channel and is 2,252 feet in total length. The swing span is no longer operational and has been modified to be a fixed span. The approach spans have an open deck, through girder superstructure supported on masonry and concrete substructures with timber pile foundations. The swing span consists of a through truss, also with an open deck, supported on a solid concrete pivot pier founded on rock.

The north span of the swing span acts as the active navigation channel providing approximately 100 feet of horizontal clearance between fenders. The fender and fire protection system for the existing pivot pier extend laterally approximately 170 feet. The navigable channel vertical clearance for Bridge Swing Span is approximately 18 feet, measured from the mean high-water elevation. The southernmost approach span crosses over the Mount Vernon Trail, a multi-use path through the GW Parkway National Park in Arlington, VA. The northernmost approach span crosses over the Rock Creek Park Trail and Ohio Drive SW (West) in East Potomac Park in Washington DC.

The existing rail bridge substructure is composed of a concrete core with a stone cladding on all exposed faces. The stone cladding consists of both course pointed and fine pointed stones with both the seam and split faces presented. The stone was quarried from Port of Deposit, Maryland.

The Long Bridge extends over Mount Vernon Trail (MVT) in GW Parkway. The superstructure over the MVT is a 10 feet 6 inches tall steel through girder. The abutment and pier on either side of MVT are granite masonry. This existing bridge will remain and is not part of the Long Bridge Project.
Potomac River

Site Conditions: Potomac River Existing Bridges

Existing Structures will remain.

Arland D. Williams Jr. Memorial Bridge - 1950
The Arland D. Williams Jr. Memorial Bridge was constructed in 1950. The bridge spans I-95 North across the Potomac River and Ohio Drive SW (West). The superstructure is made up of riveted steel girders and a concrete deck. The concrete substructure has a stone cladding with horizontal rustication lines.

Rochambeau Memorial Bridge - 1968
The Rochambeau Memorial Bridge was constructed in 1968. The bridge spans 14th Street SW across the Potomac River and Ohio Drive SW (West). The superstructure is made up of steel girders and a concrete deck. The concrete substructure has a stone cladding with horizontal rustication lines.

George Mason Memorial Bridge – Modified 1984
The George Mason Memorial Bridge was constructed in 1960 and reconstructed in 1984. The bridge spans I-95 South across the Potomac River and Ohio Drive SW (West). The superstructure is made up of steel girders and a concrete deck. The concrete substructure has a stone cladding with horizontal rustication lines.
Potomac River

Proposed Pier Finish

- **Pattern** - Block-in-Course Ashlar - Large ashlar blocks of the same height but two or three different lengths.
  - 24" Tall Blocks in alternating 78" and 26" lengths
  - Approximates the existing Long Bridge abutments and piers
- **Finish** - Course Pointed - Rough finish
  - Approximates the existing Long Bridge abutments and piers
- **Color** - Consistent Light Gray
  - Approximates the original color of the Long Bridge granite
  - Sourced from Fort Deposit, Maryland (source of original Long Bridge granite)

<table>
<thead>
<tr>
<th>Piers</th>
<th>Design Review Phase</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-26</td>
<td>2-Potomac River</td>
<td>Adjacent to Proposed Track #4 and Arlington County Long Bridge Park between railroad and new Bicycle-Pedestrian bridge</td>
</tr>
</tbody>
</table>

Proposed Stone Color and Finish
Potomac River

Proposed Design: Overall

The design nods to the existing Long Bridge by approximating, without replicating, the structure, material, and form of Long Bridge including its through girder spans and the form and spacing of its piers. The use of steel through plate girders is a requirement of the PA, developed pursuant to Section 106 process and the FEIS/ROD.

| Number of Spans | 22 approach spans and one navigational channel span over the Potomac River. The Bridge continues for one more span over Ohio Drive SW (West) to the north and for three spans over GW Parkway to the south. The spans vary from approximately 80 feet to 130 feet. |
| Superstructure | Weathering Steel Through Girders with depths of approximately 12 feet |
| Substructure | Pier 5 - 26 – Wall Piers |

Rendering of Proposed Rail Bridge Pier Over Potomac River.

A steel through girder bridge is comprised of two lengthwise girders spanned by floorbeams.
Potomac River

 Proposed: Potomac River Piers

- **Pier Shape**: The existing Long Bridge wall piers within the Potomac River were constructed with an ice breaker nose on the west side (upstream) of the pier and a rounded end on the east side (downstream) to ensure turbulent flow around the structure is kept to a minimum. The proposed piers will closely resemble this configuration.

- **Aesthetics**: The proposed piers in the river will approximate, without replicating, the existing bridge stone masonry with cast-in-place concrete formliner finish.

- **Alignment**: Piers within the Potomac River are in alignment with the existing Long Bridge Piers and the Proposed Bicycle-Pedestrian Bridge Piers for all spans, except the Navigational Channel Span (Span 13). The Navigational channel span alignment is shifted slightly to maintain the 100-foot channel alignment and connect the fender systems.

Sample pier plan showing how the new piers on the new bicycle-pedestrian bridge (1), rail bridge (2), and the historic Long Bridge (3) are all aligned in the channel.
Proposed: Potomac River Spans

- **Superstructure**: Weathering steel through girder.
- **Substructure**: The abutment and pier at Ohio Drive SW (West) are proposed to be concrete substructures with stone cladding to approximate without replicating the Long Bridge North Abutment.
Proposed Ramp and Stair at Mount Vernon Trail

The proposed bicycle-pedestrian ramp to the Mount Vernon Trail ramp will match the characteristics of the proposed bicycle-pedestrian bridge. The prefabricated truss structure and pier shapes will remain the same as the bridge. The ramp will require unique detailing at its top and bottom for connections.

Pedestrian Rail Bridge ramp and stairs at Mount Vernon Trail

Aerial view of proposed ramp and stair at the Mount Vernon Trail (upper). Perspective looking down the ramp at the Mount Vernon Trail (lower).
Potomac River

Proposed Ramp and Stair at Mount Vernon Trail

Bicycle-Pedestrian Bridge ramp and stairs at Mount Vernon Trail

Bicycle-Pedestrian Bridge elevation at Mount Vernon Trail
Proposed Design: Overall

The design of the bicycle-pedestrian bridge provides a safe, effective pedestrian and bike crossing with a low profile and simple structure that generally blends with the surrounding bridges. Truss size is based on span length determined by pier alignment. Truss size is typically kept consistent throughout typical spans for a unified form and increased over the GW Parkway and Navigation Channel longer spans.

Bicycle-Pedestrian Bridge Typical Section

1. Number of Spans
   - The bridge includes one 62-foot (19 m) span connecting Long Bridge Park to GW Parkway, one 180-foot span over GW Parkway roadway, three spans continuing over GW Parkway and 22 approach spans and one navigational channel span over the Potomac River. The Bridge ends before Ohio Drive SW (West) to tie into East Potomac Park. The spans across the Potomac River vary from approximately 80 feet to 110 feet typically, plus 144 feet for the two spans at the Navigation Channel.

2. Superstructure
   - Prefabricated truss of similar depths except at GW Parkway roadway and Navigational Channel. The top chord of the truss will avoid 4'-9"-5'-6" above deck to avoid eye level. Truss color will be standard DDOT light gray, Federal Standard No. 26408.

3. Substructure
   - Piers will be approximately five-to-six-foot diameter concrete columns with pier caps. There will not be a Pier within the GW Parkway roadway median.
Potomac River

Proposed Piers and Channel Crossing

Piers are concrete and have a minimal profile. Each pier aligns with the adjacent bridge pier placement in the river. Existing pier spacing is uniform with wider spacing at the navigational channel to accommodate watercraft. To accommodate any increased span length, the bicycle-pedestrian bridge truss height increases to support the longer span.

Rendering of bridge over the river. (Navigational Channel span begins at left-hand side of Image)

Elevation of Bicycle-Pedestrian Bridge spans at river navigation channel

Rendering of bridge from the river
Potomac River

Ramp and Stair at Ohio Drive SW

Bridge access is provided via ramps that start at the river's edge and rise to meet the main span height. This approach creates a minimal change in elevation and minimal impact to the surrounding parks.

Plan of Ohio Drive SW (West)
Ramp Connection (upper)
View of Bicycle-Pedestrian Bridge from the shore (lower)

Architectural Transition Detail of Truss End Condition (right)

Renderings are for illustration purposes only. Design details will be refined based on comments.
A T-intersection is being evaluated for the ramp and Ohio Drive SW (West) to create a more continuous public space along Ohio Drive and to articulate the spatial sequence at the start/end of the bike-ped bridge. The T-intersection will also encourage bicycles to slow down and promote safety for all users at this transitional location.
Potomac River

Proposed Color Options
DDOT light gray,
Federal Standard No. 26408.

George Mason Memorial Bridge - example
Potomac River

Proposed Color Options

Red,
Federal Standard No. 10076.

Historic Note:
Existing 1904 Long Bridge was a truss bridge, originally painted red.
Potomac River

**Proposed Color Options**

- Malcolm X interchange with I-295
- Brown, Federal Standard No. 37056.
East Potomac Park

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<th>East &amp; West Potomac Parks</th>
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<tr>
<td></td>
<td>• Potomac River Bicycle-Pedestrian Bridge Landing</td>
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<td>• WMATA/I-395 Bridge</td>
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<td>• Washington Channel Rail Bridge</td>
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<td>• Retaining Walls and Landscape Design</td>
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East Potomac Park

Proposed Design Overview and Intent

The rail crossing through East and West Potomac Parks is designed to minimize the impact to the park and viewsheds, while providing additional rail capacity through the park in a safe and efficient way.

The aesthetic treatment of the bridges is based on design choices found in the numerous surrounding, existing rail and highway bridges. The intent is to avoid introducing yet another design language in a location replete with transportation infrastructure.

Landscaping is used to blend the new bridge into its surroundings. The landscape design is also based on the historic palette of vegetation based on NPS provided information. The design intent is to use a mix of evergreen and flowering trees already found throughout the park to screen piers and structures.

Primary Referenced Resources (from NPS):
- NAMA East Potomac Park Golf Course 2017
- NAMA Thomas Jefferson Memorial 2015
- NPS Golf Courses in the District of Columbia
  Treatment Guidelines
- RCPP Potomac Waterfront Section, CLR 2018
- Tidal Basin Viewshed Analysis
  - HABS DC 692 East Potomac Park
  - HABS DC 693 West Potomac Park
  - HABS DC 59 Tidal Basin Drawings Final Draft
  - HABS DC 59 Tidal Basin History Final Draft
  - CHAPPELL 1973 West Potomac Park Historic Resource Study
  - East Potomac Park HSR Final 508C 2019
  - East/West Potomac Parks National Register

Letter designations will be further referenced and discussed within this section.

- a – Ohio Drive SW (West)
- b – 1395 and 14th Street SW
- b.i – WMATA L-395 Bridge
- b.ii – 14th Street SW Walls
- b.iii – Ohio Drive SW (East)
- c – Washington Channel
East Potomac Park

Proposed Design Overview and Intent

The design approach of the rail crossing through East and West Potomac Parks is to approximate the existing stone pattern of Long Bridge.

- **Pattern - Block-In-Course Ashlar**: Large ashlar blocks of the same height but two or three different lengths:
  - 24” Tall Blocks in alternating 78” and 26” lengths
  - Approximates the existing Long Bridge abutments and piers

- **Finish - Course Pointed**: Rough finish
  - Approximates the existing Long Bridge abutments and piers

- **Color - Consistent Light Gray**
  - Approximates the original color of the Long Bridge granite
  - Sourced from Fort Deposit, Maryland (source of original Long Bridge granite)
Ohio Drive SW (West): Abutment and Retaining Wall Design

Potomac River Rail Bridge Abutment and Retaining Wall C

The design of the abutment and retaining wall near Ohio Drive SW (West) corresponds to the material and landscape approach found in its surroundings.

- The Potomac River Rail Bridge Abutment B and Wall C will have a light gray stone cladding to approximate, without replicating, the historic character of the existing Long Bridge Abutment.
- The stone cladding will consist of a blocked-course ashlar pattern with a rough finish to resemble the existing Long Bridge abutment.
- Location: Wall C will run adjacent to NPS Parking Lot C
- Size: Approximately 370 feet long and range in height from approximately 21 to 26 feet.
- Type: The wall will be constructed using a modular block gravity wall system with a stone cladding.

Wall Location Map

Proposed Stone Cladding

Existing Long Bridge Abutment
Ohio Drive SW (West): Landscape Aesthetic

Wall C

- Landscape screening between Wall C and NPS Lot C is intended to layer evergreen species with flowering trees.
- NPS Parking Lot C will be reconfigured as part of this project.

Wall C Landscaping Plan

Proposed Stone Cladding
East Potomac Park

**WMATA/I-395 Rail Bridge**

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<thead>
<tr>
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<th>Description</th>
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<tr>
<td>1</td>
<td>Location: Between the existing I-395 rail bridge to remain and the 14th Street SW highway bridge</td>
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<tr>
<td>2</td>
<td>Number of Spans: Five spans of varying length and skew crossing the WMATA Metrorail Yellow Line tunnel portal and I-395 northbound and southbound lanes</td>
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</tbody>
</table>
East Potomac Park

**I-395 and 14th Street SW: Existing Bridges over I-395**

**Existing Bridges will remain.**

**CSXT Rail Bridge over I-395 - 1959**

The existing CSXT owned I-395 rail bridge was built in 1959 and is a two-span continuous through girders bridge carrying two rail tracks over I-395. The structure is supported by concrete cantilever abutments on steel piles and a two-column center pier located in the median between the northbound and southbound lanes of I-395. The abutment wingwalls and pier columns have a stone cladding and are supported by steel H-piles with a combination of straight and battered piles. The abutment faces are plain concrete with horizontal rustifications.

**14th Street SW Bridge Over I-395 - 1969**

The existing spans over I-395 in NPS administered East and West Potomac Park and consists of painted steel girders and concrete deck. The abutment faces and center pier are concrete with horizontal rustifications. The wingwalls have stone cladding on all faces.
East Potomac Park

b.i WMATA/I-395 Rail Bridge

For illustration purposes only. Design details will be refined based on comments.

Proposed Stone Cladding at Wall F
Intended to approximate the existing Long Bridge abutments and piers

Weathering Steel Through Girder
Abutment A and Wall C

Rendering of the Proposed WMATA/I-395 Rail Bridge (from 14th Street SW Bridge looking towards east Potomac Park). Call outs: Proposed Horizontal Rustifications at Piers and Abutment faces to approximate the I-395 corridor character.
East Potomac Park
14th Street SW: Bridges of Ohio Drive SW (East)

Rail Bridge over Ohio Drive SW (East) - 1904

The masonry stone facing two-track rail bridge over Ohio Drive SW (East) was built in 1904. The two-span bridge is constructed with steel through girders, built-up open boxes for floor beams, and a non-composite deck. Its substructure consists of concrete gravity abutments and a built-up steel frame pier on a concrete and masonry foundation. The substructure is supported on timber piles with a timber pile cap. This bridge will be replaced as part of the Long Bridge Project.

14th Street SW Bridge over Ohio Drive SW (East) – Modified 1982

The 14th Street SW bridge over Ohio Drive SW (East) is a concrete variable depth slab bridge with stone cladding on the fascia and “arched” stone accents. It was originally constructed in 1940. The substructure was widened and the superstructure replaced as part of the 1982 reconstruction.

This bridge will be replaced as part of the Project.

Existing Bridge will remain. This bridge is not part of the Project.

14th Street SW Bridge over Ohio Drive SW (East) (Est. 1982) (left), 14th Street SW Bridge Abutment over Ohio Drive SW (East) (right).

Rail Bridge over Ohio Drive SW (East) (above)
Rail Bridge Pier over Ohio Drive SW (East) (right)
East Potomac Park

b.iii Ohio Drive SW Rail Bridge
For illustration purposes only. Design details will be refined based on comments.

Rendering of the Proposed Ohio Drive SW (east) (looking northwest)
East Potomac Park

b.ii North Walls
Walls F and H

- Walls F and H will have a lightly-colored stone cladding to approximate, without replicating, the historic character of the existing Long Bridge abutments and piers.
- The stone cladding will consist of a block-in-course ashlar pattern with a rough finish.
- This will provide a consistent aesthetic so that the railroad corridor will appear as a cohesive unit within the District as users travel along 14th Street SW, East Basin Drive, and the northern portions of Ohio Drive SW (East).

```
New Rail Bridge
Washington Channel
Ohio Drive SW (East)
14th Street SW
Wall F
Proposed Landscaping Screening Not Shown
```

- Proposed Stone cladding
- Existing 14th Street SW Retaining Walls
- Existing 14th Street SW Bridge over Ohio Drive SW (East)
East Potomac Park

b.ii South Walls

Walls G and I

- Walls G and I will have a lightly-colored stone cladding to approximate, without replicating, the historic character of the existing Long Bridge abutments and piers.
- The stone cladding will consist of a block-in-course ashlar pattern with a rough finish.
- The color and pattern will approximate the original color of the Long Bridge granite sourced from Port Deposit, Maryland.

Existing Rail Bridge

Wall G

New Rail Bridge

Wall I

New Rail Bridge

Washington Channel

I-395

Ohio Drive SW, (East)

Proposed Stone Cladding

Existing Rail Bridge over I-395

Existing 14th Street SW Bridge over Ohio Drive SW (East)
East Potomac Park

b.ii Wall Structure

Walls F, G, H, I

- **Location:** Walls F and H will run adjacent to 14th Street SW and Walls G and I will run adjacent to the East Potomac Park.
- **Size:** Walls F and H will be approximately 750 and 260 feet long, respectively, and Walls G and I will be approximately 740 and 280 feet long, respectively. The walls range in height from approximately 7 to 31 feet.
- **Landscaping:** This portion of the corridor has historically been well buffered by the surrounding vegetation. A landscaping and planting plan will be implemented to buffer the proposed walls, similar to the existing corridor.
- **Type:** All walls will be constructed using a modular block gravity wall system with a stone cladding or finish. The stone will approximate, without replicating, the color and pattern of the existing Long Bridge abutment and piers.
East Potomac Park

b.ii Landscape Design at Walls

The landscaping design intent at East and West Potomac Parks is to screen the existing bridges and the proposed bridges with vegetation. The planting approach is:

- Flowering trees (dogwoods, redbuds, hawthorns)
- Evergreen Trees to screen new piers and walls (hollies, pines)
- Shade trees planted for mitigation (oaks, elms, maples)

Vegetation Protection and Restoration Plan View – Wall F (West) and Wall G (East)

Landscape Design Intent at East and West Potomac Parks
East Potomac Park
East Potomac Park
East Potomac Park
East Potomac Park

Washington Channel

Washington Channel Rail Bridge (Substructure)

- **Built:** North abutment was most recently modified in 1907 and built in 1903. The south abutment and pier were modified in 1903 and originally built in 1891
- **Substructure:** granite masonry gravity abutments and a full height granite masonry pier. Both abutments and pier are supported by timber piles with a timber pile cap.
- **Aesthetic Treatment:** Granite Masonry substructure
- **Note:** The existing bridge will be replaced and expanded. The existing abutments will be partially preserved in-place and modified as part of the new structure. The waterway underneath the Bridges in the Washington Channel are not considered navigable by USCG.

Existing Washington Channel Rail Bridge Substructure – Plan View

Washington Channel Rail Bridge Abutment

Rail Bridge Over Washington Channel
East Potomac Park

**Washington Channel Rail Bridge**

The existing abutments will be retained to the extent possible and modified to serve as retaining walls within the next design.

Approximate portion of abutment to be reused.

Proposed Washington Channel Rail Bridge Longitudinal Section.

Proposed Washington Channel Rail Bridge Plan.

- Indicates proposed abutment or pier
- Indicates existing abutment portion to be reused
East Potomac Park

Washington Channel Rail Bridge
Proposed Aesthetics

1. Deck Plate Girder
2. Concrete Barrier

Rendering of Proposed Washington Channel Bridge (looking northeast)

Existing Abutment preserved and modified

Existing Abutments to be preserved and modified as retaining walls in front of proposed Abutments