



Executive Director's Recommendation

Commission Meeting: June 2, 2022

PROJECT Theodore Roosevelt Bridge Rehabilitation Theodore Roosevelt Bridge Washington DC	NCPC FILE NUMBER 8363 NCPC MAP FILE NUMBER 1.46(48.00)45498
SUBMITTED BY District of Columbia Department of Transportation	APPLICANT'S REQUEST Approval of preliminary site development plans
REVIEW AUTHORITY District Projects Outside the Central Area 40 U.S.C. § 8722(b)(1)	PROPOSED ACTION Approve preliminary site development plans with comments
	ACTION ITEM TYPE Consent Calendar

PROJECT SUMMARY

The District Department of Transportation (DDOT) has submitted preliminary plans to rehabilitate the Theodore Roosevelt (TR) Bridge, which carries Interstate 66 traffic between Washington DC and Arlington, Virginia. The Bridge consists of two units, one that spans between the District of Columbia and Theodore Roosevelt Island over the Potomac River, and a second unit spans between Theodore Roosevelt Island and Arlington, Virginia over the Little River. The total length of the Theodore Roosevelt Bridge is approximately 3,200 feet, serving as an important connection for motor vehicles, bicycles, and pedestrians between Virginia and District of Columbia. The TR Bridge is categorized as “structurally deficient” with its deck and coating system in poor condition and need of replacement.

KEY INFORMATION

- The District Department of Transportation prepared a Maintenance of Traffic plan to maintain traffic operations across the bridge during its construction phase. Temporary traffic impacts from construction would include extended travel times, reduced speed limits, reduced lane widths, and reduction in the number of lanes on the bridge and ramps.
 - The project will require the closure of two travel lanes for an extended duration, with most ramps expected to be open during peak travel times.
 - The proposed sidewalk widths are based on shared path factors that include the number of times a typical bicyclist meets or passes another path user; number of those passes that are delayed; and other path user behavior.
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RECOMMENDATION

The Commission:

Approves the preliminary site development plans to rehabilitate the Theodore Roosevelt Bridge in Washington, DC.

Notes that DDOT would repaint all structural steel on the Theodore Roosevelt Bridge to match its original white color designed to create a cohesive aesthetic between the bridge and nearby monuments and the Arlington Memorial Bridge.

Notes the project would double the current sidewalk widths across the TR Bridge (from an approximately 5 feet to 10 feet) to improve travel conditions for pedestrians and bicyclists.

Finds the proposed sidewalk widenings would enhance pedestrian and bicycle connectivity between Virginia and the District of Columbia, with improved connections between the Mount Vernon Trail, Rock Creek Trail, Kennedy Center, Crystal City, and Lincoln Memorial.

Recommends that DDOT mitigate any tree removal on impacted federal property based on NCPC Policy FE.G.2

Future Land Improvements

Notes that DDOT, VDOT, and FHWA are in the process of developing a Highway Easement Deed for the land that is currently occupied by the TR Bridge infrastructure, which would allow VDOT and DDOT to continue to control the land, preserve federal ownership of the land, and correct previous land transfer actions.

Lighting

Notes that DDOT would replace existing cobra-head lights and navigational safety lighting as needed, with no plans to install new pedestrian-scaled lighting along the widened TR Bridge sidewalks at this time.

Encourages DDOT to work with NCPC, NPS, and other stakeholders to explore the feasibility of installing appropriate pedestrian-scaled lighting along the widened sidewalks to improve pedestrian (and bicyclist) comfort and continuity with adjacent streetscape character, protect the night sky and surrounding natural resources, and elevate the quality of this important gateway.

Additional Coordination

Notes additional coordination is necessary with the District Department of Energy and Environment (DOEE) to develop an erosion and sediment control plan and possibly a stormwater management plan.

PROJECT REVIEW TIMELINE

Previous actions	None.
Remaining actions (anticipated)	Winter 2022/23 – Final site development plan approval

PROJECT ANALYSIS

Executive Summary

Staff has evaluated the submitted materials and finds the proposed Theodore Roosevelt Bridge rehabilitation to be generally consistent with the Transportation and Federal Environment Elements. The condition of the bridge (rated as “structurally deficient” by DDOT) requires immediate restoration to extend its life as an important cross-river connection. Staff appreciates DDOT’s proposal to use the project to widen the bridge sidewalks to better accommodate pedestrian and bicycle travel in support of National Park Service (NPS) and District plans. Therefore, we recommend that the Commission **approve the preliminary site development plans to rehabilitate the Theodore Roosevelt Bridge in Washington, DC.**

Project Description

The District Department of Transportation (DDOT) has submitted preliminary plans to rehabilitate the Theodore Roosevelt (TR) Bridge, which carries Interstate 66 traffic between Washington DC and Arlington, Virginia. The Bridge consists of two units, one span between the District of Columbia and Theodore Roosevelt Island over the Potomac River, and a second span between Theodore Roosevelt Island and Arlington, Virginia over the Little River. The total length of the Theodore Roosevelt Bridge is approximately 3,200 feet, which serves as an important connection for motor vehicles, bicycles, and pedestrians across the River. The TR Bridge is categorized as “structurally deficient” with its deck and coating system in poor condition and in need of replacement. Specific project improvements would include:

- Bridge deck replacement/overlay
- North sidewalk widening
 - Widen sidewalk to 10’-0” clear with bump-outs at DC abutment
 - Replace roadway barrier with MASH compliant barrier on north side of bridge
 - Replace existing sidewalk railing with new 42-inch railing
- South sidewalk widening
 - Widen sidewalk to 10’-0” clear for future project
 - Replace roadway barrier with MASH compliant barrier on south side of bridge
 - Replace existing sidewalk railing with new 42-inch railing
- Bridge rehabilitation
 - Retrofit of pin and hanger assembly
 - Replace existing joints

- Repair various steel members in-kind
 - Repair substructure concrete repairs
 - Repair substructure stone
 - Repair of fender system and navigational lighting
- Replace roadway lighting on the bridge
 - Remove and repaint all structural steel to match original color
 - Replace existing sign structures

DDOT would replace all bridge railings, streetlights (modern cobra heads), navigational lights, highway signs, and traffic barriers in-kind. The bridge's corroded structural paint would be removed and the structural steel repainted white to match its original color. Submission materials explain that the bridge was originally painted white to provide a cohesive aesthetic between the adjacent monuments and the Arlington Memorial Bridge. Therefore, staff recommends that the Commission **note that DDOT would repaint all structural steel on the Theodore Roosevelt Bridge to match its original white color designed to create a cohesive aesthetic between the bridge and nearby monuments and the Arlington Memorial Bridge.**

The planned bridge sidewalk widenings (from approximately 5 feet to 10 feet) would upgrade these pathways to meet national standards and to fulfill District, NPS, and Arlington mobility plans. The widened sidewalk along the northside of the TR Bridge would terminate before crossing over the Rock Creek and Potomac Parkway, thereby maintaining the current width further to the east. However, the width of the southside sidewalk would continue over the entire length of the bridge. Submission materials explain that the NPS plans to continue the northside sidewalk widening over the Rock Creek and Potomac Parkway in the future. Therefore, staff recommends that the Commission **note the project would double the current sidewalk widths across the TR Bridge (from an approximately 5 feet to 10 feet) to improve travel conditions for pedestrians and bicyclists.**

As the proposed sidewalk widenings would meet national standards and District plans, and greatly improve pedestrian and bicycle mobility across the TR Bridge, staff supports the proposed improvements as part of the project. In particular, the wider sidewalks would better connect several regional trails in the area including the Mount Vernon Trail (Virginia side) and Rock Creek Trail (District side), as well as destinations such as the Kennedy Center, Crystal City, and Lincoln Memorial. Therefore, staff recommends that the Commission **find the proposed sidewalk widenings would enhance pedestrian and bicycle connectivity between Virginia and the District of Columbia, with improved connections between the Mount Vernon Trail, Rock Creek Trail, Kennedy Center, Crystal City, and Lincoln Memorial.**

The rehabilitation project would require removal of approximately 30 trees on Theodore Roosevelt Island to allow for the sidewalk widening construction. None of these trees are part of the original landscape plan for the Park, and their removal would not likely be noticeable with the large expanse of existing trees that would remain on the island. However, staff believes that DDOT should mitigate the proposed tree removal based on NCPC Policy FE.G.2 since the removal action

would be located on federal property. Therefore, staff recommends that the Commission **recommend that DDOT mitigate any tree removal based on NCPC Policy FE.G.2 since the impact would be located on federal property.**

The District Department of Transportation, Federal Highway Administration (FHWA), Virginia Department of Transportation (VDOT), and National Park Service are in the process of recording a Highway Easement Deed for the federal property (George Washington Parkway, Theodore Roosevelt Island, Rock Creek and Potomac Parkway) that is currently occupied by the TR Bridge and its approaches. The Highway Easement Deed would be a corrective action to previous land transfers that were undertaken as part of the original TR Bridge construction, while allowing the District and Virginia to continue their use of the occupied land for transportation (bridge infrastructure) purposes and preserving federal ownership of the land. Therefore, staff recommends the Commission **note that DDOT, VDOT, DDOT, and FHWA are in the process of developing a Highway Easement Deed for the land that is currently occupied by the TR Bridge infrastructure, which would allow VDOT and DDOT to continue to control the land, preserve federal ownership of the land, and correct previous land transfer actions.**

Staff Analysis

DDOT would replace overhead streetlights on the Bridge in addition to existing underside navigational lighting on an as-needed basis, with no plans to install new more pedestrian/bicycle-scale lighting on the bridge to facilitate night-time use of the widened sidewalks across the bridge. There is an opportunity to install smaller-scale lighting along the TR Bridge sidewalks in the future to help facilitate their use after dark; however, additional coordination would be necessary between DDOT, NCPC, NPS, CFA, and DC SHPO to determine the feasibility of smaller-scale lighting. Therefore, staff recommends that the Commission **note that DDOT would replace existing cobra-head lights and navigational safety lighting as needed, with no plans to install new pedestrian-scaled lighting along the widened TR Bridge sidewalks at this time.** Furthermore, staff recommends that the Commission **encourage DDOT to work with NCPC, NPS, and other stakeholders to explore the feasibility of installing appropriate pedestrian-scaled lighting along the widened sidewalks to improve pedestrian (and bicyclist) comfort and continuity with adjacent streetscape character, protect the night sky and surrounding natural resources, and elevate the quality of this important gateway.**

CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE

Comprehensive Plan for the National Capital

The rehabilitation of the Theodore Roosevelt Bridge is generally consistent with the Federal Elements of the Comprehensive Plan. The project meets basic goals of the Plan, and in particular those policies related to Urban Design, Transportation and Visitors & Commemoration. Overall, the project is necessary to preserve and protect a vital transportation connection between the District of Columbia and Virginia.

National Environmental Policy Act (NEPA)

The Federal Highway Administration is completing two separate NEPA Categorical Exclusions for the project. One Categorical Exclusion (CE-1) is being completed for the historical land transfer with NPS and VDOT so that DDOT may operate and maintain the existing bridge as intended in the original legislation. In addition, FHWA is completing a second Categorical Exclusion (CE-3) for the rehabilitation project and proposed sidewalk widening. The Categorical Exclusion is expected to be complete by the end of June 2022. Based on NCPC's advisory authority over the project as a District project, the Commission does not have an independent review responsibility under National Environmental Policy Act.

National Historic Preservation Act

The Federal Highway Administration in cooperation with DDOT has concluded that the indirect and direct impacts to parkland from this project do not constitute an adverse effect as defined by 36 CFR 800.5(a)(2). The John F. Kennedy Center for the Performing Arts has issued its concurrence with FHWA's Finding of No Effect, as did the National Park Service. Based on NCPC's advisory authority over the project as a District project, the Commission does not have an independent Section 106 review responsibility under the National Historic Preservation Act.

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. To the extent that the project disturbs land, DOEE noted that it will require at least an erosion and sediment control plan and possibly (though unlikely) a stormwater management plan. DOEE will assess land disturbance on either side of the bridge due to construction activities, including construction staging. Additionally, this project should coordinate with the DOEE wetland, streams, and rivers coordinator. Staff recommends that the Commission **note additional coordination is necessary with the District Department of Energy and Environment (DOEE) to develop an erosion and sediment control plan and possibly a stormwater management plan.**

U.S. Commission of Fine Arts

The CFA previously reviewed the Theodore Roosevelt Bridge rehabilitation project with no objection to the concept design submission.

ONLINE REFERENCE

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

- NCPC Staff Summary Presentation
- DDOT Project Narrative

Prepared by Michael Weil
05/25/2022

POWERPOINT (ATTACHED)

Theodore Roosevelt Bridge Rehabilitation

Washington, DC

Approval of Preliminary Site Development Plans

District Department of Transportation

Project Summary



Commission Meeting Date: June 2, 2022

NCPC Review Authority: District Projects Outside the Central Area 40 U.S.C. § 8722(b)(1)

Applicant Request: Approval of Preliminary Site Development Plans

Session: Consent Calendar

NCPC Review Officer: Michael Weil

NCPC File Number: 8363

Project Summary:

The District Department of Transportation has submitted preliminary plans to rehabilitate the Theodore Roosevelt (TR) Bridge, which carries Interstate 66 traffic between Washington DC and Arlington, Virginia. The bridge consists of two units, one that spans from Washington DC across the Potomac River to Theodore Roosevelt Island and a second unit that spans from Theodore Roosevelt Island across the Little River to Arlington, Virginia. The western end of the Little River spans include three ramp structures, and the eastern end of the Potomac spans include two ramps. The two structures are separated by a short, at-grade roadway section (approximately 300 feet in length) on Theodore Roosevelt Island. The total length of the TR Bridge is approximately 3,200 feet. The bridge serves motor vehicles, bicycles, and pedestrians.

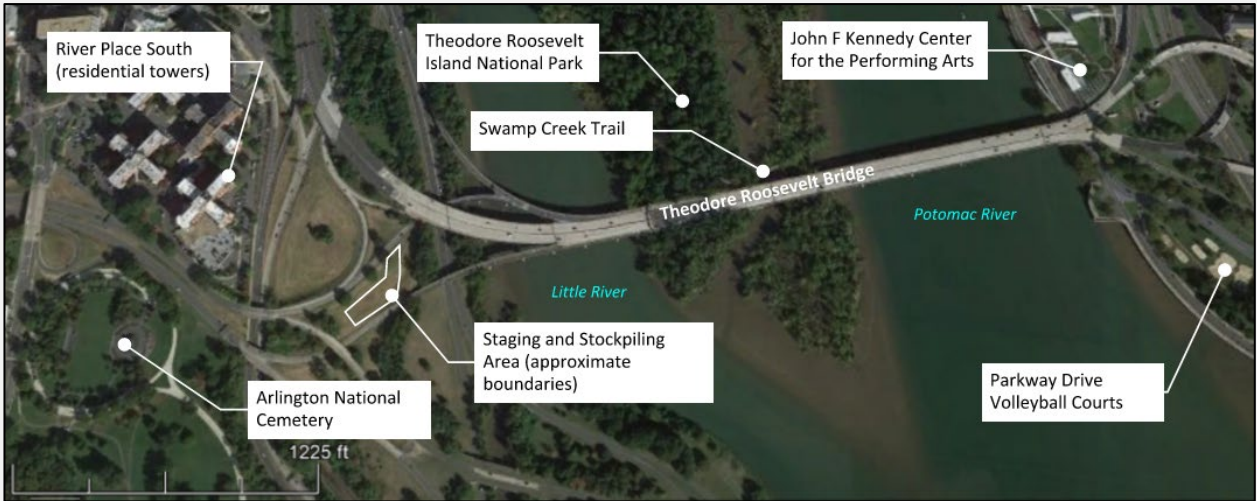
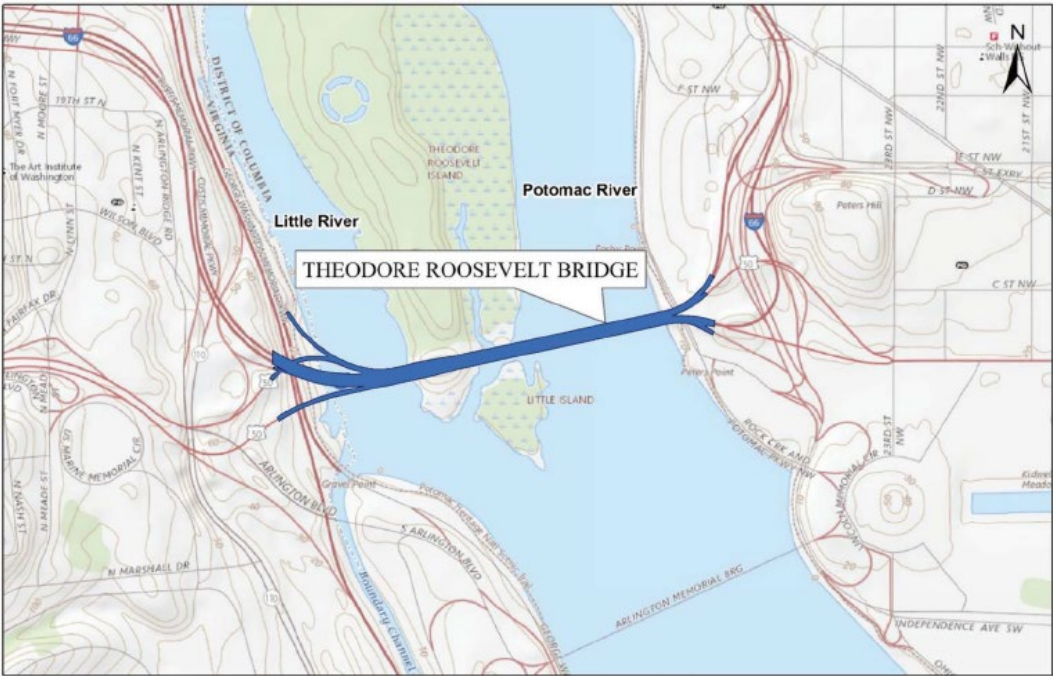
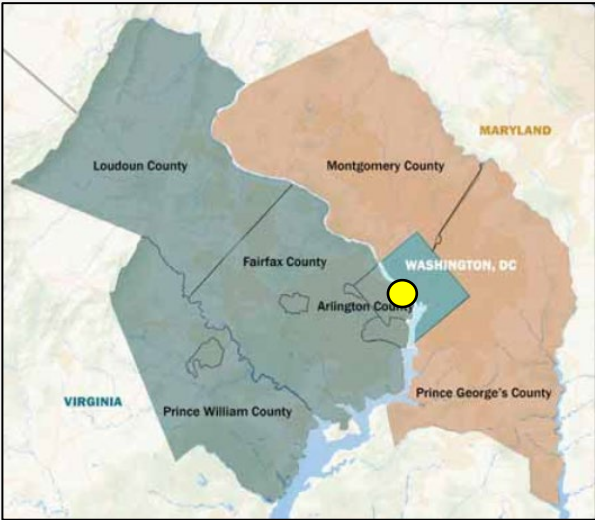
The bridge and the approaches are currently categorized as structurally deficient with the deck and coating system in poor condition. DDOT plans to rehabilitate the structure to extend the life of the bridge by 25 years as well as widen the north sidewalk to improve multimodal safety for pedestrians and bicyclists.

The proposed project would include:

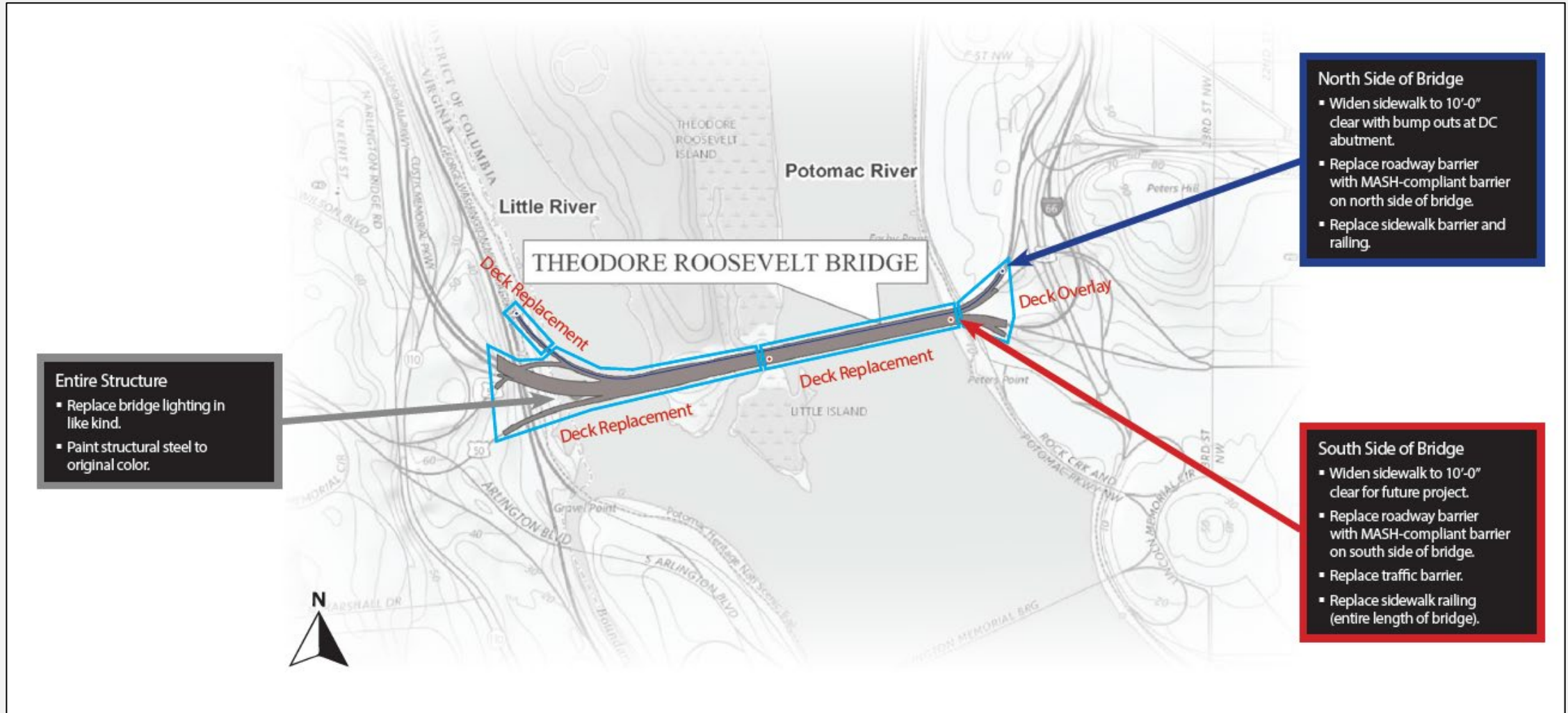
Project Summary (*cont.*)

- **Bridge deck replacement/overlay**
- **North sidewalk widening**
 - Widen sidewalk to 10'-0" clear with bump-outs at DC abutment
 - Replace roadway barrier with MASH compliant barrier on north side of bridge
 - Replace existing sidewalk railing with new 42-inch railing
- **South sidewalk widening**
 - Widen sidewalk to 10'-0" clear for future project
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 - Replace existing sidewalk railing with new 42-inch railing
- **Bridge rehabilitation**
 - Retrofit of pin and hanger assembly
 - Replace existing joints
 - Repair various steel members in-kind
 - Repair substructure concrete repairs
 - Repair substructure stone
 - Repair of fender system and navigational lighting
- **Replace roadway lighting on the bridge**
- **Remove and repaint all structural steel to match original color**
- **Replace existing sign structures**

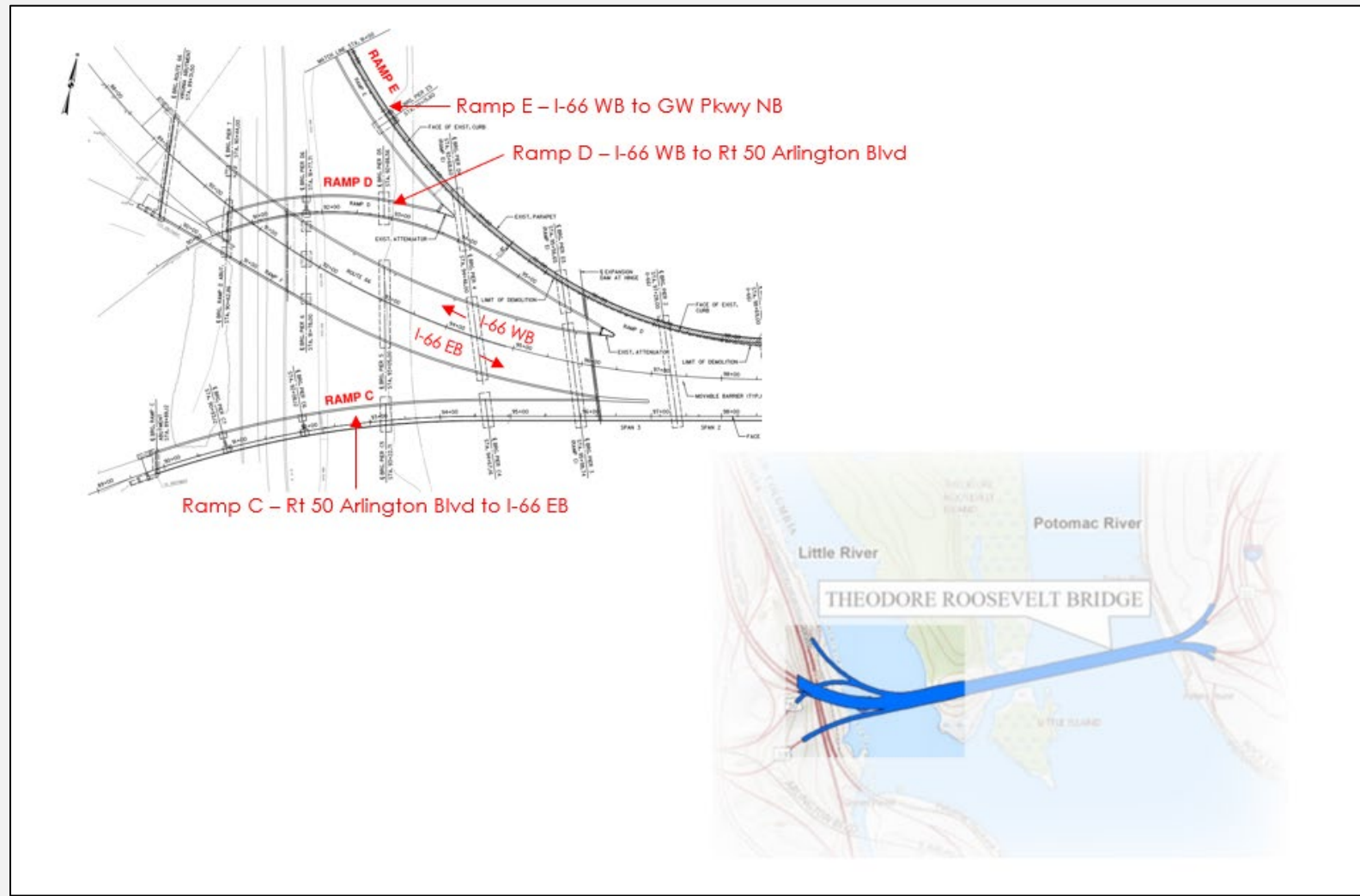
Project Location



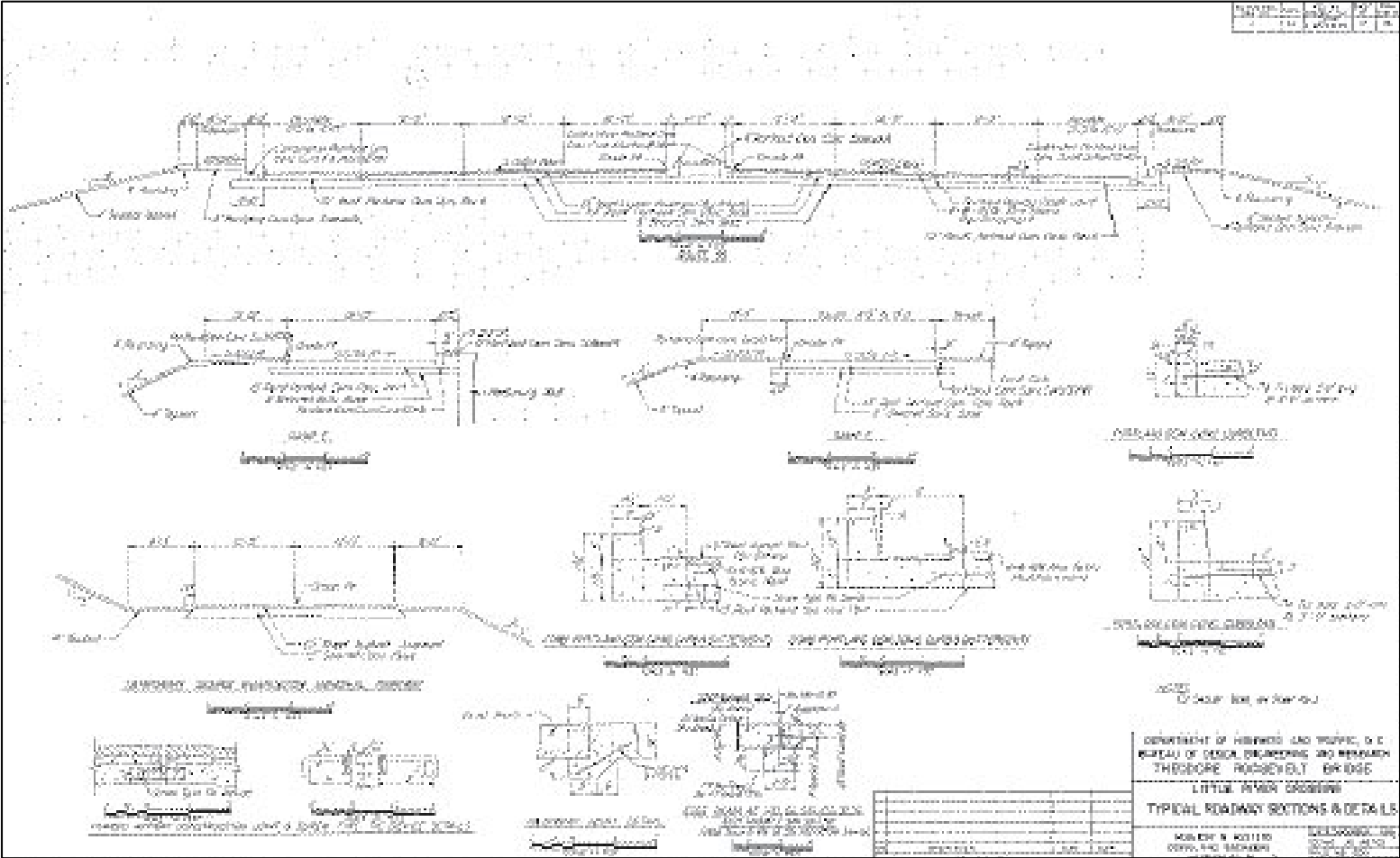
Project Scope



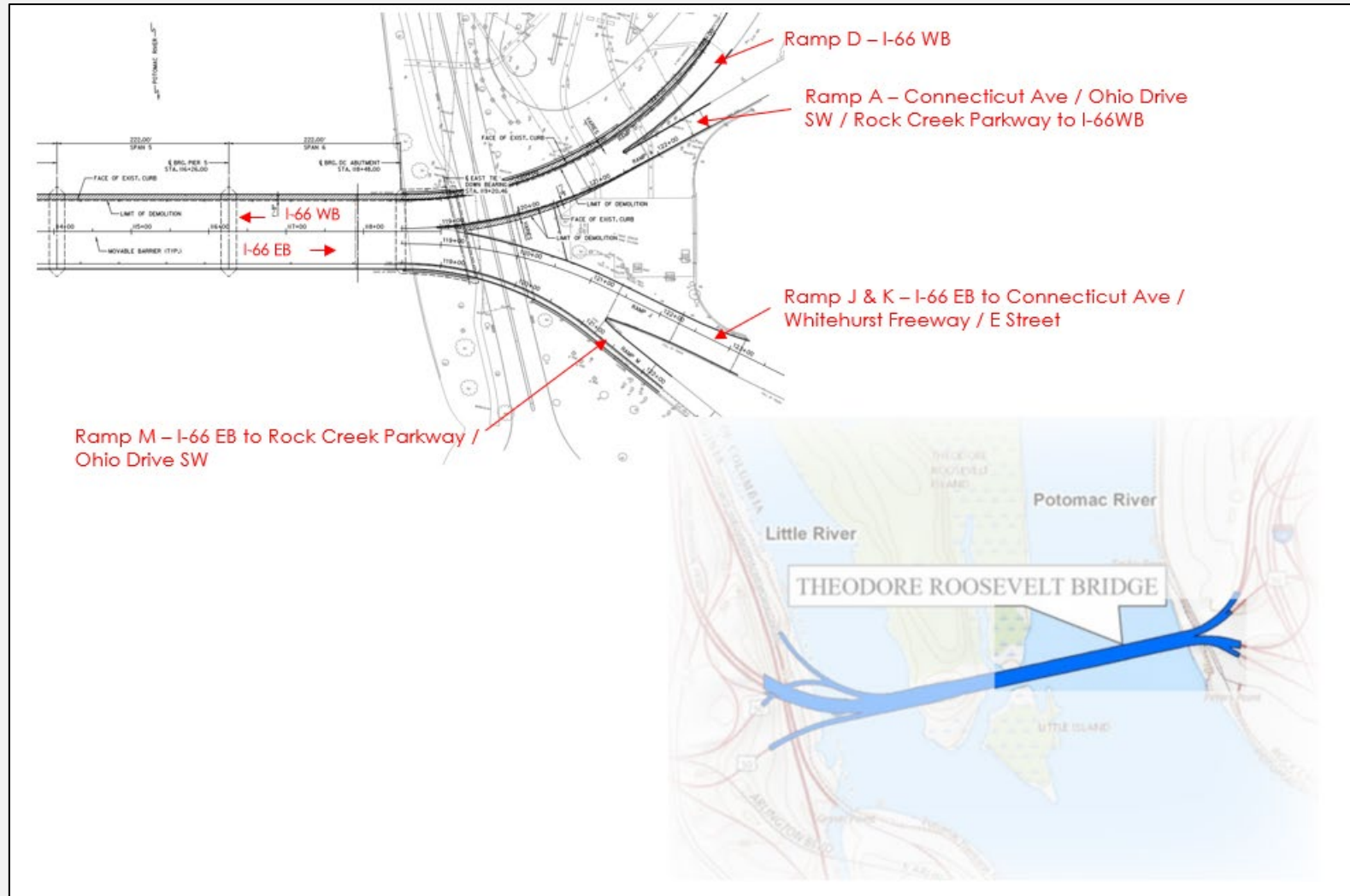
Existing Site Plan (Little River Spans / Virginia Avenue Ramps)



Existing Site Plan (Theodore Roosevelt Island)

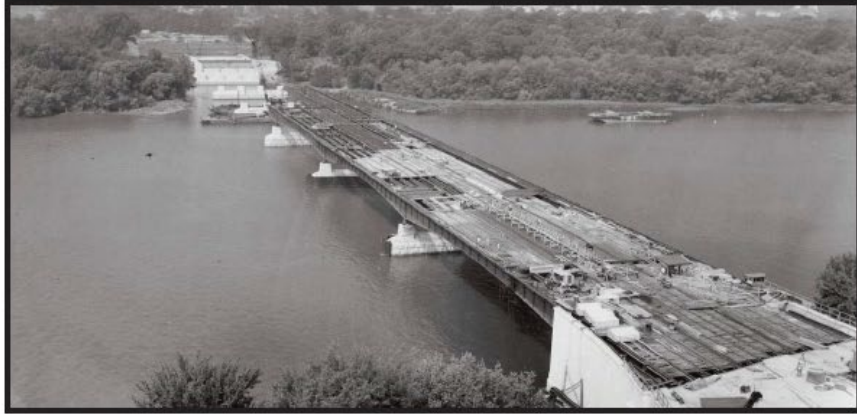


Existing Site Plan (Potomac River Spaces and DC Side)



Historic Photos

Construction Photos



VA View



Looking North



DC View



DC View

Existing Photos



Typical debris on bottom flanges of floorbeams and girders at the finger joint



Large holes in lateral bracing



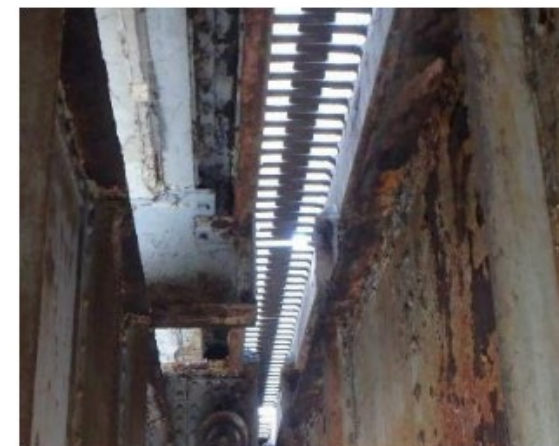
Corroded steel



Corrosion at pin and hangar



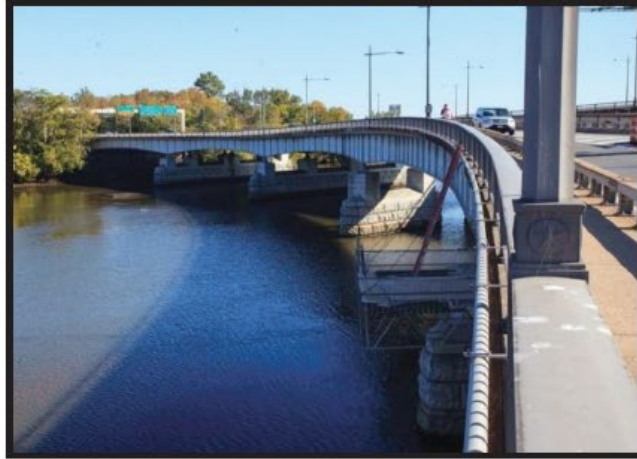
Crack in abutment



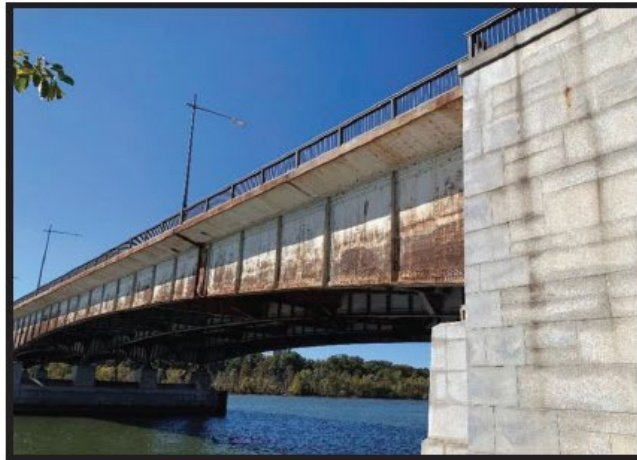
Broken finger and corrosion – joint metalwork

Existing Photos

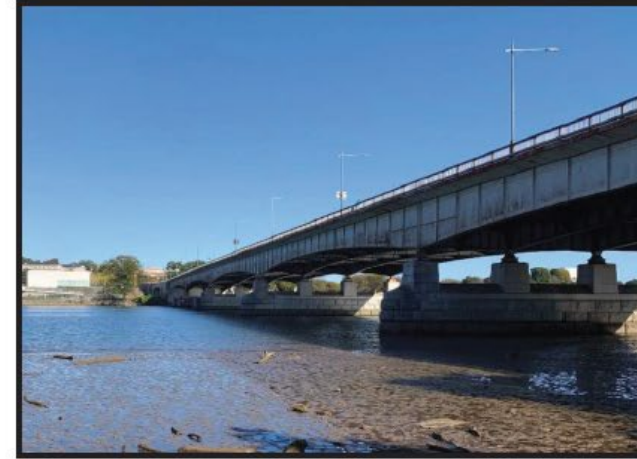
Theodore Roosevelt
Bridge (Little River
Spans) Looking East



Theodore Roosevelt
Bridge (Potomac
Spans) Looking West
from DC



Theodore Roosevelt
Bridge (Potomac Spans)
Looking East



Theodore Roosevelt
Bridge (Potomac Spans)
Looking East



Existing Photos

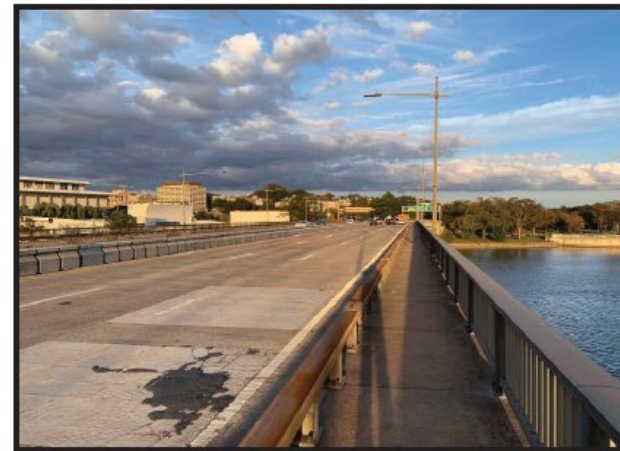
Theodore Roosevelt
Bridge Approach over
GW Parkway



Theodore Roosevelt
Bridge over Rock Creek
Parkway/DC Abutment
and other island
concrete structures



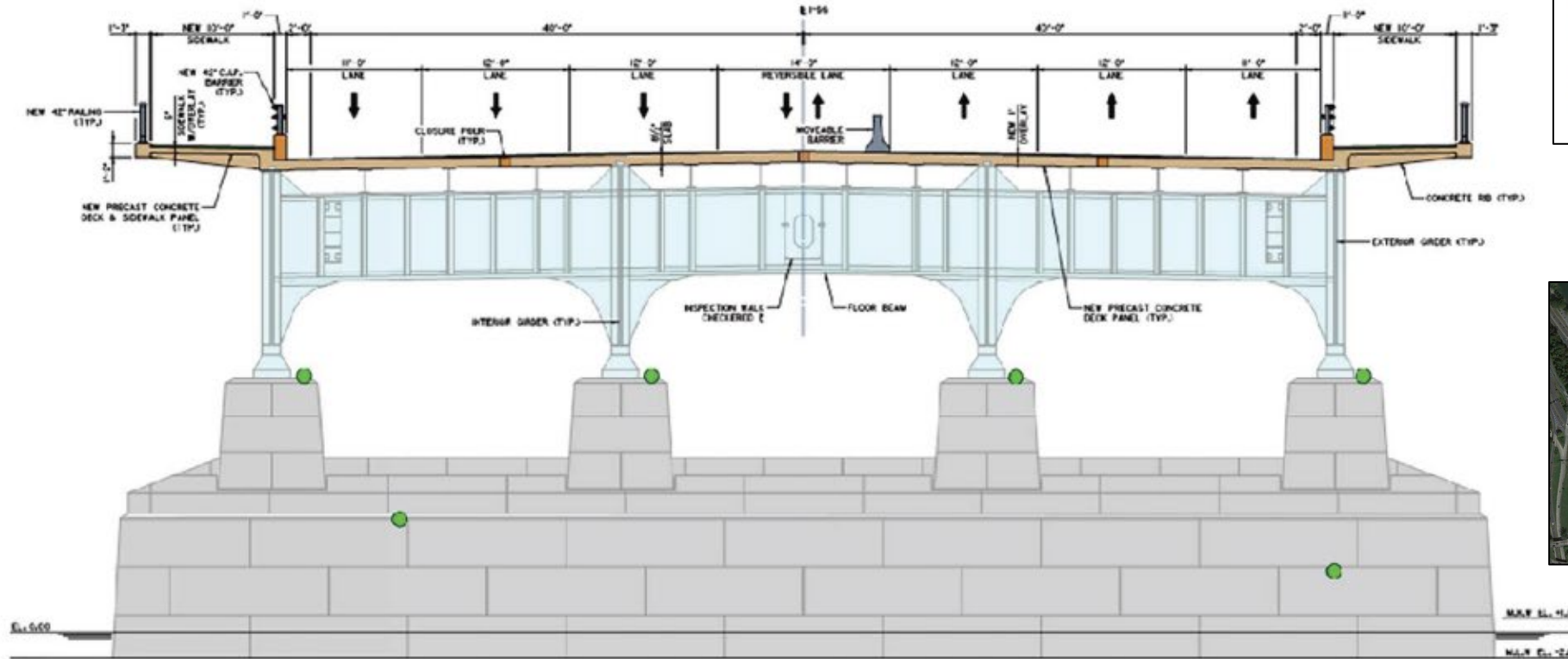
Theodore Roosevelt
Bridge (Little River
Spans) Looking West



Theodore Roosevelt
Bridge (Potomac Spans)
Looking East

Substructure Repairs (Potomac Spans)

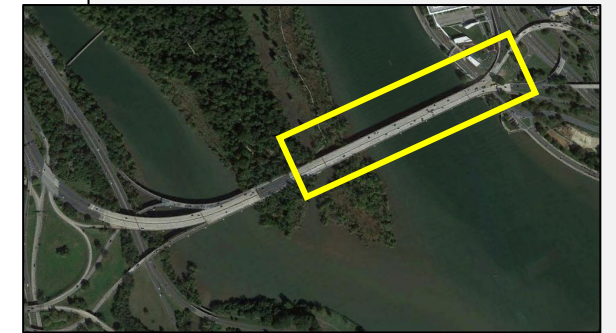
- A) Piers, Abutments, and Pile Supports
- B) Stone Repointing
- C) Bearing Connections
- D) Interior Lighting
- E) Dewatering



Substructure Repair (green)

- Piers, Abutments, and Pile Supports
- Stone Repointing
- Bearing Connections

TYPICAL SECTION AT PIER
POTOMAC SPANS



Widened Sidewalks

Rehabilitation of the
Theodore Roosevelt Bridge

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Sidewalk Widening

The current north and south sidewalk widths vary between 4-feet to 6-feet and do not meet safety standards established by the American Association of Highway and Transportation Officials (AASHTO). The north sidewalk currently connect to Mount Vernon Trail to the Kennedy Center and continue through DC. The south sidewalk does not connect to any trails but NPS long term goals identify connecting the south sidewalk from Arlington County to DC. The existing traffic barriers between the sidewalk and traffic lanes provide minimal protection from pedestrians and do not meet current safety standards.

DDOT plans to widen the north sidewalk from the Kennedy Center Reach Ramp to VA Bridge abutment and provide a 10-foot clear width multimodal path from the DC Abutment to Virginia Approach and replace the existing traffic barrier along the widened path. For the bridge structures, the sidewalk will be cantilever off the existing structure and sidewalk widened on TR Island.

Due to the fact the bridge deck will be replaced, the south sidewalk will be widened to 10-feet to accommodate NPS long term goals to connect the sidewalk to Virginia. DC Abutment and TR Island south sidewalk will not be widened.



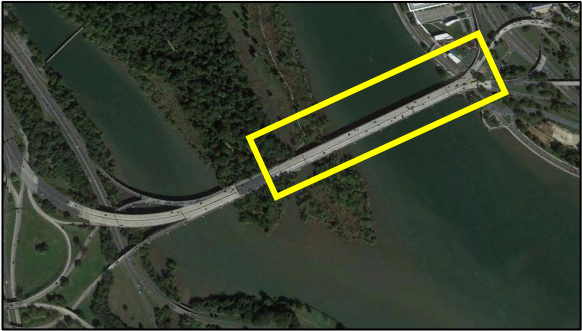
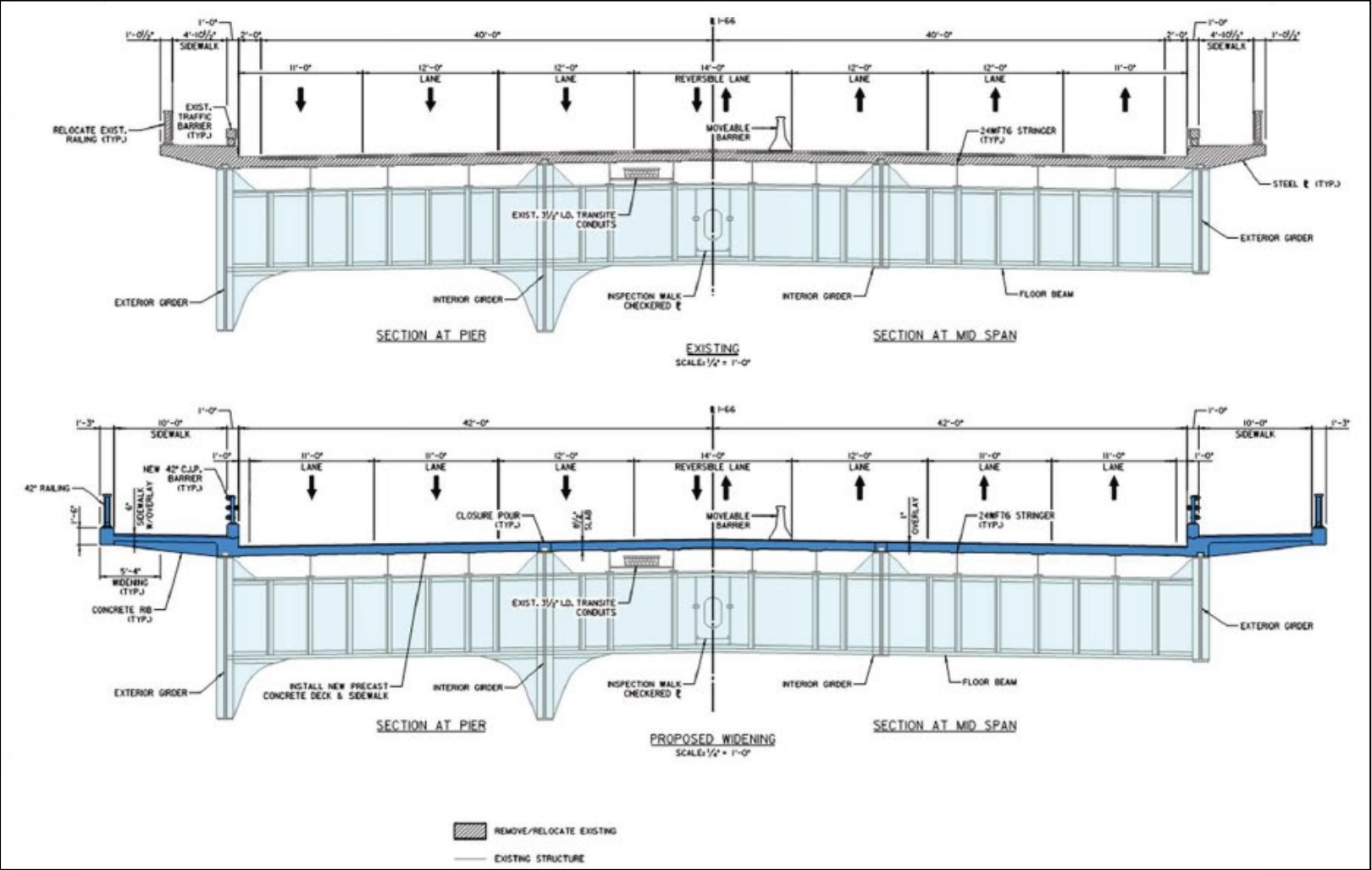
Arlington County Bicycle and Trail Map



DDOT Trail Map

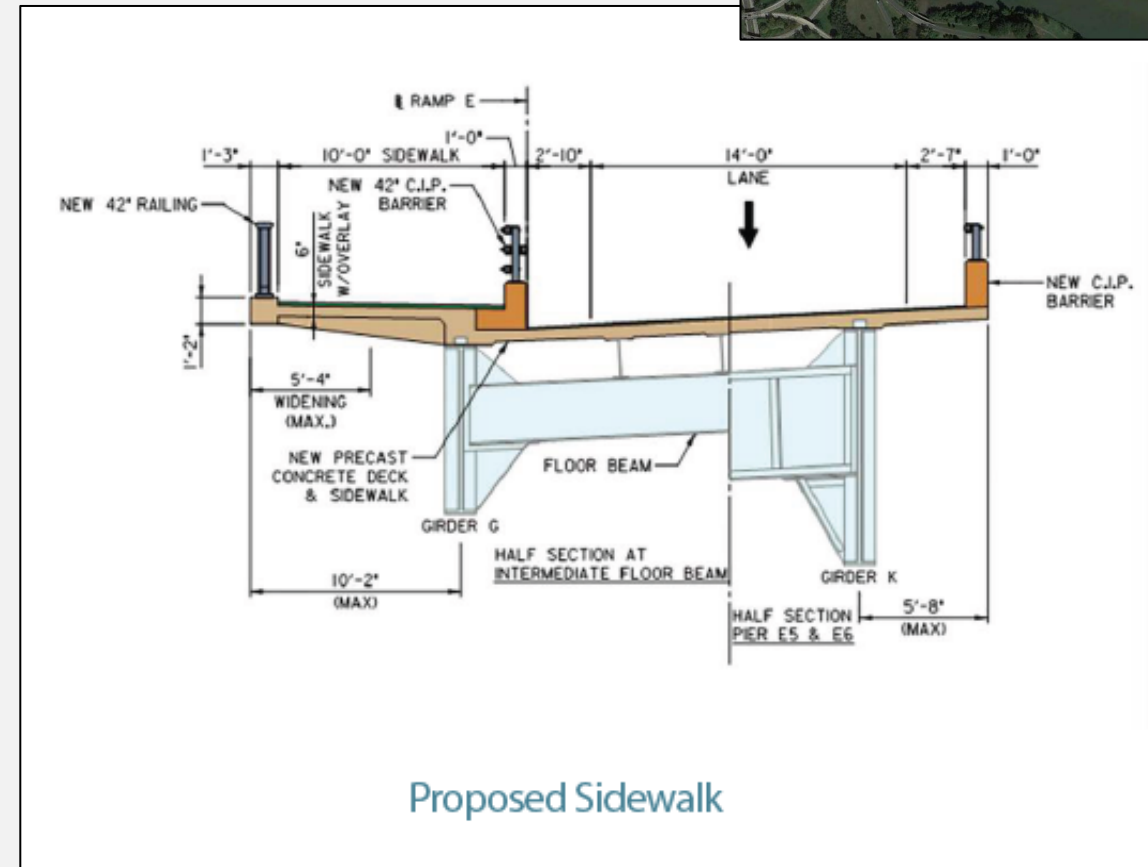
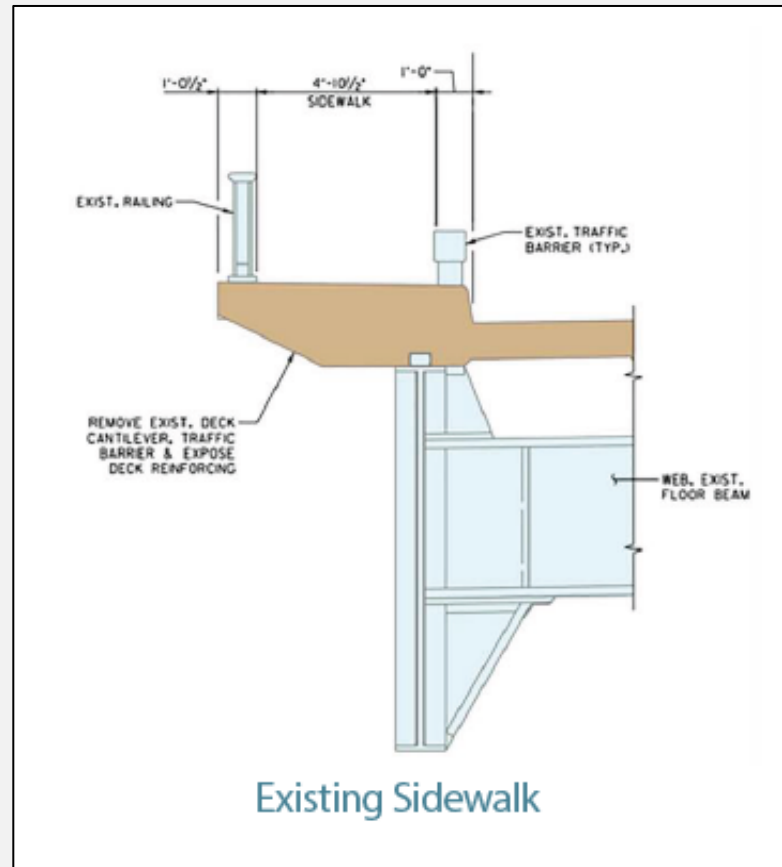


Widened Sidewalks (Potomac Spans)

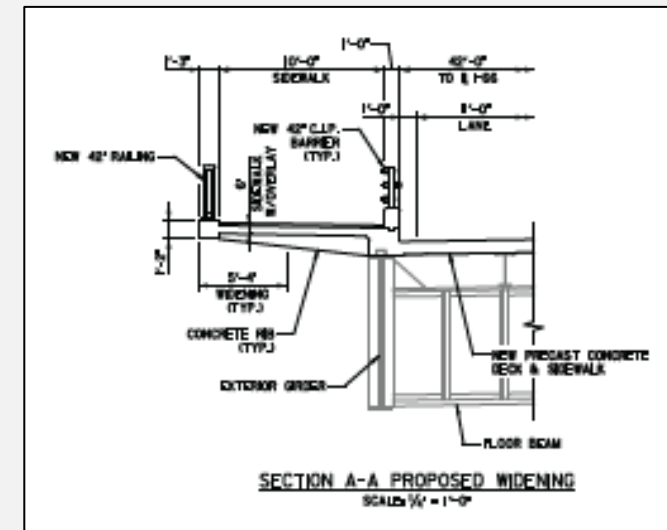
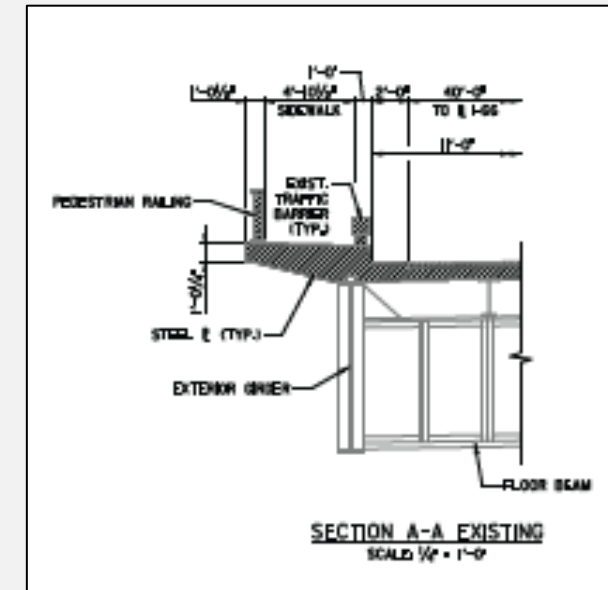
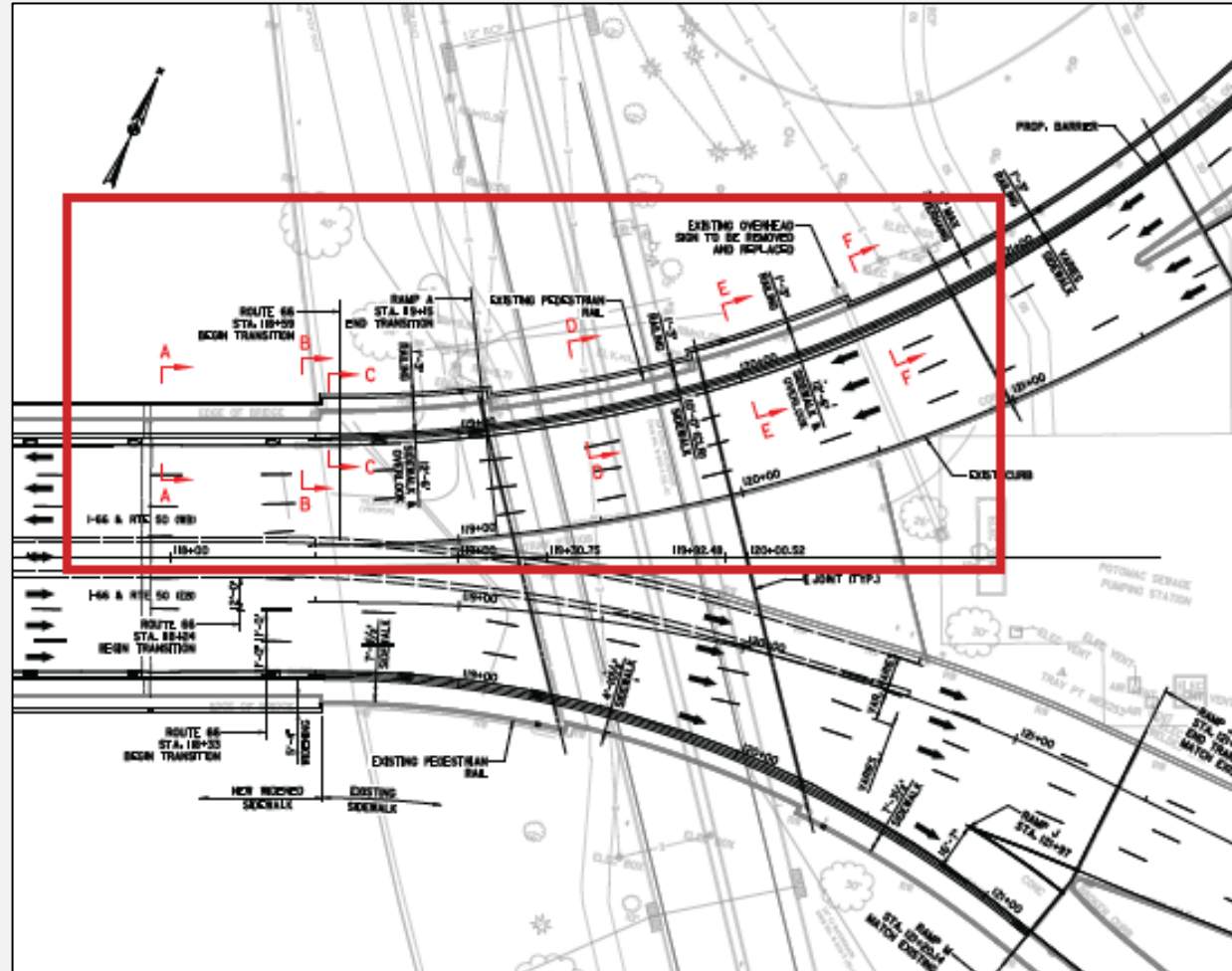


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Widened Sidewalks (Little River Spans)

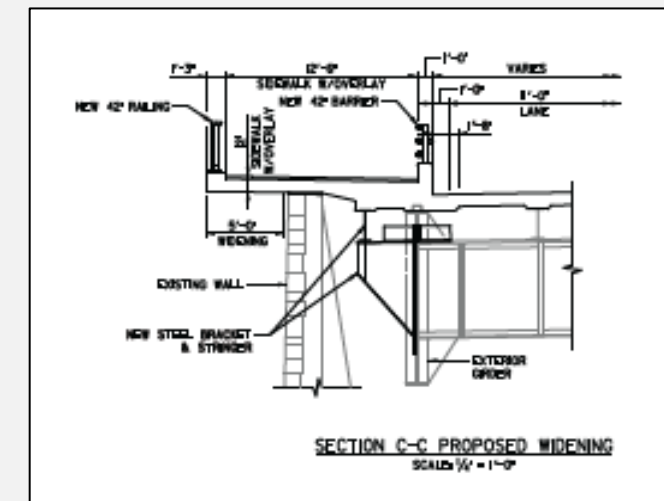
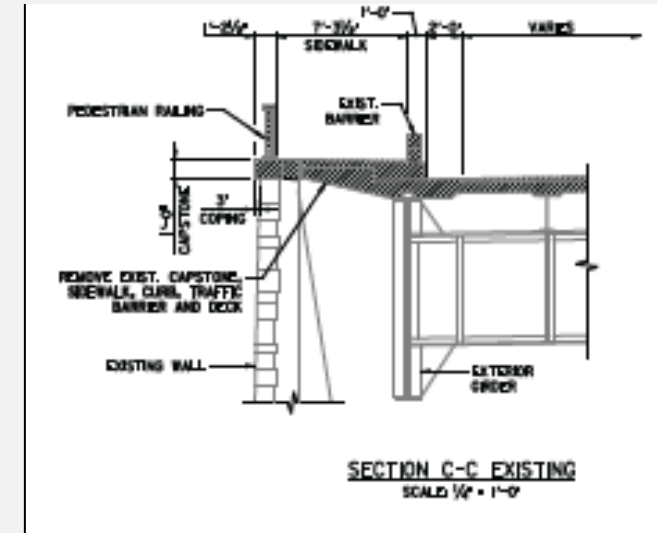
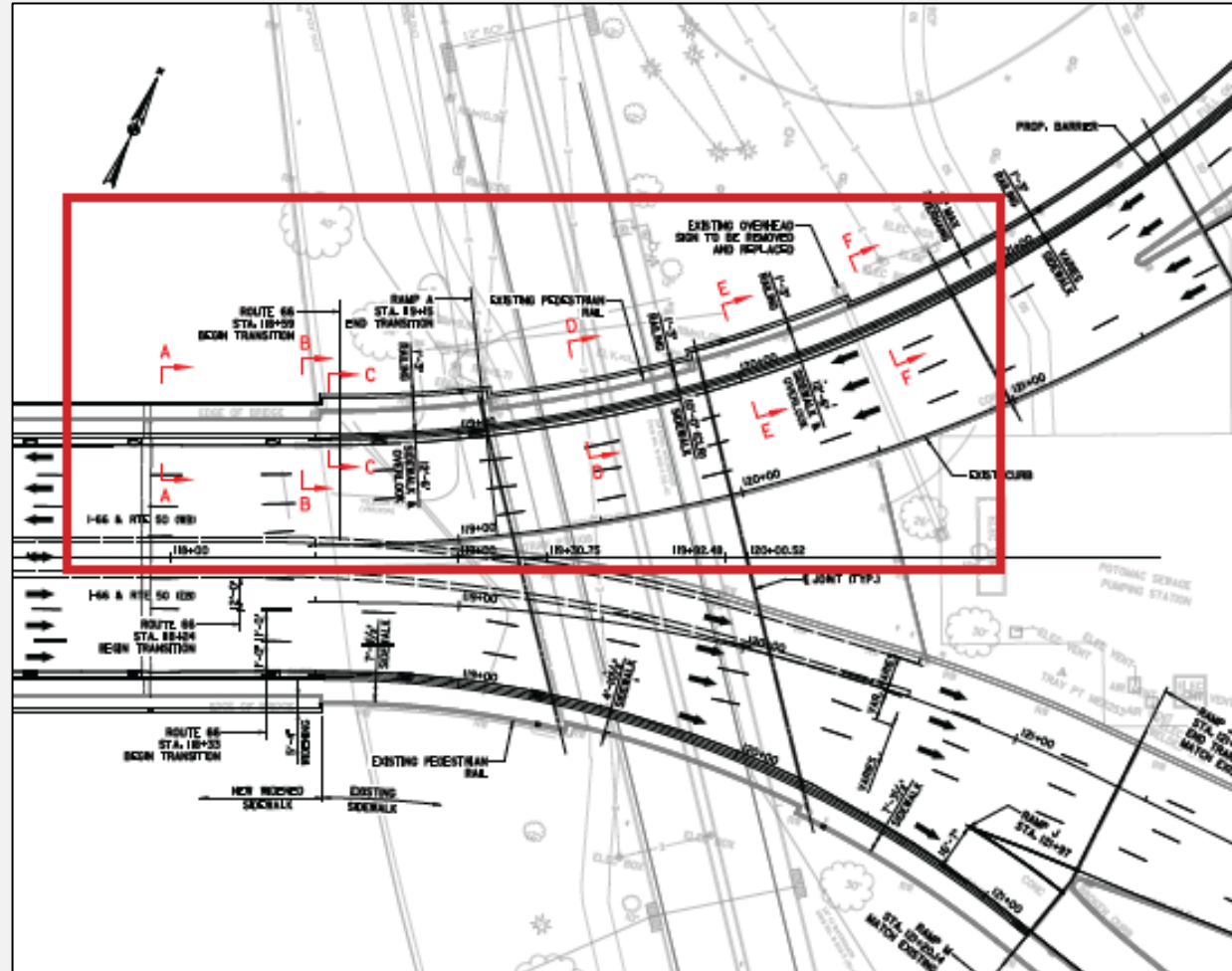


Widened Sidewalks (DC-Side)



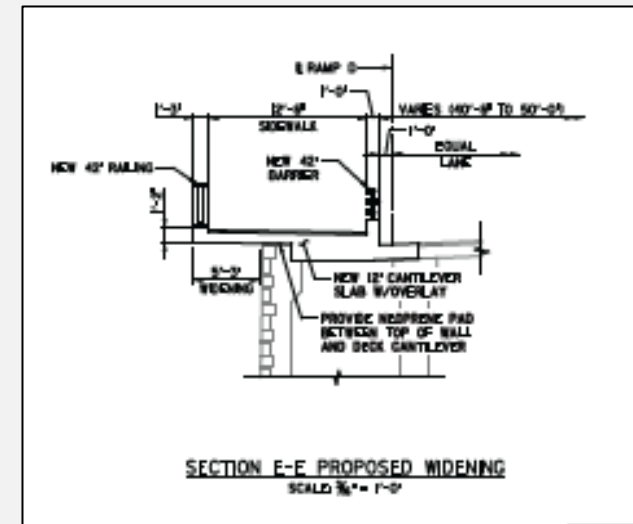
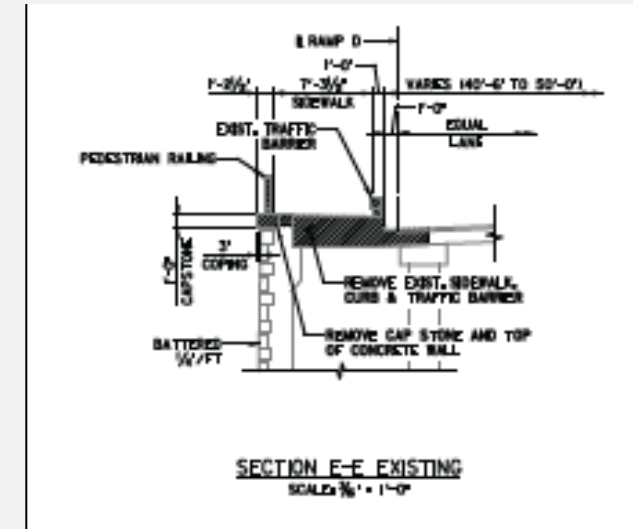
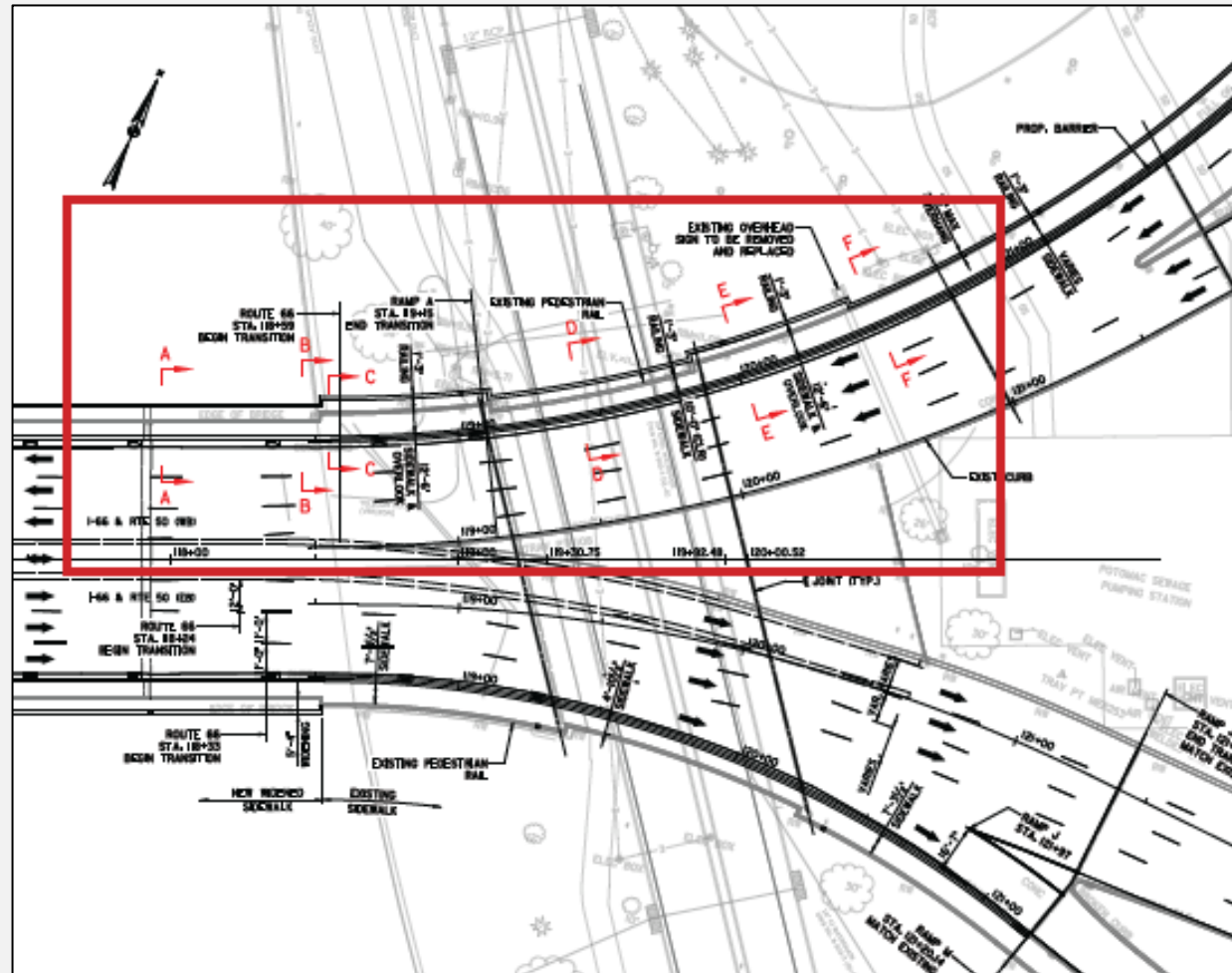
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Widened Sidewalks (DC-Side)

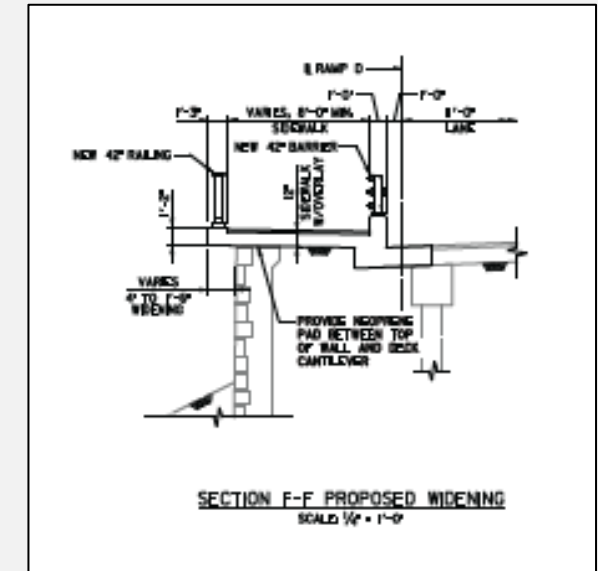
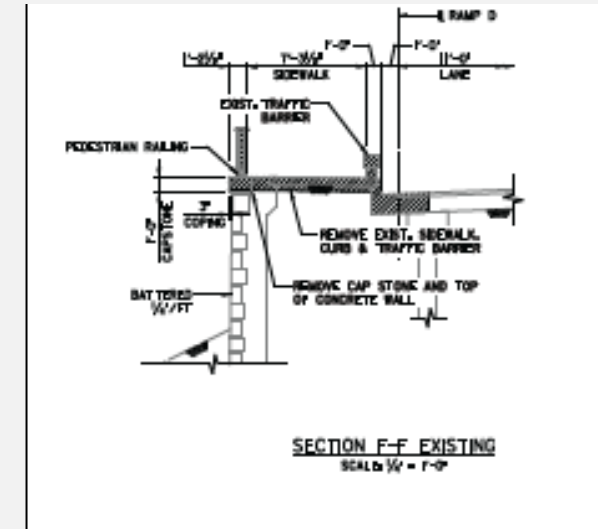
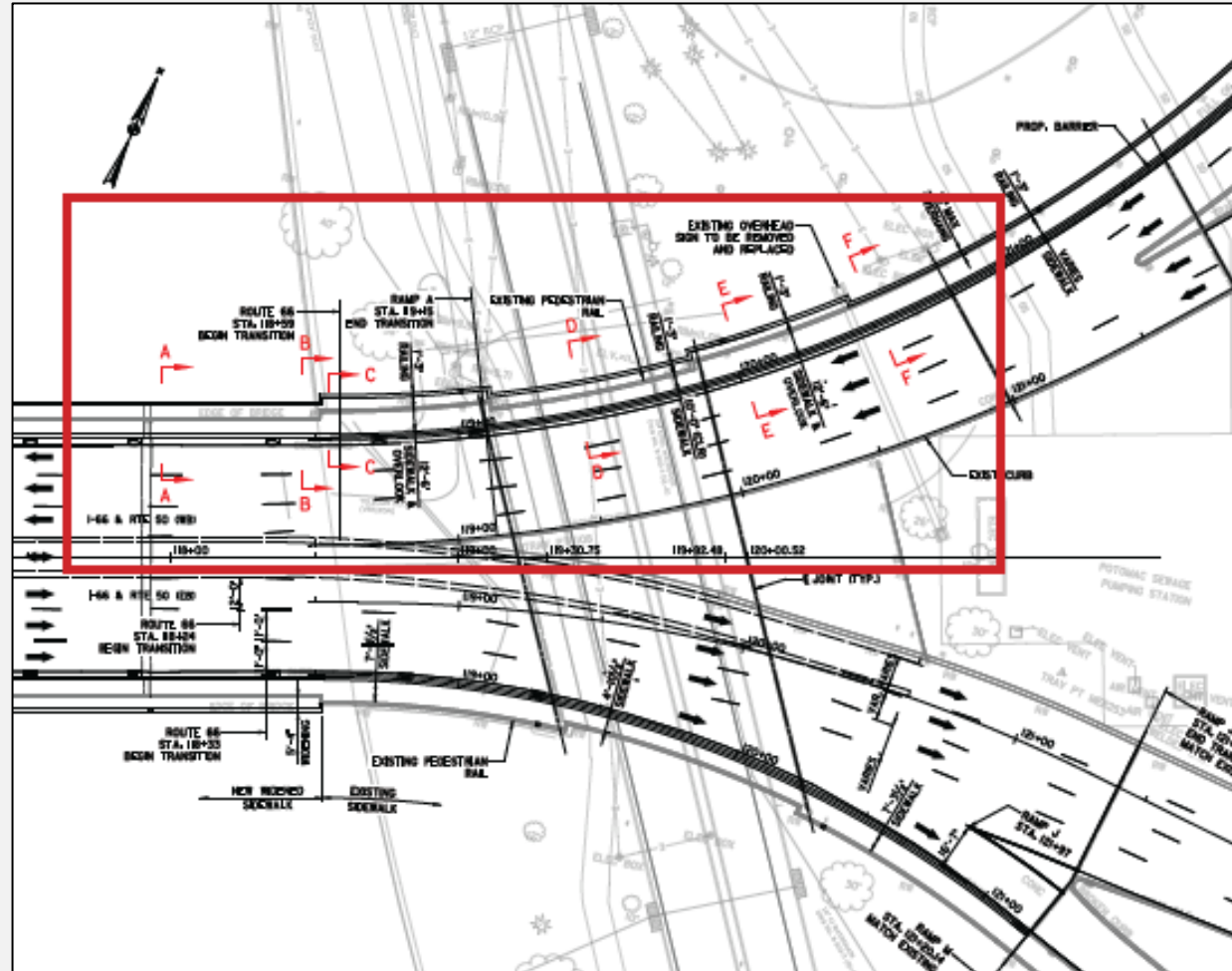


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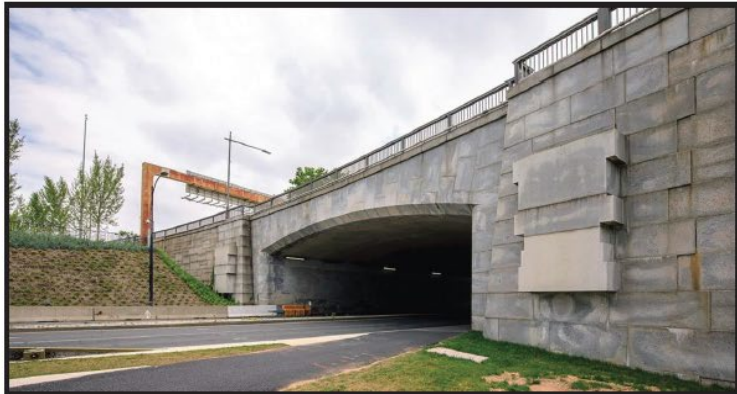
Widened Sidewalks (DC-Side)



Widened Sidewalks (DC-Side)



Existing vs. Proposed – Abutment Parkway Tunnel



(Existing) Rock Creek Parkway Looking South



(Proposed) Rock Creek Parkway Looking South - Future NPS Rock Creek Trail through DC Abutment not part of project



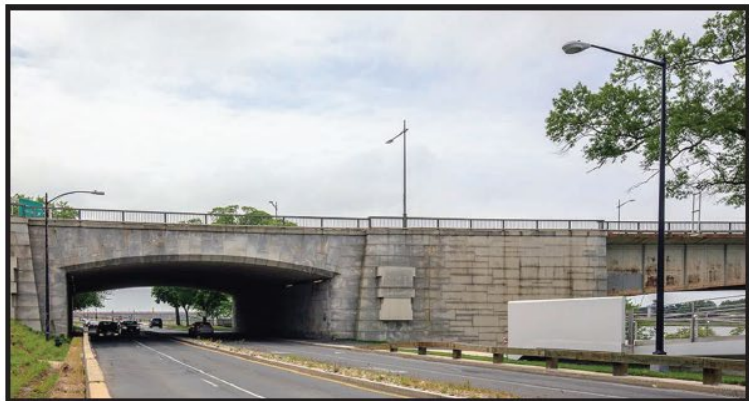
widened sidewalk bump-out

New NPS Rock Creek Trail Tunnel (DC-Side Bridge Abutment)



Approved by NCPC in April 2019

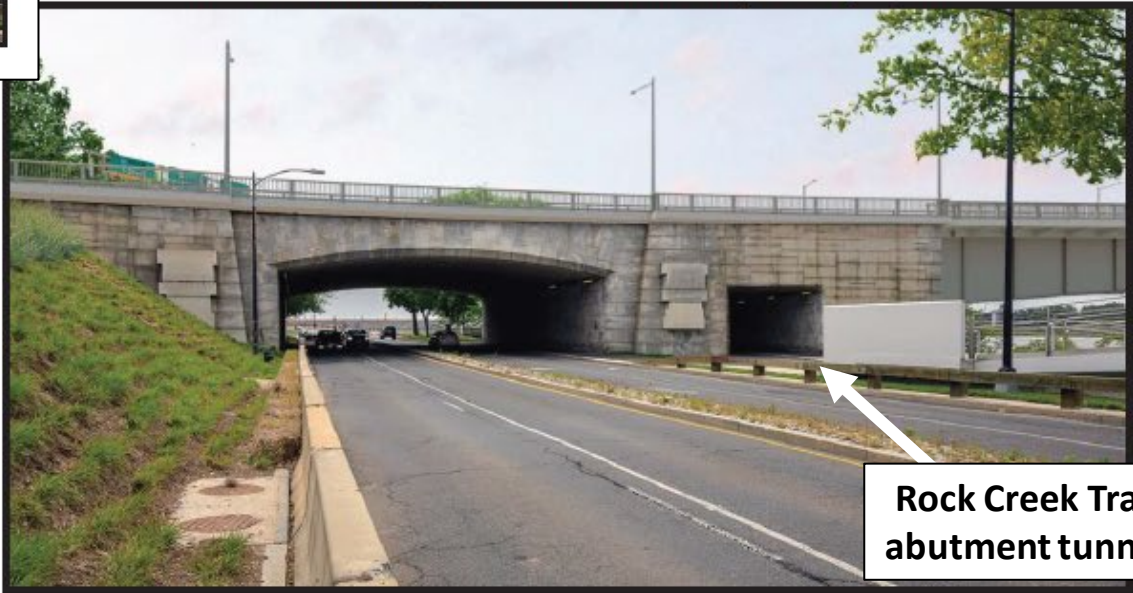
Existing vs. Proposed – Abutment Parkway / Trail Tunnels



(Existing) Rock Creek Parkway Looking South



(Proposed) Rock Creek Parkway Looking South - Future NPS Rock Creek Trail through DC Abutment not part of project



Rock Creek Trail abutment tunnel

Existing vs. Proposed – Abutment Parkway / Trail Tunnels



(Existing) Rock Creek Parkway Looking North



(Proposed) Rock Creek Parkway Looking North - Future NPS Rock Creek Trail through DC Abutment not part of project



Existing vs. Proposed – Abutment Parkway Tunnel



Existing Conditions Before Implementation of Build Alternative



After Implementation of Build Alternative

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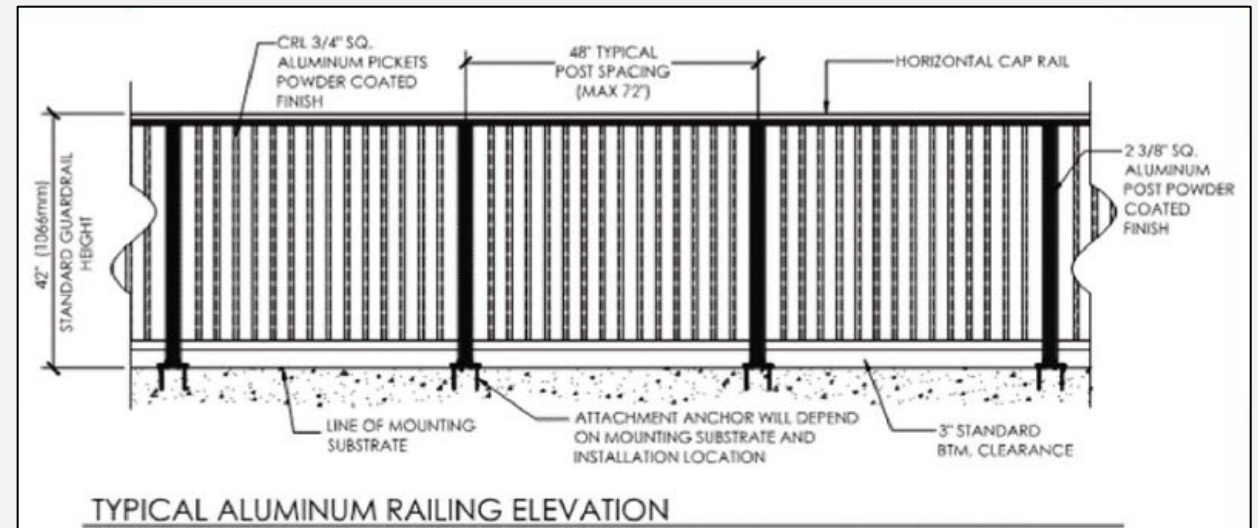
New Railings



Existing

Proposed Railing

- Railing height increased from 36-inches to 42-inches
- Railing spacing to match existing rail spacing
- Railing finish to match existing



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Sign Replacement

Existing Sign Structures

Existing overhead sign (I-66 EB at DC Abutment)



Existing overhead sign (I-66 WB at DC Abutment)



Existing overhead sign (I-66 EB/WB at TR Island)



Existing cantilever sign structure (I-66 WB ramp to GW Parkway/ Highway 50)



Proposed Sign Structures

Typical proposed overhead sign structure



Typical proposed cantilever sign structure



New Paint (White)



Existing Conditions (Before Implementation of Build Alternative)



After Implementation of Build Alternative

Highway Easement Deed Areas

