

Presentation Agenda

- **Project History/Background**
- **Project Overview**
- **Current Project Status**
- **Project Opportunities**



**NEW NICE
BRIDGE**

Pre-Solicitation Conference

June 2018

www.newnicebridge.com

Welcome and Introductions

Project Team

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MDTA Procurement:

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Project Organization

MDTA

- Right-of-Way, working with Virginia Department of Transportation (VDOT) Preliminary Engineering and Environmental Conceptual Permitting
- Design Audits
- Construction Administration and Program Management
- Construction Inspection
 - Typical policies and procedures, including quality control and quality assurance as defined in the Maryland State Highway Administration (SHA) Standard Specifications for Construction and Materials

Project Organization (cont'd)

Design/Builder

- Design

- Lead Design Quality Control and Quality Assurance
- Independent Design Quality Manager (IDQM)
- Environmental Construction Permitting and Modifications
- 'Phase V' Services (as defined in SHA's Specifications for Consulting Engineers' Services, Volume II)

- Construction

- Conform to the contract, technical proposal and plans and specifications prepared by the Design-Build team
- Conformance with the project quality control plan




Nice Bridge Replacement

MARYLAND TRANSPORTATION AUTHORITY

FACILITIES

- 1 Thomas J. Hatem Memorial Bridge (US 40)
- 2 John F. Kennedy Memorial Highway (I-95)
- 3 Fort McHenry Tunnel (I-95, I-395)
- 4 Baltimore Harbor Tunnel (I-895)
- 5 Francis Scott Key Bridge (I-695)
- 6 Intercounty Connector (ICC)/MD 200
- 7 William Preston Lane Jr. Memorial (Bay) Bridge (US 50/301)
- 8 Governor Harry W. Nice Memorial Bridge (US 301)



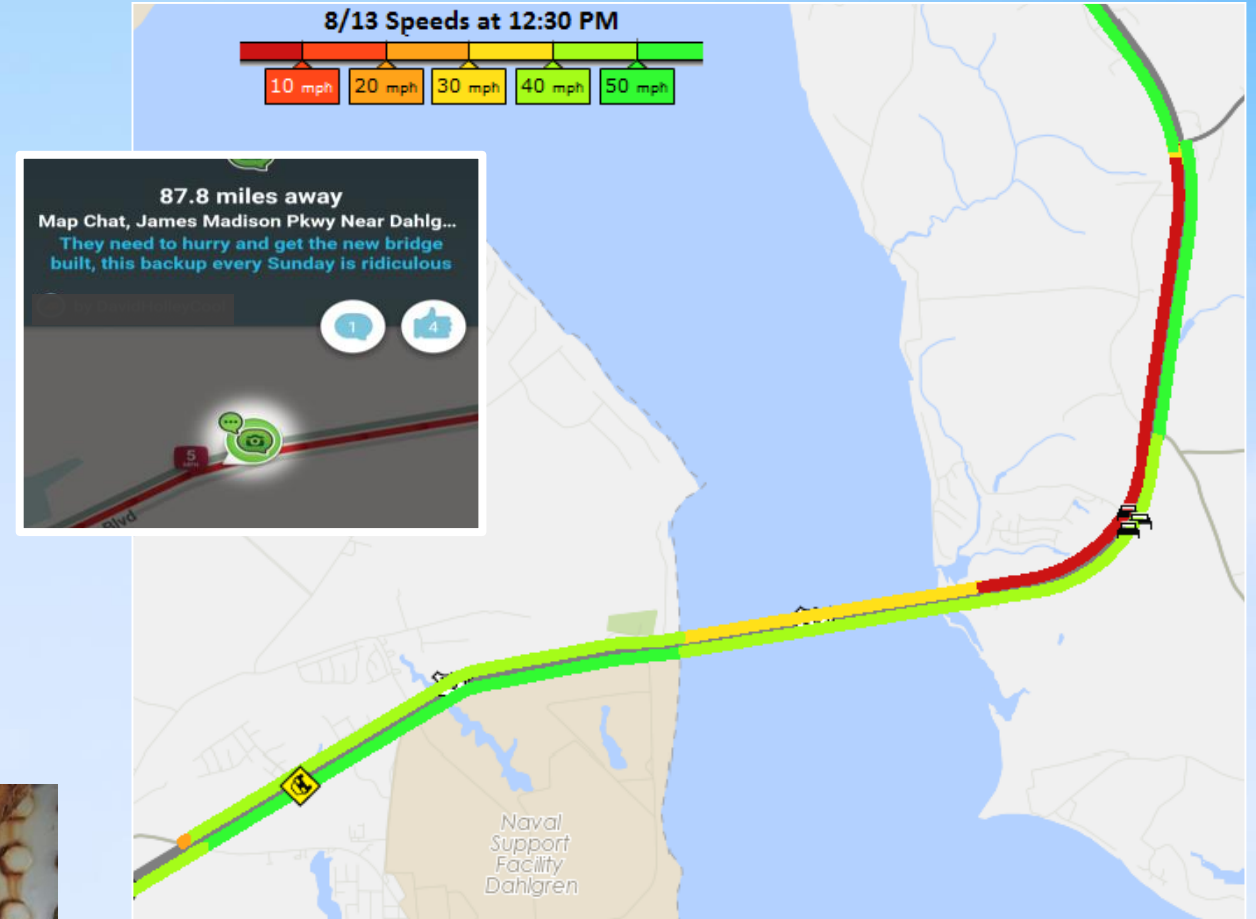
Nice Bridge Fast Facts:

- Construction dates: March 1938 – December 1940
- Original cost to construct: \$5 million
- Named in 1968 for Maryland Governor Harry W. Nice
- Length of entire facility (including bridge and approaches): 2.2 miles
- Bridge length: 1.9 miles of two-lane bridge
- CY 2017 traffic volume: 6.8 million vehicles (average annual daily traffic: 18,732)
- FY 2017 toll revenue: \$21.2 million

Project Drivers

Purpose & Need:

- Safety issues
- Traffic capacity limitations – 2-lane bridge, 4-lane approaches
- Condition – 75+ year old structure, Life Cycle Cost Analysis (LCCA) indicates major rehab needed in the near future (i.e. re-decking), very problematic with only one lane in each direction



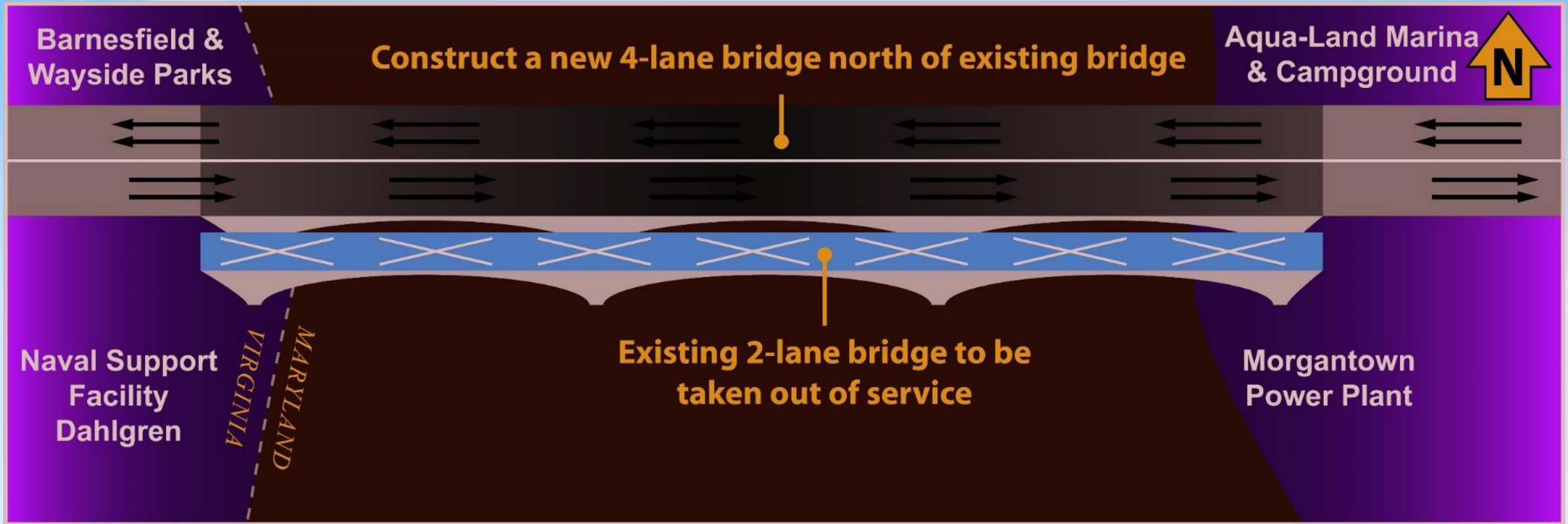
Saturday, Aug. 13, 2016, 12:30 p.m.
4.43 mile back up

Project History

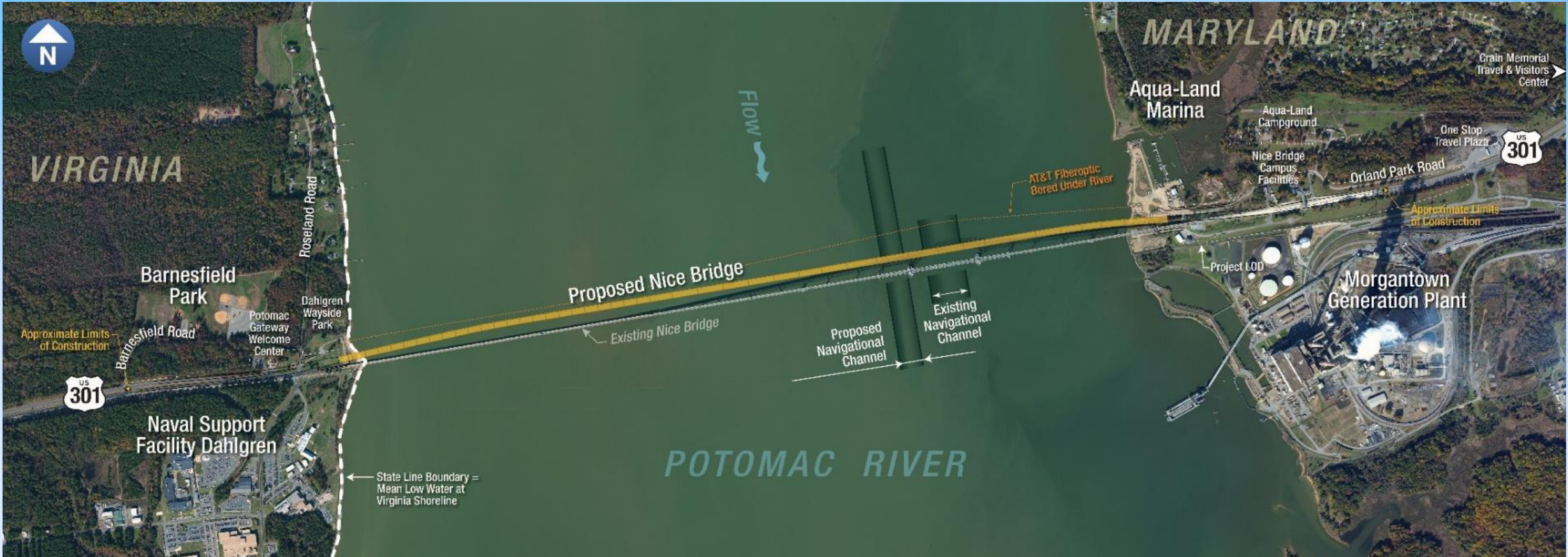
Maryland Governor Larry Hogan announces funding for new Potomac River crossing – November 2016



Project Layout



Project Aerial Map



Key Project Stakeholders

Coordinating Stakeholders

- FHWA
- US Coast Guard
- MDOT
- MDTA (owner)
- MDOT SHA
- VDOT
- Charles County, MD
- King George County, VA

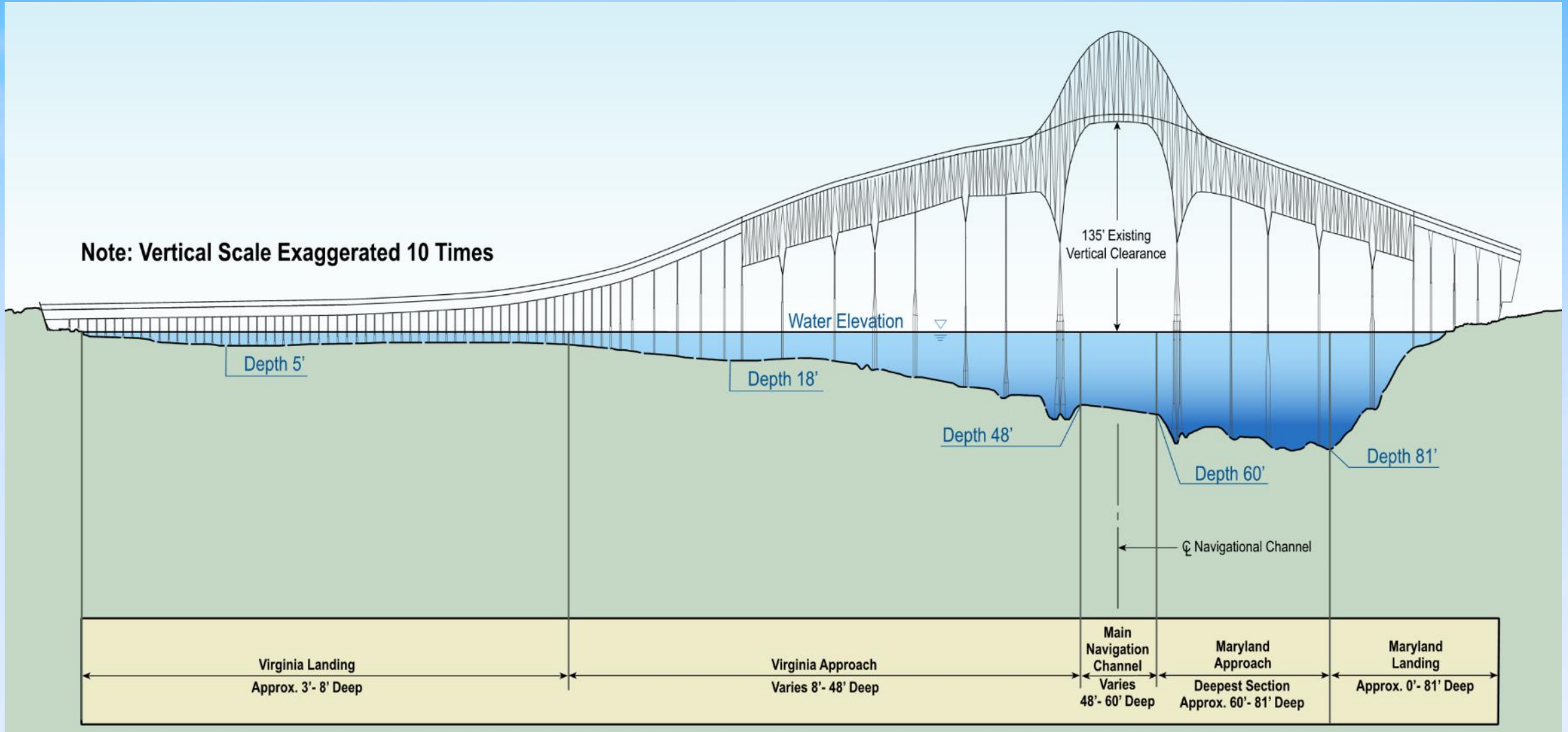
Environmental Agencies

- US Army Corps of Eng. (USACE)
- MD Dept. of the Env. (MDE)
- MD Dept. of Nat. Res. (DNR)
- MD Critical Area Comm. (CAC)
- VA Dept. of Env.'l Qual. (VADEQ)
- King George Tidal Wetlands Board

Project Neighbors

- Dahlgren Naval Support Facility
- Morgantown Generating Plant
- Aqualand Marina & Campground
- VA Tourism Authority/Dahlgren Heritage Museum

Existing Bathymetry



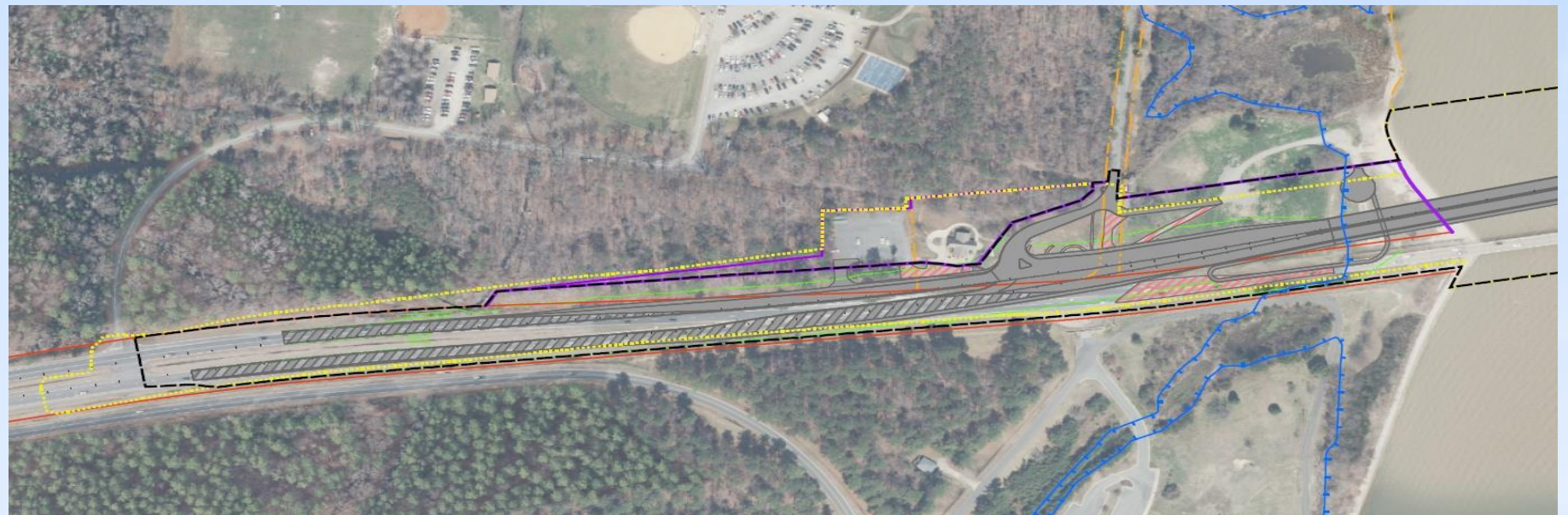
Construction Access

- Three (3) Primary Methods:
 1. Causeway (means of access in 1985 major rehab project)
 2. Dredging (means of access used for Woodrow Wilson Bridge Project)
 3. Trestle



Project Land Work

Note: Campus
Improvements
anticipated to be
constructed by
others, through a
separate contract.



Design/Build Delivery Method

- One combined contract for design and construction
- Alternative Technical Concepts (ATC's)
 - Will be included in this Procurement
 - Similar approach to MD SHA's recent D/B projects
 - Encourages confidential innovation and tailored delivery of the project to each proposer's strengths in means and methods
 - Must be equal to or better than the contract requirements
 - Must improve project quality, costs and/or schedule
 - Not acceptable if merely reduces quantities, performance or reliability, or seeks a relaxation of the contract requirements

Project Goals

1. **Cost** – Complete the project at or below the total construction budget, while minimizing life-cycle costs.
2. **Schedule** – Fully open all four (4) lanes to traffic on the new bridge by December 15, 2022, and minimize the total days of project construction.
3. **Safety** – Provide a safe toll facility with zero fatalities and serious injuries for workers and the public during and after construction.
4. **Durability** – Integrate high quality design, construction and operational aspects to deliver a durable, functional bridge achieving the minimum 75 year service life requirements.
5. **Mobility** – Minimize customer travel delays during and after construction.

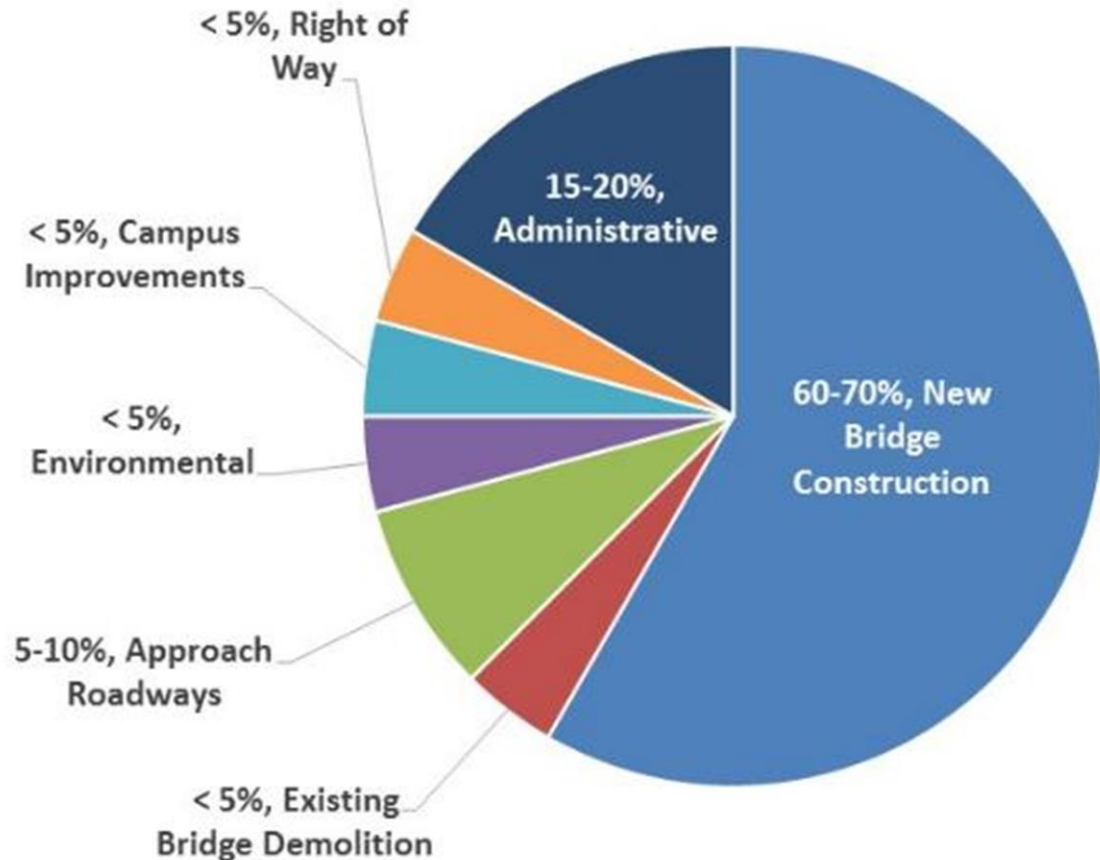
Project Schedule

- Based on advertisement RFQ date of October 2018 and start-of-construction in 2020, bridge construction complete by the end of 2022, project complete in 2024



Note: The 'New Bridge Open to Traffic' & 'Project Completion' dates are to be determined by the Proposers and evaluated by MDTA.

Program Budget



Note: the total program may be broken up into more than one contract.

Cost Elements:

New Bridge Construction

Infrastructure on new bridge and temporary access

Administrative

Planning, preliminary engineering, CMI, program and financial management

Approach Roadways

Infrastructure for roadway, signs, lighting, cameras, gantries, traffic control, utilities

Campus Improvements

Modifications to administrative building and maintenance facility

Environmental

Park mitigation and other environmental work

Existing Bridge Demolition

Removal of existing structure once new bridge is constructed

Right of Way

Acquisition costs for all required parcels

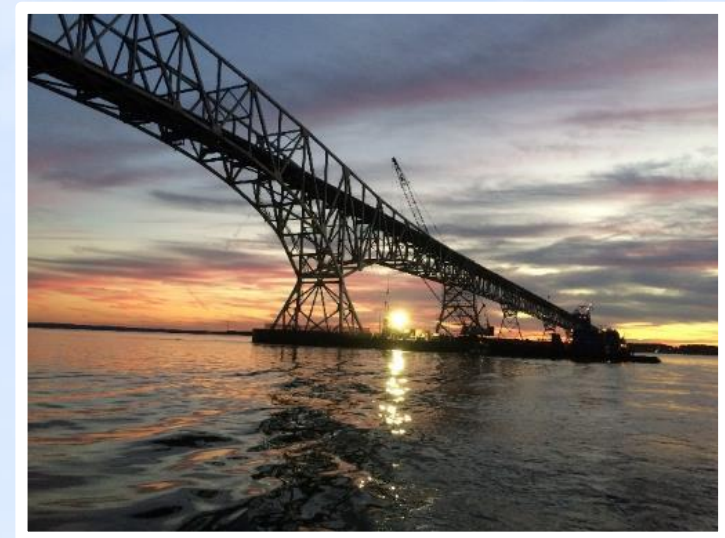
Anticipated Work Items

- The following includes a sample of the main work items anticipated for this contract:
 - Approximately 1.9 Mile Bridge Structure across the Potomac River with an opening for Navigational Passage
 - Approximately 1 Mile of Highway Realignment in both Maryland and Virginia
 - Realignment of Orland Park Road and Roseland Road
 - Drainage and Stormwater Management
 - Traffic Signing and ITS Equipment
 - Tolling Infrastructure

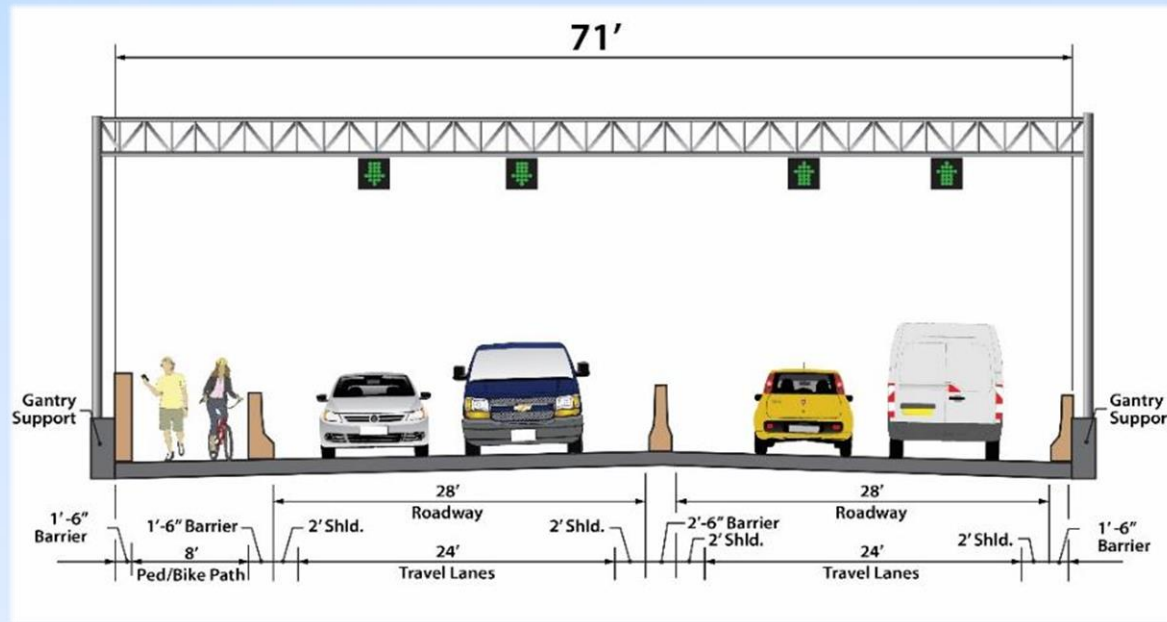
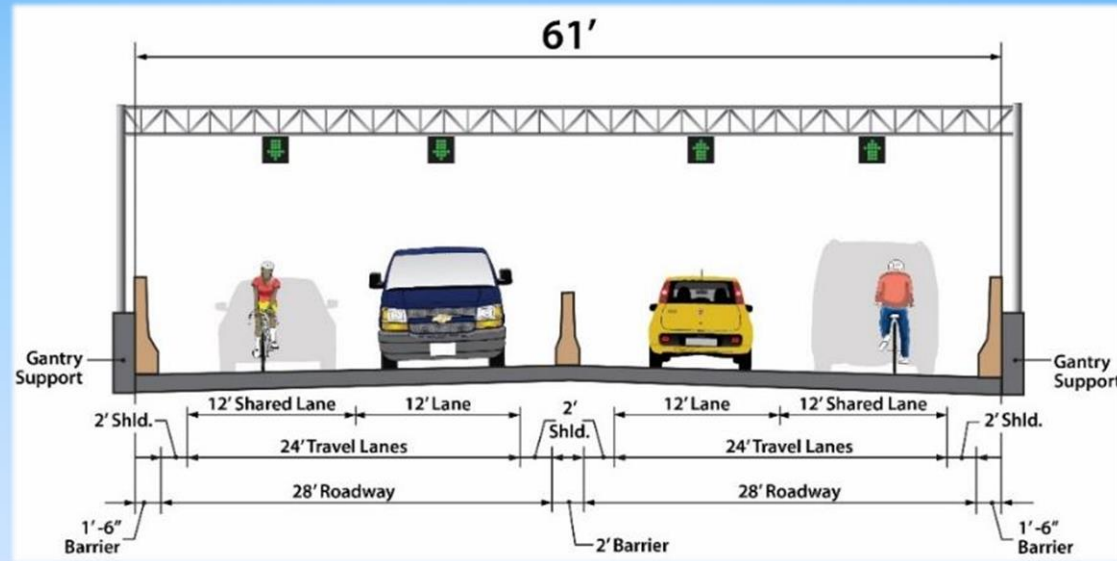


Anticipated Work Items (cont'd.)

- Sample of anticipated main work items (cont'd):
 - Navigational Beacons
 - Utility Relocations
 - Environmental Mitigation and Landscaping
 - Temporary Construction Access Structures
 - Demolition of the Existing Bridge
 - Support for Regulatory Approvals and Permitting
 - Associated Engineering Design, Geotechnical Studies, Earthwork, Supplies, and Hauling
 - Public Outreach Support



Bridge Design - Bid-Alternate Approach

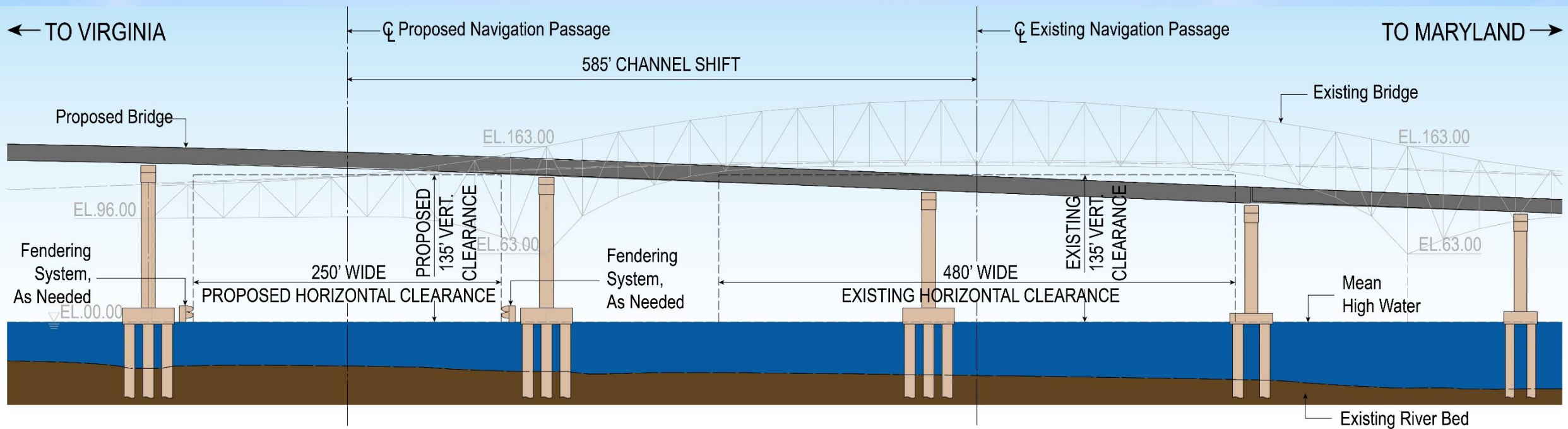


- It is anticipated that the MDTA will use a 'Bid-Alternate' approach to assess options for bike access.
- Prices would be provided with an option to include a separated path with its own associated costs.
- Inclusion of a separated shared-use path will be determined by the MDTA Board based on a cost/benefit analysis.

Bridge Design

Navigation Clearance Changes

Navigational passage requirements include a 135' vertical clearance, 250' horizontal clearance, and a passage centerline shift of up to 585'



MAIN SPAN STEEL GIRDER - WATERWAY SEQUENCE OF CONSTRUCTION
(585' CHANNEL SHIFTED / 250' CHANNEL WIDTH / 135' VERT. CLEARANCE / 4% GRADE)

Bridge Type

Steel



Segmental



Concrete



All Electronic Tolling (AET)



ICC/MD 200



I-95 ETLs



ICC/MD 200

Note: the Design-Builder will provide the tolling infrastructure only.

Lane-Use Control Signals



Bay Bridge lane-use control signals

Disadvantaged Business Enterprise (DBE) Firm Opportunities

Potential NAICS Codes		
221122- Main Span Power	238990 - Crane Services	541330 - Erosion Control Services
236210 - Construction Material Supply	238990 - Sawing & Coring Equipment Rental	541330 - Quality Engineering Consulting Services
236220 – Commercial and Institutional Building Construction (includes Toll & Service Plaza Facilities)	238990 – Specialty Trade Contractors (asphalt, concrete, fencing, MOT, etc.)	541330 / 541340 - Civil/CADD Support
237110 – Utility System Construction	238990 / 423390 - Fencing Services/Supplies	541330 / 541340 - Electrical Engineering Services/CADD Support
237310 - Asphalt/Paving	323312 - Steel Fabrication	541340 – Drafting/CADD
237310 – Highway, Street and Bridge Construction	334290 - Barge Location Monitoring Services	541370 – Surveying and Mapping
237310 - Imbedded Concrete Hardware	335932 - Building Electrical & Communication Boxes/Services	541490 - Lighting Design Services
237310 - Imbedded Concrete Hardware	423310 - Lumber Wholesale	541511 - Computer Systems Design and Related Services
237310 - Paving Services	423320 - Building Materials/Sheet Rock Supply and Installation Services	541611 - Management and Financial Services
237310 - Signage	423320 - Concrete Supply	541620 – Environmental Consulting Services
237990 – Other Heavy and Civil Engineering Construction	423320 – Materials Supply	541690 – Traffic Data Services
237990 / 238910 - Drainage	423420 - Computers and Accessories Equipment	541820 - Public Involvement Plan Support
238110 - Concrete Pumping	423440 - Lockers and Benches	541990 + 541611 – Construction Engineering and Inspection
238120 - Fabricate and Install Steel	423520 - Fuel Supply	561110 - Administrative Support Services
238120 - Installing Reinforcing Steel	423610 - Electrical Cable and Supplies	561110 - Scheduling
238120 - Rebar Accessories	423610 - Lighting Suppliers	561320 - Staff Augmentation Services
238120 - Rebar and Rebar Bending	423730 - Heating, Ventilation and Air Conditioning Supplies	561410 / 561439 / 493190 - Document Control
238120 - Structural and Miscellaneous Steel	424120 - Office Supplies	561439 - Misc. Business Services
238120 / 541340 - Structural/CADD Support	424950 - Paint Distribution/Paint Supplies	561439 – Reprographics/Blueprint Services
238140 - Masonry	444190 / 423390 – Misc. Material	561612 - Security Guard Services
238160 - Roofing Systems/Services	483211 - Barge/Marine Towing	561621 - Security Systems
238190 - Welding/Welding Inspection Services	483211 - Marine Towing Services	561710 - Rodent Control
238210 - Electrical Services (including Temporary)	484220 – Specialized Freight Trucking	561720 - Office Cleaning
238220 - Analytical Testing of Water Samples	488490 - Trucking Services (Ex. Delivery of Steel Beams)	561730 - Landscaping Services (Including Tree Removal)
238220 - Heating, Ventilation and Air Conditioning Services	523120 - Trailers	561990 – Underwater Bridge Inspections
238320 – Painting and Wall Covering Contractors	532289 - Small Tools	561990 / 541330 - Misc. Maintenance of Traffic Materials/Equipment
238390 - Office Furniture	532490 - Attenuator Truck Rental	562119 - Remove and Hauling of Debris
238910 - Excavation Services	541320 – Landscape Architecture	562910 - Removal of Contaminated soil
238910 - Right-of-Way Services?	541330 – Civil Engineering (includes geotech and testing)	611430 - QA/QC Services
238910 - Site Preparation Contractors	541330 - Construction Engineering Services	924110 - Air quality and Noise Consulting Services

The potential NAICS Codes listed above are not a complete list of all available categories of work that may be subcontracted. Design-Builders should utilize the MDOT DBE Directory to assist in identifying available NAICS Codes and certified firms to perform work for this project. NAICS codes may vary depending on the D/B design.

Federal DBE & On-the-Job Training (OJT) Program Opportunities

- Project will include Federal DBE and OJT Programs
- Must be **MDOT DBE** Certified
- Goal = TBD – currently in process
- Opportunities for OJT
 - Engineering and Design
 - Construction
 - Services
- VDOT Certification assistance on site
- MDOT Certification assistance on site

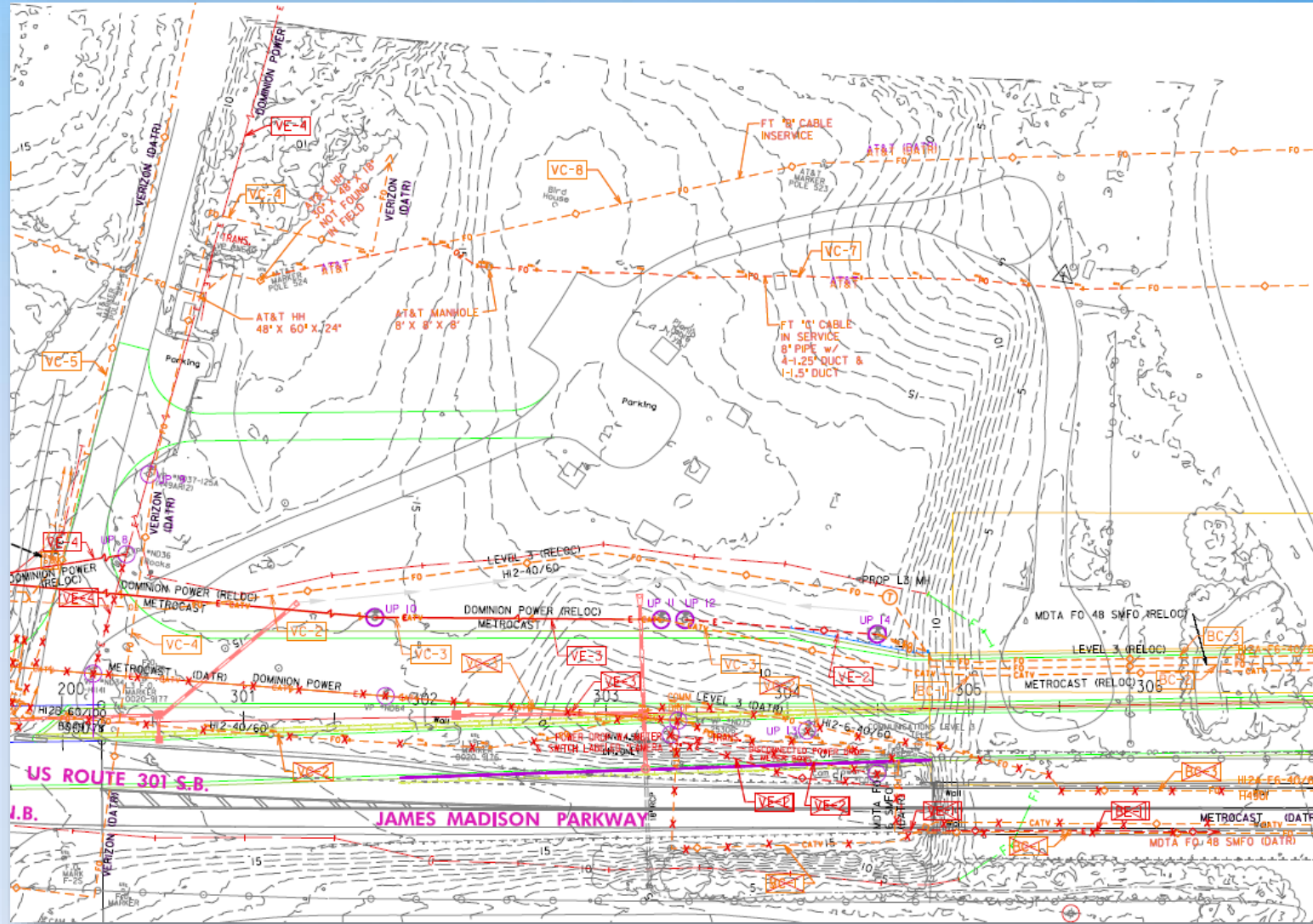


Actions To Date

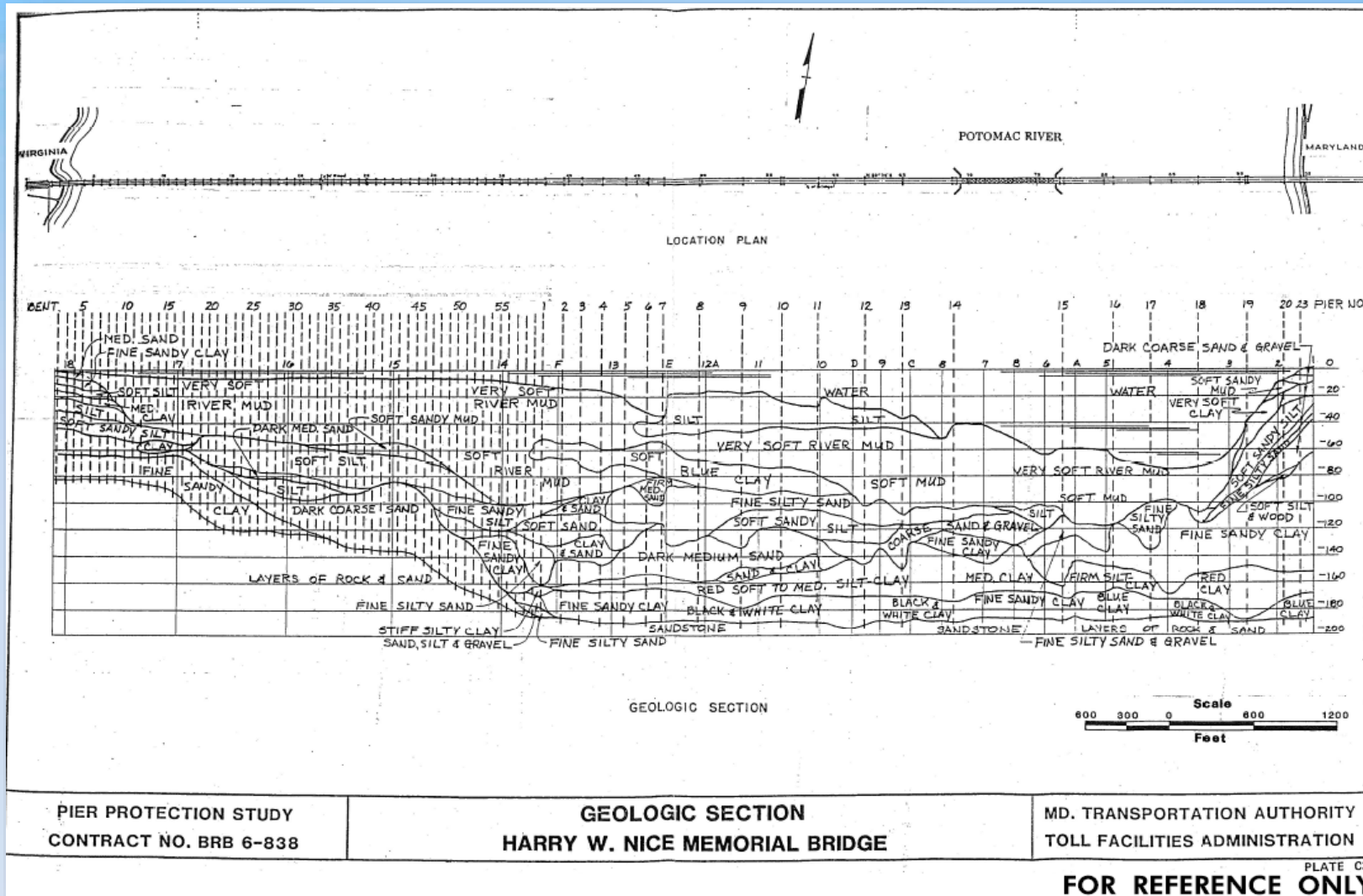
- ✓ **Stakeholder Coordination:** USCG, US Navy Dahlgren, VDOT, etc.
- ✓ **Engineering Site Investigations:** UXO/MEC, Geotechnical Borings, Test Piles
- ✓ **Project Refinements:** Incorporation of Practical Design elements
- ✓ **Preliminary Engineering:** Navigational Analysis, Cost Estimates, Roadway PI, Conceptual SWM, etc.
- ✓ **Environmental Investigations:** Avoidance and Minimization, Phase I ESAs, Historic/Cultural Resources (Underwater/Terrestrial/Architectural), Wetland Delineations, etc.
- ✓ **Procurement Documents:** Finalize RFQ/RFP for Design-Build Contract

Utility Investigations

- Completed level 'C' Utility Mosaic Basemap
- Coordinating with utility companies
- Conceptual Utility Matrix will be provided, final Utility Matrix to be a Proposal submittal

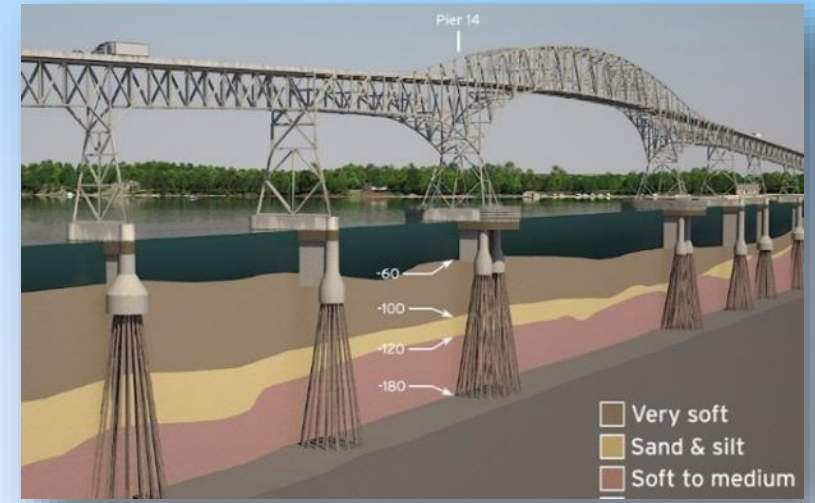


Geotechnical Historical Information



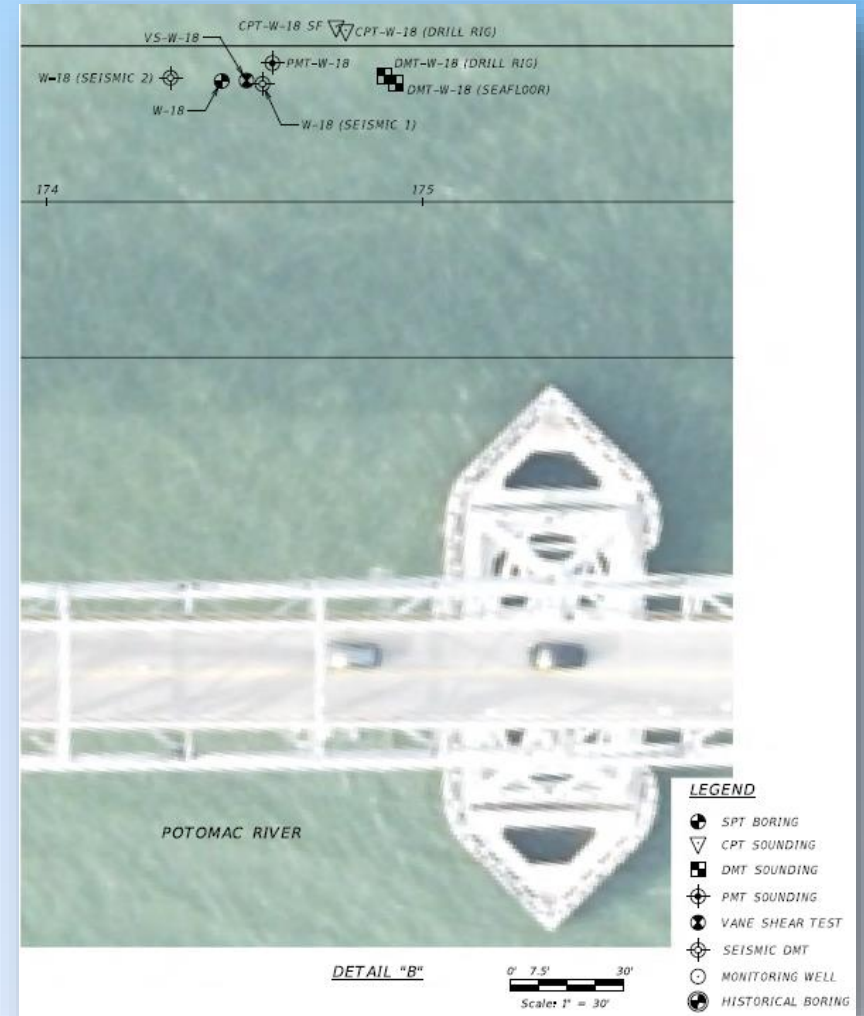
Geotechnical Program and Results

- A Survey of potential submerged hazards found that the risk of encountering “Munitions of Concern” or “Unexploded Ordinances” from the Dahlgren Naval Support Facility is characterized as LOW.
- Geotechnical Subsurface Investigation Program
 - 27 River SPT Borings to 150 to 250 feet
 - 20 Maryland Shore Land SPT Borings
 - 10 Virginia Shore Land SPT Borings
- Seismic Testing @ 2 River Locations per ASTM D7400
- In-Situ Testing Program
 - 13 River Cone Penetrometer Tests with Pore Pressure Dissipation Tests and Seismic Testing
 - 4 Land Cone Penetrometer Tests with Pore Pressure Dissipation Tests and Seismic Testing
 - 4 Dilatometer Tests; 2 River and 2 Land
 - 30 Pressuremeter Tests in 2 River Borings
 - 21 Field Vane Shear Tests at 2 River Boring Locations



Geotechnical Program and Results (cont'd)

- Borings - Field work completed May 2016, Geotechnical Data Report compiled.
- Test Piles - Accomplished small test pile program in February 2016 (2 – 24” steel pipe piles)
- Geologic Setting Disclosed By Geotechnical Subsurface Investigation Program
 - Holocene (MD, VA and Potomac River)
 - Pleistocene (Maryland Point on MD Side and Sedgfield on VA Side)
 - Miocene Age Calvert Formation (VA Side)
 - Nanjemoy (MD, VA and Potomac River)
 - Marlboro Clay (MD, VA and Potomac River)
 - Aquia (MD, VA and Potomac River)



Status of Permitting

Federal

Permit	Status
US Army Corps of Engineers Section 10/404 (Individual Permit)	Joint Federal/State Permit Application submitted on 1/26/18. Baltimore District to authorize entire project.
US Army Corps of Engineers Section 408	Determination made – not required for Project.
US Coast Guard Section 9 Permit	Permit application submitted on 5/2/18.

Note: permit modifications will be a Design/Builder responsibility.

Status of Permitting

Maryland

Permit	Status
MD Department of the Environment (MDE) Non-tidal Wetland & Waterway Permit	Joint Federal/State Permit Application submitted on 1/26/18. Additional information provided to MDE on 5/3/18 to continue processing of application.
Board of Public Works Tidal Wetlands License	Joint Federal/State Permit Application submitted on 1/26/18. Additional information provided to MDE on 5/3/18 to continue processing of application.
MDE Authorization to Proceed	To be issued at final design, Contractor to obtain.
MDE Section 401 Water Quality Certification	Submitted 1/26/2018 as part of the Joint Permit Application.
MDE Erosion & Sediment Control and Stormwater Management Approval	Concept approval in process. Contractor responsible for final approval based on final design.
MDE NPDES Permit for Stormwater Associated with Construction Activity	To be issued at final design, Contractor to obtain.
MD Dept. of Nat. Res (DNR) Roadside Tree Permit	In process.
DNR Critical Area Commission Approval	In process.

Note: permit modifications will be a Design/Builder responsibility.

Status of Permitting

Virginia

Permit	Status
VA Marine Resources Commission Sub-Aqueous Bed Permit	Determination made – not required for Project.
VA Department of Environmental Quality (VADEQ) Water Protection Permit	In process.
King George Tidal Wetlands Board Tidal Wetlands Permit	In process.
King George County Chesapeake Bay Preservation Act Resource Area Delineation, Confirmation and Exemption	In process.
VADEQ VPDES General Permit for Construction	To be issued at final design, Contractor to obtain.
VA Department of Transportation (VDOT) Stormwater and Erosion and Sediment Control Plan	In process.
VDOT Land Use Permit	In process.

Note: permit modifications will be a Design/Builder responsibility.

Procurement Processes

Request for Qualifications - Shortlisting Process

- The MDTA anticipates developing a Reduced Candidate List consisting of a maximum of the four (4) firms evaluated to be the most highly qualified.

Request for Proposals – Stipend Process

- This Project will pay out Stipends of \$750,000 to each unsuccessful (**NOT** selected) RCL proposer.
- Stipends only paid out if MDTA's stipend requirements are met.



Questions/ Open Discussion

Stay Connected....

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Support Here Today....

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