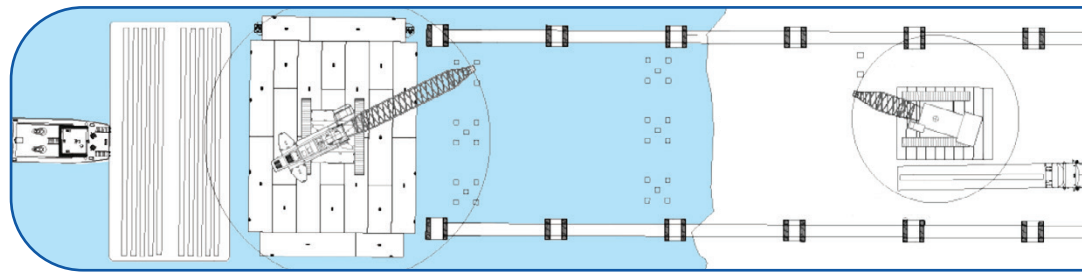


# TECHNICAL PROPOSAL

A DESIGN-BUILD PROJECT



## I-64 Hampton Roads Express Lanes (HREL) Segment 4C

*From: 0.138 miles East of LaSalle Ave To: 0.500 miles East of Settlers Landing Road*

**City of Hampton, Virginia**

**State Project No.** 0064-114-374 P101, R201, C501

**Federal Project No.** NHPP-064-3(522)

**Contract ID No.** C00117841DB11



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# SECTION 4.1 LETTER OF SUBMITTAL



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.



May 12, 2022

Suril R. Shah, PE, DBIA  
Alternative Project Delivery Division  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, VA 23219

Letter of Submittal/Technical Proposal:  
**I-64 Hampton Roads Express Lanes (HREL) Segment 4C**  
City of Hampton, Virginia  
Contract ID Number: C00117841DB111

Dear Mr. Shah:

Myers Traylor, a Joint Venture (MTJV); Whitman Requardt & Associates (WRA); KCI Technologies (KCI); and Aldridge Electric (Aldridge), herein referred to as the MTJV Team, respectfully submit our Technical Proposal for the I-64 HREL Segment 4C Project (Project). During the development of this proposal, our team members capitalized on their VDOT design expertise, innovative roadway and bridge construction techniques, and schedule risk mitigation expertise to develop a Project approach that supports VDOT's Priorities with respect to cost, innovation, design efficiency, limiting construction impacts, and managing stakeholder risks. Our Team applied due diligence to reach a level of design that will result in a competitive and fair price for the Project and worked closely together to develop concepts that meet and/or exceed the RFP requirements.

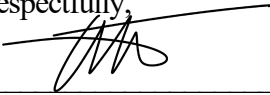
 We've used this checkmark throughout our proposal to indicate those areas of value add to VDOT.

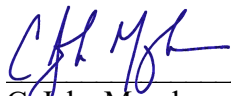
As requested by RFP Section 4.1, the MTJV Team presents the following information:

- 4.1.1 Myers Traylor, a Joint Venture is the legal entity who will execute a contract with VDOT.
- 4.1.2 Myers Traylor, a Joint Venture intends to enter into a contract with VDOT for the Project in accordance with the terms of the RFP.
- 4.1.3 The offer represented by the Technical and Price Proposals will remain in full force and effect for 120 days after the Price Proposal is submitted to VDOT on June 16, 2022.
- 4.1.4 Entrusted Engineer in Charge, Thomas Heil will serve as the Point of Contact for the MTJV.  
**Thomas Heil, P.E., DBIA** (571) 485-0387 (Telephone)  
12500 Fair Lakes Circle, Suite 150 (703) 272-7230 (Fax)  
Fairfax, VA 22033 tom.heil@allanmyers.com
- 4.1.5 Executive Vice President of Operations, Aaron Myers is the Principal Officer for the MTJV.  
**Aaron Myers** (804) 290-8500 (Telephone)  
301 Concourse Boulevard, Suite 300 (804) 418-7935 (Fax)  
Glen Allen, VA 23059 aaron.myers@allanmyers.com
- 4.1.6 The MTJV proposes an Interim Milestone of July 2, 2026, and a Final Completion date of December 30, 2026.
- 4.1.7 The MTJV is not proposing any unique milestone dates for the Project.
- 4.1.8 The MTJV has included an executed Proposal Payment Agreement (Attachment 9.3.1) in the Appendix.
- 4.1.9 Executed Certification Regarding Debarment Forms are included in the Appendix for all Team members.
- 4.1.10 Myers Traylor, a Joint Venture will achieve the 6% DBE participation goal for the entire contract value.
- 4.1.11 All MTJV Team members meet the commercial/professional registration requirements specified, remain in good standing with all applicable regulatory bodies, and are eligible to provide the services required for the Project.

Our Team's dedicated local personnel look forward to partnering with the Hampton Roads District to deliver another successful design-build project to the Commonwealth.

Respectfully,

  
\_\_\_\_\_  
Aaron T. Myers  
Executive VP of Operations, Allan Myers

  
\_\_\_\_\_  
C. John Meagher  
VP/Division Manager, Traylor Bros., Inc.

# SECTION 4.2 OFFEROR'S QUALIFICATIONS



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

+ **WRA** +

  
KCI





**Confirmation of SOQ Information**


The MTJV Team confirms that the information contained in our SOQ remains true and accurate and we are committed to maintaining the team provided in the SOQ. Our Team is comprised of key personnel with extensive I-64 corridor experience and expertise in complex bridge construction and rehabilitations. Per the RFP, we have included four additional key personnel who possess the qualifications, skills, and experience needed to support successful delivery of the Project and facilitate growth for the next generation to come.

**Deputy and Additional Key Personnel**

To ensure effective project management and successful risk mitigation, the MTJV Team has committed an experienced VDOT DB Team with I-64 corridor experience and expertise in complex bridge construction and rehabilitations. As requested by the RFP, we have supplemented the MTJV Team submitted with our SOQ with two Deputy Key Personnel and have designated an Environmental Compliance Manager (ECM) and Contractor Incident Management Coordinator (CIMC) to oversee environmental compliance efforts and maximize public safety throughout the duration of construction (see *Figure 2.1*).

*Figure 2.1: Deputy and Additional Key Personnel Experience Overview*


Personnel	Years	Relevant Experience	Project Highlights
 Deputy DB Project Manager (DDBPM), Jon Holt	30	<ul style="list-style-type: none"> <li>7+ years Hampton Roads bridge, roadway, and civil construction projects</li> <li>PM on complex heavy civil projects of similar magnitude for 20+ years</li> <li>HRUHCA Past President &amp; Board Member</li> </ul>	<ul style="list-style-type: none"> <li>Rte 58 Laskin Rd Reconstruction and Bridge Replacement</li> <li>F70 Holland Road Widening</li> <li>C86 Lynnhaven Parkway Widening</li> </ul>
 Deputy Design Manager (DDM), Gail Kuttesch	18	<ul style="list-style-type: none"> <li>15 years of DB experience</li> <li>I-64 widening experience</li> <li>11+ years working directly with DM</li> </ul>	<ul style="list-style-type: none"> <li>I-64 MM 200-205 DB</li> <li>I-95/Rte 3 Safety Improvements DB</li> <li>Fall Hill Ave Widening DB</li> </ul>
 Environmental Compliance Manager (ECM), Laurel Smith	12	<ul style="list-style-type: none"> <li>Former DEQ permit writer</li> <li>VDOT ECM in HR District</li> <li>Permitting/ compliance expertise</li> </ul>	<ul style="list-style-type: none"> <li>I-64 Segment III DB</li> <li>Atkinson Blvd and Bridge</li> <li>I-64 MM200-205 DB</li> </ul>
 Contractor Incident Management Coordinator (CIMC), Sandra Genter	34	<ul style="list-style-type: none"> <li>20+ years of site safety and incident management experience</li> <li>I-64 widening experience</li> </ul>	<ul style="list-style-type: none"> <li>I-64 Segment II DB</li> <li>Rte 58 Laskin Rd Reconstruction and Bridge Replacement</li> <li>Rolling Rd/Franconia-Springfield Pkwy Improvements DB</li> </ul>

 **Experience in the Project Region**

The MTJV Team features Project leaders with proven high-volume, road/highway widening, and bridge work experience in VDOT’s Hampton Roads District. Our Team has already built relationships with critical stakeholders, crafted solutions to the region’s unique geotechnical conditions, and delivered results that have minimized impacts to the public in this high-volume, urban corridor. **Ed Hilferty** (DBPM) and **Tom Heil** (EIC) have already worked together successfully on the I-64 Segment II DB, and **Jon Holt** (DDBPM) and **Jeff Snow** (CM) bring high-profile, shared experience in the Hampton Roads District, including the Rte 58 Laskin Rd reconstruction and bridge replacement project.

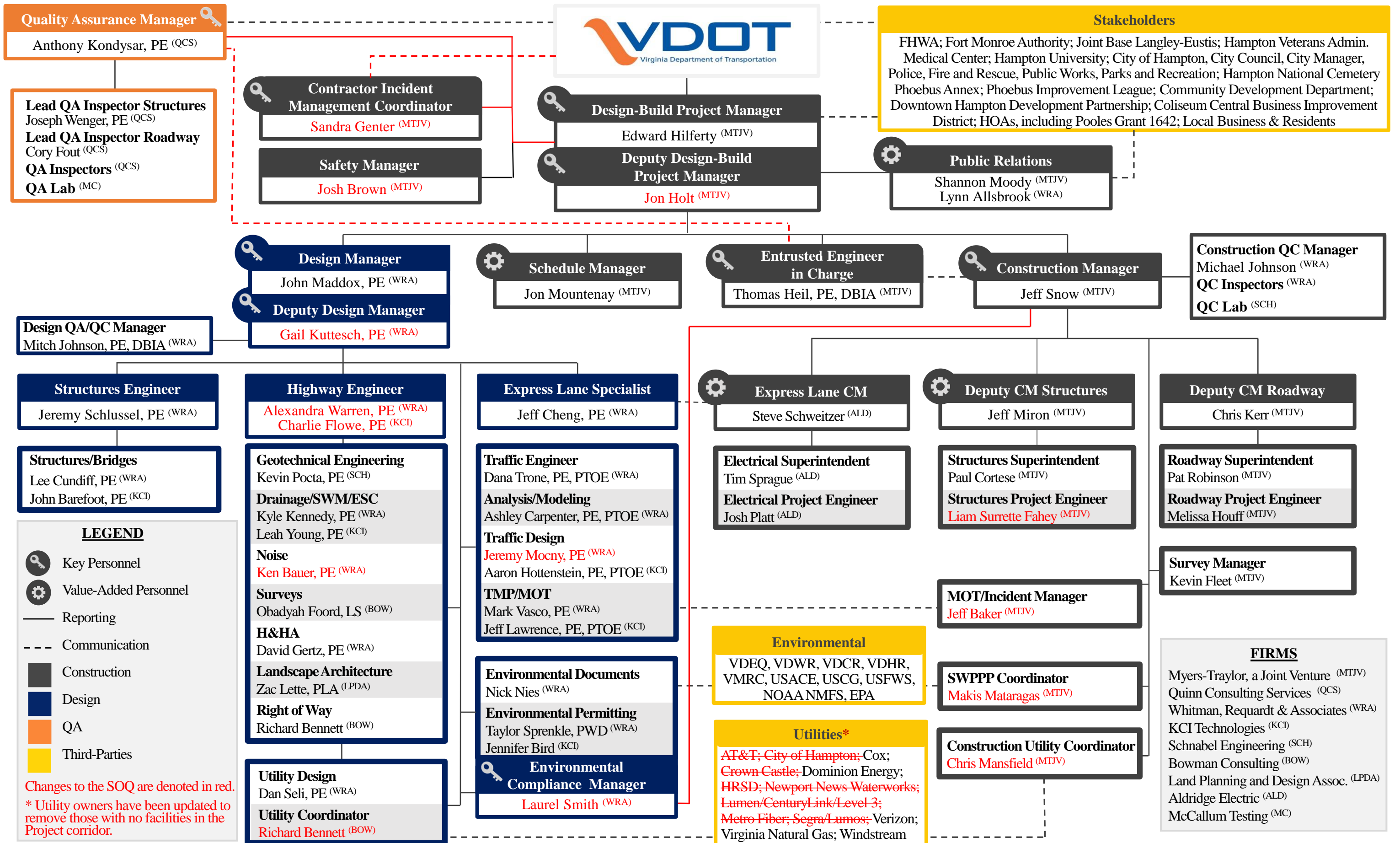
**Organizational Structure**

Our Team’s organizational structure includes all aspects of management, design, and construction of the Project to support cost-effective and schedule-conscious Project delivery and implement innovative design/construction approaches. The narrative below describes the roles of key and value-added personnel in managing the Project and mitigating risks to ensure successful delivery. **Updates to the organizational chart and narrative from the SOQ submission are denoted in red text.**

 **Design-Build Project Manager** Ed Hilferty will report to VDOT and serve as the primary point of contact for our Team being responsible for the overall design and construction processes for this DB Project. He will work closely with QAM Anthony Kondysar; EIC Tom Heil; DM John Maddox; and CM Jeff Snow to develop and implement a schedule

all contractual obligations and requirements are achieved, delivering the project safely, on-time, and within budget while proactively counteracting and resolving any disputes.

- 
**Deputy Design-Build Project Manager** Jon Holt will report to DBPM Ed Hilferty and support the Team as we transition the Project from the RFP into design-build delivery. His expertise and leadership—drawn especially from his project experience and stakeholder relationships in the Project region—will help our Team integrate design, acquire necessary permits, and further develop a successful execution strategy.
- 
**Quality Assurance Manager** Anthony Kondysar, PE, will report to DBPM Ed Hilferty and will be onsite full-time for the duration of construction to manage QA inspection/testing, maintaining the Materials Notebook, to ensure all work and materials meet contract requirements. Anthony will communicate frequently with VDOT, participate in weekly coordination meetings, and confirm construction QC is functioning properly.
- 
**Public Relations Liaisons** Shannon Moody and Lynn Allsbrook will work closely with VDOT and DBPM Ed Hilferty to develop and implement a comprehensive public outreach effort for the Project. Their integration with the design and construction teams will maintain our Team’s focus on creating transparency, building public trust, and reducing project impacts for motorists, residents, and businesses in the City of Hampton.
- 
**Schedule Manager** Jon Mountenay will report to DBPM Ed Hilferty and communicate with key staff to maintain focus on the Project schedule. As the Project progresses, he will work with the design and construction teams to monitor schedule progress and maintain on-time or early Project completion per the original contract completion date.
- 
**Entrusted Engineer in Charge** Tom Heil, PE, will report to DBPM Ed Hilferty and work closely with the EOR to ensure all engineering work is fully integrated and consistent with the Project’s contractual/technical requirements.
- 
**Design Manager** John Maddox, PE will report to DBPM Ed Hilferty, and manage a multidisciplinary team to meet design schedule milestones and ensure design conformance with all contractual/technical requirements. John will coordinate with EIC Tom Heil and CM Jeff Snow to develop an efficient, constructible design.
- 
**Deputy Design Manager** Gail Kuttesch, PE will report to DM John Maddox and assist with managing a multidisciplinary team with design elements and design submissions. Gail will assist with coordinating the individual design disciplines and ensure the overall Project design is in conformance with contract documents.
- 
**Construction Manager** Jeff Snow will report to DBPM Ed Hilferty and oversee all operations including roadway and bridge construction, MOT, and utilities. During design, Jeff will work to evaluate innovative design approaches and develop a sequence of work consistent with construction means/methods. With support from QC Manager Michael Johnson, Jeff will manage QC efforts to ensure the work and materials comply with the contract.
- 
**Deputy CM Structures** Jeff Miron will report to and support CM Jeff Snow and provide additional oversight of the bridge work for all of the I-64 structures. Jeff will work with the structures design team to evaluate constructability and ensure means and methods are integrated into the overall design.
- 
**Express Lane CM** Steve Schweitzer will report to CM Jeff Snow and coordinate with Express Lane Specialist Jeff Cheng, PE to deliver comprehensive technical and electrical services including pre-planning, value engineering, and installation of ITS/electrical elements to support VDOT’s implementation of express lanes along the Project corridor.
- 
**Environmental Compliance Manager** Laurel Smith will report to DM John Maddox and DBPM Ed Hilferty to ensure our Team manages environmental compliance through design and construction. Under her oversight, the Team will conform all Project activities to the applicable environmental regulatory permit conditions and meet all environmental commitments identified in the NEPA document.
- 
**Contractor Incident Management Coordinator (CIMC)** Sandra Genter will report to DBPM Ed Hilferty. She will respond immediately to all incidents within the Project limits by applying NIMS principles and practices and leads our proactive approach to incident management.



# SECTION 4.3 DESIGN CONCEPT





### 4.3 DESIGN CONCEPT

The MTJV Team approach to design of the I-64 Hampton Roads Express Lanes Segment 4C Project (Project) is to exceed the RFP requirements while balancing potential cost and schedule implications. Through our Team's review of the RFP, site visits, meetings with VDOT, coordination with utility companies, and knowledge of the existing Project corridor, we have developed a design that supports VDOT's Project priorities with respect to cost, design efficiency, minimizing construction impacts, and limiting potential risks for all stakeholders.

During preparation of this proposal, including the *Volume II Conceptual Design Plans (Volume II Plans)*, **John Maddox, PE (DM)** and his design team focused on practical solutions for maintaining current traffic patterns (minimizing impacts to I-64 users and the community); meeting or exceeding the RFP requirements; and minimizing impacts to surrounding properties, resources, and environmental features.

Based on VDOT's feedback, we developed the design feature optimizations listed in *Figure 3.1*.



*Figure 3.1: Design Optimizations that Benefit VDOT's Project Goals*

Design Feature Optimization	Value Added
Modify drainage along I-64 to provide 10-ft maintenance bench within existing right-of-way (RW).	<ul style="list-style-type: none"> <li>Eliminated permanent drainage easements and acquisition of 31 parcels, which will decrease the time needed for RW acquisition, eliminate VDOT's RW cost on these parcels, and avoid direct impacts to private property.</li> <li>Providing a maintenance bench will improve access to perform future ditch maintenance.</li> </ul>
Lower eastbound (EB) profile between Sta 731+00 and 749+00 to reduce the bridge deck area between the Hampton River Bridge and Hampton Creek Bridge.	<ul style="list-style-type: none"> <li>Lowering the vertical profile reduces bridge construction cost and accelerates Project delivery.</li> <li>Decreasing bridge deck area by 16.3% will reduce future maintenance.</li> <li>Innovative design utilizing geofoam fill and undercut/replacement of existing soils to avoid settlement and down drag at the existing WB bridge piles results in no impact to the existing foundation.</li> <li>Improves safety by increasing clearances to the existing Dominion Transmission line.</li> </ul>
Design Hampton River bridges to reduce impacts to existing foundations.	<ul style="list-style-type: none"> <li>Adjusted EB substructure locations eliminates conflicts between existing / proposed substructure elements.</li> <li>Optimized WB pier layout limits adverse effects on existing substructure.</li> <li>Optimized WB superstructure layout eliminates a girder line.</li> </ul>
Enhance the sequence of construction (SOC) and paving operations.	<ul style="list-style-type: none"> <li>Nighttime paving operations to build up I-64 center lane allows for two-phased construction sequence.</li> <li>Self-performing paving and material supply lowers costs and expedites the schedule.</li> </ul>
Prioritize early temporary drainage design.	<ul style="list-style-type: none"> <li>Focus on the temporary drainage increases safety of traffic, minimizes unanticipated cost increases, and provides schedule certainty.</li> </ul>
Adjust the horizontal curve lengths to better match the length of existing curves.	<ul style="list-style-type: none"> <li>Lengthened the curve EBBL_NEW_21 from 193 ft to 490 ft and curve WBBL_NEW_22 from 242 ft to 343 ft and revised cross slopes to better match existing pavement cross slopes.</li> <li>Adjustments reduce pavement buildup and undercut areas, which improves constructability, reduces Project cost, and enhances safety and maintenance of traffic (MOT) for the traveling public.</li> </ul>
Design the EB River bridge to avoid Verizon utility.	<ul style="list-style-type: none"> <li>Designed a straddle bent to avoid relocation of the existing Verizon line which utilizes offset footings to avoid impacts to the cable. This configuration will be confirmed once the Verizon line is located post award.</li> </ul>
Redesign sound barrier/retaining wall to maximize combination walls.	<ul style="list-style-type: none"> <li>Used integrated retaining wall panels within the sound barrier system, which eliminates approximately 900 ft of special design wall system.</li> <li>The redesign decreases construction time and VDOT's future maintenance needs.</li> </ul>
Optimize retaining wall design to accelerate construction.	<ul style="list-style-type: none"> <li>Designed a gravity wall/barrier system for minimal height walls to reduce cost and accelerate schedule.</li> <li>Eliminated 4,100 lf of retaining walls, decreasing construction time and VDOT's future maintenance needs.</li> </ul>

**GENERAL INFORMATION**

**(A) DESIGN CRITERIA**

As described in the RFP, I-64 is functionally classified as an Urban Interstate (GS-INT) with rolling terrain and a minimum design speed of 60 mph.

The design provided by our Team:

- Meets or exceeds all requirements established in the Design Criteria Table.
- Stays within the proposed RW limits shown in the RFP Conceptual Plans.
- Optimizes the design to benefit end users, particularly in terms of safety, operations, and public acceptance.

**(B) RIGHT OF WAY LIMITS** 

Our Team’s conceptual design is wholly contained within the RW limits shown in the RFP Conceptual Plans, except for temporary construction, permanent drainage, and utility easements as required in RFP Part 2, Section 1.5. We have reduced the required easements, which is highlighted on the *Volume II Plans*, by redesigning drainage ditches and adding storm drainage systems (see *Figure 3.2*). Our Team’s design eliminates permanent drainage easement impacts to 31 parcels and reduces the square footage of permanent drainage easements needed by 97%.

*Figure 3.2: RW Impacts*

Impact Type	RFP Impacts	MTJV Impacts	Reduction	Reduction (%)
RW Acquisition (sf)	81,839	81,839	0	0
Temporary Construction Easement (sf)	117,999	120,916	(2,917)	(2%)
Permanent Drainage Easement (sf)	31,678	1,038	30,640	97%
<b>TOTAL</b>	<b>231,516</b>	<b>203,793</b>	<b>27,723</b>	<b>12%</b>

**(C) DESIGN EXCEPTIONS & WAIVERS**

The MTJV Team’s design concept will implement all of the required mitigation measures indicated in the eight design waivers and eight design exceptions provided by VDOT in the *RFP Information Package*. In addition, we will document and submit **DW9: Pier 9 Zone of Intrusion from E Pembroke Ave**, which will be discussed further in *Section 4.3.2*.

**4.3.1 CONCEPTUAL ROADWAY DESIGN**

**(A) GENERAL GEOMETRY**

Our Team has developed a design that meets or exceeds all RFP and Addenda requirements and criteria. Our *Volume II Plans* detail horizontal curve data, design speeds, and the number and widths of lanes and shoulders.

**(B) HORIZONTAL AND VERTICAL ALIGNMENTS** 

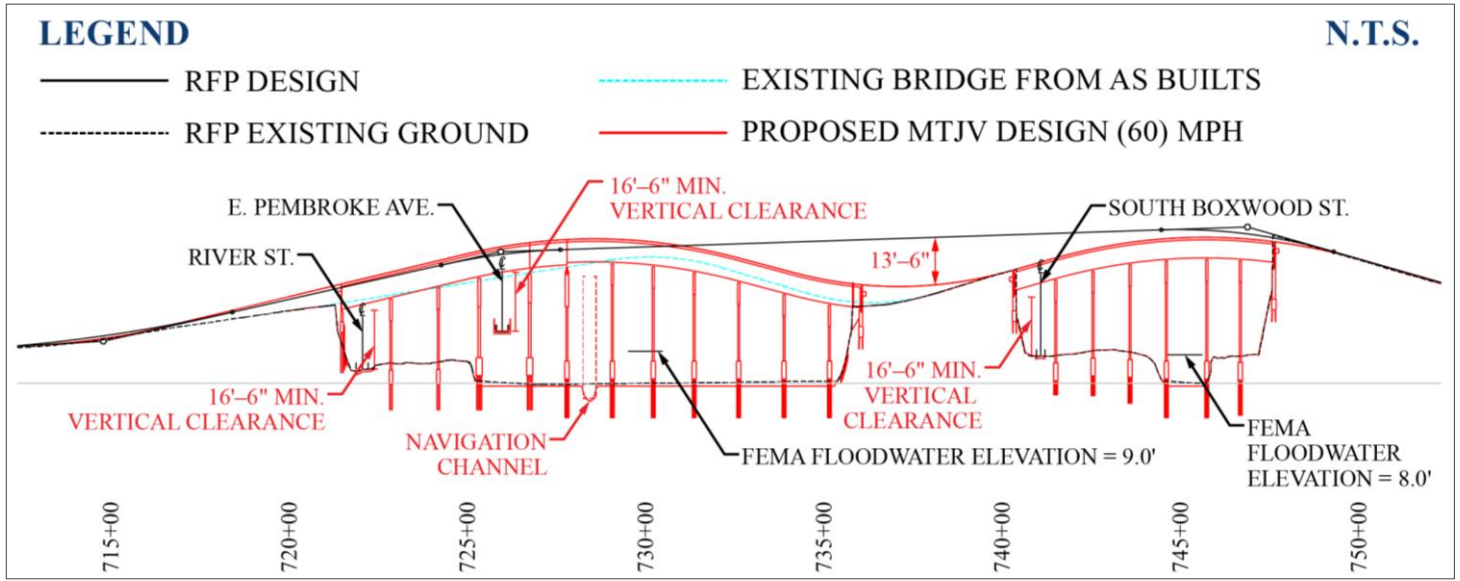
We optimized the horizontal alignment east of the Hampton River Bridge to better match the existing alignment of the pavement (see *Figure 3.3*). Further, we modified the EB vertical alignment from Sta 724+21 to 749+96 (see *Figure 3.4*) which benefits the Project by:

- ✓ Reducing the deck area by 19% compared to the RFP, which reduces construction and future maintenance costs.
- ✓ Utilizing retaining walls and lightweight fill, where needed, to eliminate down drag on existing pile foundations.
- ✓ Maintaining the proposed sound barrier panel heights based on the noise analysis and elevation of noise receptors.
- ✓ Eliminating potential impacts to the westbound (WB) bridge, including existing pile foundations, by using lightweight fill.
- ✓ Increasing clearance for the Dominion Transmission line, which benefits safety, costs, and schedule.

*Figure 3.3: Revised Horizontal Alignments*

Curve Name	Existing Length	RFP Length	Proposed Length
EBBL_NEW_21	543 ft	193 ft	490 ft
WBBL_NEW_22	543 ft	242 ft	343 ft

Figure 3.4: Vertical Profile Modifications at I-64 EB Hampton River Bridges

**(C) MAXIMUM GRADES FOR ALL SEGMENTS & CONNECTORS** ✓

All profile grades meet or exceed the RFP requirements and the proposed mainline grades range from  $-3.10\%$  to  $+3.02\%$ .

**(D) TYPICAL SECTIONS**

Typical sections for ramps, retaining walls, bridge structures, and pavement sections are provided in *Volume II Plans*. The proposed design meets the RFP Design Criteria of 4% maximum superelevation for curves to match the existing pavement.

**(E) CONCEPTUAL HYDRAULIC, MAJOR DRAINAGE, AND SWM DESIGN** ✓

Our Team has developed a drainage design concept that reduces cost, meets/exceeds VDOT design standards, and coordinates phasing with the SOC. The RFP stormwater management (SWM) design approach has been reviewed and verified to meet the *VSMP Part IIC* criteria.

**Temporary Drainage:** The temporary drainage has been analyzed for the design storm and optimized to maximize the construction work area while meeting spread criteria. Slope drains, proposed drop inlets, or trench drain will be provided to ensure positive drainage. Our hydraulics and bridge engineers have coordinated temporary drainage design to ensure the transition between bridges and roadway is adequately protected. The MTJV Team will proactively minimize sediment discharge by creating a robust and redundant erosion & sediment control (ESC) plan, phasing the design with the SOC, and collaborating with construction staff for implementation.

**Existing Pipe Analysis:** Our design assumes all existing pipes are inadequate and will be replaced and abandoned, with the exception of the triple 48-in crossing carrying Brights Creek. By installing the proposed pipe crossings within construction phasing and maintaining the existing system during construction, the MTJV Team has been able to minimize the need for jack and bore (J/B) pipe, reducing cost and schedule risk. The MTJV Team has identified existing pipes that would be beneficial to the proposed design and will inspect those pipes for potential re-use and/or rehabilitation.

**Reducing Drainage Easements:** The MTJV Team is proposing a combination retaining wall/sound barrier to avoid impacts to the existing ditch between the exit ramp and properties adjacent to Armistead Ave and fronting on Willnew Dr. We will regrade portions of the existing drainage ditch closer to the retaining walls/sound barrier for maintenance access inside the existing controlled access fence. In areas where the existing RW is limited, we will pipe the ditch to eliminate RW impacts.

**(F) PROPOSED RIGHT OF WAY LIMITS** ✓

VDOT is already in the process of clearing the RW of the only occupied property for the Project, which will help to expedite the WB Bridge widening work. **Richard Bennett** (Bowman Consulting) will lead the MTJV Team's RW acquisition process for the remaining parcels as shown on the *Volume II Plans*. Many of the adjacent properties are owned by VDOT

and the City of Hampton, so the MTJV Team will initiate early contact with the City’s representatives. To expedite bridge widening work, our Team will enter into an agreement with the City to allow early access through right-of-entry agreements. Through the design optimizations noted above, the MTJV Team reduced acquisitions from 55 to 24 parcels and reduced the square footage of easement impacts to adjacent private properties by 12%. The *Volume II Plans* reflect four significant differences from the RFP plans:

1. Between Armistead Ave and King St, the RFP proposed RW provided space to maintain the parallel toe of fill ditch with permanent drainage easements. We determined it is more economical to utilize combination sound barrier/retaining walls rather than adding embankment to the fill slopes. This allows for a 10-ft wide maintenance access along the ditch within the existing RW with the use of drainage pipes in narrower areas. This optimization eliminated the need for acquisition of 27 parcels (004-025, 033, and 051-054).
2. On the south side of I-64, our design eliminates the proposed acquisitions of four parcels (029-032) by utilizing the same approach noted in Item 1 above. The total 31-parcel reduction avoids impacts into the backyards of the landowners, where in many cases sheds and fences would have required relocation.
3. On the southeast side of Rip Rap Rd, a new permanent drainage easement may be needed to replace an existing 48-in drainage pipe that is within the Project limits and a functional element of the proposed drainage design as required by RFP Part 2, Section 2.7.2. After the pipe’s structural condition is assessed, the MTJV Team will determine if the “proposed” drainage easement is actually needed.
4. From King St eastward to the Project limit, the only change to the RFP proposed acquisition is the need to acquire utility easements to provide service access to the proposed ITS and lighting improvements. A utility easement will be required from one parcel near Mallory Ave for the proposed generator site. We anticipate that additional utility easements may also be needed at King St, where the overhead power lines are close to the bridges.

### (G) PROPOSED UTILITY IMPACTS

In preparing the *Volume II Plans*, the MTJV Team has reviewed the utility facilities along the corridor to evaluate potential conflicts and possible design solutions. We considered the Dominion 115 KVA transmission line parallel to the EB bridge at Hampton River and the Verizon submarine cables across Hampton River as top priority utilities to avoid, due to high cost and long relocation durations. To avoid construction impacts to the Dominion transmission lines, located parallel and to the south of the EB I-64 Hampton River Bridge with aerial crossings near S Boxwood St, the MTJV Team will construct the EB I-64 River Bridge through an overhead gantry system. To avoid impact to the Verizon submarine cables (based on the approximate location included in the RFP data), we are using a straddle bent to bridge over the existing cable rather than a conventional foundation with a continuous line of piles that would have impacted the cable. The specific design considerations to avoid these impacts are further discussed in *Section 4.3.2*. A detailed description of our approach to utility coordination/relocation and an initial determination of the utility relocations for the Project is provided in *Section 4.4.2*.

### (H) NOISE BARRIER LOCATIONS

Our Team will complete the final design noise analysis to finalize the barrier locations and dimensions for the Project. The analysis may identify new barrier locations and eliminate others from consideration. A reflection noise analysis will be performed to address the potential acoustic degradation at locations where barriers are located on both sides of the highway. Since the average ratio of noise barrier height to roadway width for opposing barriers within the Project area ranges from less than 20:1 to less than 10:1, noise reflections could affect the proposed barrier dimensions. The final design noise analysis will include a comprehensive and detailed discussion of structure-borne noise. Based on the preliminary noise study, we anticipate constructing the following noise barriers:

**Existing Barriers AB and CD:** While existing Barrier AB is located beyond the proposed roadway improvements, it will be replaced in-kind because the existing portion is past its serviceable lifespan. Barrier System ABCD will be extended to benefit residences on Willnew Dr, Patrick St, Owen St, Thomas St, Guy St, Carver St, Quash St, King St, River St, and Creek Ave. Located mostly along WB I-64 lanes, from Sta 1655+64 to Sta 1727+11, this barrier will consist of two non-overlapping barriers (with a gap over Rip Rap Rd), an approximate length of 7,068 ft with panel heights from 10-25 ft.

**Barrier DJKL:** To benefit residences on Eaton St, Washington St, Marshall St, Poplar Ave, and E Pembroke Ave, this

barrier is located along EB I-64 from Sta 703+90 to Sta 745+73 and would consist of a single continuous barrier approximately 4,155 ft in length and panel heights ranging from 10-16 ft. The section of this barrier over Hampton River was evaluated using the RFP noise models and we updated the vertical alignment between Sta 724+21 and 749+96. As a result, it is anticipated the overall panel heights would not increase, due to the combination of proposed vertical alignment and the noise reflections with Barrier ABCD and Barrier E.

**Barrier E:** To benefit residences on Garland St, S Boxwood St, and Graham Heights Rd, this barrier is located along WB I-64 lanes from Sta 1733+26 to Sta 1742+57 and would consist of a single continuous barrier with an approximate length of 982 ft and a panel height of 10 ft.

**Barrier G:** To benefit recreational sites at Hampton National Cemetery and Zion Baptist Church, this barrier is located along WB I-64 lanes from Sta 1769+17 to Sta 1779+09 and would consist of a single continuous barrier with an approximate length of 1,099 ft and panel heights ranging from 10-14 ft.

**Barrier M:** To benefit residences on Langley Ave, Thomas St, and Heffelfinger St, this barrier is located along the EB I-64 lanes from approximate Sta 666+65 to EB Ramp to Rip Rap Rd Sta 25+55 and would consist of a single continuous barrier with an approximate length of 1,469 ft and panel heights ranging from 18-21 ft.

For Barriers G and M, consistent with VDOT's most recent guidance manual (February 2022), the MTJV Team will coordinate with all recreational sites (noise-sensitive) within the Project area to determine usage, which could change whether barriers are recommended for construction or modifications are needed to the overall barrier dimensions.

After approval of the Final Design Noise Analysis, the MTJV Team will coordinate with VDOT to conduct noise barrier voting via certified mail. Disposition of the letters will be tracked and presented to VDOT for review in the Noise Barrier Addendum Report. During all phases of the Project, the MTJV Team will work to resolve any engineering conflicts with construction of the proposed sound barrier walls, conduct additional noise analyses, and submit to VDOT for approval.

## (I) LIGHTING

The MTJV Team proposes full replacement of existing lighting on the I-64 mainline, interchange ramps, and roadways passing under I-64 bridges within the Project limits.

**Sign Lighting:** Our Team has reviewed the need for sign lighting following IIM-TE-380.1. We believe sign lighting can be eliminated within the Project limits by making minor adjustment to the overhead sign structure locations presented in the RFP plans to ensure minimum spacing requirements are satisfied.

**Maintenance Access:** Lighting design will be coordinated with retaining walls, sound barriers, and bridges to ensure all lighting equipment and infrastructure is accessible to VDOT within the RW and without permanent easements. We have given special attention to the Dominion Energy Transmission lines to ensure all clearances are met for safety.

**Temporary Lighting:** Our approach to temporary lighting will enhance safety, particularly for work zone conditions such as the temporary crossovers at Hampton River Bridge. To address early impacts to existing lighting during widening of the WB Hampton River Bridge, we will install temporary support brackets and light poles on the median side parapet, with temporary conduit/cables supported from parapet or interior girder. Temporary wood poles with luminaires will maintain lighting in other locations. We will coordinate with Segment 4B and HRBT projects to ensure circuits that cross over Project limits are kept operational throughout construction.

## (J) GUARDRAIL/BARRIER

The MTJV Team has ensured that the clear zone within the Project limits is free from hazards or fixed objects and designed to include a MASH guardrail barrier system and end treatments for protection, where appropriate. As shown on the *Volume II Plans*, existing substandard guardrail within the Project limits will be upgraded to meet current standards per Appendix J of the VDOT Road Design Manual. Within the median, we will install 50-in tall median barrier VDOT Standard MB-12A, B, C or MB-13. On the outside, VDOT Standard MB-7D will be used in locations where sound barriers will retain only a small amount of soil using reinforced sound barrier panels. In these locations, 3 ft of No. 78 stone will be placed between the sound barrier and the MB-7D. In locations where the sound barrier is on top of a MSE wall, a barrier will be designed on a moment slab. These sound barriers meet the RFP requirements and are shown in the *Volume II Plans*.

**(K) PAVEMENT MILLING/OVERLAY AND BUILD-UP**

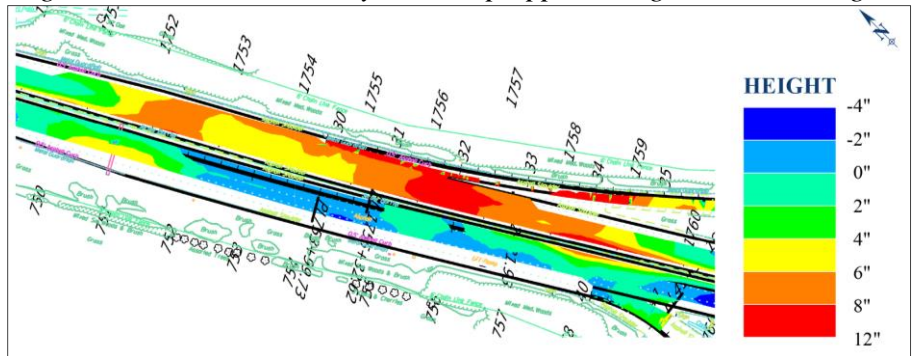
**Temporary Pavement:** The MTJV Team’s initial preconstruction phase will install shoulder strengthening on the outside shoulders in the vicinity of the I-64 mainline bridges so that these shoulders can be used for MOT in later stages. *Figure 3.5* shows the design life for the pavement on the existing shoulders. Crossovers will be used for construction of the Hampton River Bridges. They were analyzed thoroughly to determine the best location, horizontally and vertically, for 55 mph speeds. A temporary overlay of the median shoulders will provide a smooth transition through the crossovers.

*Figure 3.5: Temporary Pavement Design Life*

Section	Shoulder	Modification	Design Life
LaSalle to Rip Rap	Inside	None	10 months
		1" Mill, 1.5" Overlay	12 months
	Outside	None	8 months
		1" Mill, 1.5" Overlay	12 months
Rip Rap to Settlers Landing	Inside	None	20 months
		1" Mill, 1.5" Overlay	33 months
	Outside	None	9 months
		1" Mill, 1.5" Overlay	12 months
Settlers Landing to Mallory	Inside	None	19 months
		1" Mill, 1.5" Overlay	31 months
	Outside	None	10 months
		1" Mill, 1.5" Overlay	12 months

**Permanent Pavement:** The permanent pavement will match the pavement sections provided in the RFP. The amount of overlay needed will vary significantly throughout the Project to maintain the required minimum profile grade and pavement cross slopes. Our Team has refined the vertical alignment throughout the Project limits to eliminate undercutting of existing pavement and reduce pavement build-up/overlay, where possible. We put together overlay heat maps using *Open Roads Designer* to evaluate the minimizing pavement overlay (see *Figure 3.6*). Once all construction within the roadway is complete, the final surface course and rumble strips will be applied for high quality finished pavement.

*Figure 3.6: Pavement Overlay Heat Map Approaching Settlers Landing Rd*



**(L) TOLLING INFRASTRUCTURE**

Our Team will provide all tolling infrastructure required by the RFP and shown on the RFP Concept Plans, including the toll gantry, DMS (pricing and toll lane advisory); vehicle detectors (T-MVDS), tolling fiber optic backbone cable; CCTVs to view the tolling DMS and toll equipment cabinet; and back-up power generator site. We have determined that the RFP-required 150-amp, three-phase power service is available from Dominion Energy lines along Cameron St, adjacent to the generator site. HOT Lanes signing includes appropriate guide and regulatory signs, and a minimum of two DMS on each entrance approach designed consistent with the I-64 HREL network and MUTCD/FHWA guidelines.

**Toll System Integration:** We will hand over structures and infrastructure supporting the toll system to VDOT’s Toll System Integrator (TSI), providing a minimum window of 180 calendar days for the TSI to install, integrate, and test tolling equipment. It is critical to have all communications and power infrastructure in place for integration efforts. We will coordinate with the HRBT project to tie in fiber communications on the east end of the Project. Our placement of the fiber optic duct bank, including on the widened portion of the WB Hampton River Bridge, will allow for early installation prior to impacting the existing trunk line and keep network communications active throughout construction. To address long lead time and schedule sensitive items, we will use a "pre-fab" approach in which elements such as electric service racks and control cabinets are built off-site and then installed. This approach will reduce the amount of lane closures required for a traditional field-build, improve safety, and ensure consistency. *Section 4.5.1* includes additional discussion on the sequence of tolling infrastructure construction.

**(M) OTHER KEY PROJECT FEATURES** – See *Section 4.4* for discussion of environmental features and utilities.

4.3.2 CONCEPTUAL STRUCTURAL DESIGN

MTJV Team members worked closely together to develop design concepts that meet or exceed RFP requirements for the proposed structural work along the I-64 Corridor and reduce impacts to the traveling public to the maximum extent possible. Our proposed context-sensitive design solutions were developed with three structural design goals for all bridge structures, including the two proposed new bridge structures on I-64 eastbound (EB) over Hampton River and Hampton Creek:

- MTJV Team Concept compared to RFP Concept**
- ✓ **Reduces number of substructure units**
  - ✓ **Reduces number of superstructure elements**
  - ✓ **Reduces total deck square area**
  - ✓ **Reduces number of conflict points**
  - ✓ **Reduces long-term maintenance**
  - ✓ **Improves constructability**
  - ✓ **Meets/Exceeds bridge scope of work**

- **Goal: Reduce Long-Term Maintenance:** Provide low maintenance structures that reduce future maintenance requirements, minimize costs, and provide a long service life.
- **Goal: Improve Constructability:** Reduce substructure conflicts and reduce the number of elements to install (fewer girders, piles, substructure units) to reduce construction risk and improve schedule performance.
- **Goal: Maintain or Improve Horizontal and Vertical Clearances:** Maximize vertical and horizontal clearances through the use of shallower beams, vertical roadway profile adjustments, and horizontal substructure locations.

The MTJV Team’s design concept will meet or exceed the material durability requirements of VDOT specifications and guidelines for all bridge structures, including but not limited to use of low permeability concrete, use of Corrosion Resistant Reinforcing Steels (IIM-S&B-81.8), and VDOT Modifications to the AASHTO LRFD Bridge Design Specifications (IIM-S&B-80.6) which includes additional concrete cover for marine environments.

**Figure 3.7: MTJV Team Structural Design Optimizations that Benefit the Project**

Design Feature Optimizations	Value Added
<b>I-64 EB over River St, E Pembroke Ave, and Hampton River and I-64 over S Boxwood St and Hampton Creek</b>	
<ul style="list-style-type: none"> <li>• Separated the structure into two bridges by adjusting the vertical profile to mimic the existing layout and reuse/modify the land section west of S Boxwood St. This modification reduces the bridge structure deck area by 19%.</li> </ul>	Reduced Maintenance
<ul style="list-style-type: none"> <li>• Eliminated conflict points with the substructure:                             <ul style="list-style-type: none"> <li>○ Reduced number of substructure conflict points from 14 RFP locations to two proposed locations;</li> <li>○ Used straddle bent design over sub-aqueous Verizon cable near E Pembroke Ave;</li> <li>○ Located proposed abutments outside footprint of existing abutments; and</li> <li>○ Located piers/bents outside existing footprint and varied skew to eliminate conflicts with existing timber piles.</li> </ul> </li> </ul>	Reduced Maintenance; Improved Constructability
<ul style="list-style-type: none"> <li>• Used Virginia Pier and jointless abutment details of S&amp;B Guidelines Chapters 15, 17 and 32.</li> </ul>	Reduced Maintenance
<ul style="list-style-type: none"> <li>• Reduced the number of pier units from 28 to 17 compared to the RFP.</li> </ul>	Improved Constructability
<ul style="list-style-type: none"> <li>• Economized the use of PCBT beams compared to the RFP Concept Plans.</li> </ul>	Improved Constructability
<ul style="list-style-type: none"> <li>• Provided horizontal and vertical clearances at channel spans per the RFP.</li> </ul>	Maintained Clearances
<ul style="list-style-type: none"> <li>• Increased the existing vertical clearance by modifying the vertical profile over River St and E Pembroke Ave.</li> </ul>	Improved Clearances
<b>I-64 WB over River St, E Pembroke Ave, Hampton River, S Boxwood St, and Hampton Creek</b>	
<ul style="list-style-type: none"> <li>• Eliminated 36 AASHTO beams and a line of steel plate girder while meeting widening and deflection requirements compared to RFP.</li> </ul>	Reduced Maintenance
<ul style="list-style-type: none"> <li>• Utilized ATC to eliminate the skew at Pier 9 and improve joint functionality.</li> </ul>	Reduced Maintenance
<ul style="list-style-type: none"> <li>• Reduced pile footprint by designing a two-pile bent system to support the proposed single girder widening, which eliminated piles compared to RFP Concept Plans.</li> </ul>	Improved Constructability Reduced Maintenance
<b>I-64 over Rip Rap Rd</b>	
<ul style="list-style-type: none"> <li>• Followed the RFP and S&amp;B Chapter 32 Guidelines to eliminate joints at abutments and piers, replace bearings, install galvanic anodes, and overlay with latex.</li> </ul>	Reduced Maintenance
<b>I-64 over King St</b>	
<ul style="list-style-type: none"> <li>• Followed the RFP and S&amp;B Chapter 32 Guidelines to eliminate joints at the abutments and piers, replace bearings, install galvanic anodes, and overlay with latex.</li> </ul>	Reduced Maintenance

Design Feature Optimizations	Value Added
<ul style="list-style-type: none"> <li>Used micropiles for WB lane widening to eliminate down drag and pile conflict points from proposed new concrete piles in the RFP Plans.</li> </ul>	Reduced Maintenance
<b>I-64 over Settler’s Landing Rd</b>	
<ul style="list-style-type: none"> <li>Followed the RFP and S&amp;B Chapter 32 Guidelines to eliminate joints at the abutments and piers, replace bearings, install galvanic anodes, and overlay with latex.</li> </ul>	Reduced Maintenance
<ul style="list-style-type: none"> <li>Used micropiles to reduce the impact of drilled shaft casing pipes and impacts to environmentally sensitive areas.</li> </ul>	Improved Constructability
<ul style="list-style-type: none"> <li>For I-64 WB, no reduction in vertical clearance through use of plate girder design to reduce the girder heights.</li> </ul>	Improved Clearances
<b>Retaining Walls Project-Wide</b>	
<ul style="list-style-type: none"> <li>Reduced the total length of retaining walls by 48% (from 8,627 lf to 4,498 lf).</li> <li>Eliminated a significant portion of MSE retaining wall, reducing construction impacts and potential settlement.</li> </ul>	Reduced Maintenance

**I-64 EB BRIDGES**

Per the RFP, we will replace the two existing bridge structures on I-64 EB over Hampton River and Hampton Creek, which originally carried both EB and WB traffic when completed in the 1950s. The MTJV Team reviewed all aspects of the existing conditions as part of the internal task force to develop the most cost-effective long-term solution and reduce impacts to the traveling public. The task force evaluated various bridge types including structural steel and concrete superstructures, various substructure types (bents, multi-column piers, hammer head piers) along with various foundation types, single bridge structure vs. multiple bridge structures with a roadway section between each bridge structure, sound barrier locations and types, and multiple horizontal and vertical alignments to meet the RFP Design Criteria.

✓ After much consideration of means and methods to construct and to meet the Project schedule, our Team settled on the design for replacement of the two existing I-64 EB bridge structures with the proposed design and detailing of two new bridge structures with a roadway section between each bridge structure. This mimics the current roadway profile configuration while meeting the goals of improved vertical clearances over River St and E Pembroke Ave. The MTJV Team’s proposed solution will provide the Department with reduced future maintenance costs. *Figure 3.8* is a summary of the reductions our Team achieved. A major benefit of mimicking the existing bridge profile is division of the drainage regions, creating two high points and significantly reducing the need for deck drains. By setting the sag point in the fill section between the two bridges, a more robust in-ground drainage system can be utilized, eliminating the need for significant drainage infrastructure on a bridge. Scour analysis was performed for both the Hampton River and Hampton Creek bridges, which are in FEMA Flood Zones AE and VE. Based on the available FEMA Effective hydrodynamic models, Class II riprap scour countermeasures are proposed as shown in the *Volume II Plans*.

*Figure 3.8: I-64 EB Hampton River Bridge Concept Enhancements*

Item	RFP	MTJV	Difference	% Reduction
<b>Bridge Deck Area (sf)</b>	183,771	149,323	30,595	19%
<b>No. of Spans</b>	29	19	9	34%
<b>No. of Beams</b>	232	133	99	43%
<b>No. of Piers</b>	28	17	11	39%
<b>No. of VA Piers</b>	2	1	1	50%

**I-64 EB OVER RIVER ST, E PEMBROKE AVE, AND HAMPTON RIVER**

The existing 1,444-ft bridge structure consists of two distinct sections. The western 579-ft section (Abutment A through Pier 12) contains a longitudinal joint to account for offset substructure units. The eastern 865-ft section, which is a single superstructure with no longitudinal joint, contains an 85-ft suspended span. Due to the existing configurations of substructure units and the challenge of achieving the minimum vertical clearances over River St and E Pembroke Ave, along with the minimum clearance of the channel span, our vertical profile, substructure locations, and superstructure types focused on the most efficient bridge layout to meet the RFP criteria.

✓ **Substructure** – To avoid the 29 existing hammer head piers, two multi-column piers and western abutment, our Team situated the proposed foundations to miss existing elements of the current configuration to the greatest extent possible. This required use of variable skew angles at the proposed abutment and first two pier locations. For the next two pier locations to support the span over E Pembroke Ave, our task force developed a unique solution. The MTJV Team is proposing the use of two straddle bents. The Proposed Pier 3 location is offset to the south to miss the two existing hammer




head piers. The Proposed Pier 4 location is offset slightly to the north and the pile foundation caps are skewed to be in line with the sub-aqueous Verizon Cable, reducing potential impacts to this critical utility. Pier 5 is the location of the single Virginia Pier to design and detail the bridge to be considered a jointless superstructure. Piers 6 and 7 are situated to provide for the navigation channel. The required overhead sign structure is located at Pier 8 and we propose that it be mounted directly to the pier cap rather than being a bridge-mounted sign structure, per RFP requirements. The remaining piers are laid out to optimize the selected superstructure section, avoid existing bridge foundations, and minimize the number of piers. The western abutment is designed as a deck slab extension with an MSE wall surrounding it. Its location is between the existing abutment and existing Pier 1, which eliminates one pier and one span from the overall bridge layout. The proposed fill at this location will utilize a combination of lightweight aggregates and settlement waiting periods to meet the RFP settlement requirements. The eastern abutment is located behind the existing abutment and is designed as a Virginia abutment. All of the proposed deep foundation elements are prestressed concrete piles and will meet the guidelines for elements located in Hampton Roads District.

**Superstructure** – The new superstructure will consist of two continuous units of prestressed bulb tee beams. Unit 1 will consist of five spans of PCBT-77 beams with variable skews and span lengths between Abutment A and Pier 5 totaling 629 ft-6 in. Unit 2 will consist of seven spans of PCBT-69 beams with no skews between Pier 5 and Abutment B totaling 822 ft-6 in. The transverse section consists of seven beams with 2 ft-11 in overhangs and a beam spacing of 10 ft-4 in. This beam arrangement meets the RFP criteria of 0.3(S) when the overhang supports a sound barrier wall, and the vertical profile considers the sea level rise criteria as stipulated in Chapter 33 of the Structure and Bridge Manual (S&B). Additional details related to deck drainage, lighting, parapets, and the dry standpipe system are in accordance with RFP requirements, as shown on the *Volume II Plans*.

#### **I-64 EB OVER S BOXWOOD ST AND HAMPTON CREEK**

The existing 714-ft bridge structure consists of dual steel plate-girder superstructure with 5 ft-6 in cantilevered overhangs. It is supported by large single column piers, founded on timber piles, along each girder line. At the eastern end of the bridge structure, the existing Pier 6 foundation unit was rotated due to the Chesapeake & Ohio Railroad that was present at the time of original construction in the 1950s. In the 1980s, a sheet-pile retaining wall was installed with the current WB bridge to support the EB roadway fill due to the offset location of the I-64 WB abutment. Our task force evaluated the possibility of shortening the bridge with a roadway fill section between S Boxwood St and Hampton Creek, but due to the underlying soils, this was not a feasible option. Therefore, a single new bridge will span over S Boxwood St and Hampton Creek.

 **Substructure** – Similar to our approach to the main Hampton River Bridge, our task force evaluated ways to avoid the six existing pier substructure units (12 columns) and two abutments while meeting minimum and maximum overhang requirements due to the horizontal curve of the roadway. Our proposed design will have six piers at variable spacing to avoid the existing foundations and to minimize the impact to Hampton Creek. The two proposed abutments are situated behind the existing abutments, with Abutment A and B proposed as Virginia Abutments and a buried approach slab. The locations of the proposed abutments will allow the new piles to be installed with minimal to no impact to the existing abutment and minimal grading of the fill material in front of the abutments. Additionally, the location of Abutment A minimizes conflicts with the overhead transmission line that crosses over I-64 near this location. At Pier 1 (along S Boxwood St), our proposed location minimizes the impacts to multiple utilities along the roadway and located over top of the existing footings, as shown on the *Volume II Plans*.

**Superstructure** – To meet RFP requirements, we evaluated various configurations of concrete girders for length of the spans, to accommodate the horizontal curve for minimum and maximum overhangs, and for the sound barrier attachment. We chose a single continuous unit of PCBT-61 beams totaling 797 ft-6 in with a seven-beam cross section. The transverse section beam spacing, and detailing is similar to the main I-64 EB Hampton River Bridge described above.

#### **I-64 WB OVER RIVER ST, E PEMBROKE AVE, HAMPTON RIVER, S BOXWOOD ST, AND HAMPTON CREEK**

The existing 2,782-t bridge structure was completed in the 1980s as a part of the widening of I-64 to accommodate additional traffic. It consists of five different superstructure typical section configurations. For the substructure, there are three different pier types: Pile Bents; Multi-column; and Pier 37 (eastern end of existing bridge), a Fracture Critical Steel Pier Cap with its column supports skewed to accommodate the Chesapeake & Ohio Railroad that was present at the time of construction. As

part of this Project, the current I-64 WB bridge structure is to be widened with a prescribed deck rehabilitation and joint closures completed per the RFP.

**Substructure** – To accommodate widening of the superstructure, each substructure unit will require widening. Due to the various configurations of the existing conditions, there will be three different configurations for the pier widening along with the two abutment widenings.

✓ **Piers 1, 2 & 8** – These three multi-column piers will require widening to support the widened superstructure. The widened pier will be supported by a pile cap with four 24-in square concrete piles, which will require a support of excavation (SOE). The pile cap will support a single round column to mimic the existing conditions. The new individual pier caps, which will not be integrated with the existing pier caps, will be sized to support a single line of AASHTO girders and to accommodate the skews at Pier 1 & 2.

✓ **Pier 9** – Due to the location of this Pier adjacent to the E Pembroke Ave superstructure, the MTJV Team submitted and received approval for an ATC to design and detail a pier that will include two square concrete piles slightly offset from the existing piles supporting the in-situ pile cap. The location of the proposed piles meets the 3D requirements of AASHTO for minimum spacing between piles. Per the design approval for this concept, a Design-Waiver is required for placement of the concrete pile approximately 1 ft-8 in from the face of the E Pembroke Ave bridge parapet. The new piles will support a widened pile cap, which will support a Pier Cap, which will be integrated into the existing Pier Cap. The new Pier Cap will be in line with the existing one, eliminating the proposed skew from the RFP plans and reducing future maintenance of a skewed joint. In addition, this will allow for elimination of variable length AASHTO girders at this location.

✓ **Typical Bents** – The existing bents all have an outward-driven pile, which creates a conflict to drive a single pile to support the widened superstructure. To accommodate this situation, two square concrete piles will be installed outboard of the existing battered pile and a pile cap will span between the two piles to support the proposed widening. Based on geotechnical information about the Project location, point of fixity for laterally unsupported piles is an obstacle for design. Many of the existing piers are pile bents with a single row of piles. According to S&B Vol. V, Part 2, File No. 23.02-2, the effective length factor for a single row of piles in the longitudinal direction is  $k = 2.1$ . The new pier for the widening was oriented in the opposite direction of the existing pier. With the widened superstructure causing the existing pier to work with the new (widened) pier, the piles will act as a whole pile group. Therefore, an effective length factor of 1.2 was utilized for the new piles. There is one unique case among the typical bents – **Pier 37**. The existing single column foundation support of the steel cap was rotated to avoid interfering with the C&O Railroad at the time of construction. To accommodate the proposed widening, and avoid interfering with the skewed supports with the battered piles that support the existing superstructure, our Team proposes driving two new square concrete piles outboard of the in-situ battered piles to support a new cap.

**Superstructure** – The existing superstructure consists of AASHTO PCB Type III or Type IV girders and a two-span Continuous Structural Steel Unit at Span 37 and 38 (as-built plan designation) to accommodate the now removed C&O Railroad. Proposed superstructure widening will use one line of beams (as opposed to the RFP proposed two lines) and the same depth PCB in each span. An additional steel girder line will be used to accommodate the widening at Spans 37 and 38. All new beams meet the spacing, deflection and overhang requirements from the RFP and the Manual of Structure and Bridge for bridge structure widening. The new deck reinforcement will be detailed to provide structural continuity with the existing deck structure, paying particular attention to the interaction with existing precast prestressed deck panels. The widened beam / girder bay will support the ITS infrastructure along this section of the Project (see *Volume II Plans*). To address the deck drainage challenges of this bridge structure, our Team carefully reviewed various scenarios and took into consideration the location of the existing exterior straight concrete beams when compared to the edge of bridge deck, which is curved for just under half of the bridge structure. It was determined that deck drains could be situated where the downspout

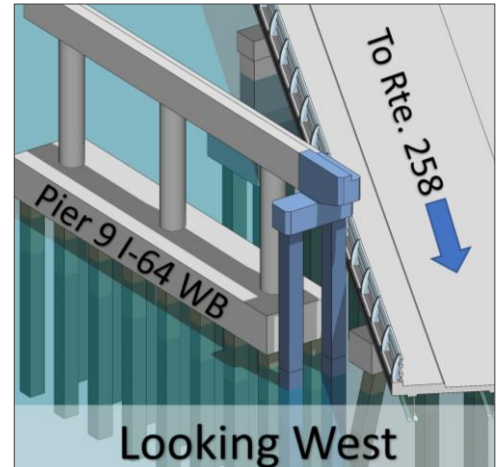


Figure 3.9: I-64 WB Pier 9 ATC

could be located on either side of the exterior beam to keep the drainage elements within the shoulder. Areas where deck drains **could and could not** be placed were incorporated into a detailed deck drainage model that accounted for the varying drainage areas, cross slopes, and bridge grades. The proposed drainage elements were strategically placed to limit spread to the shoulder while keeping the existing overhang and parapet unmodified. While the number of drains per span varies, we have been able to control drainage spread with three to four drains per span, on average.

**Rehabilitation** – Per the RFP, the existing joint at the abutments will be removed and a deck slab extension will be designed and detailed with a new buried approach slab. The existing concrete deck will receive a latex modified overlay, the superstructure bearings will be replaced with new elastomeric bearings, and the structural steel spans will be recoated. As part of the rehabilitation, the existing C15x33.9 end diaphragm will require retrofitting to enable the MTJV Team to jack and block the existing superstructure and support live load as part of the rehabilitation.

### I-64 OVER SETTLERS LANDING RD

The current 255 ft-5 in bridge structure was completed in 1988 as a replacement for the original 1950s bridge structure. It consists of a four-span continuous steel rolled beams superstructure supported by multi-column piers and stub abutments on a deep foundation. To accommodate the proposed roadway final configuration, the I-64 WB side of the existing bridge structure will require widening along with rehabilitations as specified by the RFP.


**Substructure** – The RFP requires use of either drilled shafts or micropiles to support the widening. After review of the conditions, and to minimize risk and potential impacts to the Emancipation Oak, the MTJV Team will use micropiles to support the widened pier and abutment sections. For the piers, the new single column will be supported by a pile cap and the pier cap will be chamfered to mimic the existing piers architecturally. The abutments will be detailed as stub abutments with new wingwalls to support the widened roadway and will be supported by micropiles. The existing abutments will be modified to support a buried approach slab.

**Superstructure** – To meet the RFP design requirements, the WB superstructure will be widened and will maintain a minimum vertical clearance of 15 ft. The proposed superstructure structural steel depth will be reduced from the current W27 rolled beams to a plate girder that will be approximately 24 in total height.

**Rehabilitation** – Per the RFP, the existing joint at the abutments will be removed and a deck slab extension will be designed and detailed with a new buried approach slab, the existing concrete deck will receive a latex modified overlay, the superstructure bearings will be replaced with new elastomeric bearings, and the entire superstructure will be recoated. As part of the rehabilitation, the existing C15x33.9 end diaphragm will require retrofitting to enable the MTJV Team to jack and block the existing superstructure and support live load as part of the rehabilitation.

### I-64 OVER KING ST

The existing I-64 bridge structure over King St was completed in the 1950s and widened in the 1980s. It consists of three simple spans that are mixture of Type IV AASHTO Girders and special design 40.5-in and 35-in prestressed girders for a total length of 169 ft. The superstructure is supported by multi-columnned piers and stub abutments, all on deep foundations. To accommodate the proposed roadway configuration, the EB and WB sides will require widening along with rehabilitations as specified by the RFP.

 **Substructure** – As our Team was evaluating existing condition for the WB widening, we noted that the existing westbound pier foundation elements would be in conflict with a “normal” layout for the piles to support a pile cap (See *Figure 3.10*). To accommodate the conflicts, our Team is proposing a partial footing demolition to expose the existing piles and to install new micropiles to support a widened pile cap. The new widened pier pile cap will support a cast-in-place concrete column and pier cap. The use of micropiles allows for the most flexibility

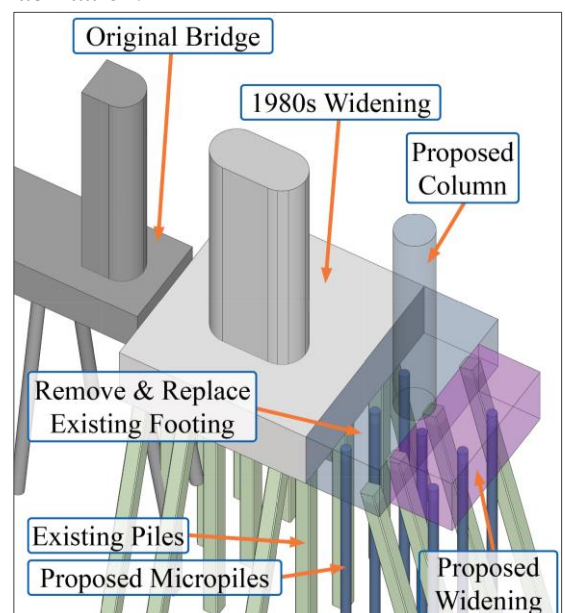


Figure 3.10: WB Pier Foundation Conflict

for placement adjacent to the existing concrete piles and reduces potential damage or down drag issues with the existing piles. The EB pier widening does not have the same conflicts as WB, therefore the MTJV Team will use prestressed concrete piles to support the new footings. The abutment widenings will be detailed as stub abutments with new wingwalls to support the widened roadway and will be supported by prestressed concrete piles. The existing abutments will be modified to support a buried approach slab.

**Superstructure** – Both the EB and WB superstructures will require widening and will be detailed to account for any potential differential deflection between the existing and widened elements. The new widened structure will provide a minimum vertical clearance of more than 19 ft and will use PCB-4S (AASHTO Type IV) concrete beams. We will modify the existing bridge deck to be continuous at the piers (eliminating deck joints), extended at the abutments to provide deck slab extensions over the backwall, and milled and overlaid.

Based on VDOT’s preliminary noise analysis, a noise barrier may be required for the westbound bridge. The use of AASHTO PCB provides enough deck overhang to accommodate the VDOT standard sound barrier connection details.

**Rehabilitation** – Bridge repairs will include replacement of all existing bearing components for all the existing concrete beams. The new bearings will consist of new steel-reinforced elastomeric bearing pads, sole plates, clip angles, and anchor bolts. New bearings will be designed to accommodate anticipated movements and forces based on eliminating the bridge deck joints. We will evaluate existing substructure elements for any increased forces that result from the revised bearing configurations. The non-widened existing concrete decks for EB and WB will receive Type A milling, Type A Hydro-demolition, deck repairs, and latex concrete overlay.

## **I-64 OVER RIP RAP RD**

The existing I-64 bridge structure over Rip Rap Rd, completed in the 1950s and widened in the 1980s, consists of three simple spans that are mixture of variable width 33-in box girders and special design 31-in and 39.5-in prestressed girders for a total length of 145 ft. The superstructure is supported by multi-columned piers and stub abutments, all on deep foundations. The existing structures are wide enough to accommodate the proposed roadway section without widening.

**Rehabilitation** – We will modify the existing bridge deck to be continuous at the piers (eliminating deck joints), extended at the abutments to provide deck slab extensions over the backwall, and milled and overlaid. The abutments will be retrofitted to accommodate deck slab extension and to support new buried approach slabs.

Per the RFP, the existing bearings on the concrete beams will be replaced with new bearings, which will consist of new steel-reinforced elastomeric bearing pads, sole plates, clip angles, and anchor bolts. New bearings will be designed to accommodate anticipated movements and forces based on eliminating the bridge deck joints. We will evaluate existing substructure elements for any increased forces that result from revised bearing configurations. Replacement bearing height will be restricted to the existing bearing height to maintain the current bridge minimum vertical clearance of 13 ft-6 in.

The existing concrete decks for both EB and WB will consist of Type A milling, Type A Hydro-demolition, deck repairs, and latex overlay. Repair of the previously widened deck over the box beams for EB and WB will consist of Type B Hydro-demolition, deck repairs, and a latex concrete overlay. Section 425.03 of the VDOT Specifications will be utilized for the deck demo plan to prevent damage to the existing box beams below the hydro-demoed deck. Ridged concrete overlay will consist of latex modified concrete.

## **RETAINING WALLS**

The retaining walls proposed within this Project corridor represent a major investment to the Department in both initial construction and long-term asset maintenance and inspection. The RFP Conceptual Plans showed approximately 8,630 lf of MSE retaining walls. Our Team’s approach was to develop a Retaining Walls Task Group comprised of roadway, geotechnical, and structural engineers, and construction personnel to evaluate opportunities in roadway geometrics, grading, and alternative structural solutions while meeting all RFP requirements.

This group proposes the following strategies to reduce retaining wall lengths:

- Use of sound barriers combined with retaining wall panels to simplify the structural system at locations using sound barriers and needing short height walls (approximately 6 ft exposed height or less). This approach removes

the need for a separate MSE wall with moment slab and retains the roadway barrier with gravel in-fill cushion of the ground-mounted sound barrier system.

- Use of special design concrete cantilever walls with integrated bridge parapet (BPB-4) per RFP requirements. This wall system is designed to resist traffic impact loads and normal strength loads in accordance with AASHTO LRFD and Manual of Structure and Bridge. These walls are used where short heights of wall are needed (5 ft or less exposed height) in areas not requiring sound barriers.
- Optimize existing RW limits to extend fill slopes to reduce or eliminate wall along stretches of roadway widening where environmental, drainage, or settlement impacts are low.
- Reduce the proposed roadway fills with changes in profiles and utilize lightweight aggregates or EPS foam materials as necessary along stretches of roadway that are sensitive to settlement. The materials selected are all within VDOT's currently approved material lists.

✓ With the above strategies, we have optimized the design to use MSE Walls, Special Design Retaining Walls, Combination Sound Barrier / Walls, EPS Structures, and open guardrail sections. This analysis has reduced our wall lengths by almost half (reduction of approximately 4,129 lf, or 48%) as detailed in *Figure 3.11*.

*Figure 3.11: Retaining Wall Summary (See Vol. II Plans for Locations)*

Location	w/Sound Barrier	RFP Concept Type	RFP Concept Length	MTJV Type	MTJV Length
EB 659+00 to 662+50	Yes	MSE	320	Sound Barrier Only	0
EB 679+17 to 680+63	No	MSE	115	Guardrail	0
EB 682+09 to 698+23	No	MSE	1,660	Guardrail / MSE	950
WB 692+00 to 698+23	Yes	MSE	595	Combo Wall	496
WB 699+95 to 705+50	Yes	MSE	632	MSE	632
EB 699+95 to 704+00	No	MSE	336	MSE	375
EB 704+00 to 707+00	Yes	MSE	308	MSE	266
WB 706+40 to 720+50	Yes	MSE	1,417	Sound Barrier Only / Combo Wall / MSE	137
EB 717+00 to 721+13	Yes	MSE	424	Sound Barrier Only	0
WB 748+22 to 751+50	No	MSE	313	Guardrail / Special Design	134
EB 748+22 to 759+50	No	MSE	1,097	Guardrail / Special Design	538
EB 772+00 to 785+72	No	MSE	1,340	Guardrail / Special Design	358
WB 773+60 to 774+40	Yes	Special Design	70	Special Design	70
EB 735+75 to 737+75 (right)	Yes	Bridge	N/A	EPS Structure	163
EB 737+75 to 740+00	Yes	Bridge	N/A	MSE	216
EB 735+75 to 737+75 (left)	No	Bridge	N/A	EPS Structure	163
		<b>Total</b>	<b>8,627</b>		<b>4,498</b>

## MAJOR DRAINAGE AND MISCELLANEOUS STRUCTURES

✓ **Owens St Pedestrian Underpass:** This existing arch culvert structure was originally constructed in the 1950's and widened in the 1980's. It is approximately 8 ft x 8 ft and 290 ft long and passes underneath I-64 at a large skew. It will be inspected and repaired in accordance with the RFP requirements. A sound barrier is proposed over top of the north portal. A special design moment slab is proposed in this location to support the sound barrier posts and panels, thereby eliminating foundation conflicts. Proposed fill at this location is minimal, therefore anticipated settlements are negligible.

✓ **Major Culvert at Brights Creek:** This existing culvert consists of three 48-in diameter reinforced concrete pipes with cast-in-place headwalls. The pipes are mostly submerged during normal water levels. The culvert will be inspected and repaired in accordance with the RFP. An MSE retaining wall with sound barrier is proposed to pass over top of both ends of the existing culvert. To minimize settlement at this location, the MSE backfill will consist of lightweight aggregates. This fill material will extend approximately 20 ft on either side of the existing culverts.

# SECTION 4.4 PROJECT APPROACH



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

+ **WRA** +

  
KCI

#### 4.4.1 ENVIRONMENTAL MANAGEMENT

The MTJV Team has a proven history of managing environmental risk to deliver permits for large, complex design-build (DB) projects. Our Team will implement environmental best practices and lessons learned to deliver permits for the I-64 Hampton Roads Express Lanes Segment 4C Project (Project). WRA will lead all aspects of environmental management, including compliance, permitting, and addressing conditions/areas of concern. **Taylor Sprenkle, PWD**, will lead environmental management and permitting for our Team.

Taylor led permitting efforts for the HRBT project, where he worked with VDOT and regulatory agencies to identify and address environmental issues that presented critical schedule risks. His efforts resulted in the issuance of USACE and VDEQ Individual Permits in nine and seven months, respectively, after submittal of the Joint Permit Application (JPA). The regulatory agency staff that approved the recently issued permits for HRBT will review permits for this Project as well. **Laurel Smith**, VDEQ Combined Administrator and Certified Nutrient Management Planner (CNMP), will serve as the Environmental Compliance Manager (ECM) for the Project. She is currently serving as a supplemental VDOT environmental monitor for the I-64 Segment III DB Project, working directly with VDOT's Area Chief Engineer and Construction Managers to provide QA and oversight of construction compliance with environmental permits.

**Previous Permitting Success**  
Through collaboration with VCU, VMRC, NOAA, USFWS, VIMS, and VDOT on the HRBT project, Taylor helped mitigate a potential eight-month construction schedule delay by developing an innovative compensatory mitigation plan (to protect anadromous fish and resident finfish) while waiving the time of year restrictions for pile-driving activities.

#### APPROACH TO ENVIRONMENTAL MANAGEMENT

✓ **Environmental Management Plan (EMP):** The MTJV Team's approach to mitigating environmental schedule risk is two-fold: (1) ensure expedited receipt of permits, and (2) ensure compliance during construction. Our Team will achieve these by developing and implementing an EMP that identifies environmental risks and outlines mitigation procedures. The EMP will include environmental commitments and risks, permitting strategy (including RFI protocols), and environmental compliance strategy (including education, monitoring, reporting, and corrective actions). Laurel will review/update the EMP semi-annually. This document will include the following key elements:

- ✓ **Expedited RFI Response Strategy:** We will promptly respond to any agency RFI to support review of the JPA. After the initial agency pre-application meeting, we will develop a permit tracker for RFIs, which will include RFI status (origin, date received, date of response from our Team, etc.) and status notes/action items.
- ✓ **Expedited Bridge Permitting Strategy:** Construction of temporary works cannot begin until permits have been received from USACE, VMRC, and VDEQ authorizing work in the Hampton River. Construction of the permanent EB and WB bridge structures cannot begin until a bridge permit has been issued by the USCG. To mitigate these critical schedule risks, our Team will apply for USACE, VMRC, and VDEQ permits as a single project but will apply for USCG authorization for the EB and WB permanent works as two separate projects, with a focus on securing permits for the WB bridge, since it will be constructed first. This approach will simplify the USACE, VMRC, and VDEQ permitting process because only one permit will be required from each agency. This will allow more time for detailed bridge design, which is required for USCG bridge permits. Narrowing the scope of the bridge permits reduces schedule risk for this critical Project element. Pre-permit application meetings will be held with all agencies to ensure Project requirements are understood and schedule constraints conveyed.
- ✓ **Project Commitments, Studies, and Permits:** The EMP will include all environmental permit conditions and contact information for all applicable permitting and third-party agencies. Environmental commitments include adhering to stipulations in the HRCS for Pasture Point Historic District, Hampton Institute Historic District, and Hampton National Cemetery; following Emancipation Oak protection protocols; conducting bat bridge inventories; following nesting bird provisions; performing Phase II ESAs as needed for RW acquisition; conducting asbestos inspections on all structures not previously inspected; and completing the final design noise analysis.
- ✓ **Communication Strategies:** Strategies will include routine meetings between our Team, regulatory agencies, and VDOT about environmental permit conditions and issues, best management practices, and EMP updates, as well as Project-specific environmental communication protocols for third-party stakeholders or impacted communities.

- ✓ Staffing, Qualifications, and Training Requirements: The organization and qualifications of the environmental design, management, inspection, and staff personnel for the Project will include contact information and describe the functional relationships between Laurel, **Jeff Snow (CM)**, and **Anthony Kondysar, PE (QAM)**.
- ✓ Compliance Tracking Procedures: This will include a table of inspection frequencies, sample inspection checklists and reports, timelines for submittal of reports and notifications to VDOT and regulatory agencies, and a description of submissions from Laurel to Anthony to facilitate monthly certifications and adherence to the processes within the EMP.
- ✓ Corrective Actions Process: This will describe the process to develop, implement, and address deficiencies.
- ✓ Project Milestones: This will describe key Project milestones and the environmental scope of work associated with each. This section also will include protocols for environmental review, sign-off, and approval prior to beginning and upon completion of activities with environmental commitments or hold points in the Project schedule.

**Environmental Compliance:** The MTJV Team will maintain environmental compliance throughout all phases of construction. Our comprehensive compliance strategy will be documented in the EMP and will include:

- Creating an electronic permit compliance notebook (e.g. PlanGrid) that stores all relevant environmental permits and permit conditions. This notebook will be updated regularly to ensure compliance with all permits/regulations.
- Conducting regular erosion and sediment control (E&S) inspections, maintaining an up-to-date record set of E&S drawings, and participating in C-107 inspections twice a week.
- Conducting environmental compliance training for construction crews before work begins and periodically throughout construction that will cover environmental areas of concern, including oyster beds adjacent to the Project.
- Limiting construction impacts by delineating non-disturbed environmental features, minimizing tree clearing, conducting temporary work on mats, and restoring temporary impact wetland areas to pre-construction contours.


**Communication Methods:** Consistent communication, both within the MTJV Team and with regulatory agencies, is crucial to maintain the Project schedule. The EMP will document our Team's communication methods, which will include:

- ✓ Creating an Environmental Commitments Plan that depicts the location of any environmental constraints. This living document will be distributed to all Team members to ensure responsible design/construction.
- ✓ Holding regular coordination meetings between design and construction personnel including Taylor, **John Maddox (DM)**, and Jeff Snow (CM) to discuss environmental constraints and ensure all disciplines address them. This communication eliminates rework during later stages of design and avoids potential permit modifications.
- ✓ Conducting regulatory agency pre-application meeting(s) prior to submitting permit applications, our Team will meet with regulatory personnel responsible for permitting the Project, including Randy Owen (VMRC), Lyle Varnell (VIMS, a consultant to VMRC), Jeff Hannah (VDEQ), George Janek or Robert Berg (USACE), David O'Brien (NOAA), and Hal Pitts (USCG). We will discuss Project permitting activities, including proposed impact limits, essential fish habitats, construction means and methods (e.g. pile driving, turbidity/bubble curtains, staging), monitoring requirements for threatened and endangered (T&E) species, if any, and schedule constraints.
- ✓ Conducting regulatory post-application meetings, our Team will hold post-application meetings with agencies, which will allow them to ask questions after they have reviewed the permit applications.
- ✓ Conducting regular field meetings and inspections side by side with regulatory personnel. This joint inspection approach will enable our Team to rapidly respond to any environmental issues discovered during inspections.

## ENVIRONMENTAL CONDITIONS/AREAS OF CONCERN

To facilitate timely issuance of environmental permits, upon NTP our Team will conduct fieldwork and perform technical services to make sure that information provided in the RFP remains valid. These services may include additional wetland delineations outside of the approved jurisdictional determination (JD) area, stream assessments, T&E species reviews, bridge bat inspections, and asbestos inspections. Any recognized environmental conditions/areas of concern identified, including those not identified in the RFP, will be incorporated into the EMP. Our approach to environmental conditions/areas of concern includes permits and compensatory mitigation, and the additional conditions/areas of concern identified in *Figure 4.1*.




 **Permits and Compensatory Mitigation:** Our Team's Conceptual Design would impact approximately 0.03 AC of tidal vegetated wetlands, 0.08 AC of subaqueous bottomland, 0.01 AC of unvegetated intertidal wetlands, 0.46 AC of nontidal vegetated wetlands, and 0.01 AC of nontidal unvegetated wetlands. Compared to the RFP plans, our Conceptual Design has reduced direct impacts to jurisdictional features by reducing the number of piles from approximately 137 to 52, and by using variable height retention sound barriers from STA 662+00 to 676+00, which reduced impacts to PEMx by approximately 0.05 AC. Our Team also has reduced indirect effects to the environment by eliminating the use of pile jetting, which can increase sedimentation in the water column. This is particularly important because the Project is adjacent to a leased oyster bed. Widening of the WB Hampton River bridge will require placing two piles into the Pembroke Mitigation Site, totaling 8 SF of impact to the Pembroke Mitigation tidal emergent wetlands. Due to pile spacing, we cannot avoid these impacts. However, our Team will provide double the standard mitigation ratio for this VDOT mitigation site.

As noted above, our Team will frequently communicate with regulatory agencies through pre-application meeting(s), post application meeting(s), and field meetings. Upon NTP, we will amend VDOT's Coast Guard Bridge Permit Application and will engage the USCG and maritime stakeholders early and often to address all questions and comments and to avoid risks to the Project schedule. To expedite the USACE permit process, our Team will assist USACE in preparation of their Memorandum for Record (MFR), USACE's internal document required for IP issuance.

 **In order to maintain the schedule,** the MTJV Team will break permitting into three phases: geotechnical and utility survey activities; USACE, VMRC, DEQ permitting and USCG WB bridge permanent works; and USCG EB bridge permanent works. These phases are further described as follows:


1. Geotechnical and Utility Survey Activities: Upon NOIA and at our risk, our Team will begin preparing permit applications for geotechnical investigations/utility surveys to expedite the permitting process at our risk. We anticipate these activities will be conducted under a USACE Nationwide Permit 6 (Survey Activities) and a VMRC Virginia General Permit #1 (VGP #1) for impacts over subaqueous land. No permit request will be submitted prior to NTP.
2. USACE, VMRC, DEQ, Permits and USCG WB Bridges: Upon NOIA and at our risk, we will begin preparing permit applications for all USACE, VMRC, and DEQ impacts, and the USCG WB bridge widening. Since the WB bridge will be built before the EB bridge, the phased USCG bridge permits will allow WB bridge construction to begin while the EB bridge design progresses. We anticipate these activities will be conducted under a USACE IP, DEQ IP, VMRC Standard Permit, and USCG Bridge Permit. As the USCG does not require a permit for falsework, work on the WB bridge temporary trestle will begin following USACE, DEQ, and VMRC permit issuance. The Project does not cross a federally maintained project, so no USACE Section 408 authorizations are anticipated.
3. USCG EB Bridges: Since EB bridge construction will occur following the WB widening, the USCG EB bridge reconstruction will be permitted separately from the WB widening to allow more time for design. USCG bridge permits require more detailed design than USACE, VMRC, and DEQ permits, so only the USCG bridge permits will occur as two separate permitting efforts. To expedite permits, coordination with USCG will begin with NOIA.

**Marine Mammal Protection Act Authorizations (MMPA):** Based on Team members' previous experience in the Hampton Roads region, we do not anticipate needing MMPA authorizations. Marine mammals are typically found in larger bodies of water; it is possible that a stray dolphin, seal, or porpoise could be found near the Project area, but their appearance and our proposed Project impacts are not anticipated to result in MMPA incidental take. Upon NOIA, our Team will coordinate with NOAA to ensure MMPA authorizations are not required for this Project.

 **Mitigation:** Since no permanent impacts are anticipated from the geotechnical and utility surveys, no mitigation is anticipated for this work. Based on our Conceptual Design, permanent impacts to USACE, VMRC, and DEQ-regulated features will require the purchase of approximately 0.03 tidal vegetated credits, 0.08 subaqueous bottomland credits, 0.01 unvegetated intertidal credits, and 0.18 nontidal vegetated credits. No mitigation is proposed for impacts to PUBx, PUB, and WUS, since these impacts to ditches and hydrologic connectivity will be maintained throughout and post-after construction. Based on a Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) query conducted on March 18, 2022, there are approximately 202,866 tidal vegetated wetland credits; 21,808 tidal unvegetated credits; 40.51 nontidal vegetated wetland credits; and 45 stream credits available from commercial banks. Impacts to subaqueous bottomland will be mitigated through the purchase of in-lieu fee subaqueous bottomland credits from the Living River

Restoration Trust (LRRT). Although the mitigation hierarchy stipulates the purchase of commercial bank credits before in-lieu fee credits, agencies preferred mitigation of subaqueous bottom through the purchase of credits from LRRT during the adjacent HRBT project because it was closest to in-kind compensation.

**Time-of-Year Restrictions (TOYR):** If, during the permitting process, agencies request TOYR for anadromous fish or other protected species, our Team will offer other mitigative solutions so that the Project schedule is not impacted. Such mitigation may include the use of cushion blocks, ramp up procedures, and bubble curtains during pile driving. Other solutions may include development and implementation of a fish mitigation plan. These mitigative actions, in addition to possible reduced vessel speeds, would also serve to mitigate any potential impacts to marine mammals.

 *Figure 4.1: Environmental Compliance Strategies*

Environmental Concerns	Risk Mitigation Strategy
NEPA	<ul style="list-style-type: none"> <li>Carry out all NEPA commitments and support with appropriate documentation.</li> <li>Avoid changes to Project scope/footprint that could result in additional NEPA work and unanticipated schedule changes.</li> <li>Support VDOT’s preparation of final re-evaluations before RW acquisition/construction (EQ-103, EQ-200, EQ-201).</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>Previously concluded Section 106 No Adverse Effect determination (dated July 8, 2021) will remain valid.</li> <li>Fulfill all cultural resources commitments as specified in <i>RFP Part 2, Section 2.4.2</i>.</li> <li>Follow Emancipation Oak Protection Protocols per the RFP and <i>Special Provision for Protection of the Emancipation Oak</i>.</li> <li>Treat historic properties as design constraints and avoid utilizing 4(f) resources for staging, borrow/disposal, or easements.</li> <li>Notify VDOT if construction activities could impact the viewshed of historic properties or unanticipated cultural resources.</li> </ul>
4(f)	<ul style="list-style-type: none"> <li>Previously concluded <i>de minimis</i> finding for 4(f) resources will remain valid and treat 4(f) resources as design constraints.</li> </ul>
Threatened and Endangered Species	<ul style="list-style-type: none"> <li>Upon NTP, re-run threatened and endangered species database searches.</li> <li>Coordinate with resource agencies early in the design/permitting process to determine potential impacts to T&amp;E species.</li> <li>Conduct bat bridge inventories on bridges every two years.</li> </ul>
Hazardous Materials	<ul style="list-style-type: none"> <li>Perform Phase II ESAs as needed for the Old Golf Course and the area south of I-64 from Langley Ave to the HR.</li> <li>Perform asbestos inspections on all structures not previously inspected, and remediate if necessary, per VDOT procedures.</li> <li>Handle hazardous materials in accordance with all applicable federal, state, and local environmental regulations.</li> <li>Prepare a SPCC plan prior to the start of construction and submit it to VDOT for review.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>Complete final design noise analysis, sound barrier voting, and addendum report.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>Adhere to relevant air regulatory requirements and limit emissions of VOC and NOx during construction.</li> </ul>

 **SCHEDULE INTEGRATION**

Obtaining environmental permits and environmental approvals in a timely manner is a schedule and planning priority for the Project because construction within regulated features cannot start until permits are issued. As shown in *Figure 4.2* and in the schedule in *Section 4.6*, the MTJV Team has integrated key environmental permits and approval activities into the Project schedule. Our Team will immediately begin preparing permit applications for geotechnical and utility survey activities so that they are ready to be submitted at NTP and work can begin shortly thereafter. Upon NTP, we will prepare USCG permit applications for the WB permanent works and EB permanent works separately so that design can progress. This approach will reduce the potential for permit modifications because we would permit complete designs. If, during the permitting process, agencies request time of year restrictions for anadromous fish or other protected species, our Team will offer other mitigative solutions so that the Project schedule is not impacted.

*Figure 4.2: Environmental Permitting Schedule Overview*

Milestone	Schedule Dates
Notice of Intent to Award	June 24, 2022
Develop Permit Application – HR Borings/Utility Investigations	July 11, 2022
Develop Waters of the US Permit Impact Plates	July 22, 2022
Notice to Proceed	August 1, 2022
Submit Permit Application – HR Borings/Utility Investigations	August 3, 2022
Submit USCG Bridge Permit Application	October 21, 2022
Agencies Issue Permit - HR Boring / Utility Investigations	October 27, 2022
Submit Waters of the US Permit Application	November 1, 2022
VDOT Approved FI/RW Plans	February 16, 2023
VDOT Secures VPDES Construction Permit	April 25, 2023
Agencies Issue Final Waters of the US Permit	May 30, 2023
VDOT Issues NtCC – Phase 1 C&G / ESC Plans	June 2, 2023
Begin Construction of WB Bridge Trestle	June 8, 2023
Complete Development of SWPPP Compliance Notebook	June 26, 2023
USCG Processes Permit – Issues Final Permit for WB Bridge	September 28, 2023
USCG Processes Permit – Issues Final Permit for EB Bridge	October 31, 2023
Final Completion	December 30, 2026

## 4.4.2 UTILITIES


### APPROACH TO UTILITY COORDINATION, ADJUSTMENTS, AND RELOCATIONS

The MTJV Team has refined the design concept to minimize utility impacts to the greatest extent practical, which will prevent increases to Project cost and avoid impacts to the Project schedule. The utilities with the most significant potential impacts are the Dominion overhead high voltage transmission line and the Verizon submarine cables, both of which cross Hampton River. Other utilities include communications, electric, gas, fiber optic, water, and sanitary sewer facilities which cross I-64 at various locations, with most occurring at Rip Rap Rd, King St, River St, E Pembroke Ave, S Boxwood St, and Settlers Landing Rd crossings. *Figure 4.3* shows how our Team will coordinate the required utility relocations that have unavoidable conflicts due to bridge widening and proximity of the underground lines to existing pier foundations.


Our proactive Utility Relocation Coordination Team (URCT), led by **Richard Bennett** of Bowman, will establish early contacts with the utility companies. Richard has more than 50 years of experience in transportation design development, utility coordination, conflict analysis, and construction. He worked with VDOT for 37 years; serving as Director of Right of Way and Utilities Division and as VDOT's State Utilities Engineer with direct responsibility for the utility relocation program, policies, and interactions with utility companies. Through this experience, Richard forged lasting working relationships with utility companies and their representatives and became extremely knowledgeable of VDOT's Utility Relocation Manual and all federal and state laws, rules, and regulations. He will ensure that all relocations will fully comply with all requirements. In addition, Richard has worked with engineering firms providing utility relocation coordination on P3 and design-build (DB) projects, such as I-495 HOT Lanes and I-66 Outside the Beltway. Richard will be supported by **Dan Seli, PE** (Utility Designer) and **Chris Mansfield** (Construction Utility Coordinator) to fully integrate utility coordination efforts throughout design and construction of the Project.

*Figure 4.3: The MTJV Team's Utility Coordination Approach*



 **Validation:** During the utility validation phase, Richard will assemble all previously provided utility information outlined in the RFP and prepare a Utility Investigation Plan (UIP) to ensure all utilities are identified and owners contacted and advised of the Project status. The MTJV Team will perform utility investigation using our fleet of vacuum trucks and hydro excavators to accurately locate all utilities and prevent damage to existing facilities. We intend to use divers and specialized equipment to accurately locate the Verizon submarine cable, so that it can be avoided in the final bridge design. The UIP will include any utility company's planned capital improvements/betterment that may need to be coordinated with the proposed roadway improvements. In implementing the UIP, we will contact each utility owner with facilities in the area to secure more detailed information about the size of the facilities and any extraordinary relocation requirements. Information obtained during the additional SUE work and the original data will be verified so that we can prepare a status report. At the end of this Phase, our Team will have verified the existing utility information with the utility companies for completeness and will update the Utility Screens in RUMS with the information.

Using this additional information about the potentially affected facilities, Richard will work with **Ed Hilferty** (DBPM) and **Jeff Snow** (CM) to confirm the required utility relocations and adjustments are accurately integrated into the overall Project schedule. He will monitor the utility adjustment or relocation schedule and provide the affected utility companies with advance notices about the available right-of-way (RW) or easements needed to start their work. We will use the VDOT Utility Status Report to ensure the work is proceeding as scheduled.

 **Conflict Avoidance:** During the preliminary design phase, Richard will work with **John Maddox** (DM) to evaluate potential utility conflicts and possible solutions and assess the need for additional test holes to complete the conflict analysis and relocation design. This early design coordination will avoid conflicts and establish any easements required.

**Utility Field Inspection (UFI):** We will distribute design plans to the utility companies and schedule a UFI for the Project. Richard will conduct the UFI by reviewing the utility conflicts and potential areas for relocation. He will prepare and distribute a UFI report and other customary documents. Schedules for the utility companies' submission of easements and plans, specifications, and estimates (P&E) for the relocations will be established with all information reflected in RUMS.


**Plan & Estimate Development:** Following the UFI, we will confirm with the City of Hampton's Utility Department that their water and sanitary sewer facilities have been avoided by the proposed roadway and retaining wall design. Together, we will determine if any minor items need adjustments and if that work will be included with the roadway construction. Our Team's utility design will include valve boxes and manholes covers, which must be adjusted for resurfacing roads. Accordingly, using the City's water and sanitary sewer standards, Dan will prepare preliminary utility adjustment / relocation plans (90%) and submit those to VDOT and the City's Utility Departments for review and comment. We will make any minor changes needed and incorporate the final plans into the approved-for-construction roadway plans. We will prepare an agreement covering any adjustments or betterment and submit it to the City.

Richard will continue to work with each utility owner to ensure that any utility easement requirements are submitted and that their P&Es are progressing on schedule to resolve any issues between the Project plans and the utility plans. We will review any required replacement utility easement, and if we determine that they are appropriate, we will provide them to John, to be incorporated into the RW plan submission.

**Review & Authorization:** As the utility company's P&E are submitted, Richard will review them in accordance with federal and state regulations and procedures, finalize the cost responsibility determination, and recommend approving the requested reimbursement. We will prepare a utility relocation agreement, which will be executed by the utility company and submitted to VDOT as part of the P&E assembly.

**Relocation:** Once VDOT has approved the P&E and acquisition of the RW or easements required for the utility relocation, the utility owner will be authorized to proceed. Richard will continue to monitor the utility relocation construction progress to ensure utility companies are actively completing the work in accordance with the approved schedule and will prepare VDOT UT-7s to document the activities. The utility relocations will be completed on schedule to avoid delaying road and bridge construction.

## UTILITY CONFLICTS AND SOLUTIONS

 Our Team initiated a preliminary evaluation of potential utility conflicts and made conceptual design changes to eliminate and mitigate utility conflicts. Our design avoids conflicts with the Dominion transmission line and the Verizon submarine cable through the design and spacing of the eastbound (EB) piers and associated pilings. For the multiple City of Hampton water main crossings of I-64, our conceptual retaining wall, noise barrier, and roadside grading plans avoid conflicts by minimizing new fill and setting the support post spacing to clear the crossings. This focus and coordination will continue into final design to ensure no new conflicts are created. *Figure 4.4* shows utility conflicts that could not be avoided and require relocation of the facilities. As noted above, we will validate the location and depths of these utilities to determine actual conflicts and possible design mitigation alternatives.

*Figure 4.4: Utility Conflict Resolution Plan*

Owner	Utility/Location	Type of Conflict	Conflict Resolution Plan
Dominion	Poles and Underground Electric/ King St (east side)	Construction Operations (Crane)	Relocate two OH Poles and UG Conductors, in new easements.
Cox Cable	UG Cables at King St (west side) 312+00 to 318+50 LT	Bridge Pier Foundation	Relocate UG TV cables within existing RW and new easement.
Dominion	Poles and Overhead Electric/ River St (east side)	Construction Operations (Crane)	Relocate OH 3-Phase Terminal Pole and reconnect streetlight UG conductor within exist RW.
Dominion	Poles and Overhead Electric/ Graham Heights Rd	Construction Operations (Crane)	Relocate OH Poles and UG Conductors along street in existing RW.
VA Natural Gas	Gas Main/ Settlers Landing Rd	Bridge Pier Foundation	Construct 45 ft Horizontal Offset in existing street.
Windstream	Settlers Landing Rd	Bridge Pier Foundation	Relocate 400 ft of ducts and fiber optic cables in existing RW.

**SCHEDULE MITIGATION STRATEGIES**

To quickly resolve any potential utility impacts early in the Project, the MTJV Team will immediately start the utility survey validation process, finding any new or changed facilities that may be present within the Project limits. We will incorporate this information into the design files and use it to finalize the roadway and bridge design.

***MTJV Team’s Proven Methodology***


- *Team’s Significant Experience*
- *Team’s Working Relationships*
- *Utilities Integrated with Design & Construction*

To expedite construction, our Team will assist the utility companies with any required clearing and/or grubbing efforts, RW and easement stakeout, traffic controls and coordination, construction of access road and laydown areas, and installation of conduits or encasement pipes. Partnering with the utility companies to support relocations saves them the time and expense of hiring outside contractors and reduces schedule risk.

Should any unexpected utility facilities be encountered during construction, we will immediately determine if they are active or abandoned. The most common unknown utility facility found during construction is telecommunication cables, many of which have been abandoned. If we determine that they are active, our Team will bring the utility owners to the site and together review the conflict and potential solutions. This will include determination of cost responsibilities and whether the MTJV Team or the utility company will perform the relocation.

Our Team will continuously monitor the utility companies’ development of the P&E to ensure they meet the scheduled utility start construction date. Once authorized to proceed with construction, we will have a bi-weekly meeting to ensure that the utility relocation is proceeding as planned and coordinated with other construction activities in the area.

**SCHEDULE INTEGRATION**

 The necessary interactions with utility companies that have facilities along the Project corridor have been integrated into both the pre-construction and construction schedules. The schedule reflects the fact that the utility companies need certain information before they can evaluate the impact and the actions required to relocate a utility facility. This process includes acquiring any utility easement necessary. The schedule includes the preliminary engineering phase (utility investigations, conflict evaluations, UFI, relocation design, and P&Es); RW phase (utility easements requirement, acquisition schedule, agreements, and authorization of relocations); and construction phase (relocation construction by owner and the MTJV Team for water and sanitary sewer).

An overview of the utility schedule, provided in *Figure 4.5*, reflects the utility relocation schedule in the critical path method (CPM) schedule in *Section 4.6* and shows schedule dates for Dominion relocation. As shown in *Section 4.6*, a review of the Project’s utility activities – including planning, relocation design and relocation construction – confirms that utility activities are not on the Project’s critical path.

*Figure 4.5 Utility Relocations / Sequence of Work*

Milestone	Schedule Dates
Notice to Proceed	August 1, 2022
Kickoff Meeting with VDOT Regional Utilities Office	August 9, 2022
Utility Designation and Test Holes	November 9, 2022
UFI Meeting / Discuss Potential Utility Conflicts	January 20, 2023
Update VDOT RUMS with Utility Status Report Data	February 2, 2023
Prepare Utility Relocation Concept Plan – Cox, <b>Dominion</b> , VNG, and Windstream	May 20, 2023
VDOT Approves Final Utility Relocation Plan / MTJV Team Issues NTP – Cox, <b>Dominion</b> , VNG, and Windstream	June 15, 2023
Perform Utility Relocations – Cox, <b>Dominion</b> , VNG, and Windstream	August 2, 2023
Final Project Completion	December 30, 2026

### 4.4.3 GEOTECHNICAL

#### EXPERIENCED LOCAL GEOTECHNICAL TEAM

The MTJV Team, specifically **Kevin Pocta** and **Ed Drahos** from Schnabel Engineering, LLC (Schnabel), have reviewed the Geotechnical Data Report (GDR) and Pavement Evaluation Report for the I-64 HREL Segment 4C Project (Project). The MTJV Team will perform additional subsurface investigations upon notice to proceed (NTP) to validate and confirm our proposed design and reduce construction costs. The subsurface investigation and geotechnical design will be based on previous experience in Hampton Roads, including the Dominion Blvd Bridge over the Elizabeth River, MLK Expressway, and I-64 High Rise Bridge projects. In accordance with *RFP Section 2.6.6*, Schnabel or their designated representative will provide geotechnical construction observations. Schnabel's Newport News office, located only 10 minutes from the Project area, enables them to respond swiftly to address critical issues and operational needs.

#### APPROACH TO IDENTIFYING GEOTECHNICAL RISKS

The MTJV Team has identified potential geotechnical risks by reviewing the existing site data, proposed construction, and existing site structures as shown in the as-built drawings. This review identified areas where new construction might impact existing structures and areas that demand specific focus during geotechnical exploration. We will perform soil borings, in-situ testing, and soil laboratory testing to confirm and expand upon the known geotechnical conditions, as required by the RFP. This effort will be integral to the Project schedule. We plan to first collect the relevant geotechnical data for roadway and embankment structures, then perform data collection for the river substructures after obtaining the required permits.

We will conduct our investigation in accordance with the requirements in *Chapter III* of the *VDOT MMOI for Geotechnical Engineering*. This investigation will include soil test borings, classification testing, VTM-140 (resilient modulus), shear strength, and consolidation testing as needed to evaluate the design soil parameters and further assess geotechnical risks. We will perform high-quality undisturbed soil sampling using thin-wall Shelby tube and Osterberg samplers to optimize soil design parameters. We will select soil design parameters in accordance with *MMOI Chapter III* and the procedures contained in *2017 FHWA Geotechnical Site Characterization No. 5 (GEC No. 5)*. This will include evaluation of multiple design domains for the Hampton River because unique sets of soil design parameters are likely present at the abutments of both bridges, and below the Hampton River and Hampton Creek.

Our Hampton Roads experience indicates that in-situ tests are particularly useful in measuring soil parameters needed to identify the geotechnical risks associated with settlement, slope stability, and deep foundation capacity. The most useful in-situ tests include Flat Plate Dilatometer (DMT) and Cone Penetrometer with Pore Pressure Measurements (CPTu). *MMOI Chapter III* assumes that conventional borings and soil laboratory testing will be used exclusively. However, it allows the use of in-situ testing when appropriate on up to 50% of the total exploration points. *MMOI Chapter III* requires a minimum of 10% of the in-situ tests are located immediately adjacent to conventional borings. Using GEC No. 5, we will correlate the soil parameters obtained by in-situ testing with the soil laboratory tests on the high-quality samples.

We will use in-situ testing at bridge approach embankments, abutments, and land piers to accelerate strength and compressibility data collection in a way that meets or exceeds the quality of data collected via conventional borings and laboratory testing. We will perform seismic shear wave testing and pore-pressure dissipation tests at selected CPTu soundings. The shear wave testing will be critical in evaluating seismic response for use in the structures' seismic design, while pore pressure dissipation tests are critical when designing prefabricated wick drains beneath new embankments.

Conventional soil laboratory tests are still needed for many aspects of the geotechnical design. Consolidation testing with time-settlement readings are necessary for evaluating the time-rate and magnitude of new embankment settlements. Following *MMOI Chapter III*, we will perform consolidation tests which will include holding each load increment on the outside of the consolidation curve at least four hours after end of primary consolidation of the increment. This will allow evaluation of the secondary compression parameters which is necessary to evaluate long-term settlement.

#### GEOTECHNICAL RISKS AND MITIGATION STRATEGIES


After reviewing the GDR, as-built structures drawings, and proposed construction for the Project, we have identified three geotechnical risks, which our experience in Hampton Roads will help to mitigate.

**Risk #1: Embankment Widening near Existing Structures*****I-64 EB Roadway Fill Section between Hampton River and Hampton Creek Bridges on Existing I-64 WB Battered Bridge Piles:***

The proposed roadway portion of the new I-64 eastbound (EB) section over the Hampton River will be placed within 40 ft of the existing I-64 westbound (WB) battered pile foundations. Ground settlements induced beneath these battered piles carry a high risk of damaging the piles. The GDR borings indicate there is up to 5 ft of possibly compressible clay beneath this embankment, but there is no test data on the settlement properties of these soils.

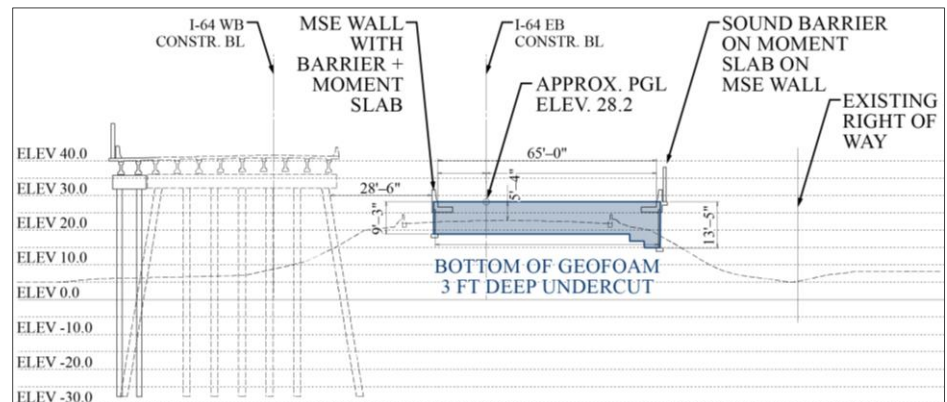
***I-64 EB Embankment Widening West of the Hampton River Effect on I-64 WB Abutment Piles:*** Up to 15 ft of new fill will be placed for the I-64 EB bridge replacement due to relocation of the new abutment east of the existing abutment. This new embankment is located within 25 ft of the existing I-64 WB bridge abutment and Pier 1 battered piles. Up to 8 ft of normally consolidated clay soil is beneath the new embankment fill. Settlement of the clay could cause downdrag settlement and drag loading on the existing I-64 WB abutment and pier foundations.

***I-64 EB/WB Embankment Widening Effect on Existing King St Bridge Piles*** – The proposed widenings at the eastern abutment of the bridge have up to 10 ft of soft clay beneath the proposed embankment. These soils could cause downdrag settlement beneath the existing bridge that would induce drag loading on the existing piles.

 **Mitigation Strategies:** For the embankment widening and new fill placed near existing structures, such as the King St Bridge and the western abutment of the Hampton River Bridge, we will minimize the identified risks using settlement analyses and lightweight materials, as needed. These analyses will be based on the in-situ and laboratory testing performed during the data collection phase of the Project to better model the subsurface conditions. Where settlement caused by normal weight fill is expected to impose drag loads, down drag settlement, and possible damage to the existing structures, we will instead use expanded shale, low-density cementitious fill, or geofoam material thereby limiting settlement to acceptable levels, as shown in *Figure 4.6*. In addition to lighter weight materials, we may use permanent sheet pile walls to limit the potential for unsuitable movement beneath nearby existing structures that will remain.

For the proposed I-64 EB embankment fill section between Hampton River and Hampton Creek bridges, the depth of fill has been reduced from 18 ft to 7 ft. This requires less undercut and less lightweight fill to limit the predicted settlement at the existing WB bridge battered piles. In addition to performing the analyses and using lightweight material at this location and other bridge abutments, we will conduct settlement and structural monitoring on existing structures to avoid unsuitable movements due to construction methods.

*Figure 4.6: Fill Sections to Limit Loading on Existing Structures at Sta 736+15*

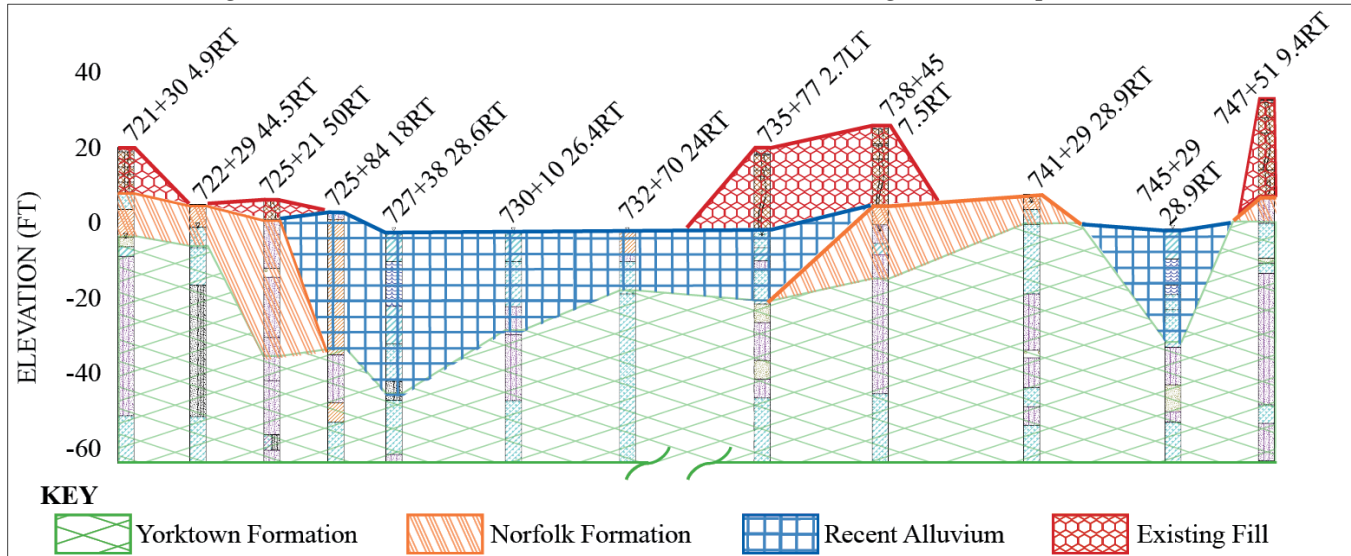
**Risk #2: New Foundation Installation Issues**

***Settlers Landing Widening Drilled Shaft Foundations:*** Drilled shaft foundations are required by the RFP at Settlers Landing due to its proximity to the Emancipation Oak and Loblolly Pines on the Hampton University campus. These drilled shaft foundations pose potential risks due to the difficulty of installing drilled shafts in relatively clean sands below the water table, as shown by the GDR boring data. These conditions would require drilling with a properly designed and maintained slurry to prevent the excavation from caving and to allow tremie placement of concrete.

***I-64 EB and WB Bridges over the Hampton River and Hampton Creek Variability of Subsurface Conditions with Respect to Pile Foundations:*** The RFP indicates extremely variable subsurface conditions below Hampton River and Hampton Creek (see *Figure 4.7*). The river is underlain by very soft recent alluvial soils to approximate El-10 to El-50, underlain by Yorktown Formation sand that varies from loose to medium dense above approximate El-70 to-90, and dense to very dense

below these elevations. The shorter piles where the top of the Yorktown Formation is shallow will mainly be friction piles, whereas the longer piles where the Yorktown Formation is deeper will have a larger end bearing resistance component. Proper identification of these layers is critical to the design of foundations. Drivability and setup factors of the Yorktown Formation are also variable and can lead to long wait times for restrike of the piles for pile driving analyzer (PDA) testing.

Figure 4.7: Variable Yorktown Elevations in I-64 EB Bridge over Hampton River



✔ **Mitigation Strategies:** To mitigate the drilled shaft installation risk at Settlers Landing Rd, the MTJV Team will substitute drilled micropile foundations to support the proposed widening of the overpass. We will install these foundations using permanent casing, which reduces caving risk compared with drilled shaft foundations. In addition, we will use static load testing to evaluate the design micropile resistances in accordance with the RFP.

To mitigate the pile installation risk posed by the variable strength and elevation of the Yorktown Formation, the MTJV Team is evaluating multiple pile sizes including 18-in, 24-in, and 30-in square precast pre-stressed concrete piles for support of the new I-64 EB bridges over Hampton River and Hampton Creek and widening of the I-64 WB bridge over Hampton River. These piles are designed as friction piles with variable end bearing capacities for greater cost and schedule benefits.

The piles also will be designed with lower setup factors, which will reduce the risk of longer waiting periods for restrike testing of the pile foundations and delays to the construction schedule. In addition, we will reduce the risk for poor dynamic testing performance of large diameter piles by limiting the axial capacity to values well below the structural resistance of the piles. This will allow for better performance of the PDA testing due to the potential for shorter required setup times.

The use of larger diameter piles can pose drivability issues. These issues will be mitigated through the use of drivability analyses for a variety of pile hammer sizes and subsurface conditions to limit the compressive stresses, and especially the tension stresses, induced in the piles during driving. We will also use CPT and DMT soundings to aid in the evaluation of lateral soil parameters, which is needed to refine the lateral pile analyses and thereby optimize the pile design.

### Risk #3: Maintenance of Existing and Reconstructed Slopes

Our Team reviewed the GDR data and existing site conditions to evaluate potential issues with modifying and protecting existing slopes. The GDR data does not indicate any significant concern with existing fill slopes and review of the existing site aerials does not indicate any large-scale slope failures. However, experience in the Hampton Roads district indicates that slopes left unvegetated during construction are prone to surficial failures from erosion during precipitation events.

✔ **Mitigation Strategies:** To mitigate the risks associated with surficial slope stability and sloughing during construction, we will utilize appropriate erosion and sediment control procedures that will limit the amount of water discharged over the top of unvegetated slopes. Slopes will be vegetated as quickly as possible to limit the potential for slope erosion during construction. Finally, if we need water to temporarily drain down unvegetated slopes, we will contain it through temporary pipes or channels to limit the potential for erosion.



### 4.4.4 QUALITY ASSURANCE/QUALITY CONTROL

#### APPROACH TO QA/QC

The MTJV Team believes that top quality emerges from a partnership among design and construction staff; QC management, inspection technicians, and testers; the independent QAM and QA staff; and VDOT – all driven by the goal of exceeding VDOT’s Project quality requirements and minimizing the need for VDOT’s QA/QC oversight. Led by **Anthony Kondysar, PE** (QAM) from Quinn Consulting Services (QCS), the quality team will prepare, present, obtain approval for, and update the I-64 4C QA/QC plan (QA/QC Plan). The QA/QC Plan will be based on *VDOT’s Minimum Requirements for Quality Assurance and Quality Control on Design-Build and Public-Private Transportation Act Projects, July 2018 (VDOT QA/QC Manual)*. It will be comprised of the QA requirements, Design Quality Management Plan (DQMP), and Construction Quality Management Plan (CQMP). Each section will include quality staff roles and responsibilities, inspection certification requirements, authorities, organizational structure, individual inspection requirements, and VDOT’s role in IA/IV oversight.

**Facilitating Safe Inspections**  
*The MTJV will provide a well-maintained and safe construction site with safe access for all inspectors, including QA, QC, IA/IV, and VDOT. Quality inspection staff will be requested to attend Project-specific safety orientation and training prior to performing work on the Project.*

Our quality team, comprised of the MTJV, WRA, and QCS, will implement the QA/QC Plan to verify that we meet all contract requirements; provide the correct materials and properly install them the first time; and maintain complete and accurate records, materials notebook, and documentation of quality activities. It is in the best interest of both VDOT and the MTJV Team that our QA/QC Plan is well-structured, organized, complete, and easily audited so that VDOT does not have to expand its contractual administration efforts. The MTJV Team aims to exceed *VDOT’s QA/QC Manual* guidelines in our approach to QA/QC in order to:

- ✓ Minimize the potential for re-design and construction re-work;
- ✓ Provide documented and streamlined QA/QC procedures for both design and construction phases; and
- ✓ Limit VDOT’s need to assign resources to overcome any quality deficiencies.

The MTJV Team has used its quality approach to develop, execute, and update seven individual QA/QC plans for VDOT, including the approved QA/QC Plan for the I-64 Segment II DB Project in Hampton Roads. Our past success was rooted in setting clear and concise expectations, and clearly communicating them to the entire quality team so that the right people are engaged to quickly implement collaborative solutions as issues arise.

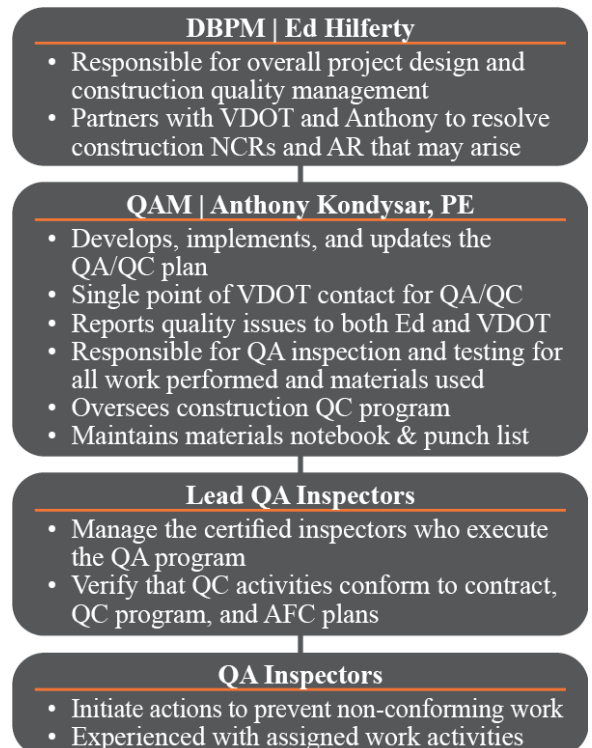
#### QUALITY ASSURANCE PROGRAM

The MTJV Team’s approach to QA ensures that all levels of the design and construction team understand, implement, monitor, and document quality procedures as outlined within the approved QA/QC Plan. The QA program will be clearly described within the QA/QC Plan, including a description of the roles of VDOT and **Ed Hilferty** (DBPM) within the QA framework. *Figure 4.8* shows the relationships between the DBPM and the QAM, noting that Anthony reports to Ed; however, Anthony also will have a direct reporting relationship with VDOT, ensuring his independence.

The QA portion of our QA/QC Plan will:

- Provide clear provisions for identifying, tracking, and resolving potential non-conforming work, materials, or equipment (NCRs) and administering a quality assurance auditing and recovery (AR) plan;

*Figure 4.8: QA Staffing Plan*



- Clearly stipulate that Anthony does not report to production personnel; has the authority to stop work; and will communicate daily with VDOT, **Jeff Snow** (CM), **Michael Johnson** (QCM), and lead quality inspectors;
- Outline preparatory meetings to be directed by Anthony to ensure that all items, submittals, certifications, and requirements necessary to begin a construction operation are completed; and
- Provide a communications framework for interactions between Anthony and VDOT IA/IV staff to track resolution of NCRs, audit AR plans, and monitor assembly of the materials notebook.

As shown in *Figure 4.8*, Anthony will manage our QA/QC plan as the QAM for this Project and report to Ed. Anthony will work independently of the designer, contractor, and QC team to ensure that the quality of design and construction meets the Project requirements. During the design phase, Anthony will work with Ed, **Thomas Heil, PE** (EEIC), and **John Maddox, PE** (DM) at least bi-weekly to ensure the MTJV Team implements and documents the DQMP’s policies and procedures.

During construction, Anthony and his QA staff will work closely with Jeff, Michael, and the construction QC team to implement the CQMP. Anthony will ensure that the MTJV Team follows construction QC testing and inspection requirements and will verify the accuracy/completeness of QC results documentation. He and his QA team will confirm QC inspection and testing requirements and completion of testing to assess construction compliance with the applicable standards/specifications and frequency of testing (FOT) requirements. Anthony will lead the proper QA inspection and testing to confirm the results of the QC program.

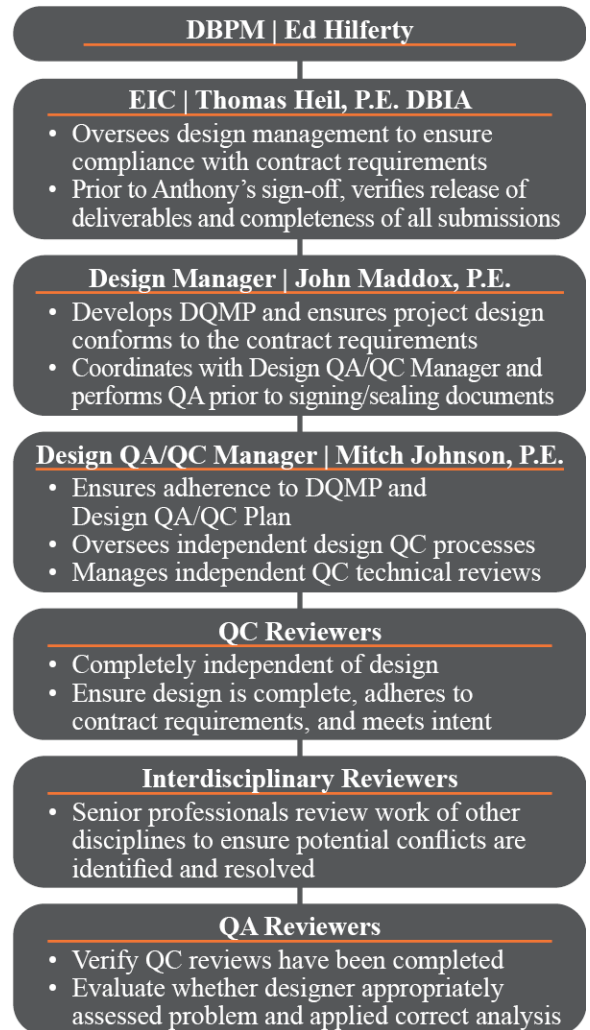
Prior to all preparatory meetings, Anthony will provide established processes and procedures for approving Project C-25 submissions, maintain the materials notebook, track FOT requirements, and identify/document deficiencies and non-conformance reporting. Drawing on its successful history of providing independent QA, QCS can assure VDOT that Project construction will match the contract documents while minimizing required IA/IV resources.

Anthony will join **Laurel Smith** (ECM) in the oversight and administration of the Project’s environmental management plan (EMP). Together, they will verify that the AFC construction documents include all commitments within the environmental compliance plan and that all construction follows these commitments. Anthony will lead QA inspection staff administering the EMP in the quality assurance process with required periodic inspections, field visits, and oversight from regulatory agency representatives.

**DESIGN QUALITY MANAGEMENT PLAN**

Our approach to design QA/QC, shown in *Figure 4.9*, begins with development of the DQMP, which we will present to VDOT for review between Notice to Proceed (NTP) and the kickoff meeting. The DQMP is a partnership and collaborative process among Ed, Thomas, John, designers, **Mitch Johnson** (Design QA/QC Manager), interdisciplinary reviewers, QA reviewers, and QC reviewers. All are focused on producing AFC construction documents in accordance with the contract requirements, specifications, and sound engineering practice. Each step of the design process overlaps and integrates MTJV Team constructability reviews done by Jeff Snow, Jeff Miron, and superintendents, to provide design feedback and prevent construction issues in a later phase. Furthermore, the MTJV Team will engage VDOT through Over-the-Shoulder Reviews (OTSRs) during the design process to incorporate VDOT comments in the initial design.

*Figure 4.9: Design QA/QC Staffing Plan*



The design QA/QC hierarchy depicted in *Figure 4.9* reflects Ed’s oversight, John’s leadership, and Thomas’ verification role. All members of this team focus on providing quality designs and plans in accordance with VDOT’s *QA/QC Guidance* and the QA/QC Plan to minimize VDOT’s administrative efforts by:

- Designing features that are safe and meet or exceed VDOT regulations and design manuals;
- Conforming to all RFP standards and reference documents;
- Designing elements that are constructible, durable, economical, and minimize maintenance; and
- Providing an organized and indexed set of design calculations, criteria, and assumptions.

To kick off the DQMP process, John, lead design discipline engineers, and Mitch will establish the design criteria and checklists for each element, then distribute to assigned staff engineers and subconsultants. The lead discipline engineers will prepare design deliverables and our Team will review them to ensure the completeness of all necessary construction requirements and details. Mitch will strictly enforce the DQMP’s process/procedures and Thomas will verify. This thorough documentation minimizes VDOT review. To ensure well-structured, easily audited design compliance, we will complete and submit all documents, forms, and certifications electronically with each design submission to digitally track drawing review certifications, calculation review certifications, and the release for deliverable plans.


John will lead weekly design meetings attended by Ed, **Jon Holt** (Deputy DBPM), Thomas, lead engineers, Jeff Snow, Jeff Miron (constructability review), and Anthony (bi-weekly). We will invite VDOT and key stakeholders to participate in the OTSRs and streamline the review process by citing and offering clarifications in the AFC documents.

Our three levels of accountability will also apply to final submittals. John will verify that all steps taken in development of the final plans follow all procedures within the DQMP. Thomas will confirm, and Ed and Anthony will sign off on their acceptance of the plan development process prior to submission to VDOT for final review and acceptance.

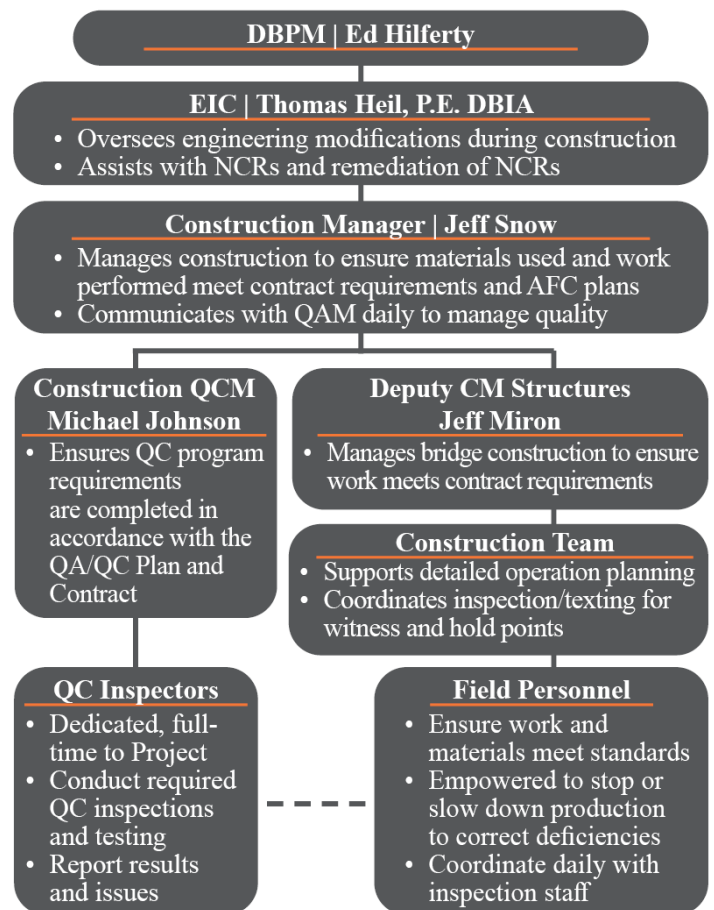
**CONSTRUCTION QUALITY MANAGEMENT PLAN**

The MTJV Team’s *Safe Production Done Right* practice uses a production system approach to incorporate quality, safety, and production into one comprehensive construction quality planning process. We will develop and implement our CQMP in accordance with *VDOT’s QA/QC guidance* and embed it within the overall QA/QC Plan.

During construction, Anthony and his QA staff will coordinate daily with Jeff, Michael, and the construction QC team to implement the CQMP. Construction QC staff (as shown in *Figure 4.10*) use set procedures for inspection, testing, reporting, materials documentation, diaries/checklists, safety, and environmental monitoring to ensure that construction is carried out with minimum intervention by VDOT. This process promotes transparency and inclusion among the construction team, QC staff, QA staff, safety manager, and field managers, as everyone reviews and provides feedback into the operation plans. Quality- and safety-related tasks are integrated into the plans, and an operation does not begin until each item is addressed.

 Integration of the QA and QC staff into the construction planning and monitoring operation processes is an invaluable key to the Project’s success. This includes integrating the QA and QC staff into the short-term scheduling process on a weekly basis. Beginning with the preliminary baseline schedule, our Team will perform high-

*Figure 4.10: Construction QC Staffing Plan*



level scope and resource planning that includes the needs of the quality staff and the resources necessary to implement the CQMP. As design and construction evolve and progress, we further develop the planning to create the following more detailed deliverables:

- **Monthly:** Update the CPM schedule with actual progress and activity schedules for the remainder of the contract.
- **Weekly:** Short-term (five-week) look-ahead schedules depicting each crew and subcontractor performance, including a detailed schedule for the upcoming week.
- **Weekly:** QA/QC meetings with the CM, QCM, QAM and senior QA and QC inspectors, empowering Anthony and Mitch to assign inspection staff for upcoming work and address any compliance issues or concerns.
- **Daily:** Updated daily schedule confirming exactly what each crew will be doing that day.

**Proactively Preventing Deficiencies**  
*The MTJV Team’s Production System focuses on collectively planning for and creating a safe, delay-free work area and empowers employees to stop or slow down production to quickly correct any defects that surface.*

We involve QA and QC staff in each of these planning activities as part of the collaborative effort that enables our Team to incorporate QA and QC feedback on potential issues/concerns. Following approval of the CQMP, Ed and Jeff will meet with Michael to begin QC planning efforts. Michael, working closely with the QA and QC staff, will develop the FOT requirements and convey these to the entire quality team. He will meet with superintendents and field managers to ensure that the FOT is accurately aligned with the production planned for that day, allowing production to progress smoothly while respecting all QA and QC hold points. QC inspectors and testers will observe daily construction practices, perform inspections and testing in accordance with the FOT requirements, ensure materials meet the contract provisions, and, if needed, ask field personnel to slow down production to accommodate testing requirements and approvals.

All of our Team members, including QA/QC staff, superintendents, field managers, subcontractors, engineers, and VDOT staff, will have access to ProjectWise, a single, centralized cloud location for managing and collaborating on Project documents. By having one set of approved construction plans that all construction and quality personnel can view simultaneously, we avoid any situation when a representative is working from a different set of plans.

### QA AND QC STAFFING LEVELS

The MTJV Team will supply Anthony with sufficient resources to meet the requirements of the QA/QC Plan. Anthony will work with Michael to ensure that staffing meets the requirements of the CQMP and the FOT. QA/QC staffing will vary as the Project progresses from clearing/grubbing to grading, drainage, roadway, and structure construction. Additional key quality staff members will include senior QA inspectors and inspectors/testers, Michael and QC inspectors/testers, all supported by the appropriate independent QA and QC laboratories.

Figure 4.11 conveys the general staffing levels anticipated for each role, based on our current understanding of the scope of work and the Project schedule. Construction activities will dictate the exact number of staff needed during any activity. Additional staff may be needed and will be supplied to ensure that the requirements of the QA/QC Plan are strictly followed and enforced throughout the duration of construction.

Figure 4.11: Summary of QA/QC Staffing Requirements and Description of Roles and Responsibilities

Quality Professional	Personnel Committed	Role and Responsibility
QAM	1 Full-time	Responsible for Project compliance with the QA/QC Plan including design and construction activities, materials and testing/sampling, and materials notebook. Authorized to initiate work stoppages and recommend withholding payment for NCRs.
Senior QA Inspector	2 Full-time	On site throughout construction, responsible for initiating actions to prevent the occurrence of any NCRs and verifying implementation of solutions for non-conforming work.
QA Inspector /Tester	2 Full-time 2 Part-time	Conduct QA oversight inspection and testing in accordance with the FOT requirements; document test results; and report any inconsistencies to the Senior QA Inspector.
Construction QC Manager	1 Full-time	Construction quality inspection and testing oversight in accordance with the CQMP and QA/QC Plan; responsible for the processes, methods, production, and documentation of the QC program.
QC Inspector / Tester	4 Full-time 4 Part-time	Conduct QC inspections and testing in accordance with the FOT requirements, document test results, and report any testing inconsistencies.

# SECTION 4.5 CONSTRUCTION OF PROJECT



A JOINT VENTURE  
**ALLAN  
MYERS  
TRAYLOR**  
TRAYLOR BROS., INC.

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### 4.5.1 SEQUENCE OF CONSTRUCTION

The MTJV Team has optimized its approach to construction by phasing and segmenting the work in ways that maximize schedule control and flexibility. Our sequence follows a strategy to expedite Project delivery by starting construction as soon as possible while simultaneously progressing the design, right-of-way (RW) acquisition, and permitting. Work that requires relatively simple design and approval comes first in the following sequence:

- **Preconstruction:** Limited shoulder strengthening and preparation for future traffic crossovers.
- **Phase 1A:** I-64 inside lane reconstruction and bridge rehabilitation, and westbound (WB) Hampton River Bridge widening to the outside.
- **Phase 1B:** Continued I-64 inside construction and WB Hampton River Bridge inside rehabilitation.
- **Phase 2:** I-64 outside highway and bridge widening, EB Hampton River bridges construction, and the Interim Milestone.
- **Phase 3:** Crossover sections reconstruction, final paving, and striping.

✓ The preconstruction phase accomplishes two key tasks that prime the Project schedule for success. First, we will strengthen the outside shoulders from Rip Rap Rd to King St and on both sides of the Settlers Landing Rd bridges for temporary lanes in Phase 1A/B. This work does not require RW acquisition and accelerates the start of operations. Second, we will construct the future crossovers in Segments 2 and 4 and close them off with temporary barrier until needed in Phase 2. This preconstruction scope advances the start of Phase 1 work to mitigate potential delays in RW acquisition and permitting. Constructing the crossovers during preconstruction also provides the ability to adjust phasing to mitigate unforeseen delays to the WB and EB bridge construction if necessary.

Using the outside shoulders for travel lanes, we will begin Phase 1A inside median and pavement reconstruction work, which includes starting interior bridge rehabilitation as well as latex overlays on Rip Rap Rd, King St, and Settlers Landing Rd. This sequence mitigates schedule risks associated with delays for RW acquisition, permits, and design of noise and retaining walls along the outside widening of the I-64 corridor. We will also start widening the outside of the WB Hampton River Bridge in Phase 1A. This sequence interfaces with the HRBT schedule by performing I-64 widening on the east side of the Hampton River (Segments 1 and 2) in the middle first. This phasing switch includes buildup of pavement along I-64 as necessary to limit roadway construction, bridge widening, and rehabilitation to only two phases.

Our approach to phasing and construction of temporary and permanent ITS infrastructure achieves the Interim Milestone without impeding other Project objectives. Our proposed construction in Phases 1A/1B mitigates immediate impacts and conflicts with signing, ITS, and lighting. By Phase 2, construction of the roadway, bridges, retaining walls, and sound barriers occurs on the outside of the roadway, minimizing conflicts with existing facilities. We prioritize construction during Phases 1A/1B for the Interim Milestone, to ensure we keep existing systems operational and follow the overall sequence.

**APPROACH TO SEQUENCING CONSTRUCTION** – The MTJV Team has divided the Project into the six segments shown in *Figure 5.1*. After the preconstruction phase, construction follows three major phases to maintain a safe construction area, minimize major traffic switches, and promote efficient traffic flow along the corridor. Several elements run through all segments, including retaining walls, noise barriers, and the new ITS system. We will move the new ATMS and tolling backbone fiber from the EB to the WB lanes during construction, along with temporary signage, as needed.

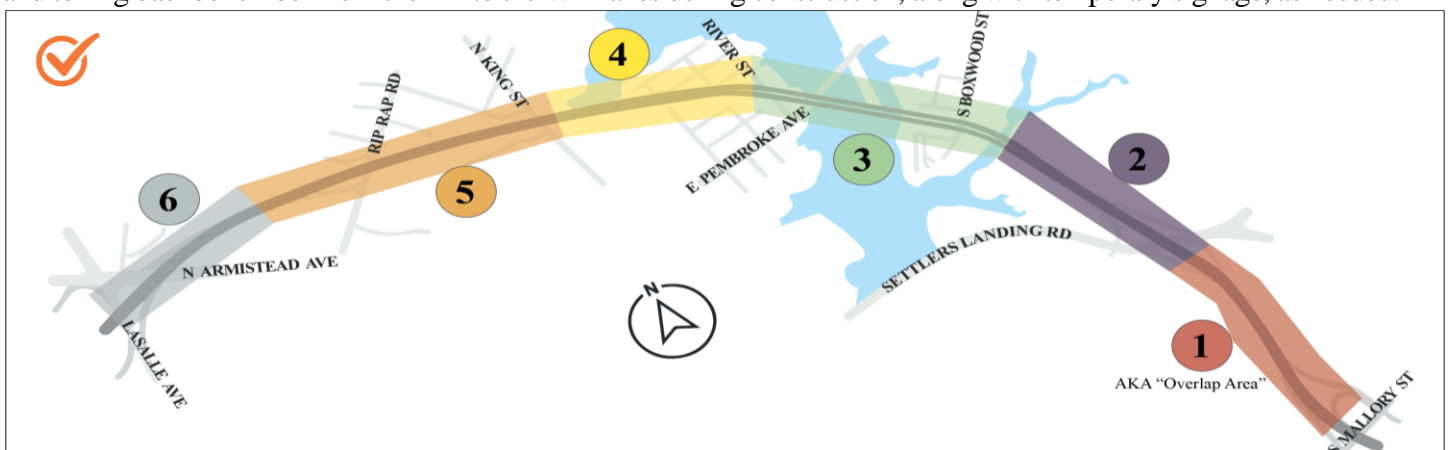



Figure 5.1: The MTJV Team's Project Segments mitigate potential delays, expedite Hampton River Bridge Construction

**SEQUENCE OF CONSTRUCTION GRAPHICS** are included on *Figures 5.4-5.11* on pages 34-35.

 **Segment 1 (785+72EB – 766+30EB):** At the eastern Project limits, Segment 1 (also known as the Overlap Area as it ties into the HRBT project) includes inside lane pavement reconstruction and outside widening along I-64 in both directions. Phase 1A reconstructs the inside roadway and Phase 1B reconstructs the outside section. In Phase 1A, we will begin reconstruction and widening in the center lanes starting on the east side of the Settlers Landing Bridge. To mitigate schedule impacts to the Interim Milestone, Settler’s Landing Bridge widening/rehabilitation is included in Segment 2 and will be worked simultaneously with Segment 1. By designating Segment 1 as the Overlap area, we can avoid design and permitting issues related to this bridge that could impede progress toward the Interim Milestone.

Segment 1 also includes schedule-critical sign structures at Sta 768, 777, and 785 and the toll equipment cabinet with associated generator site. We will align the ATMS and tolling backbone fiber optic cables along the WB lanes through this segment, ending them at the eastern Project limit and interface point with the HRBT project. The over height vehicle detection system (OHVDS) will remain operational throughout construction.

**Segment 2 (766+30 – 748+00):** From the Settlers Landing Rd interchange to the eastern abutment of the Hampton River bridges, Segment 2 includes outside widening, inside pavement reconstruction, and Settlers Landing Bridge widening. The critical schedule aspect of this segment is the transition zone for EB traffic back to the EB lanes when the new EB bridges are under construction. Our approach to this segment prioritizes ongoing communication with Hampton University and ensuring the roadway maintains the existing distance to the Hampton National Cemetery Phoebus Annex.


Segment 2 includes two sign structures at WB Sta 1750 and EB Sta 752. The sign structure at Sta 752 includes interchange guide signs for Exits 267 and 268. Temporary ground-mounted guide signs will be used until this structure is complete. During the preconstruction phase, we will remove the existing median and place temporary barrier to accommodate the future crossover required for Phase 2 bridge construction.

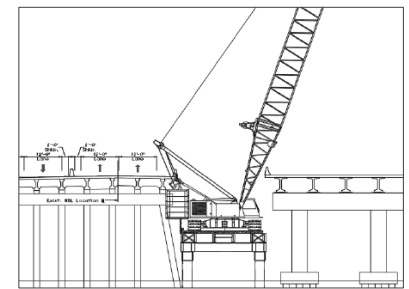
Construction in Phase 1A starts with the median work and progresses to outside widening work in Phase 2. Schedule considerations in this segment prepare for early construction of the crossover that enables the temporary shift of the EB lanes onto the widened WB bridge over Hampton River as part of the pre-construction phase. This separates the roadway work from the critical path of the WB bridge leading to new EB bridge construction. With the crossover already in place, delays to starting Phase 2 of the EB bridge construction can be mitigated should work in this segment fall behind.

**Segment 3 (748+00 – 721+00):** Segment 3 is the critical path of the Project. It encompasses both the WB and EB bridges over the Hampton River and Hampton Creek. Our sequence plan allows maximum flexibility to access this work whenever design and permitting elements reach approval. The WB widening and rehabilitation work will take place in Phase 1 to allow for EB bridge demolition and construction in Phase 2. During Phase 2, we will complete the new EB bridges and open them to traffic.

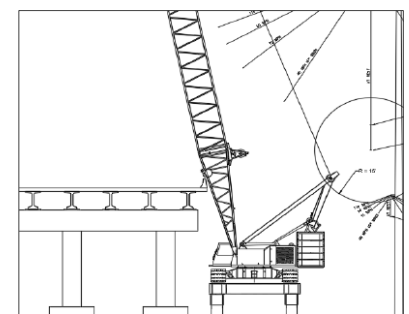
We conducted a detailed analysis of means and methods to construct the new EB bridges. Existing structures around the new Hampton River bridge confine construction access to a narrow channel. We determined that our original approach—employing temporary trestle between the EB and WB bridges—is not a viable option given the required crane size to erect the new bridge elements (see *Figure 5.2*). The counterweight and backstay conflict with the existing WB bridge when turned 90 degrees on the trestle.

We considered raising the trestle deck to a higher elevation above the WB bridge, but the counterweight would hang over the inside lane of WB traffic. The trestle at this high elevation also creates shoreline access issues given the incline to reach the deck. Placing the crane on the south side of the new bridge creates a fatal flaw with the proximity of the existing transmission line (see *Figure 5.3*). This would require coordination of power outages or pinning the line to prevent wind sway interference with the boom.

 Based on these factors, we approached construction of the EB and WB Hampton River bridges with a top-down means as shown in *Figures 5.4 to 5.9*.



*Figure 5.2: Crane Counterweight Conflict*



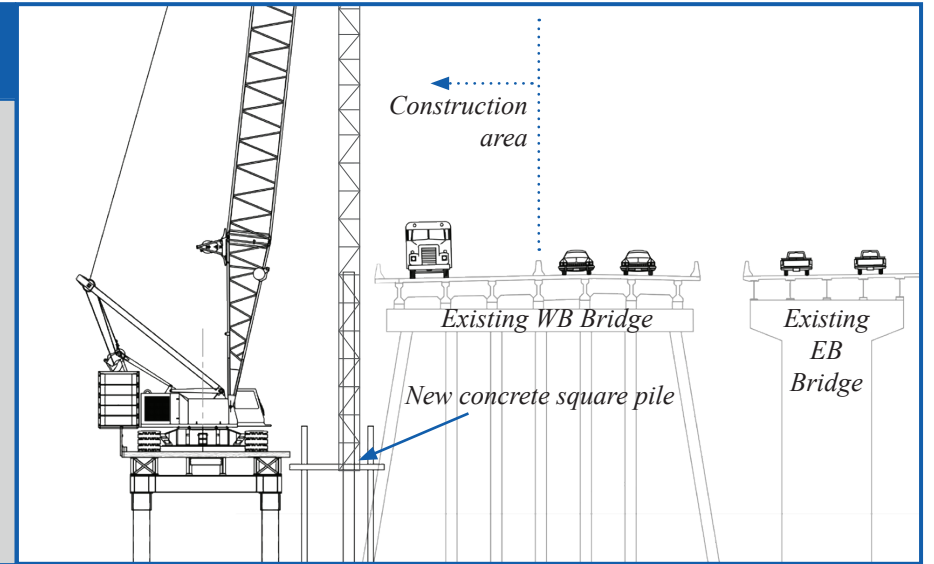
*Figure 5.3: Dominion Power Transmission Line Conflict*

**SEGMENT 3 CONSTRUCTION: WB HAMPTON RIVER AND HAMPTON CREEK BRIDGES**

Widening the I-64 WB lanes plays a critical role in the reconstruction of the EB Hampton River and Hampton Creek bridges. Our research indicates that we can begin temporary trestle construction once we receive the Waters of the US permits from USACE VMRC and VDEQ. Our means include extending a temporary trestle from the eastern shore to Pier 15 in the river and a second trestle section from the west shore to E Pembroke Ave. Barge-mounted equipment will construct the center section, including Piers 9-14, to avoid blocking the existing navigation channel. Removal of the existing parapet and overhang along the outside of the WB Hampton River bridge will take place from the existing bridge deck. This dual operation—construction from the trestle/barges along with construction from the existing barge deck—allows simultaneous operations to accelerate the WB Hampton River bridge widening.

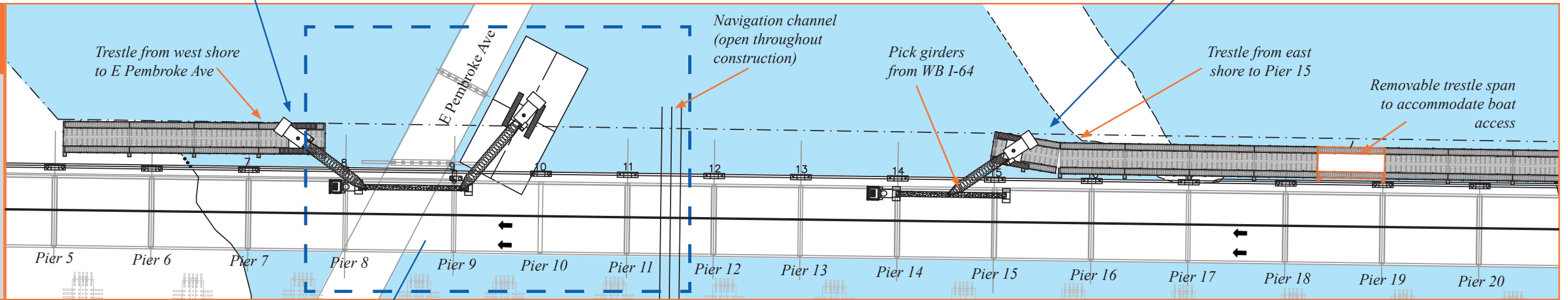
**Figure 5.4: Trestle Crane Proximity to Work**

The MTJV Team will work from the trestle to construct the new pier caps and complete the substructure work for the outside WB bridge widening. Beyond Pier 13 from the east, we will construct a substructure with barge-mounted equipment to maintain existing channel access. WB structure access along the outside from the deck will allow demolition of the parapet and deck. This work will take place alongside substructure pile driving and cap installation. Once complete, we will remove the entire temporary trestle falsework, including the piles.



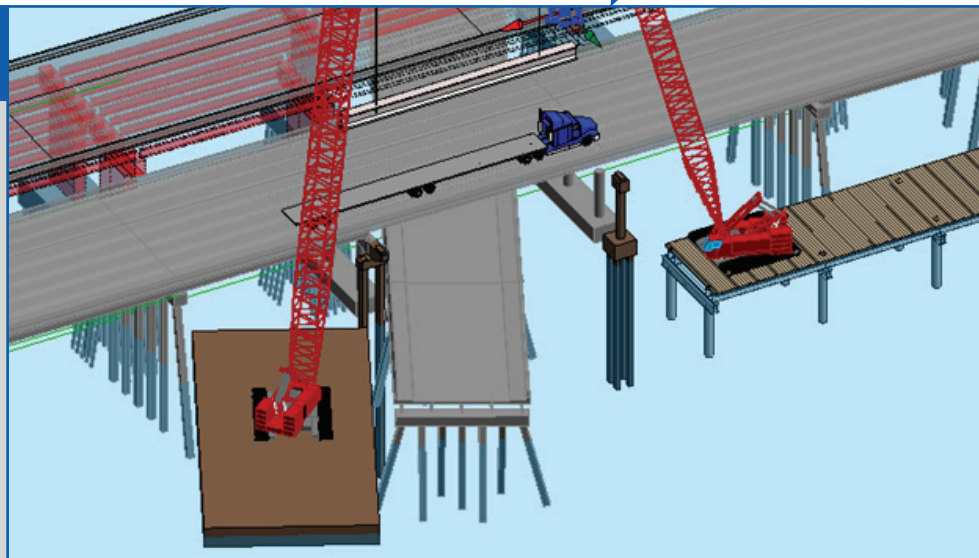
**Figure 5.5: Approach to WB Construction Over Hampton River**

We will stage and set girders from a shoulder closure and off-peak lane closures along the outside of WB I-64. The remaining work to complete the outside of the bridge and tying into the new deck and structure will take place from the closure along the outside of WB I-64, as outlined in the TMP.



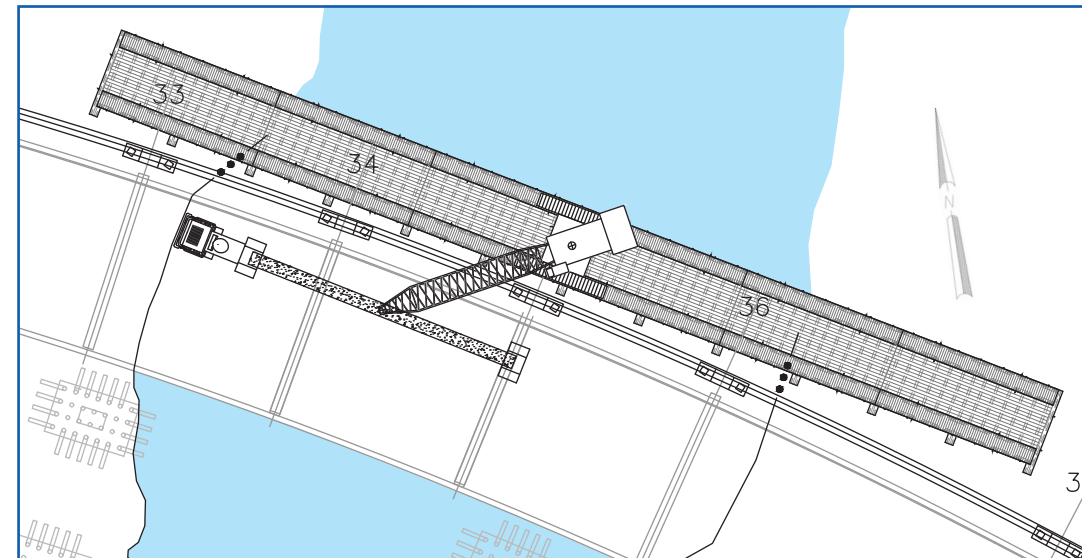
**Figure 5.6: Pier 9 ATC Construction Diagram**

Our ATC No.1 approach to the design and widening of the WB Hampton River bridge at Pier 9 eliminates the skewed joint, and our construction methods employ the same equipment as the remainder of the widening, reducing cost and increasing efficiency. We will float a Manitowoc 999 (or equivalent-size) crane on the river and align it parallel with E Pembroke Ave to allow close access to the pier location.



**Figure 5.7: WB Hampton Creek Bridge Construction**

WB bridge widening over the Hampton Creek will employ both trestle and land measures. Figure 5.7 shows our temporary trestle installed at the piers around the creek. Conventional crawler crane access from the east will use the trestle during widening work on Piers 33-36. Similar to the trestle approach on the Hampton River section, pile, concrete, and beam deliveries will go directly to the crane below using the closed outside lanes on the I-64 WB structure.





**SEGMENT 3 CONSTRUCTION: EB HAMPTON RIVER AND HAMPTON CREEK BRIDGES**

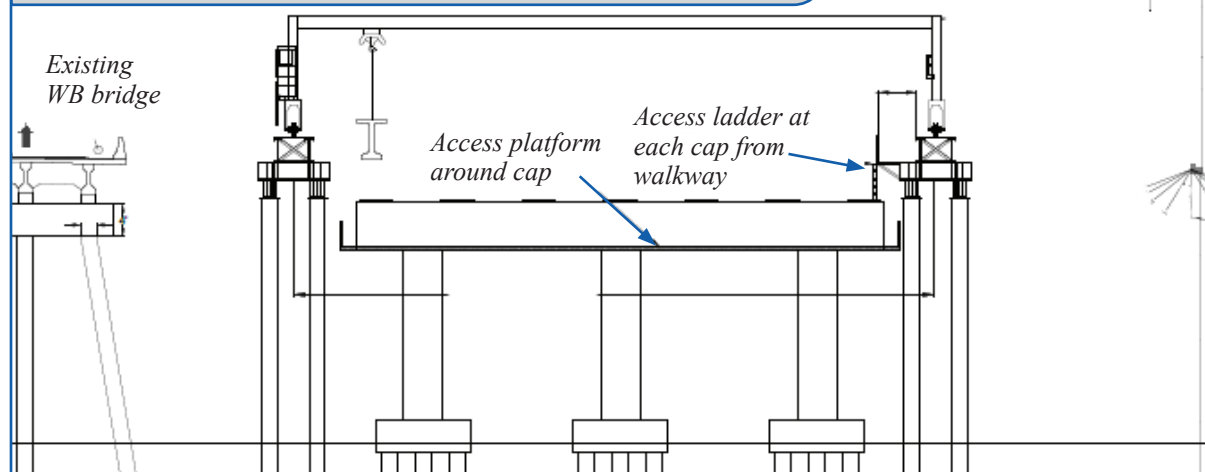
Construction of a new EB bridge over the Hampton River and Hampton Creek presents a number of logistical and staging challenges. The proximity of Dominion power lines to the south and the existing WB bridge to the north constrains the available construction area to a limited corridor between the structures. Additional access challenges include access around the existing S Boxwood St neighborhood that borders the Project along the SE corner.

Our solution for constructing the EB Hampton River bridge employs a hybrid top-down construction system. We propose to install substructure pile with traditional barge-mounted methods and employ a gantry crane system to construct pier caps, set girders, and construct the superstructure of the new EB bridge top-down. This top-down approach overcomes the limitations imposed by a traditional trestle system, which would require completing substructure before starting superstructure.

The existing Hampton Creek bridge will provide access from the east side for construction of the main Hampton River crossing bridge. Equipment and material deliveries will access the construction area via this bridge and the existing fill section. Demolition and construction of the new Hampton Creek bridge begins once beam setting is complete on the main Hampton River bridge. This construction sequence will proceed from the eastern abutment across the water and connect with a new western abutment beyond S Boxwood St. During this process, a construction entrance off S Boxwood St provides access to complete the deck of the main channel span.

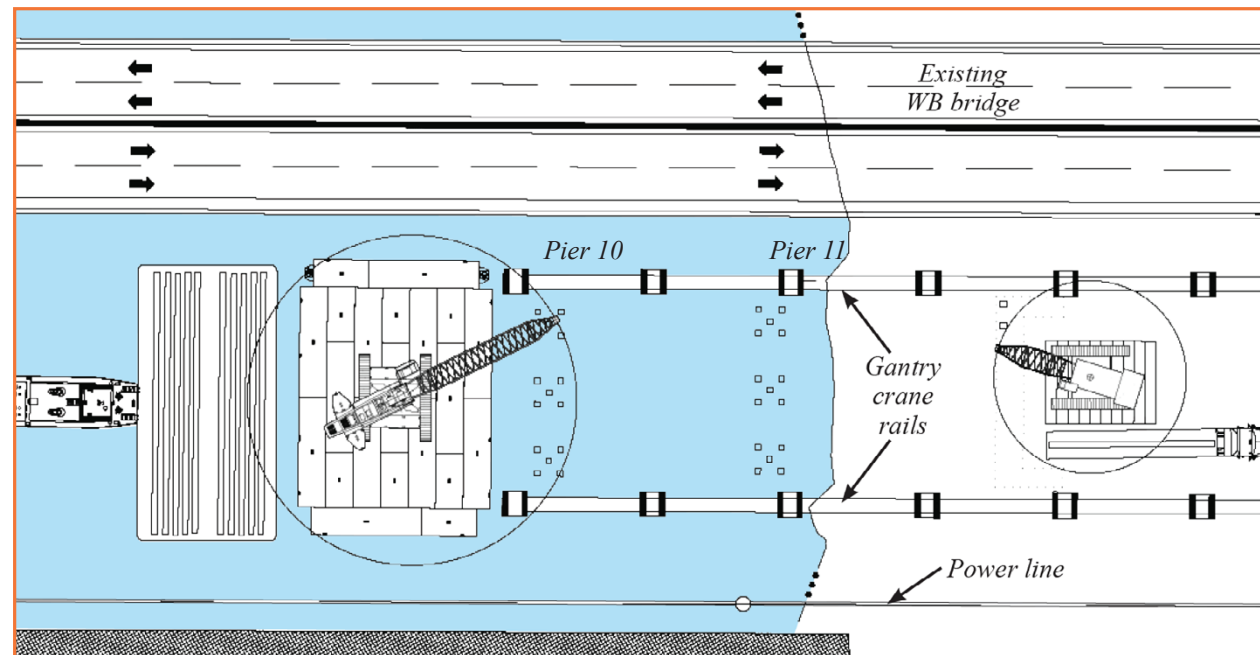
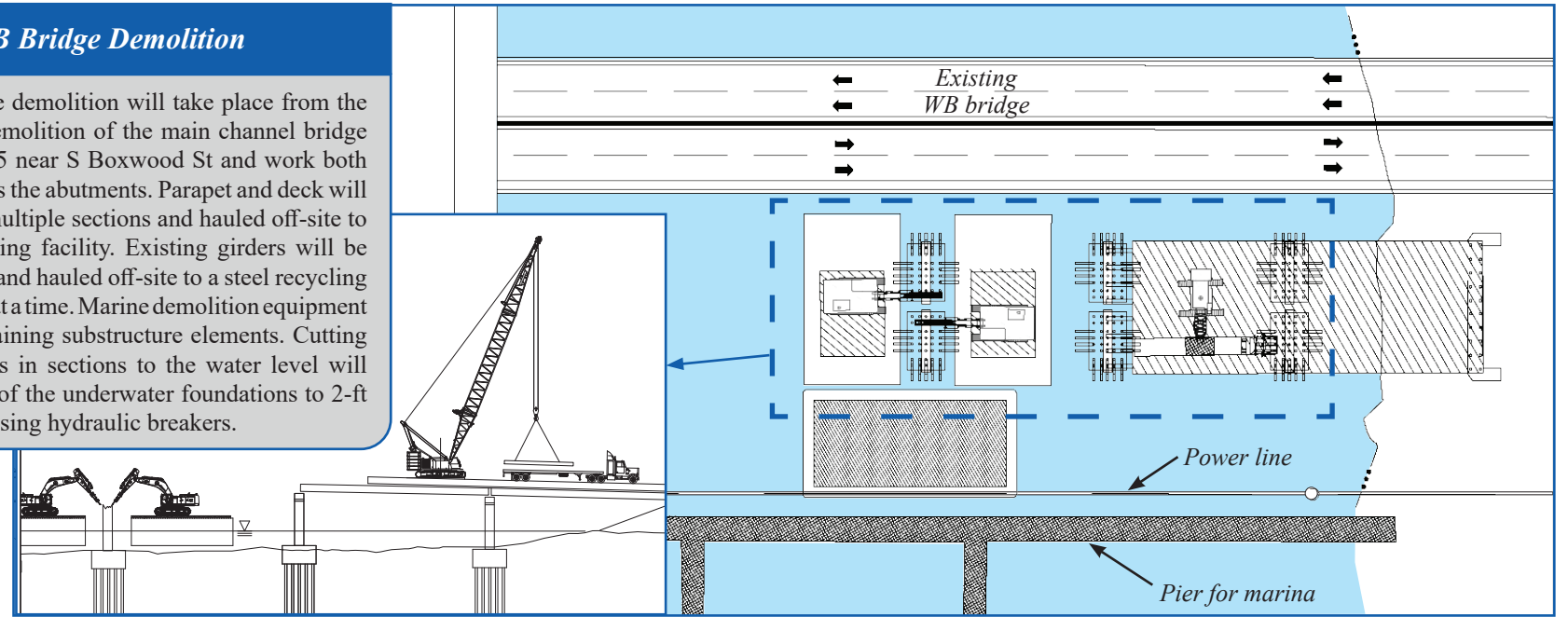
**Figure 5.10: Gantry Crane System for EB Bridge**

The MTJV Team has innovated a solution that replaces traditional construction means and methods for the space-limited EB bridge. The gantry crane rails will extend onto the eastern shore, allowing operations to deliver materials from this end of the Project to multiple locations along the length of the structure. Our hybrid approach allows demolition, as well as substructure and superstructure construction activities, to proceed along multiple headings, reducing schedule for EB construction. Our approach also limits impacts to traffic on the WB structure by removing the need to use the inside of the WB bridge for access or beam delivery.



**Figure 5.8: EB Bridge Demolition**

EB superstructure demolition will take place from the existing deck. Demolition of the main channel bridge will start at Pier 5 near S Boxwood St and work both directions towards the abutments. Parapet and deck will be saw-cut into multiple sections and hauled off-site to a concrete recycling facility. Existing girders will be removed in pairs and hauled off-site to a steel recycling facility, one span at a time. Marine demolition equipment will remove remaining substructure elements. Cutting caps and columns in sections to the water level will precede removal of the underwater foundations to 2-ft below mud line using hydraulic breakers.

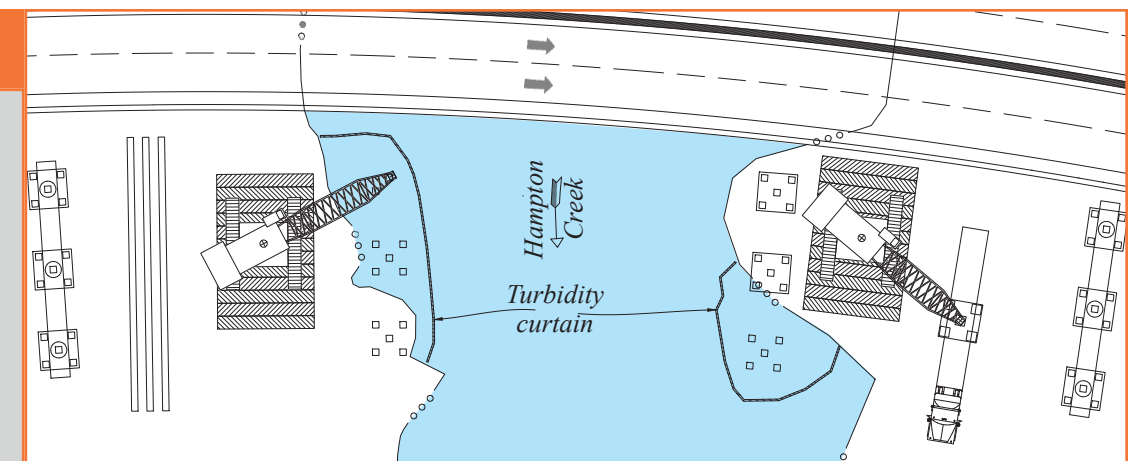


**Figure 5.9: Top-Down View of Proposed Gantry System**

Barge-mounted equipment will install the foundation pile for the waterline footings, pile caps, and the pile and rail for the gantry crane system. This operation will move west, away from the eastern abutment. As progress on pile and rail installation permits, we will install the gantry crane equipment on the rails. Servicing this operation from the east will allow construction of caps, girder setting, and superstructure work to commence while substructure work is still in progress. As the operation moves west, it will meet up with a separate land-based construction operation working with traditional means and methods that will construct the EB bridge from the west abutment up to the span over E Pembroke Ave. At the end of bridge construction we will completely remove the gantry rail system and all falsework, including the piles.

**Figure 5.11: EB Hampton Creek Bridge Construction**

Once we complete beam delivery for the Hampton River bridge, demolition and construction of the new EB Hampton Creek bridge will begin. Replacing this 2-girder, fracture-critical span demands a unique approach. We will sawcut deck sections over the Creek for removal. The remainder of the structure will be removed from the ground below. Girder sections will be cut using shears then lowered to the ground and hauled away. Removal of the existing columns and pier footers will take place from the ground using hydraulic hammers. We will use conventional ground-based means and methods to drive foundation piles and construct footers, caps, and the new bridge superstructure.



**Segment 4 (721+00 -702+50):** Segment 4 encompasses the transition zone between the WB bridge widening/rehabilitation and the lane shifts for median reconstruction and outside widening in Segment 5. This segment provides egress/ingress into the center section widening work in Segments 5 and 6. It includes a temporary crossover, built during preconstruction, from EB I-64 to the WB structure for the EB bridge reconstruction in Phase 2.

Construction and backfill of the new EB bridge abutment must prevent down drag on the nearby WB bridge battered piles. Construction of the EB abutment also requires access next to the WB lanes where they transition onto the EB bridge. An excavation support system between the EB and WB abutments will dissipate settlement pressures on the WB battered piles due to demolition and construction of the EB abutment and support WB traffic once switched onto the WB bridge.

Widening of the outside WB bridge in Segment 3 will complete the outside widening of WB I-64 along the north side from Sta 1721 to 1713 during Phase 1A. Phase 1B completes the inside reconstruction work and pavement buildup for the crossover along EB and WB I-64, as well as the new median wall for the EB bridge between Sta 713 EB and the abutments.

Segment 4 contains two EB and two WB existing General Purpose dynamic message signs (DMS) on an existing structure and a WB interchange guide sign for Exit 265. Early construction of WB widening near the east bridge abutment requires temporary DMS measures and signing. Ultimately, two sign structures at Sta 707 and 715 will replace the existing DMS and add two tolling DMS. The existing ITS backbone crosses from EB to WB near Sta 715 and continues to the western Project limit. The existing and proposed backbone cable locations in the WB direction allow for easier temporary cutovers between existing and proposed cabling. The cable locations also line up well with cutting over to the new backbone and decommissioning for EB bridge reconstruction.

To allow WB and EB bridge work to proceed in Segment 3, we are separating work on the highway sections to the west of the main bridges from the critical path of the bridge. This strategy constructs the future crossover in Segment 4 early in the Project, including the phase line excavation support between EB and WB abutments. This approach mitigates possible delays to the west to proceed with switching traffic onto the WB bridge and building the new EB abutment.

**Segment 5 (702+50 – 673+00):** Segment 5 widens and reconstructs I-64 from east of King St to west of Rip Rap Rd. During preconstruction, we will strengthen the outside shoulders on I-64 EB from Sta 676 to Sta 706 and I-64 WB from Sta 1709 to Sta 1674 to accommodate traffic during construction in the center lanes. By using the existing shoulders during Phase 1A/1B, we can complete pavement and median reconstruction in the center section, as well as inside bridge rehabilitation and overlay work for both the King St and Rip Rap Rd bridges.

In Phase 2, we will widen the outside, maintaining two lanes in each direction. At the end of Phase 1, we will construct the pavement overlay and buildup for the inside lanes during off-peak hours to eliminate pavement elevation differences between phases. This eliminated the need for a separate phase and traffic shift, allowing the outside widening of I-64 and the King St Bridge to take place in a single phase.

This segment also includes two cantilever sign structures (Sta 677 and Sta 1677) and two full-span overhead sign structures (Sta 684 and Sta 691) that provide interchange guide and supplemental signing, queue detection system signing, and EB and WB Express Lane entrance signs for the EB slip entrance and WB weave entrance.

Our Project segmentation provides the flexibility to continue to progress roadway and bridge work in Segment 5 and 6 should any delays occur with the bridge work in Segment 3. This flexibility provides our Team a powerful tool to mitigate delays and re-sequence activities to keep the Project on schedule.

**Segment 6 (673+00 – 658+72):** The final segment extends from the western end of the Project to the EB exit ramp for Rip Rap Rd. The scope includes inside reconstruction of the pavement and median and outside widening of I-64. No shoulder hardening is necessary in this section to maintain two lanes EB and WB during construction. Segment 6 includes replacing one existing full-span overhead sign structure with two. The EB guide signing for Exit 265C will be modified with overlays to be consistent with the temporary lane configurations during construction. It will reflect the “exit only” weave lane between the LaSalle Ave on-ramp and Rip Rap Rd off-ramp in the ultimate conditions. The proposed ATMS and tolling backbone tie into the existing HUB building located at the LaSalle and Armistead Ave intersection. Construction in this segment will follow the two-phase inside and then outside roadway work method in conjunction with Segment 5. As with Segment 5, we have the flexibility to coordinate the work west of the Hampton River to meet our schedule needs.

**SAFE PRODUCTION PLANNING**

The MTJV Team shares the belief that all incidents are preventable, and none are acceptable, no matter the severity. We bring a commitment to public safety for the surrounding communities, our workforce, and each of our Project partners. Our commitment to ensuring everyone goes home safely every day is evidenced by our best-in-class recordable incident rates as shown in *Figure 5.10*.

Our comprehensive safety program, paired with the DB Project delivery, has empowered the MTJV Team to develop a design and construction approach that “engineers out” hazards and addresses potential safety risks to Project staff, motorists, and pedestrians. Our production system operation planning approach has been integrated into our Project approach, enabling us to find the most efficient way to build critical Project elements while ensuring safety. We will integrate all Team members into our planning process — including construction QC/QA staff; environmental, traffic, and safety managers; and all major subcontractor partners. We will share the Project CPM schedule with VDOT and all Project partners, develop weekly five-week look-ahead schedules for each crew and subcontractor, hold weekly schedule coordination meetings, and develop a daily schedule of activities. Five-week look-ahead schedules will be distributed weekly to all Project Team members, including VDOT, QA, and QC inspection staff.

**Project-Specific Health and Safety Plan: Josh Brown** (Safety Manager) will be responsible for overall Project safety in compliance with all regulatory and VDOT requirements and policies. Josh will develop the Project-specific Health and Safety Plan (HASP) to address Project-wide safety requirements, with a specific focus on traffic, marine safety, working adjacent to existing structures, and demolition – each of which are discussed further below. Josh will continually evaluate the Project’s safety performance and implement additional safety measures as necessary to maintain worker and public safety. Safety best practices our Team will implement on the Project include, but are not limited to:

- **Jobsite Safety Orientation:** Josh will conduct Safe Start orientation with each crew to review the Project HASP, discuss unique risks and challenges, identify access points, and convey traffic-related concerns.
- **Beginning and End-of-Shift Huddles:** Led by the field manager, each crew will discuss potential safety hazards for the shift ahead, voice any concerns, and build a plan together to mitigate any potential safety risks.
- **Job Hazard Analysis:** We will break down critical scope elements to analyze the hazards associated with each element of the work and the safety measures to be implemented to address each hazard.
- **Project-Wide HSE Meetings:** The MTJV Team will hold regular Project-wide meetings to discuss safety performance, upcoming changes to access and traffic patterns, and any frequently observed concerns or safety trends.

**Traffic Safety: Sandra Genter** (CIMC) will implement our traffic and safety program to ensure motorists, pedestrians, and bicyclists safely navigate the construction zones. See *Section 4.5.2* for additional information about our Team’s approach to the development and implementation of the Project’s TMP.

**Marine Safety:** Since the 1950s, our Team members have been constructing deep-water foundations, bridges, and piers along the nation’s inland and coastal waterways. Working over water requires special safety considerations and measures. The MTJV Team’s careful logistics planning and safety planning tools, including the items listed in *Figure 5.11*, will ensure the safety and uninterrupted travel of commercial marine vessels and pleasure craft, and the safety of our workforce.

**Work Adjacent to Existing EB and WB River Bridges:** Our design and construction approach addresses the unique Project challenges of an urban environment, close proximity to existing bridges, an active marina, and nearby transmission lines. To maintain the open navigational channel for the public, we limited the temporary trestle on the WB side to areas where shallow water depth restricts marine access. Construction of the piers and bridge superstructure between pier 9 and pier 14 will use floating equipment, with the remaining piers are built from trestle or land-based equipment. Temporary trestles are

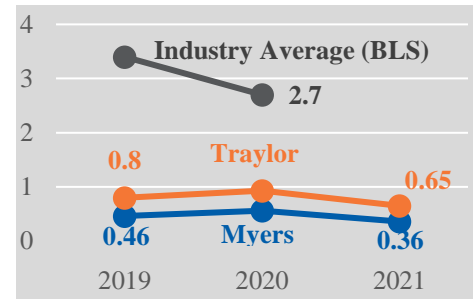


Figure 5.12: MTJV RIR Rates

Figure 5.13: Marine Safety Considerations

Safety Planning Effort	Daily	Project-Wide
Barge mooring plan implementation		X
Trestle, barge, and vessel access planning	X	
Mooring checklists	X	
Marine mooring and heavy weather plan		X
Working on barges and barge-to-barge access	X	
Slip, trips, and falls	X	
Stored energy in cables and lines	X	
Coordination with the Coast Guard	X	

designed to accommodate barge moorings, crane access, material deliveries, and personnel access. The MTJV Team will develop a barge placement and material deliveries logistics plan similar to a traffic control/traffic management plan.

To maintain public safety on the WB bridge, keep the navigational channel open, and avoid encroachment on the transmission lines safety zone, we elected to limit marine operations to demolition, pile driving, and temporary pile installation for gantry cranes. We will install temporary and permanent piles with one rig to limit the amount of supporting equipment and barges, maintain a clear navigation channel, and avoid congesting the area. Once pile driving is complete, gantries will provide a safe working environment away from transmission lines and the WB bridge. Use of gantries also avoids weather-related downtime and potential delays associated with floating equipment subjected to severe weather.

**Demolition:** The existing EB bridge is confined between the existing WB bridge, transmission lines, and the marina. Demolition work requires special attention to hazards like silica dust, working near the existing bridge, and environmental sensitivity. Our Team will train all crews on silica exposure and lead paint hazards associated with the demolition and employ best practices to prevent falling objects and fugitive emissions. With the existing WB structure just 30 ft away, great caution will be taken during EB structure demolition to maintain safety of the traveling public, commercial marine vessels, and pleasure craft. Extensive deconstruction planning will be employed to manage the process. To ensure an incident-free Project, we will closely coordinate with the US Coast Guard to provide timely and informative Notices to Mariners.


### STAGING AND STORAGE DURING CONSTRUCTION

We have identified several options for staging equipment and materials within, along, and outside the Project corridor. These areas include parcels within existing RW, temporary construction easement, and adjacent to the Project. We will secure proper environmental clearances for all properties used for staging and storage. Staging areas within the RW provide the greatest benefit since they are already within the Commonwealth's inventory and are located closest to the workforce. Temporary easements for material and equipment storage may require additional effort to gain approval for use. Parcels adjacent to the Project will require the most effort as they demand separate agreements with owners and land use permitting.

**Areas within the RW:** The area under the bridge along the east side of S Boxwood St is available in conjunction with construction activities to widen I-64 WB and replace the EB Hampton River and Hampton Creek bridges. The infield area at the I-64 EB exit ramp to Rip Rap Rd is also a candidate for use. Adjacent to S Boxwood St, Parcel 047 is a total acquisition and will become available in February 2023. Adjacent to River St, Parcels 036 and 037 are to be acquired and will be available in October 2022. These two parcels are contiguous with Parcels 038 and 039, which are currently within the Commonwealth's inventory, and Parcel 40, which belongs to the City of Hampton and will be available early in the Project. These five parcels total a substantial area for construction use that we can access with a Right of Entry Agreement.

**Areas within the Temporary Construction Easement:** Adjacent to S Boxwood St, Parcel 046 has been identified as a primary staging area. This significantly large area is contiguous with the I-64 WB and EB structure. We anticipate this parcel will be available through a Right of Entry Agreement as land acquisition is not required.

**Areas Adjacent to the Project:** The old C&O Railway Parcel H137 is a candidate for staging and additional construction access south of I-64 EB between King St and River St. This area may be available through a temporary lease agreement with the owner. It also could provide access to landlocked Commonwealth Parcel H141 to the south, which would provide an even larger area. Through a temporary lease agreement, two large City of Hampton parcels that abut Parcel H137 immediately east and west of King St would provide excellent staging next to the Project while reducing impacts to I-64.

 **Offsite Areas:** Certain items and activities don't need to be stored near or take place onsite, reducing the onsite space required. Our Team owns two large properties—in Williamsburg and Chesapeake—that provide ample offsite staging and storage for early procurement of schedule-critical materials. Both facilities are within 30 minutes of the Project and have adequate space to assemble rebar cages, formwork, and temporary assemblies to prevent congestion at the workforce. Our large fleet of trucks is capable of hauling material and equipment between these properties and the Project site.


**Workface Areas:** Mobile operations allow the daily transport of tools, equipment, and materials into and out of the workface. For some substructure repairs and utility work, crews can arrive each shift with what they need and return to the staging areas at end-of-shift. For larger operations, such as foundation piling, some materials may be delivered by barge and secured at the workface for the duration of work to help mitigate traffic impacts along the Project corridor.

## 4.5.2 TRANSPORTATION MANAGEMENT PLAN

I-64 along the Hampton Roads peninsula connects the coast's recreational, commercial, and defense activities with the inland areas of Richmond, Washington DC, and beyond. The MTJV Team's Transportation Management Plan (TMP) focuses on safely and efficiently handling traffic in this vital corridor throughout construction. All work will meet the requirements set by the RFP, *FHWA Manual of Uniform Traffic Control Devices* (MUTCD), and *Virginia Work Area Protection Manual* (VWAPM).

VDOT's *Instructional and Informational Memorandum (IIM) No. LD-241/TE-351* also guides the design of the TMP. Per this IIM, the Project is classified as Type C, Category V; meaning it is anticipated to cause sustained and substantial work zone impacts. The major components of a Type C Project TMP are the Temporary Traffic Control Plan, Public Information and Communications Plan, and Transportation Operations Plan.

Following NTP, the MTJV Team will hold an initial partnering meeting with VDOT, the City, and third-party stakeholders to review the Project requirements, discuss traffic concerns related to construction, and develop a checklist of responsibilities and timelines for successfully achieving agreed-upon TMP activities and goals.

 The MTJV Team's roadway, bridge, and traffic engineers collaboratively developed our proposed Temporary Traffic Control Plan alongside our construction team, focusing on the following objectives:

- Coordinate with contractors of other active construction projects in the vicinity of the I-64 HREL Segment 4C Project, including the HRBT project, I-64 Segment 1A, and I-64 Segment 4, in accordance with *RFP Part 2, Section 1.7*;
- Complete the Overlap Area prior to the Interim Milestone to meet the RFP requirement;
- Minimize the number of traffic shifts to maximize safety and meet driver expectations;
- Maintain required travel lane widths throughout construction and restrict shoulder closures to only shoulder strengthening work in the preconstruction phase;
- Limit the use of nighttime lane closures for shoulder strengthening and placement of traffic control devices;
- Avoid local street detours and maintain access at all interchange ramps, except for periodic short-term closures/stoppages for placement of temporary traffic control devices and final paving;
- Physically separate the work area and the travel lanes using barrier service;
- Use a design speed that matches the existing posted speed limit of 55 mph; and
- Maintain passage for boat users on the Hampton River, except for limited activities such as overhead work.

The Public Information and Communications Plans (PICP) will be submitted to VDOT for review and approval in advance of any construction activity on the site. Key elements of the PICP will include:

- Leadership by a highly experienced public information manager (**Shannon Moody**) who will identify VDOT's Project communication goals and objectives, and ensure compliance;
- Define communication plan goals and objectives;
- Include a Traffic Management Plan specifying alternative routes and detours;
- Identify communications partners, target audiences, key stakeholders, and communication challenges;
- Provide proactive communication with stakeholders, close coordination with VDOT, and consistent public outreach;
- Ensure that stakeholders can easily and quickly access information regarding the Project;
- Discuss crisis communications and include a Risk Management Plan;
- Identify communications tools, tactics, and strategies;
- Utilize temporary changeable message signs to communicate with motorists about upcoming traffic pattern changes 21 days in advance;
- Coordinate with the I-64 HRBT Expansion Project for public information and outreach activities; and
- Include an advertising and marketing campaign.

**Sandra Genter** (CIMC) will manage our Incident Management Plan (IMP), which includes the following key features:

- Coordination with VDOT, EMS, and stakeholders, including a stakeholder meeting;
- 24/7 point of contact for Traffic Operations Center (TOC) emergency notification of incident;

- Emergency detour routes and sign layout plans in addition to TMP signage;
- Agency and stakeholder responsibilities matrix/checklist to clarify roles and establish accountability;
- Pre-staged detour equipment and material needs;
- Coordination with VDOT Hampton Roads TOC to alert them of incidents and quickly install detours;
- Details for law enforcement, fire, and rescue access to the road network during incidents;
- Pre-planned messages for various types of incidents for the portable dynamic message signage (DMS);
- Identification of emergency evacuation plans with lane reversals of the eastbound travel lanes to accommodate westbound traffic;
- Contact list for appropriate stakeholder response personnel; and
- Wrecker service to remove disabled vehicles within the Project limits.

Sandra, our CIMC, will conduct a kick-off meeting with all first responder stakeholders, provide monthly updates to the VDOT IMC, and respond to all incidents within the Project limits. She will abide by the VDOT safety regulations, work under the VDOT IMC when on the scene of an event and, when needed, serve as the Incident Commander until the VDOT IMC arrives at an event. Sandra will attend orientation training and all IMP meetings and meet upon request by VDOT. She will have a truck equipped for incident management, including a portable radio for communication with the TOC. She will work closely with all emergency agencies and will complete After Action Reports.

### MAINTENANCE OF TRAFFIC (MOT)

Our MOT plan will include full-width travel lanes and open shoulders whenever possible. We will design all tapers and shifts for the posted speed limit of 55 mph. We will install, maintain, adjust, and remove construction signs and temporary pavement markings, including one-tenth mile markers, for the duration of the Project. We will conduct maintenance of guardrail, grass cutting, and pothole repair as required in the RFP. The TMP will also accommodate safe and efficient snow removal operations and ensure proper drainage during all phases of construction. All businesses, residential communities, and private entrances will maintain their access at all times. We will monitor the implementation and execution of the MOT plan and coordinate necessary adjustments to ensure that traffic flows as smoothly as possible throughout the corridor. Phase 2 will employ temporary crossovers while the EB Hampton River Bridge is closed.

Our MOT plan includes the following general conditions:

- Maintain at least two lanes in each direction, except for periodic nighttime lane closures, as necessary (see *Figure 5.4*);
- Provide emergency pull-off areas and limit work area lengths when a 9 ft shoulder cannot be maintained;
- Develop an Incident Management Plan prior to shifting traffic for each phase of construction, including emergency vehicle access, detour routing plans, and onsite wrecker service;
- Make provisions for securing the workspace should an emergency call for evacuation, which reverses the EB lanes;
- Utilize temporary changeable message signs to communicate traffic pattern changes;
- Coordinate with stakeholders on any access issues associated with construction;
- Complete Engineering and Traffic Investigation and utilize Work Zone Channelization/Barrier Analysis following the VWAPM, Roadway Design Manual, and IIM-LD-93;
- Maintain all affected entrances, intersections, and pedestrian access on local roads;
- Provide detailed lane, shoulder, or road closures, following the allowable hours in the RFP; and
- Evaluate temporary drainage to confirm no spread will be in the roadway travel lane.

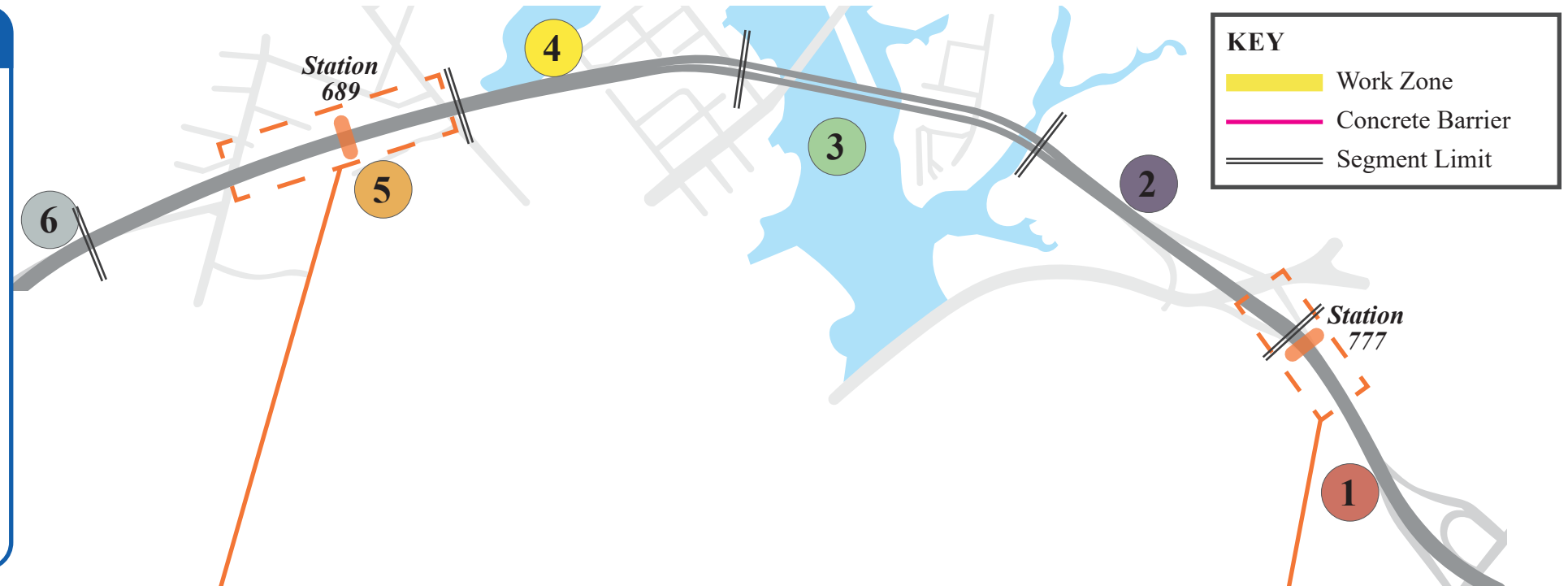
**HRBT Coordination / Interim Milestone:** Our Team will coordinate closely with the I-64 HRBT Expansion Project to integrate the MOT plans for the two projects, provide safe and efficient traffic flow across the Project limits, and maintain appropriate workspaces for both projects. Our Team will complete the overlap area prior to July 2, 2026, but the HOT Lanes will not be accessible to the traveling public until December 30, 2026. Access to the HOT Lanes will be prohibited from the I-64 EB entrance ramp from Settlers Landing Rd through the use of channelizing devices. Our Team will provide MOT plans, temporary signing plans, and temporary ITS plans for the interim configuration.

*Figures 5.14 – 5.20* on pages 41-43 depict how we will maintain traffic during Phases 1, 2, and 3 of construction.

**PRECONSTRUCTION**

This initial phase prepares the Project for construction. During this phase, we will use TTC-16.2 and TTC-17.2 of the VWAPM to provide lane closures during allowable periods and conduct shoulder strengthening in areas that require traffic shifts during Phase 1. To the west of the Hampton River (Segments 4, 5, and 6) we will upgrade the shoulder in both directions from approximately EB Sta 676 to 706 and WB 1709 to 1674 (roughly, Riprap Rd to King St). On the east side of the river (Segments 1 and 2), we will strengthen shoulders in both directions starting near the Settlers Landing bridge from approximately EB Sta 760 to 771, and WB Sta 1772 to 1761. These additional shoulder sections allow us to complete widening in two phases and rehabilitate the existing bridge structures and approaches along with the corresponding roadway section construction.

We will also use TTC-17.2 to remove the median barrier system and install temporary pavement where the future crossovers will take the EB lanes onto the WB bridge in Phase 2. Once we remove the existing median barrier, we will install temporary traffic barrier to prevent access through the opening.



**MOT: PHASE 1**

Phase 1 begins once preconstruction is complete. Traffic will shift (where necessary) onto the newly strengthened shoulders. West of the Hampton River Bridge (Segments 4, 5, and 6), we will install temporary barrier along the inside shoulder using TTC-17.2 for the median and center lane reconstruction of both I-64 EB and WB. We will also use TTC-17.2 in Phase 1 to install temporary barrier needed for median and center lane construction on the east side of the River, including through the Overlap Area (Segment 1). Traffic will use two lanes running along the new shoulder at the outside of both the Rip Rap Rd and King St bridges to the west and around the Settlers Landing bridge on the east end of the Project.

Figures 5.14 and 5.15 detail the traffic pattern along I-64 both east and west of the Hampton River bridge. Construction work will take place in the center lanes and median, and we will maintain a minimum of two lanes EB and WB through the work zones. Figure 5.14 shows a typical section in Segment 5 west of the Hampton River bridge. In this area, traffic will run along the newly strengthened outside shoulder in both directions. We will create acceleration and deceleration openings in the barrier at each end of Segment 5 to allow for safe construction traffic entry and exit from the center area work zones. These openings will also permit access into Segment 6. On the east side of the Hampton River bridge, Figure 5.15 shows a typical section for the work in Segment 1. Our plan establishes acceleration and deceleration access for the center work zone of these segments at the east end of Segment 1 and west end of Segment 2.

Figure 5.14: Phase 1, Station 689

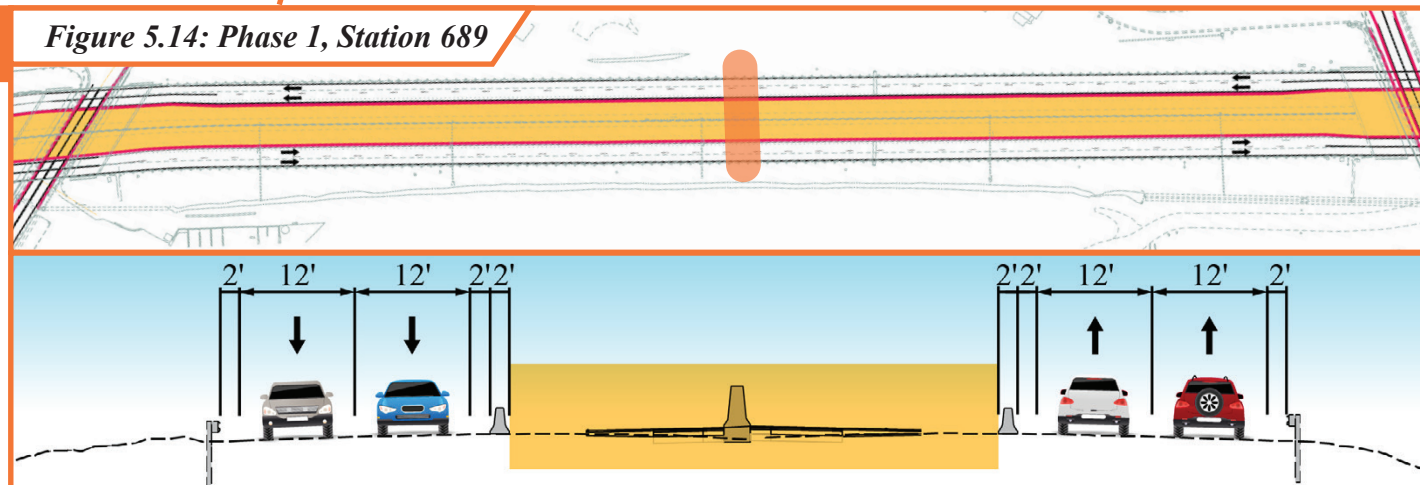
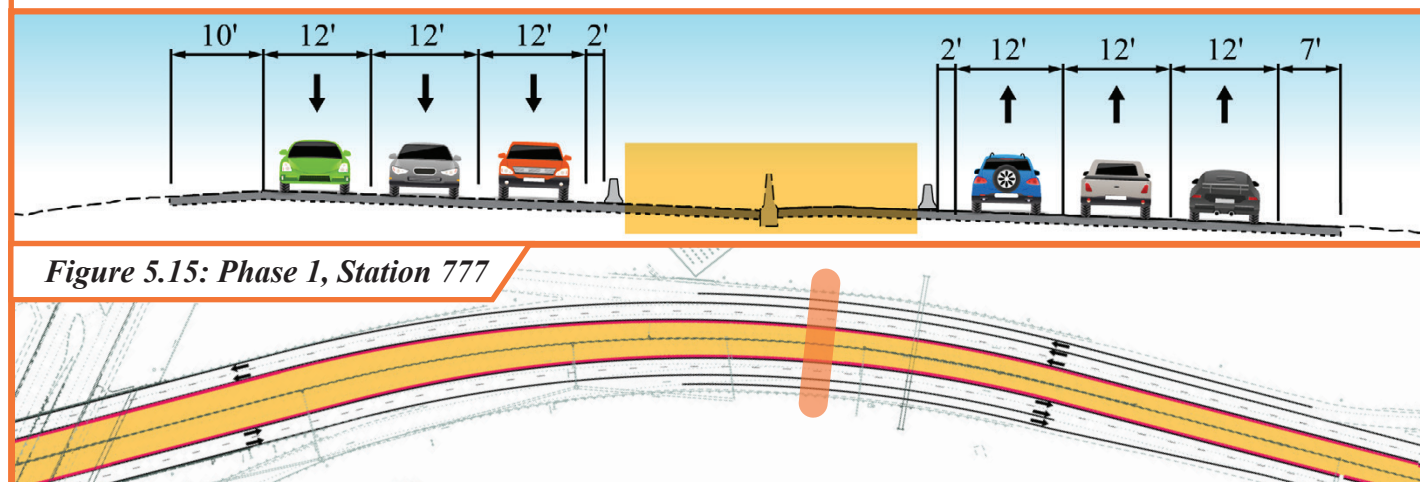
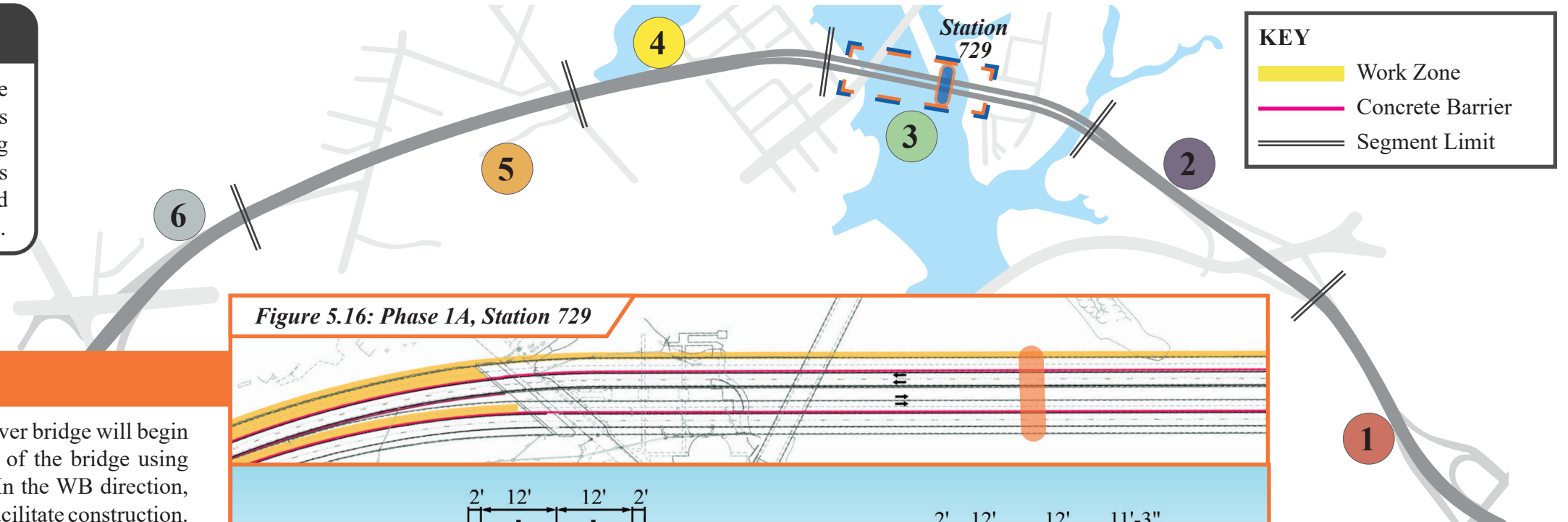


Figure 5.15: Phase 1, Station 777



**PHASES 1A AND 1B, STA. 729**

Phase 1A and 1B differentiate between the outside widening and inside rehabilitation work on the WB Hampton River bridge. Phase 1A moves traffic to the two inside lanes of the bridge while outside widening occurs. Once complete, traffic will switch and use two outside lanes along the newly widened bridge to allow for deck rehabilitation and the addition of new drainage facilities along the inside of the structure.

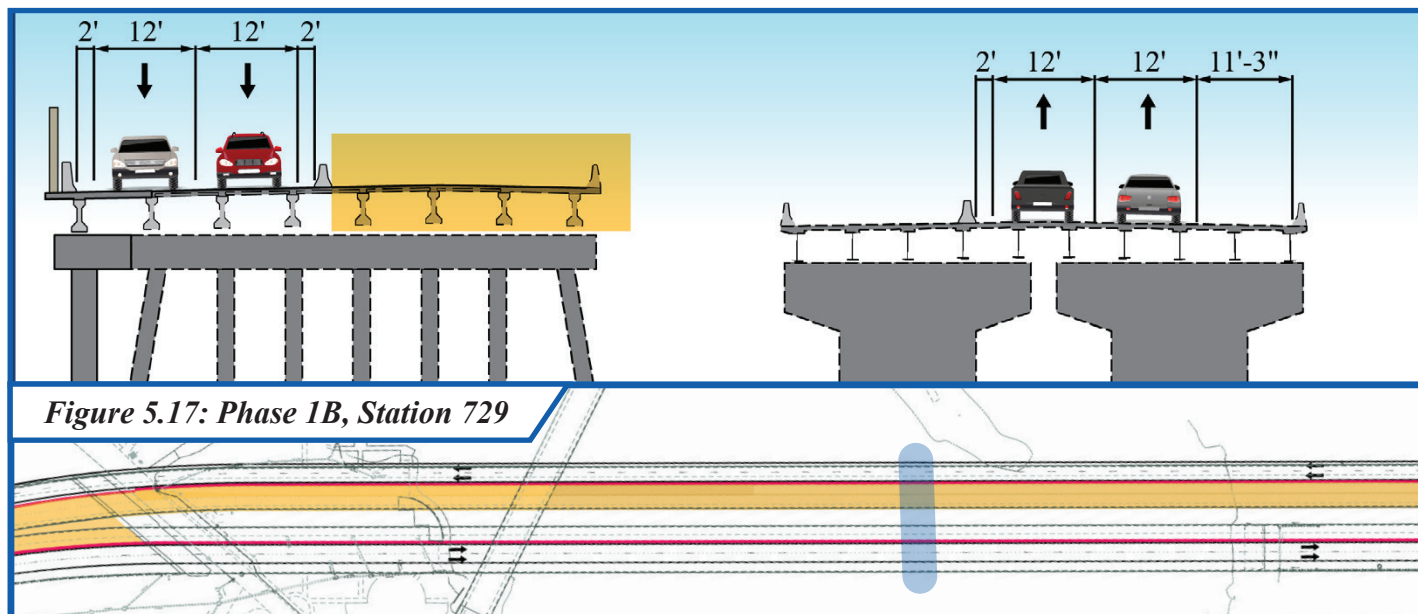
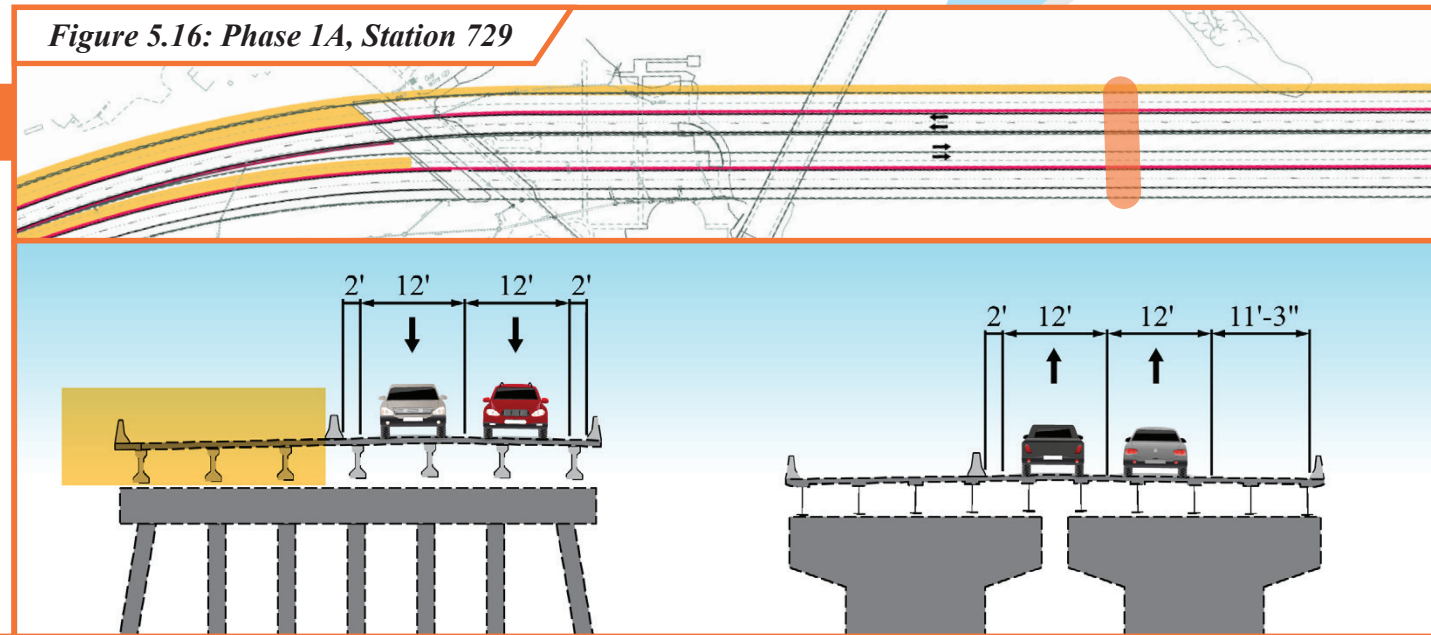


**MOT: PHASE 1A**

Phase 1A construction of the WB widening of the Hampton River bridge will begin with installing temporary barrier along the outside shoulder of the bridge using TTC-16.2, leaving two lanes of traffic during the widening. In the WB direction, traffic will shift using TTC-40.2 before and after the bridge to facilitate construction. We will use TTC-39.2 to widen the WB entrance ramp from Settlers Landing Rd.

As shown on *Figure 5.16*, construction of the WB widening of the Hampton River bridge will begin in this phase. We will install temporary barrier along the outside lane of the bridge using TTC-16.2, allowing two traffic lanes to remain during widening. In the WB direction, traffic will shift using TTC-40.2 before and after the bridge to allow for construction. We will use TTC-39.2 to widen the WB entrance ramp from Settlers Landing Rd.

*Figure 5.16: Phase 1A, Station 729*



*Figure 5.17: Phase 1B, Station 729*

**MOT: PHASE 1B**

Once we complete the WB Hampton River Bridge widening, we can move the temporary traffic barrier to the median side of traffic using TTC-17.2. Traffic on the bridge will shift to the newly constructed section. *Figure 5.17* shows the traffic and phase switch between work in Phase 1A and 1B along the WB bridge and approaches. With the widening work complete along the WB bridge, we can remove the traffic shift from inside to outside along the bridge. WB traffic will run straight through along the outside of I-64 through the entire Project.

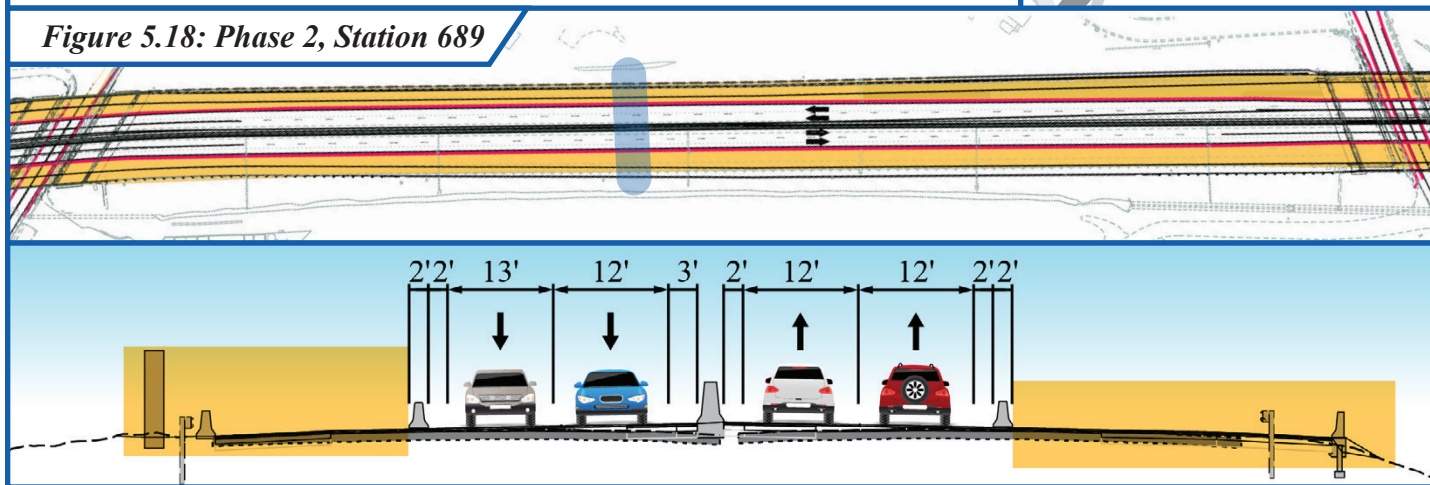
The median and center lane construction along I-64 will continue into Phase 1B both east and west of the Hampton River and Hampton Creek bridges. Until that scope of work is complete, traffic and sequence patterns in *Figure 5.16* from Phase 1A will continue through the corridor.



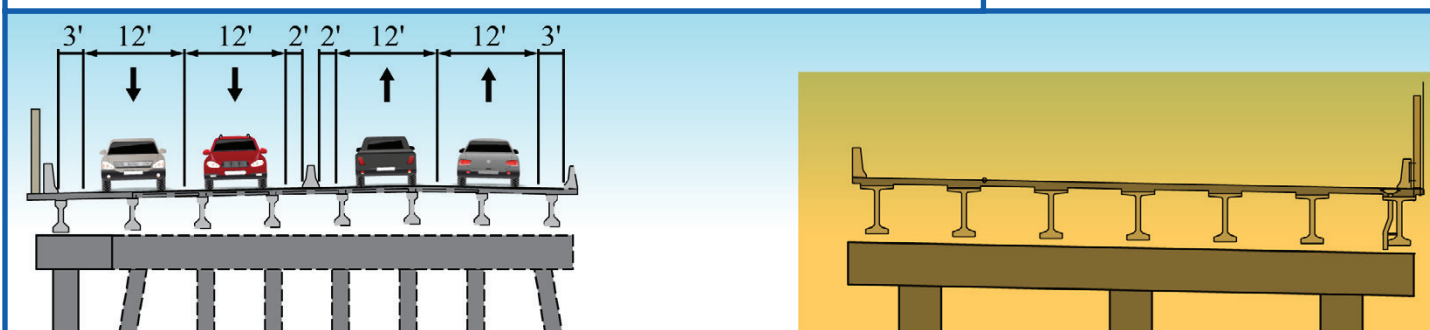
**MOT: PHASE 2**

After completing the median work, we will install temporary barrier on the outside using TTC-16.2. *Figure 5.18* depicts how we transition this section into Phase 2 after completing all of the median work on the west side of the Hampton River bridge. Traffic will run on the newly constructed center lanes while we complete the widening work along the outside. Crossovers installed in the Preconstruction phase will open to traffic and the EB Hampton River bridge will close, with EB traffic crossing over to the WB Hampton River bridge. We will use TTC-37.2 for the EB exit ramp to Rip Rap Rd, the WB exit ramp to N Armistead Ave, and the EB exit ramp to Settlers Landing Rd.

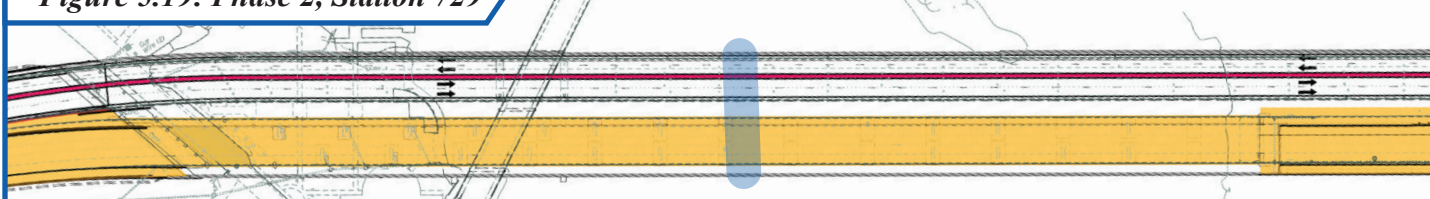
**Figure 5.18: Phase 2, Station 689**



*Figure 5.19* demonstrates the phasing and traffic configuration for the WB Hampton River bridge in Phase 2. EB and WB traffic will remain on the WB Hampton River bridge through Phase 2. We will install temporary barrier along the median east of the Hampton River bridge using TTC-17.2 to allow for outside highway pavement and median reconstruction.



**Figure 5.19: Phase 2, Station 729**

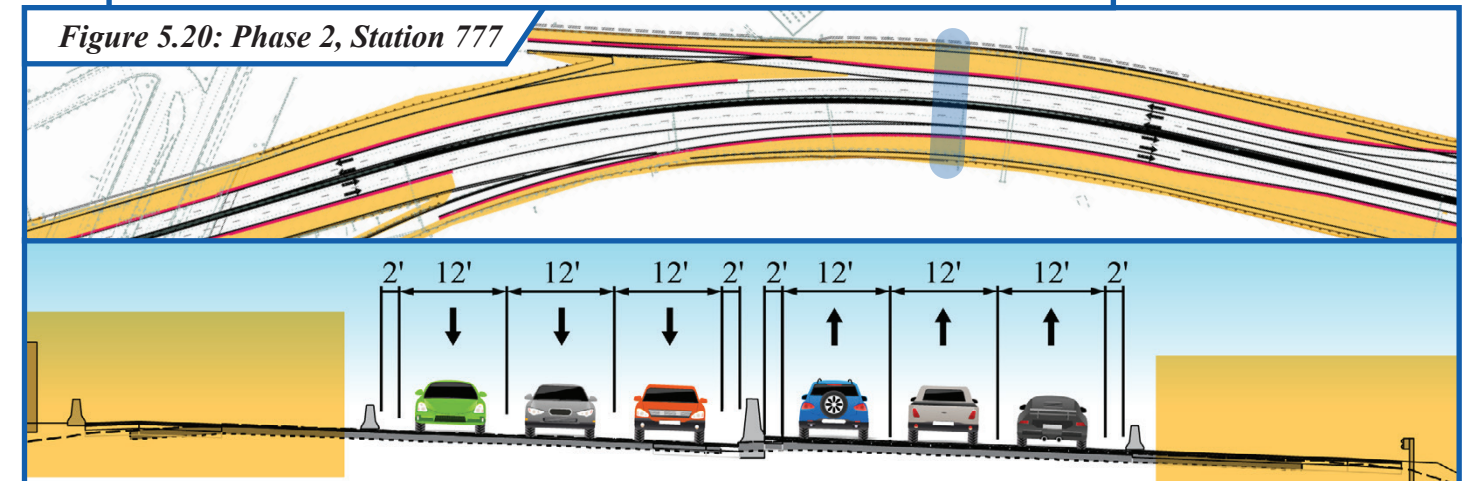


**KEY**

- Work Zone
- Concrete Barrier
- Segment Limit

*Figure 5.20* shows the phasing sequence to the east of Settlers Landing Rd. Once we complete the median work in this overlap area, we will move the temporary barrier to the outside using TTC-16.2 so that the outside widening can occur. TTC-37.2, TTC-38.2, and TTC-39.2 will be needed for the WB exit ramp to Settlers Landing Rd and the EB entrance ramp from Settlers Landing Rd. This segment continues the accelerated approach our Team has developed to meet the interim milestone. Once we complete this widening, we will have the full future segment from east of the Hampton River bridges to the connection with the HRBT express lanes.

**Figure 5.20: Phase 2, Station 777**



**MOT: PHASE 3**

Phase 3 will start after the final switch is made to put EB traffic onto the new EB bridge structure and open the new lanes to traffic. Phase 3 will include completing the construction of the median and permanent inside pavement at the location of the temporary crossovers in Segments 2 and 4. Construction will take place in the median section with traffic in a two-lane configuration, both EB and 2 WB, with traffic barrier to protect the median work areas.

Phase 3 work includes final pavement overlay and striping. Once final paving is completed, we will move traffic into the final lane configuration. All signs, electrical work, and ITS systems will be completed by the end of this phase, and when ready the Express Lanes will open to traffic.

**CONSTRUCTION IMPACTS**

Our approach expedites delivery of the Project improvements to VDOT with minimal disruption to the traveling public during construction. We understand that severe impacts to motorists are not an acceptable tradeoff for early delivery of the Project. Our Team has focused on developing an MOT concept that minimizes impacts to the traveling public while providing adequate space to construct the proposed improvements safely, efficiently, and on an accelerated schedule.

We understand the importance of maintaining access at the interchanges and we intend to keep all ramps and local streets open throughout the Project, except for short-term stoppages for placement of temporary traffic control devices, final paving, or similar activities. The TMP will provide detailed lane, shoulder, or road closures and will not exceed the allowable hours set in the RFP. *Figure 5.21* notes the lane widths and barrier offsets. We will not request any Work Zone Speed Reductions.

*Figure 5.21: Lane Widths and Barrier Offsets*

Location	Min Lane Width	Barrier Offset
I-64 mainline with no shoulder	12 ft	2 ft
I-64 mainline with 9 ft min. shoulder	11 ft	2 ft
I-64 bridges over Rip Rap Rd, King St, and Settlers Landing Rd	11 ft	1 ft
I-64 bridges over Hampton River	12 ft	2 ft
All crossing roads	11 ft	1 ft


**STAKEHOLDER IMPACTS AND PUBLIC OUTREACH**

Building on the public outreach work performed by VDOT to date, our Public Relations Team of **Shannon Moody** and **Lynn Allsbrook** will communicate with stakeholders and government entities continuously and transparently throughout design and construction of the Project. We will request and facilitate formal partnering with VDOT and the City of Hampton to promote routine, open communication and create an atmosphere of trust between these key Project stakeholders and the MTJV Team. Our Team will meet individually with Project stakeholders to discuss concerns and solicit input into the development of the TMP and Site-Specific Safety Plan. Project stakeholders, potential impacts, and communication strategies are outlined in *Figure 5.22*.

*Figure 5.22: Stakeholder Impacts and Communication Strategies*

Stakeholder	Potential Impacts	Communication Methods	Benefits
VDOT	<ul style="list-style-type: none"> <li>Project oversight</li> <li>Traffic impacts</li> <li>Incident management</li> </ul>	<ul style="list-style-type: none"> <li>Coordination meetings</li> <li>Partnering</li> </ul>	<ul style="list-style-type: none"> <li>Opportunity to provide valuable input</li> <li>Most updated information</li> <li>Consistent public information</li> </ul>
HRTAC	<ul style="list-style-type: none"> <li>Perceptions and issues raised by members</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> </ul>	<ul style="list-style-type: none"> <li>Consistent information to provide to constituents</li> </ul>
City of Hampton Departments of Parks and Recreation, Public Works, Communications and Outreach, Convention and Visitors Bureau, and Hampton Coliseum	<ul style="list-style-type: none"> <li>Perceptions and issues raised by residents, motorists, business owners, and tourists</li> </ul>	<ul style="list-style-type: none"> <li>Coordination meetings</li> <li>Email updates</li> <li>Media</li> <li>Presentations</li> </ul>	<ul style="list-style-type: none"> <li>Opportunity to provide valuable input</li> <li>Consistent information to provide to constituents</li> </ul>
Hampton Police/Fire/EMS	<ul style="list-style-type: none"> <li>MOT/traffic impacts</li> <li>Incident management</li> </ul>	<ul style="list-style-type: none"> <li>Coordination meetings</li> <li>Direct point of contact</li> </ul>	<ul style="list-style-type: none"> <li>Responder understanding of construction activities/traffic impacts</li> <li>Accurate contact information</li> </ul>
Hampton National Cemetery	<ul style="list-style-type: none"> <li>Impacts of construction to travel and commute times</li> <li>Access – No RW required</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>
Pasture Point Historic District	<ul style="list-style-type: none"> <li>Impacts of construction to travel and commute times</li> <li>Access – no RW required</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>

Stakeholder	Potential Impacts	Communication Methods	Benefits
Hampton University	<ul style="list-style-type: none"> <li>Impacts of construction to travel and commute times</li> <li>Access – no RW required</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>
Woodlands Golf Course	<ul style="list-style-type: none"> <li>Access/RW</li> <li>Impacts of construction to travel and commute times</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>
FHWA	<ul style="list-style-type: none"> <li>Project input</li> </ul>	<ul style="list-style-type: none"> <li>Coordination meetings</li> <li>Partnering</li> </ul>	<ul style="list-style-type: none"> <li>Opportunity to provide valuable input</li> <li>Most updated information</li> </ul>
RW Impacted Parcels	<ul style="list-style-type: none"> <li>RW and easements acquired along I-64 with 23 parcels impacted</li> </ul>	<ul style="list-style-type: none"> <li>One-on-one meetings</li> </ul>	<ul style="list-style-type: none"> <li>Opportunity to provide valuable input</li> <li>Most updated information</li> </ul>
Local interests, incl. Fort Monroe Authority; Joint Base Langley-Eustis; Hampton VA Medical Center; Phoebus Improvement League; The Downtown Hampton Development Partnership, Coliseum Central Business District, and City Community Development Department	<ul style="list-style-type: none"> <li>Impacts of construction and MOT to travel and commute times</li> <li>Access</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Early awareness of impacts</li> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>
HOAs including Pooles Grant 1642, residents, and motorists along I-64	<ul style="list-style-type: none"> <li>Impacts of construction and MOT</li> <li>Access</li> </ul>	<ul style="list-style-type: none"> <li>Email updates</li> <li>Traditional and social media</li> <li>Stakeholder meetings</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of construction impacts</li> <li>Community awareness of construction progress and timeline</li> </ul>

 The MTJV Team believes that direct feedback from Project stakeholders contributes real value to the success of the Project. We will ensure that stakeholders have a voice and remain informed of design and construction activities and potential impacts through all phases of the Project. Our Team will design a PICP to effectively share information with stakeholders. We will seek input on the PICP from the City of Hampton Communications and Outreach Department to develop an early partnership prior to the start of construction and to ensure the plan incorporates communications tools that reach a wide range of stakeholders along and adjacent to the corridor. We will present the PICP to VDOT HREL within 45 days of the Date of Commencement for review/comment, and it will remain a living document throughout the Project. The PICP will include the following:

- Goals and Objectives
- Target Audiences and Key Stakeholders
- Emergency Communications/Risk Management Plan
- Advertising and Marketing Campaign
- Traffic Management Plan
- Communications Partners
- Communications Tools, Tactics, and Strategies
- Defined News Media Strategy

All outreach activities will comply with the *VDOT Policy Manual for Public Participation in Transportation Projects*. Fully coordinating with VDOT, our Team will implement the following tools, tactics, and strategies to ensure transparent, two-way communications with Project stakeholders:

- **Public Information Meetings:** These will be held on a semi-annual basis, and in advance of major traffic pattern changes, to update all stakeholders on the current construction schedule and activities. We will present traffic impacts, proposed clearing limits, proposed landscape plans, SWM design and improvements, and Final Noise Analysis results.
- **First Responder Meetings:** These will be held throughout pre-construction and construction to discuss access issues, schedule / progress, and construction impacts. Also, on a semi-annual basis and in advance of major traffic pattern changes, the public information team will attend police roll calls and fire station shift changes with departments that primarily serve the Project corridor.

- **Stakeholder Meetings:** These will be held throughout pre-construction and construction to discuss access issues, schedule / progress, and construction impacts. These meetings will provide opportunities to resolve conflicts, concerns, and potential impacts. Also, the public information team will regularly attend neighborhood association meetings within the Project corridor, as well as Downtown Hampton Development Partnership and Coliseum Central Business Improvement District board meetings, to provide updates on construction activities and in advance of major traffic pattern changes that may result in local impacts. The City's Convention and Visitors Bureau and Hampton Coliseum will also be kept up to date on construction activities that may impact tourists, convention attendees, and events.
- **E-mail and Text Updates:** Our Team will maintain a stakeholder list and email and text regular Project updates, including upcoming construction activities and impacts, to help manage expectations while being transparent and informative. Specific details will also be posted on the Project website.
- **Traffic Impacts/Notifications:** Traffic advisories will be sent to VDOT when there are new planned impacts to motorists, announcements of construction start and end dates, and implementation of new traffic phase changes. This information also will be shared with the City of Hampton's Communications and Outreach Department for distribution through the City's social media channels and the daily City email to subscribers (eNews). The City also has the ability to do reverse 311 calls to residents within very defined areas to alert them in advance of significant activities, which may be beneficial for Project activities that have a direct impact on specific residents.
- **Website and Social Media Updates:** Our Team will provide timely and comprehensive content for the VDOT Hampton Roads Express Lanes (HREL) Network website and social media channels, and for VDOT's media channels. The Project website will have a calendar of planned construction activities that may significantly impact traffic along the corridor and local streets. The calendar also will include known special events at Hampton University, Hampton Coliseum, and Hampton Roads Convention Center.
- **Media:** Our Team will provide timely and comprehensive content to the VDOT HREL Communications Team for response to inquiries and to support media outreach efforts. The Project public information team will schedule regular meetings with local print and television media traffic reporters to provide Project updates and whenever significant traffic pattern changes will be implemented. The City's local government television access channel is another means to share Project updates with residents.
- **Emergency Response Contacts:** We will designate key points of contact with the construction team and share contact information with emergency response agencies for immediate emergency needs. The City's 911 Emergency Communications will be kept up to date on Project points of contact and will be the primary means to reach local emergency responders when needed.
- **Log of Stakeholder Inquiries:** Our Team will keep a log of stakeholders' expressed concerns, questions, and inquiries, and how they were addressed. This log will be available for VDOT HREL use upon request. We will respond to all stakeholders on the resolution of their concerns.
- **Traffic Impacts and Traffic Alerts:** We will coordinate upcoming traffic impacts with VDOT HREL Communications weekly and/or two weeks ahead of the event, according to LCAMS. Our Team will provide the City of Hampton Department of Public Works with advance notification of traffic pattern changes and provide input on ways to mitigate local street impacts from the Project's construction efforts.
- **Monthly Updates:** Our Team will provide construction progress photos, the Project look-ahead schedule, and planned traffic impacts to VDOT HREL Communications for distribution to email subscribers and other key stakeholders, including the City of Hampton.
- **Project Advertising Strategy:** Our Team will develop and implement a paid advertising and marketing strategy for VDOT's review and approval. We will seek input from the City of Hampton Communications and Outreach Department to ensure local interests are considered, since City residents, businesses, and visitors will be impacted.
- **Collateral Materials:** Our Team will design and implement tailored marketing and communication material for relevant stakeholder groups, including but not limited to the general traveling public and the tourism and trucking industries. We will seek input from the City of Hampton Communications and Outreach Department and Convention and Visitors Bureau to ensure materials are relevant to the target audiences, both local and visitors.

## PUBLIC SAFETY

Our approach to eliminating hazards and creating a safe work environment exemplifies the MTJV Team's long-standing commitment to safety, as evidenced by our experience modification rating (EMR) and recordable incident rate (RIR). The MTJV Team approach to construction planning integrates safety team members into the construction team, thereby incorporating safety planning into operation work plans. This effort will be led by the HSE Manager, who will assign staff to support operation planning, safety training, inspections, and subcontractor mentoring programs.

Our Team will mitigate construction impacts while maximizing work zone safety for workers, travelers, and the community by developing a construction plan that limits changes to traffic patterns, provides safe access to construction areas, and reduces impacts to the busiest routes. In addition, our public information team will proactively communicate with the community and traveling public, and our traffic engineering staff will ensure traffic controls are properly implemented and recommend adjustments, if necessary.

We designed the EB alignment to avoid all possible conflicts with the existing power transmission lines. Our access points and equipment will be located far enough away to allow our crews to work in high wind conditions and still follow OSHA regulations for powerline clearances.

✔ Our proposed MOT phasing prioritizes motorist and worker safety, while balancing schedule and accounting for MOT phasing on the adjacent HRBT project. We divided the Project into six segments to provide bi-directional acceleration and deceleration lanes in and out of the work zones and provide emergency pull-offs as required. During the EB structure replacement, our design for the temporary crossovers shifting EB traffic to the WB Hampton River Bridge utilizes appropriate curve geometry instead of lane shift taper formulas to improve safety for these movements. To minimize disruption and improve safety, our carefully planned sequence of signing and ITS construction will ensure we maintain appropriate sign guidance through the work zone while also maintaining critical systems, such as CCTVs for traffic monitoring and DMS for incident management throughout construction.

✔ To help maintain good relationships with Project stakeholders, we minimized impacts to local marine traffic and recreational activities. Our design relocates the new bridge substructure away from the navigational channel. Our new navigational span is significantly wider than the RFP requires and allows construction of piers away from the channel. Our WB trestle stops at Pier 15, outside the navigable channel, to avoid interfering with mariners' access on the river. In areas of the channel where we employ barge-mounted operations, we will provide all required safety lighting. During construction activities and off-work hours, barges will be moored to prevent potential interference with the channel. For barge move operations, tugs will conduct the work during daytime hours and relocate equipment to new work points in an expedient manner. Under severe weather, our equipment evacuation plan will direct how we move all equipment to safe harbor. The MTJV Team will monitor weather conditions during the Project to allow the necessary lead time to move equipment. The EB bridge construction will not employ a trestle and our barge operations will allow for local mariner traffic along the river. Similar to the WB side, our barge operations will not interfere with the channel. Certain periods of bridge substructure and superstructure construction will require USCG mariner notices to keep the community aware of stoppages.

✔ As part of the overall public safety program and MOT plan, our Team will systematically approach the decommissioning of current DMS, gate systems, and ITS devices throughout the Project corridor. We will use the Notification of Impact (NOI) process and daily coordination with the TOC. We will establish a schedule for decommissioning these assets and coordinate with VDOT to minimize disruption to the traveling public by utilizing temporary devices when necessary. Our Team will prioritize ITS system network continuity throughout the technical decommissioning. When we install new overhead signage, gates, and ITS devices, we will group activities to minimize travel disruptions. We also will utilize a prefabrication approach for electrical services and other ITS device installation. Doing so will reduce daily lane closure needs compared with a traditional field-build model, aiding in the overall public safety of the Project.

# SECTION 4.6 PROPOSAL SCHEDULE NARRATIVE



### 4.6.1 PROPOSAL SCHEDULE

The MTJV Team’s approach to the Project’s design and construction provides a schedule advantage derived from extensive combined experiences to eliminate learning curves and reduce the risk of delays and impacts to existing VDOT operations.

- Our bridge design is efficient and straightforward, leading to a reliable construction schedule advantage with specific advantages to a single girder line and pile bent foundations on the I-64 WB Bridge and top-down construction of the I-64 EB Bridge following traffic transfer to the completed WB structure.
- Our design schedule is developed around identifying critical environmental permitting, geotechnical investigations resulting in the GER, right-of-entry approvals, and expedited RW acquisition. Further, our plans include development of early works packages for preconstruction MOT plans, C&G / ESC plans, and ITS & sign structure plans. The design culminates with the completion final roadway design plans, final MOT/TMP plans, landscaping plans, and lighting/ITS/signage plans, and Stage II bridge design and rehabilitation packages for landside bridge, I-64 WB over Hampton River, and I-64 EB over Hampton River and Hampton Creek.
- Our construction phasing allows us to advance the Interim and Final Completion Milestones simultaneously and independently. Our Project phasing and segmentation coordinates roadway work with landside bridge work, which is generally independent of Hampton River and Hampton Creek bridge work.
- Our construction methodology allows us to complete critical work in multiple segments early and concurrently, such as working on the I-64 WB Bridge substructure and superstructure while working in the roadway median.

The Proposal Schedule, included in *Volume II*, uses Primavera software and critical path method scheduling to depict the scope and sequence of work to complete the Project per the RFP requirements. A summary schedule is also provided which depicts the longest path of the Project. In addition to the PDF copy of the Proposed Schedule in *Volume II*, the Technical Proposal submission includes the source document in Primavera version 20.12 (.XER).

### 4.6.2 PROPOSAL SCHEDULE NARRATIVE

We have established Project milestones to support and monitor the MTJV Team’s commitment to deliver the Project on time and in accordance with all contractual requirements of the Interim Milestone **on or before July 2, 2026**, and Final Project Completion **on or before December 30, 2026**. We will work continuously to identify and mitigate potential Project risks and manage the schedule with the intent of completing both the Interim Milestone and Final Project Completion early. *Figure 6.1* provides a summary of the dates that will be achieved for key milestone activities.

*Figure 6.1: Schedule Overview*

Milestone	Schedule Completion Date
Notice of Intent to Award	June 24, 2022
Initiate at Risk Early Work Activities (Permitting for Geotechnical Borings and I-64 WB Bridge Design)	June 25, 2022
Notice to Proceed	August 1, 2022
Initiate Field Studies and Administrative / Design Activities	August 10, 2022
Right-of-Way Plans – 60% complete	February 16, 2023
Secure VPDES Construction Permit	April 25, 2023
Notice to Commence Construction – Phase 1 C & G / E&SC Plan	June 2, 2023
Notice to Commence Construction – Phase 1 ITS & Sign Structure Plans	June 6, 2023
Begin Construction of WB Hampton River Bridge Trestle over Water	June 8, 2023
VDOT Approves – WB Hampton River Bridge – Stage II Final Plans	August 22, 2023
Notice to Commence Construction – Issuance of US Coast Guard Permit – WB Hampton River Bridge	October 9, 2023
Notice to Commence Construction – AFC Roadway Plans	October 24, 2023
Completion of Phase 1A – Westbound Hampton River Bridge Widening	July 25, 2024
Completion of Phase 1B – WB Hampton River Bridge Rehabilitation and Resurfacing	October 29, 2024
Interim Completion Milestone – Roadwork East of Settlers Landing Road Complete	July 2, 2026
Completion of Phase 2 – Eastbound Hampton River and Creek Bridges	October 6, 2026
Completion of Phase 3 – Median Crossovers and Final Paving	November 30, 2026
Final Completion	December 30, 2026

## SEQUENCE OF WORK

To achieve the Project milestones, our Team will proactively begin certain design phase activities at our own risk. Following VDOT issuance of the Notice of Intent to Award the contract, we will:

- ✓ Conduct General Reviews – Topographic Site Conditions
- ✓ Compile Geotechnical Information Base Mapping – Hampton River Borings
- ✓ Develop WB Hampton River Bridge – Stage I Bridge Plans
- ✓ Conduct Permit Assessment – River Borings
- ✓ Waters of the US Permit – Develop Permit Impact Plates

Following NTP and in addition to all identified schedule activities, we will complete schedule-critical activities including:

- ✓ Prepare and Submit to VDOT for review and approval the I-64 Segment 4C QA/QC Plan
- ✓ Submit the roadway supplemental boring plan to VDOT for review and comment
- ✓ Prepare and submit management plan submittals including RW Acquisition Plan, the Environmental Management Plan, and the Public Information and Communication Plan
- ✓ Prepare and submit the Property Owner Access Notification Letters to VDOT for review and comment
- ✓ Distribute the final Property Owner Access Notification Letters
- ✓ Initiate Scope Validation investigations and assessments
- ✓ Mobilize Quality Assurance Manager and QA management team for design oversight
- ✓ Develop Stage I Bridge Plans for Rip Rap Road, King Street, EB Hampton River Bridge, EB Hampton Creek Bridge, and Settlers Landing Road Bridge
- ✓ Review/Verify RFP/Contract Noise Analysis Assumptions and Recommendations
- ✓ Initiate Field Assessments and Reviews including topographic site assessments for supplemental data
- ✓ Develop Right of Entry Agreements with VDOT and City of Hampton (Parcels 038, 039, 041, 042, 044, and 046)
- ✓ Update RUMS with Utility status Report date, initiate development of the UT-9's and schedule kick off meeting with District Utility Engineer

After NTP, we will prioritize activities that support design of the WB Hampton River Bridge and completion of the FI/RW Plans to facilitate acquisition of RW and utility easements, including development / acquisition of the VPDES construction permit and approval of the Individual Permit for Wetland Disturbances from USACE, VMRC, VDEQ, and USCG.

## ✓ SEQUENCING AND PHASING

The MTJV's plan proposes dividing the Project into six segments (as shown in *Figure 6.2*, next page) to provide smaller, manageable areas in three distinct construction phases to meet the traffic maintenance requirements and provide the greatest possible flexibility in the scheduling. Focusing on the goal of meeting the early Interim Milestone and Final Completion incentives, construction will be active in multiple Project segments for each phase of construction.

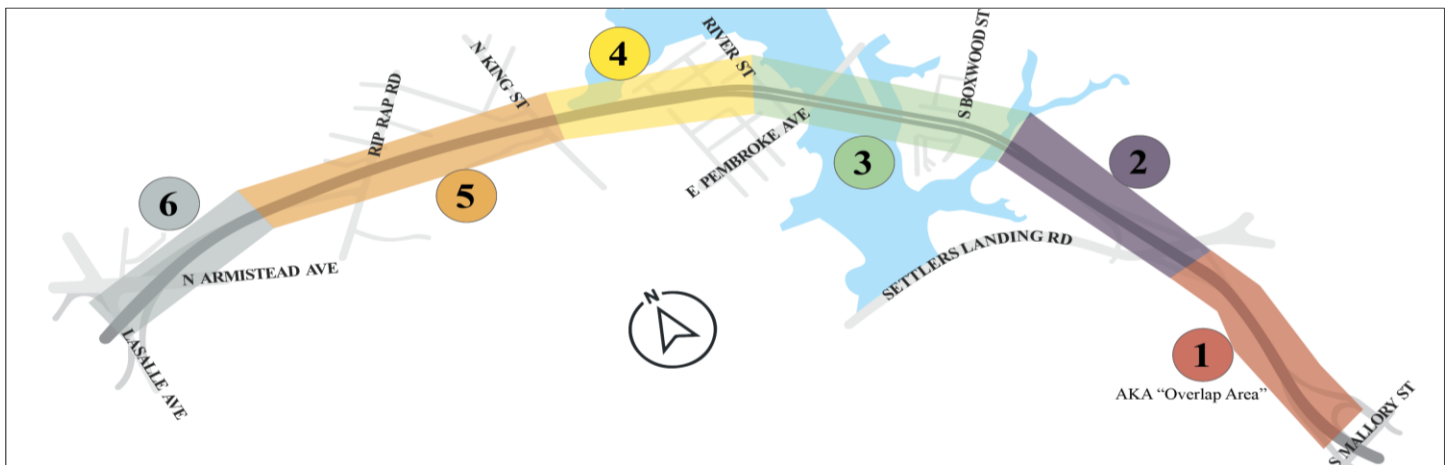


Figure 6.2: Project Segments to Mitigate Schedule Impacts



We have developed the construction phasing based on a combination of roadway and bridge construction needs; however, our assessment (which is reinforced by our schedule) is that the critical path for the project runs through the I-64 WB and EB bridge construction. We therefore developed construction phasing with a focus on expediting construction of the I-64 WB Bridge (Phases 1A and 1B); work on the I-64 EB bridge (Phase 2) cannot begin until all I-64 traffic has been diverted to the widened WB structure. To prepare for construction activities, we have proposed a pre-construction phase of work in advance of Phase 1A, including roadway shoulder strengthening and barrier removal within the future traffic crossover sections adjacent to the I-64 WB bridge abutments. This work is included within an advanced design package entitled “Pre-construction Phase – MOT/ TMP” which is anticipated to be approved in late April 2023.

To facilitate the start of construction, we have developed a design approach that supports as early a construction start as possible on the I-64 WB bridge. A review of the Project critical path shows that design activities necessary to start the construction of the I-64 WB bridge (Phase 1A) include geotechnical investigations, geotechnical engineering report preparation, completion of Stage II Bridge plans, and completion of shop drawings for the WB structure. Other design activities which advance the project include the acquisition of project permits and completion of advanced roadway design packages which include C&G/ ESC Plans and Phase 1 ITS & Signing plans. With these approvals, advanced work within the inside widening roadway work and work on the temporary WB bridge trestle can move forward.

Concurrently with the I-64 WB bridge widening in Phase 1A, we will conduct the roadway widening work within the median in all segments exclusive of Segment 3. Roadway work in Phase 1A includes the outside widening of a portion of I-64 WB west of the I-64 WB bridge abutment (Segment 4), as this widening is needed to accept traffic in Phase 2. Once widening of the WB Bridge is complete, Phase 1B includes moving the I-64 WB traffic to the widened portion of the WB bridge and performing rehabilitation on the south side of the I-64 WB bridge structure. Once the rehabilitation of the WB structure in Phase 1B is complete, all I-64 traffic can be transitioned (with appropriate crossovers east and west of the I-64 WB Bridge) to the I-64 WB bridge.

In Phase 2, all traffic is now on the I-64 WB bridge. Work on the I-64 EB bridge can commence. Although begun in Phase 1B, construction of sound barrier E (located on the north side of the I-64 WB bridge near the east abutment) will be completed early in Phase 2 using nighttime lane closures. A key scope of work within Phase 2 is the demolition and construction of the I-64 EB bridge over Hampton River and over Hampton Creek in Segment 3. Phase 2 also consists of roadway work by having traffic placed along the roadway median (completed in Phase 1A) and performing outside widening within all segments. Once demolition is complete, work on the I-64 EB bridge consists of a modified top-down construction of the structure. Progression of the bridge erection will take place using two separate headings. From the east, marine barge-mounted equipment will advance the pile foundation, pile cap, columns, and caps. Concurrent with foundation construction will be the installation of beams and superstructure construction using a gantry crane system working from east to west up to the E Pembroke Ave bridge. This operation will construct most of the overwater scope. From the west, we will have a separate heading using conventional means to construct substructure and superstructure over the River St Park, joining the east heading at the span over E Pembroke Ave. Once we place the beams for the I-64 EB bridge over Hampton River, we can begin demolition of the I-64 Hampton Creek bridge, with work on this structure advancing from the land.

As work progresses in Phase 2 at the Hampton River and Creek, outside roadway widening work continues in all other project segments. This work will facilitate completion of the ITS systems consistent with the Interim Milestone date of July 2, 2026.

Once the bridges in Phase 2 are complete, eastbound traffic will be placed on the complete eastbound bridges and Phase 3 work will commence with completion of median work within the crossover areas and final paving and striping. Our schedule shows that all Phases of work will be completed within the final Completion date of December 30, 2026.

#### **INCENTIVES FOR EARLY COMPLETION**

VDOT has provided two “No Excuses” incentive for early completion, RFP Attachment to part 3, Article 5. The first incentive is associated with the Interim Milestone date: specifically, the Department will pay the incentive if the Design-Builder achieves final completion of the interim milestone 60 days early. A reduction in the incentive amount is deducted

for each day the interim milestone is achieved less than 60 days early. Further, the provision states that VDOT will pay the Design-Builder if work under the Contract Documents is completed at least 90 days early. This incentive amount is reduced by a prescribed amount for three early complete periods until the final completion date is achieved on December 30, 2026. Should work under the Contract Documents extend beyond the Final Completion Date, the Design-Builder will be assessed liquidated damages.

The MTJV Team has established our Project schedule with the intent of achieving early completion. It is our intent to manage the Project schedule in a way that achieves the early completion milestones. We will take advantage of all opportunities to accelerate the work to deliver the Project early and minimize disruptions to the local and traveling public. With this in mind, our efforts will be focused on achieving the Interim Milestone on or before the incentive date of May 1, 2026, and Final Project Completion on or before the incentive date of October 1, 2026.

## WORK BREAKDOWN STRUCTURE

The proposal schedule is organized using a hierarchical Work Breakdown Structure (WBS) and is broken down by major scope of work categories, as shown below. For pre-construction scope areas, the WBS further details major work efforts. For construction, the WBS is broken down first by construction phase then by geographical segments as shown in *Figure 6.2* and described in Sequence and Phasing (*Section 4.5.1*). The following represents the primary schedule WBS section and subsections used to develop the RFP level Project Schedule.

**Project Milestones:** The key Project Milestones section includes critical points in the Project schedule that direct high-level schedule management and assist the Team in tracking and meeting our commitment to deliver the Project to VDOT and the traveling public on-time or earlier than the stipulated Project Completion date of December 30, 2026.

**Project Administration:** The Project administration section includes activities related to the overall management of the Project and includes the following subsections of the WBS:

- ✓ **Project Startup:** This section includes mobilization activities.
- ✓ **Management Submittals:** This section includes activities related to project management submittals, including the Project-Specific Safety & Hazardous Materials Management Plan, RW Acquisition Plan, and Environmental Management Plan.
- ✓ **General Conditions/Miscellaneous Payments:** This section contains the activities for creating the initial Project Baseline schedule.
- ✓ **Quality Assurance/Quality Control:** This section tracks the submission and approval of the QA/QC Plan and payment of monthly QA/QC efforts.
- ✓ **Project Closeout:** This section includes punch-list and as-built drawing submission activities.

**Scope Validation Period:** The scope validation period is 120 days, and this section includes activities related to the scope validation process such as investigations, submittals, and negotiations, if necessary.

**Public Involvement:** The public involvement section includes activities related to the Project interaction with the public and key Project stakeholders. This section includes preparation and approval of the Design-Builders Public Information Communication Plan, the MTJV's communication plan presentation to VDOT staff, and outreach strategies to be employed during both the design and construction phases. It also includes distribution and tracking of property notification letters.

**Design:** The Design section includes activities related to the design efforts needed to develop and track the notice to commence construction, including approved-for-construction plans. Subsections of the WBS are:

- ✓ **General Design Efforts:** This section includes design support activities such as reviewing final contract requirements, finalizing and optimization alternatives, and assessing additional data requirements that need to be obtained through additional field investigation, borings, and evaluations.
- ✓ **Design Surveys:** This section includes activities related to collecting additional data through field survey and investigations.
- ✓ **Geotechnical:** This section includes activities related to performing additional soil borings, laboratory analyses, geotechnical analysis, and design for the river crossing structures and supplemental roadways.

- ✓ **Hydrologic and Hydraulic Analysis:** This section includes activities related to the development and approval of the H&H analysis for the Hampton River, Hampton Creek, and Bright's Creek.
- ✓ **Advanced Roadway Plans:** This section includes design plans required to accelerate Phase 1 construction where RW acquisition is not required. Included in this section are the Pre-construction Phase 1 TMP / MOT, Phase 1 Clearing and Grubbing / Erosion & Sediment Control, Phase 1 ITS / Sign Structures, and the FI/RW Plans.
- ✓ **Final Roadway Plans:** This section includes activities related to the preparation, submission, and approval of the AFC Roadway Plans, AFC TMP / MOT Plans, AFC Landscaping Plans, and the AFC Lighting/ITS/Signage Plans.
- ✓ **Stage I and II Bridge Design Plans:** This section includes development of initial and final bridge designs for Rip Rap Rd, King Str, Settlers Landing Rd, and the WB Hampton River bridge, EB Hampton River bridge, and EB Hampton Creek bridge.
- ✓ **Noise Barrier Design:** This section includes the development and approval of the Project Sound Wall line and grade detail plans.

**Permitting / Environmental:** The Permitting/Environmental section includes activities related to the efforts needed to obtain necessary environmental permits for the Project and represent Hold Point in the Project schedule. The activities in this section represent a conservative approach to the Project's environmental activities. Subsections of the WBS are:

- ✓ **VPDES:** This section includes activities related to the preparation, submission, and issuance of the VPDES permit which is required prior to the commencement of land disturbing activities.
- ✓ **River Boring Permit – VMRC and USACE:** This section includes activities to assess, develop, and apply for the VMRC programmatic and USACE nationwide permits for geotechnical investigations and utility location.
- ✓ **Waters of the US Permit:** This section includes activities related to prepare, submit, and gain approval of the individual Waters of the US permit from USACE, VMRC, and DEQ.
- ✓ **USCG Permit:** This section includes activities to secure the USCG Permit Approval for the WB and EB Bridges independently and allowing for permanent works to be constructed in Hampton River and Hampton Creek.
- ✓ **Pollution Prevention (P2) Plan:** This section includes activities associated with the compilation, development, and acquisition of the Pollution Prevention plan.
- ✓ **Stormwater Pollution Prevention Plan:** This section includes activities associated with setting up and maintaining the SWPPP documentation as the design progresses.
- ✓ **Preconstruction Inspection and Monitoring:** This section includes activities to perform and document any required preconstruction surveys.

**Right-of-Way:** The RW section includes activities related to the efforts needed to acquire Right of Entry agreements and RW required to commence construction of the Project. The acquisition of RW is separated into five different RW packages accounting for potentially 24 properties that may require acquisition of RW and/or easements. Subsections of this WBS are:

- ✓ **Right of Entry Agreements:** This section includes activities related to securing a Right of Entry Agreement from potentially 7 different properties that may or may not require RW and/or easements.
- ✓ **Site Assessments/Survey/Research:** This section includes activities related to the site investigations and research for parcels potentially affected by the Project.
- ✓ **Appraisals:** This section includes activities related to the development of appraisals for parcels that are confirmed to be affected by the Project design.
- ✓ **Negotiations / Clear for Construction:** This section includes activities related to negotiating the purchase price of the parcel, where necessary, and the closing of other acquisition processes whether it be through acquisition or condemnation.

**Utilities:** The Utilities section includes activities related to the efforts needed to relocate utilities in conflict with the final design. Each subsection below is broken down by utility owner and geographical section. Where the Team expects to find no conflicts with a particular utility, revisions to the utility WBS will be updated in a subsequent baseline submission. Subsections of the WBS are:

- ✓ **Utility Coordination/Planning:** This section includes activities related to the early coordination and issuance of the Master Utility Agreements.

- ✓ **Utility Field Inspections:** This section includes activities related to field investigations, development of the SUE drawing and test hole investigations, and utility relocation concept plans for each utility owner.
- ✓ **Plan and Estimates:** This section includes activities related to the development and approval of Plan and Estimates and final utility relocations.
- ✓ **Utility Relocation:** This section includes activities related to the actual construction of the utility relocation, completion of the UT-11s for inspection during construction, and completion of as-built documentation to VDOT.

**Procurement:** The Procurement section includes activities related to the efforts related to relationships between the MTJV and its vendors and subcontractors. Subsections of this WBS are:

- ✓ **Vendor Procurement:** This section includes activities related to procurement of the materials, vendors, and subcontractors needed to construct the approved design. Some activities may not be necessary to represent procurement completion, but rather to provide adequate lead times between design and the start of construction.
- ✓ **Construction Submittals:** This section includes tracking pre-construction working drawings and showing drawings for key long-lead items.
- ✓ **Fabrication:** This section includes activities related to the lead times for major materials.

**Construction:** The Construction section includes activities related to the efforts needed to construct the approval design. This WBS section is broken down first by geographical segmentation, then by phase, and then by specific area as shown below. Please note that all stationing and the WBS subsection are as follows:

- ✓ Segment 1 – Sta. 766+30 to Sta. 785+72
  - Pre-Construction
    - Roadway
  - Phase 1
    - Phase 1A
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
    - Phase 1B
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
  - Phase 2
    - Traffic Control Measures
    - Erosion Control Measures
    - Roadway
    - Structures
    - ITS / Electrical / Signage
- ✓ Segment 2 – Sta. 748+00 to 766+30
  - Pre-Construction
    - Roadway
  - Phase 1
    - Phase 1A
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
      - Structures
      - ITS / Electrical / Signage
    - Phase 1B
      - Roadway

- Phase 2
  - Traffic Control Measures
  - Erosion Control Measures
  - Roadway
  - Structures
  - ITS / Electrical / Signage
- Phase 3
  - Traffic Control Measures
  - Roadway
- ✓ Segment 3 – Sta. 721+00 to 748+00
  - Phase 1
    - Phase 1A
      - Traffic Control Measures
      - Erosion Control Measures
      - Structures
      - ITS / Electrical / Signage
    - Phase 1B
      - Traffic Control Measures
      - Structures
    - Phase 2
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
      - Structures
      - ITS / Electrical / Signage
- ✓ Segment 4 – Sta. 702+50 to 721+00
  - Pre-Construction
    - Roadway
  - Phase 1
    - Phase 1A
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
      - Structures
      - ITS / Electrical / Signage
    - Phase 1B
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
  - Phase 2
    - Traffic Control Measures
    - Erosion Control Measures
    - Roadway
    - Structures
    - ITS / Electrical / Signage
  - Phase 3
    - Traffic Control Measures

- Roadway
  - ✓ Segment 5 – Sta. 672+00 to 702+50
    - Pre-Construction
      - Roadway
    - Phase 1
      - Phase 1A
        - Traffic Control Measures
        - Erosion Control Measures
        - Roadway
        - Structures
        - ITS / Electrical / Signage
      - Phase 1B
        - Roadway
    - Phase 2
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
      - Structures
      - ITS / Electrical / Signage
    - Phase 3
      - Roadway
  - ✓ Segment 6 – Sta. 658+72 to 672+00
    - Pre-Construction
      - Roadway
    - Phase 1
      - Phase 1A
        - Traffic Control Measures
        - Erosion Control Measures
        - Roadway
        - Structures
        - ITS / Electrical / Signage
      - Phase 1B
        - Roadway
    - Phase 2
      - Traffic Control Measures
      - Erosion Control Measures
      - Roadway
      - Structures
      - ITS / Electrical / Signage
    - Phase 3
      - Roadway


## CRITICAL PATH

Per VDOT specifications, the critical path on the Project has been defined as the Longest Path. The determined longest path includes the following activities from the Notice of Intent to Award (June 24, 2022) through the Final Completion (December 30, 2026) and includes the following activities:

- ✓ Notice of Intent to Award
- ✓ Hampton River Bridge Borings Geotechnical Base Mapping & Plan
- ✓ Hampton River Borings Permit
- ✓ Hampton River Bridge Borings
- ✓ Hampton River Bridge Geotechnical Reports
- ✓ WB Hampton River Bridge Stage II Final Plans
- ✓ Shop Drawings Submittal, Approval, and Delivery of WB Hampton Bridge Foundation Materials
- ✓ Pile Driving of WB River Bridge from Abutment B through Bent 18
- ✓ Construction of Bent 18 of WB River Bridge
- ✓ Construction of Unit 4 (Spans r through y) of WB Hampton River Bridge
- ✓ Phase 1A Completion
- ✓ Installation of deck drains Unit 7 (Spans ak and al), Unit 6 (Spans ag through aj), and Unit 5 (Spans z through af)
- ✓ Placement of Latex on Unit 5 and Completion of Unit 4 (Spans r through y)
- ✓ Phase 1B Completion
- ✓ Demo of Existing EB River Bridge of Unit 3 (Spans f through h) and Unit 4 (Spans i through l)
- ✓ Pile Driving of EB River Bridge Abutment B through Pier 5
- ✓ Construction of Pier 5
- ✓ Set Beams and Diaphragms at EB River Bridge Unit 3 (Spans f through h) and Unit 4 (Spans i thru l)
- ✓ Demo of Existing Bridge for EB Branch Creek Bridge Unit 1 (Spans a through d)
- ✓ Demo of Existing Bridge for EB Branch Creek Bridge Abutment A through Pier 3
- ✓ Construction of Pier 3 EB Branch Creek Bridge
- ✓ Construct Unit 1 (Spans a through d) EB Branch Creek Bridge
- ✓ Construct Sound Barrier DJKL on EB Branch Creek Bridge
- ✓ Phase 2 Completion
- ✓ Remove Crossovers and Construct Remaining Median
- ✓ Place Surface Asphalt and Permanent Pavement Markings
- ✓ Phase 3 Completion
- ✓ Perform Final Punch List and Close-Out Documents
- ✓ Project Completion

## MEANS & METHODS

The durations in the Proposal Schedule were calculated based on estimated quantities known at the time of the proposal as well as historical average production lengths experienced on similar projects. As design progresses and quantities are finalized, the construction schedule will be reviewed and monitored. Any major modifications to the design or design quantities will be reviewed with VDOT and reflected in the potential revisions to the Project schedule.

 **Geotechnical Improvements:** As reflected by activities in the Proposal Schedule, the Team will perform geotechnical investigations and analysis to determine the most cost effective and schedule efficient method of stabilizing unsuitable soils. Where possible, we plan to utilize an in-situ stabilization method. These methods are typically faster, providing schedule savings. In addition, in-situ stabilization will reduce/eliminate the need for on-road trucks to travel in and out of the work zone under traffic to dispose of the material, increasing safety for the Project and the traveling public.

**Reviews and Approvals:** For each major deliverable in the schedule, there are activities for the preparation, submission, review and comment, and review and approve of said deliverable. To further clarify the reviewer's responsibility, R/C is used for Review/Comment while R/A is used for Review/Approve.

Upon award, the Team will utilize the activity code C000110329DB113 "*Responsible Stakeholder*" to identify reviewing parties for each R/C and R/A activity. Known stakeholders that will hold review and approval responsibilities include, but are not limited to, VDOT, the City of Hampton, and Utility owners.

**Subcontractors and Suppliers:** Lessons learned from schedule management on previous Design-Build Projects have led us to include a Procurement section in the Proposal Schedule. This section of the WBS captures the activities needed to execute contracts with various subcontractors and suppliers once the design is submitted for approval. This section also contains activities for the fabrication and delivery of major materials that typically have longer lead times, such as precast drainage structures and sound wall panels.

**Resource Management:** We performed initial assessments of crew flow and allocation at a high level to make sure that the MTJV Team can confidently achieve the schedule and face no major challenges with resource needs on the Project. Post-award, Primera's role and resource functions may be used to monitor and track the number of self-perform and subcontract resources needed in the construction phase of the Project.

Prior to the procurement phase, we will allocate resources to show what types of subcontractors and suppliers are needed for each construction activity. Once a specific vendor is procured, an activity code is assigned to that activity to represent the specific firm. For example, a bridge activity would assign the resource "Bridge Contractor" pre-procurement. Post procurement, the activity would be assigned a specific activity code with the firm's name (for example, "ABC Structural Company"). These assignments allow the procurement and construction management staff to strategically plan with all resource availability considerations in mind. This also helps differentiate between work self-performed by the Team and work performed by others.

## SCHEDULE ASSUMPTIONS

To properly manage the Project schedule, it is important to understand the scope of work and interdisciplinary dependencies. In addition, it is important to understand the technical capabilities of the schedule management software. Care has been given to the setup of the Primavera Schedule to ease future schedule management and properly account for schedule risks so we can reduce potential impacts.


**Calendars:** Project-specific calendars have been set up in Primavera to represent various restrictions and assumptions that must be applied to the Project activities.

- ✓ C00117841DB111 - 5-Day Office Calendar
  - This calendar allows work 5 days per week except standard state holidays.
  - This is assigned to all preconstruction activities that are not dependent on weather and would be primarily performed in an office.
- ✓ C00117841DB111 – 5-Day Field Calendar
  - This calendar allows for five days per week except standard state holidays. It also accounts for normal weather patterns that would affect field activities, such as precipitation histories.
  - This is assigned to all field activities that may be affected by weather or precipitation events.
- ✓ C00117841DB111 – Paving Calendar
  - This calendar allows work 5 days per week except standard state holidays. In addition to accounting for normal weather patterns, as shown in the "5-Day Field" calendar, it also does not allow any work between December 15 of each year and March 1 of each year.
  - This is assigned to all permanent paving activities.
- ✓ C00117841DB111 – 7-Day Calendar
  - This calendar allows work seven days per week.
  - This is assigned to cure activities and any activity whose duration is based on calendar days, such as review activities.

**Consistent Activity Names and IDs:** We have taken care to maintain consistency in each activity's name and ID throughout the Proposal Schedule. Each Activity ID is twelve digits long. The first six to ten digits mirror the WBS code in which the activity is located. Likewise, activities of similar type follow a consistent naming convention. Activities for installing base asphalt, for example, are consistently named "Place Base Asphalt" throughout the schedule rather than "Install Base Asphalt" in one location and "Place Pavement" in another. In addition, activities that are duplicative in multiple areas of the Proposal Schedule have a suffix for the specific and applicable segment, phase, and detail.



**Activity Codes:** Project-specific activity codes have not been established at this point. However, the baseline schedule will contain various activity codes representing such items as phase, segment of the Project, specific areas within each segment, type of work, and responsible party. This will allow custom filters and layouts to be created to better communicate various aspects of the Project Schedule to different stakeholders and contributors.

 **Schedule Risk and Management:** There are several sections of the Proposal Schedule where adequate information is not yet available to thoroughly define schedule activities as a Baseline Schedule level of detail. In these areas, the Team has drawn from previous DB experiences to build a schedule that minimizes the risk of future impacts once additional details are known. Examples of known risks areas and risk minimization measures include:

- ✓ **Plan Packaging:** The Proposal Schedule shows the design packages being broken down by priority of work needed for construction. Construction staff have worked with the designers to define Advanced Work Packages (“AWPs”) that will allow an accelerated start to construction with low risk of future rework due to design progression. Key packages currently identified are:
  - Pre-construction TMP / MOT Plans
  - Phase 1 – Clearing and Grubbing / Initial Erosion and Sediment Control Plans
  - Phase 1 – ITS & Sign Structure Plans
- ✓ **Plan Reviews:** Two VDOT review cycles are shown for almost every design submittal in the Proposal Schedule. Using a collaborative approach to resolving comments should allow substantial time to get plans approved.
- ✓ **Project Permitting:** All potential conflicts known at the time of submission of the Technical Proposal Plans are shown to be relocated in the Proposal Schedule. The Team will continue to strive to minimize or eliminate conflicts such that relocations shown in the schedule may not be necessary at all—allowing construction to advance earlier than projected in the Proposal Schedule.
- ✓ **RW Acquisition:** All potential parcel impacts known at the time of submission of the Technical Proposal Plans are shown to be acquired in the Proposal Schedule. The Team will continue to strive to minimize or eliminate parcel impacts such that acquisitions shown in the schedule may not be necessary at all—minimizing dependencies on acquisition as much as possible.

Upon Notice of Intent to Award, the Team will cost load the first three months of the Proposal Schedule and make any modifications necessary to meet the Contract Requirements for a Preliminary Schedule, updating any areas where additional information is known. Following submission of the Preliminary Schedule and as the design progresses, the Team may break down some areas to a high level of detail necessary to properly manage a Baseline Schedule of the Project. This breakdown will allow for better management of resources in addition to accurate monitoring of progress.

The CPM schedule will be the driving force behind all long-term and short-term planning efforts. Design work and other preconstruction activities will be closely monitored with the schedule. A formal CPM schedule update will be submitted monthly to VDOT and distributed to the appropriate Project stakeholders, as requested.

In addition to the CPM schedule, the Team will use a complete schedule process summarized in *Figure 4.6.2* below:

*Figure 6.3: Schedule Management Tools*

Tool	Description
CPM Schedule	The CPM will be updated monthly (at a minimum) and as needed to track design and construction progress.
Design Schedule Management	Technical work groups will monitor design progress and provide schedule updates.
Delay-Free Work Plans	Using the CPM schedule, operation-specific planning packets will be created for each element of the Project and distributed to field managers.
Project Team Planner	Schedule-based to-do lists of management tasks will identify work zone and crew and equipment needs and remove work operation constraints.
Morning and End-of-Day Shift Huddles	Daily coordination meetings for field operations will provide daily schedule updates to construction management staff.
Look-Ahead Schedules	Weekly break downs of the CPM schedule activities into day-to-day operations to coordinate upcoming activities, traffic controls, subcontractors, and submittals.

# ATTACHMENT 4.0.1.1 TECHNICAL PROPOSAL CHECKLIST AND CONTENTS



**ATTACHMENT 4.0.1.1**

**I-64 HREL Segment 4C**

**TECHNICAL PROPOSAL CHECKLIST AND CONTENTS**

Offerors shall furnish a copy of this Technical Proposal Checklist, with the page references added, with the Technical Proposal.

<b>Technical Proposal Component</b>	<b>Form (if any)</b>	<b>RFP Part 1 Cross Reference</b>	<b>Included within page limit?</b>	<b>Technical Proposal Page Reference</b>
<b>Technical Proposal Checklist and Contents</b>	Attachment 4.0.1.1	Section 4.0.1.1	no	Att. 4.0.1.1
<b>Acknowledgement of RFP, Revisions, and/or Addenda</b>	Attachment 3.7 (Form C-78-RFP)	Sections 3.7, 4.0.1.1	no	Att. 3.7
<b>Letter of Submittal</b>	NA	Sections 4.1		1
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	yes	1
Identify the full legal name and address of Offeror	NA	Section 4.1.1	yes	1
Authorized representative's original signature	NA	Section 4.1.1	yes	1
Declaration of intent	NA	Section 4.1.2	yes	1
120 day declaration	NA	Section 4.1.3	yes	1
Point of Contact information	NA	Section 4.1.4	yes	1
Principal Officer information	NA	Section 4.1.5	yes	1
Interim Milestone and Final Completion Date(s)	NA	Section 4.1.6	yes	1
Any Unique Milestone dates introduced by the Offeror	NA	Section 4.1.7	yes	1
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.8	no	Att. 9.3.1
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.9	no	Att. 11.8.6
Commitment to achieving six (6%) DBE goal	NA	Section 4.1.10	no	1
Confirmation on commercial and professional registration	NA	Section 4.1.11	no	1

**ATTACHMENT 4.0.1.1**

**I-64 HREL Segment 4C**

**TECHNICAL PROPOSAL CHECKLIST AND CONTENTS**

<b>Technical Proposal Component</b>	<b>Form (if any)</b>	<b>RFP Part 1 Cross Reference</b>	<b>Included within page limit?</b>	<b>Technical Proposal Page Reference</b>
requirements				
<b>Offeror's Qualifications</b>	NA	Section 4.2		2 - 4
Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT	NA	Section 4.2.1	yes	2
Organizational chart with any updates since the SOQ submittal clearly identifying the changes	NA	Section 4.2.1	yes	4
Organizational chart shall identify the names of the individuals selected for the positions of Deputy Key Personnel (if applicable), Environmental Compliance Manager and Contractor Incident Management Coordinator.	NA	Section 4.2.1	yes	4
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.1	yes	2 - 3
<b>Design Concept</b>	NA	Section 4.3		5 - 17
Conceptual Roadway Plans and description	NA	Section 4.3.1.1	yes	5 - 10
Conceptual Structural Plans and description	NA	Section 4.3.1.2	yes	11 - 17
<b>Project Approach</b>	NA	Section 4.4		18 - 31
Environmental Management	NA	Section 4.4.1	yes	18 - 21

**ATTACHMENT 4.0.1.1**

**I-64 HREL Segment 4C**

**TECHNICAL PROPOSAL CHECKLIST AND CONTENTS**

<b>Technical Proposal Component</b>	<b>Form (if any)</b>	<b>RFP Part 1 Cross Reference</b>	<b>Included within page limit?</b>	<b>Technical Proposal Page Reference</b>
Utilities	NA	Section 4.4.2	yes	22 - 24
Geotechnical	NA	Section 4.4.3	yes	25 - 27
Quality Assurance/ Quality Control (QA/QC)	NA	Section 4.4.4	yes	28 - 31
<b>Construction of Project</b>	NA	Section 4.5		32 - 43
Sequence of Construction	NA	Section 4.5.1	yes	32 - 38
11" x 17" graphics demonstrating proposed Sequence of Construction.	NA	Section 4.5.1	yes	34 - 35
Transportation Management Plan	NA	Section 4.5.2	yes	39 - 47
11" x 17" graphics demonstrating proposed MOT for each phase of Sequence of Construction.	NA	Section 4.5.1	yes	41 - 43
<b>Proposal Schedule</b>	NA	Section 4.6		Section 4.6
Proposal Schedule	NA	Section 4.6	no	Section 4.6
Proposal Schedule Narrative	NA	Section 4.6	no	4.6.1 - 4.6.8
Proposal Schedule in electronic format	NA	Section 4.6	no	Section 4.6

# ATTACHMENT 3.6

## LIST OF APPROVED ATCs INCLUDED IN TECHNICAL PROPOSAL



**ATTACHMENT 3.6.7**  
**LIST OF APPROVED ATCs INCLUDED IN TECHNICAL PROPOSAL**

**OFFEROR:**

List all approved ATCs included in the Technical Proposal along with the page number references from Technical Proposal.

ATC ID Number	ATC Name Description	Date ATC Approved	Technical Proposal Reference Page(s) #
ATC 01	Pier 9 conflict between the proposed substructure of the I-64 WB Bridge over Hampton River and the existing substructure of the Pembroke Ave Bridge over Hampton River	3/16/2022	Volume I page 14 & 34; Volume II page 66 & 73

By signing this document, the Offeror hereby confirms that they are agreeing to all conditions that may have accompanied the ATC approval(s). The Offerors shall make a note of RFP Part 4 Section 2.1.10

*"If the Contract Documents incorporate any ATCs and Design-Builder, for whatever reason: (a) does not comply with one or more Department conditions of pre-approval for the ATC; (b) does not obtain required third-party approval for the ATC; or (c) fails to implement the ATC, then Design-Builder shall: (1) provide written notice thereof to Department; and (2) comply with the requirements in the Contract Documents that would have applied in the absence of such ATC. Such compliance shall be without any increase in the Contract Price or extension to the Contract Time(s). For the avoidance of doubt, Design-Builder shall not be entitled to any increase in the Contract Price or extension of the Contract Time(s) as a result of any delay, inability or cost associated with the acquisition of any property that may be required to implement any ATC".*

  
[Signature: Offerors POC or Principal Officer]

Aaron T. Myers  
[Printed Name]

Executive VP of Operations  
[Title]

DATE: 5/11/2022

# ATTACHMENT 4.2.1 RESUMES FOR DEPUTY KEY PERSONNEL



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

+



+





## ATTACHMENT 4.2.1

### DEPUTY KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Jonathan Holt, Regional Operations Manager</b>
b. Project Assignment: <b>Deputy Design-Build Project Manager</b>
c. Name of the Firm with which you are employed at the time of submitting Technical Proposal: <b>Allan Myers</b>
d. Employment History: With this Firm <b>10</b> Years With Other Firms <b>20</b> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project-specific experience shall be included in Section (g) below): <b>Allan Myers, Regional Operations Manager &amp; Project Executive (2015-present):</b> Operational oversight of all regional construction projects with a focus on large, highly complex infrastructure projects delivered by joint venture design-build teams. Manage all aspects of projects, including planning and scheduling, coordination with owners / designers / other stakeholders, public outreach, and quality / safety / schedule / budget oversight. Proven record delivering safe projects on time on expedited construction schedules across the Mid-Atlantic region, including the Hampton Roads area. Board Member of Hampton Roads Utility and Heavy Contractors Association since 2017 (President, 2019). <b>Allan Myers, Senior Project Manager (2011-2015):</b> Project management and oversight of several heavy civil construction projects, delivering successful outcomes on time and on budget. Oversaw several key departments to support construction efforts in the Hampton Road region including procurement, schedule, DBE/SWaM, document control, and pre-construction. <b>Schiavone Construction Company, Senior Project Manager/Project Manager (1992-2011):</b> Project Manager/Senior Project Manager responsible for oversight and quality control for complex civil infrastructure projects in New York City for projects ranging up to \$300M in size and award-winning design-build projects.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Fairleigh Dickinson University, Teaneck, New Jersey / BS / 1992 / Construction Engineering Technology State University of New York at Delhi / AAS / 1989 / Construction Technology
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2014/VDOT Erosion & Sediment Control Contractor Certification Program (ESCCC)/#2-00119 2015/Virginia DEQ RLD Certification/#RLD01585 2014/VDOT Basic Work Zone Traffic Control Training and Flagger Certification/#061114010
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List only three (3) relevant projects for which you have performed a similar function. On-call contracts with multiple task orders (on multiple projects) should not be listed as a single project.</b>  <b>VDOT RTE 58 (LASKIN RD) RECONSTRUCTION (\$81M), VIRGINIA BEACH, VA</b> <b>Firm:</b> Allan Myers <b>Role:</b> Regional Operations Manager <b>Date:</b> 09/2019 - 12/2022  <b>Project Description:</b> Smart-scale road reconstruction of Rte 58 from First Colonial Rd to Birdneck Rd for approx. 2 miles. Reconstruction and reconfiguration of the roadway within the existing footprint, from two mainline lanes in each direction with adjacent service roads to three lanes in each direction. The project replaces the existing bridge over Linkhorn Bay, to meet the new design flood elevation and includes raising the roadway as much as three feet. This imposes challenges with respect to maintenance of traffic during phased construction. The scope of work also includes upgrade of six signalized intersections along the corridor and extensive underground utility work consisting of over 60,000 LF of sanitary, storm, water, and HRSD force main piping.

**Similarities:** Jon applied his experience in the VDOT Hampton Roads District in service as Regional Operations Manager for this complex reconstruction and bridge replacement project. He directed a phased approach to the reconstruction and widening of the Rte 58 roadway and bridge, navigating stormwater and environmental management, overcoming geotechnical challenges in poor soils and use of lightweight aggregate, and carefully planned and executed MOT that phased construction while maintaining traffic and access to businesses and homes along the corridor. In his role as Regional Operations Manager, Jon built relationships and coordinated directly with the same and similar project stakeholders to the I-64 4C effort, including public and private utilities, the City of Virginia Beach, residents, and businesses.

**Impact on the Project:** Jon provided oversight of the project construction team and had direct impact on delivering quality, coordinating with VDOT and stakeholders to minimize risks, and solving the challenges posed by the sensitive local environment and geotechnical composition of the region. He forged relationships with local project stakeholders including HRSD, Virginia Natural Gas, Dominion Energy, Verizon, Cox, and VBS. He has guided the construction team in successfully maintaining access for area residents and businesses while making room for the project improvements. The project abuts Linkhorn Bay, a sensitive environmental area that drains to the ocean. With Jon's leadership, the team developed cofferdams and turbidity curtains as solutions for the phased bridge reconstruction work.

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#### **NEWTOWN CREEK WATER POLLUTION CONTROL PLANT UPGRADE (\$300M), GREENPOINT, NY**

**Firm:** Schiavone Construction      **Role:** Senior Project Manager      **Date:** 06/2009 - 07/2011

**Project Description:** Excavation and shoring; 50,000 cy of reinforced concrete; 1490 tons of structural steel; 120,000 lf of steel H-pile supported drainage and plant process piping; and specialty process equipment for this key element of New York City's transformation of its largest wastewater plant into one of the nation's largest treatment facilities, serving more than one million people with a capacity of up to 700 million gallons per day.

**Similarities:** Jon served as Senior Project Manager for this large-scale, complex, civil construction project. Through his leadership, Jon's team completed work ahead of the project's ambitious schedule while contending with contaminated soil & groundwater, significant utility coordination requirements inherent to the project's scope, and limited space constraints associated with construction.

**Impact on the Project:** Jon assembled, developed, and led several trade disciplines and over 400 employees in one cohesive, highly functioning team. He met several project management challenges, including the need for extensive environmental monitoring to conform to rigid requirements, a project schedule driven by a heavily reinforced concrete structure laden with process piping embedments and structural steel, and a congested site demanding thoughtful planning and precise execution. Facing a 44-month schedule, five interim milestones, and damage provisions totaling over \$8M, Jon's team earned the full incentive for achieving early completion of all milestones.

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#### **NYCTA FAN PLANT REPLACEMENT AT 30<sup>TH</sup> ST AND 6<sup>TH</sup> AVE (\$65M), NEW YORK, NY**

**Firm:** Schiavone Construction      **Role:** Project Manager      **Date:** 05/2007 - 12/2009

**Project Description:** Emergency ventilation for a 30-block section along the 6<sup>th</sup> Ave subway line, serving four separate tracks in mid-town Manhattan. Replacement of two existing fan plants with one new, larger, state-of-the-art facility constructed under the intersection of 6<sup>th</sup> Avenue and 30<sup>th</sup> Street in Mid-town Manhattan. Work was completed in an extremely congested urban area while minimizing impacts to the public.

**Similarities:** Jon served as Project Manager for this large-scale, complex, civil transportation construction design-build effort. Jon led the team as it navigated complex TMP and MOT requirements, geotechnical constraints, significant utility relocation and coordination, and full-depth roadway reconstruction. He coordinated the many specialized trades demanded by the project as well as the owner.

**Impact on the Project:** Serving as Project Manager, Jon had full oversight and accountability for the successful delivery of the project. His leadership of in-house temporary structures design and the construction team ensured that the heavy vehicular and pedestrian traffic would be maintained by way of a temporary steel decking system, allowing access from above during night-time limited lane closures. Utility congestion in the project area demanded extensive relocations and support from the temporary decking system to allow excavation below to advance. With Jon's management of diverse tradespeople operating in multiple shifts, the team completed the final restoration of the roadway and utilities in the first 28 months of the 45-month schedule, with final completion in just 36 months (a schedule savings of 20%).

## ATTACHMENT 4.2.1

### DEPUTY KEY PERSONNEL RESUME FORM

<b>Brief Resume of Key Personnel anticipated for the Project.</b>
a. Name & Title: <b>Gail Kuttesch, PE, Associate</b>
b. Project Assignment: <b>Deputy Design Manager</b>
c. Name of the Firm with which you are employed at the time of submitting Technical Proposal: <b>Whitman, Requardt &amp; Associates, LLP (WRA)</b>
d. Employment History: With this Firm <u>12</u> Years With Other Firms <u>6</u> Years Please list chronologically (most recent first) your employment history, position, general responsibilities, and duration of employment for the last fifteen (15) years. (NOTE: If you have less than 15 years of employment history, please list the history for those years you have worked. Project specific experience shall be included in Section (g) below):  <b>Whitman, Requardt &amp; Associates, LLP (WRA), Associate/Senior Project Engineer (2010-present):</b> Gail has served as a senior project engineer for major VDOT design projects continuously since September 2010. She specializes in the design of complex projects requiring a multi-discipline design team. As senior project engineer and a design manager/deputy design manager on VDOT design-build (DB) projects, Gail is responsible for the complete design efforts, including interchange, roadway, bridge, retaining walls, H&H, traffic engineering, utility relocation, environmental compliance, and right-of-way (ROW) coordination. She is responsible for establishing and overseeing a QA/QC program for all pertinent disciplines involved in the design of the project, including the review of design, working plans, shop drawings, specifications, and constructability. She is responsible for coordinating the individual design disciplines and ensuring the overall project design conforms with the contract documents. She also coordinates engineering design tasks and shop drawing submissions as well as RFIs.  <b>URS Corporation (URS), Project Engineer/Design Engineer (2004 –2010):</b> As a project engineer on numerous projects, Gail was responsible for roadway design efforts. including the development of horizontal and vertical alignments, grading, cross sections, typical sections, environmental impacts, construction cost estimates, superelevation, and earthwork. Additionally, she managed task assignments, coordinated with subconsultants and clients, and she worked in all aspects of highway design in both design-bid-build and DB projects. Projects included roundabout improvements, shared-use trail design, intersection design, and interstate/interchange improvements.
e. Education: Name & Location of Institution(s)/Degree(s)/Year/Specialization: Virginia Polytechnic Institute and State University, Blacksburg, Virginia / BS / 2003 / Civil Engineering
f. Active Registration: Year First Registered/ Discipline/VA Registration #: 2010 / Professional Engineer – Virginia / 0402048119
g. Document the extent and depth of your experience and qualifications relevant to the Project. 1. <i>Note your role, responsibility, and specific job duties for each project, not those of the firm.</i> 2. <i>Note whether experience is with current firm or with other firm.</i> 3. <i>Provide beginning and end dates for each project; projects older than fifteen (15) years will not be considered for evaluation.</i> <b>(List only three (3) relevant projects for which you have performed a similar function. On-call contracts with multiple task orders (on multiple projects) should not be listed as a single project.</b>
<b>VDOT I-64 WIDENING EXIT 200 – 205 DB (\$47.9M), HENRICO AND NEW KENT COUNTIES, VA</b>
<b>Firm:</b> WRA <b>Role:</b> Deputy Design Manager <b>Date:</b> 03/2017 – 09/2019
<b>Project Description:</b> The project included the widening of I-64 from four- to six-lanes and the design, repair, and widening of two, four-span, 280-ft long existing bridges over the Chickahominy River. The design modified the crown point, which required coordination and special detailing as well as construction support, such as shop drawings and RFIs. The project goal was to alleviate congestion throughout a corridor of I-64 by creating additional traffic capacity and provide ITS improvements throughout the project limits.

**Similarities:** This project was a major VDOT DB project on I-64 with extensive traffic control, roadway, ITS, hydraulics, ROW acquisition, signing and pavement markings, SWM, erosion and sediment controls, retaining walls, sound barriers, permits, bridges, geotechnical, public relations, QA/QC, and utility relocations.

**Impact on the Project:** As deputy design manager, Gail was responsible for WRA's design for this widening project along I-64 with a major focus ensuring the proposed design effectively utilized the existing pavement cross slopes and elevations to minimize cost. These improvements include the widening of I-64, strengthening of outside shoulders, widening/repair of two bridges (eastbound and westbound) over the Chickahominy River, and over a mile of sound barriers. Gail had a lead role in establishing and facilitating the QA/QC program for all disciplines and ensuring the design was in conformance with the contract documents.

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#### **VDOT I-95 SAFETY IMPROVEMENTS AT ROUTE 3 DB (\$21M), FREDERICKSBURG, VA**

**Firm:** WRA

**Role:** Design Manager

**Date:** 09/2016 – 11/2018

**Project Description:** This project included safety and operations improvements at the I-95 interchange at Route 3 and the addition of a sound barrier wall along northbound I-95 from Cowan Blvd to Fall Hill Ave. These improvements included modifications to three ramps, the addition of two signals, and the modification of the intersection of Route 3 with Carl D. Silver Pkwy. The northbound entrance ramp improvements provided an auxiliary lane for 3,000 feet along I-95.

**Similarities:** Gail served as the design manager on this VDOT DB project, a major project with extensive traffic control, mass excavation, survey, roadway, hydraulics, ITS, ROW acquisitions, signing and pavement markings, SWM, erosion and sediment control, retaining walls, sound barrier, permits, and utility relocations.

**Impact on the Project:** Gail led the design efforts to improve traffic operation at the southbound exit ramp to Route 3 and Carl D. Silver Parkway and developed a special design retaining wall to eliminate right of way/limited access impacts on commercial properties. She was responsible for the project's design and overseeing design elements including roadway, hydraulic, right of way acquisitions, box culvert, CCTV camera installation, signing and pavement markings, stormwater management, maintenance of traffic, erosion and sediment control, retaining wall, sound barrier wall, lighting, permits, public involvement, QA/QC, coordination during construction, and utility relocations.

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#### **VDOT FALL HILL AVE WIDENING DB (\$30.8M), FREDERICKSBURG, VA**

**Firm:** WRA

**Role:** Deputy Design Manager

**Date:** 03/2014 – 01/2017

**Project Description:** This project included the widening of Fall Hill Ave from the existing two to four lanes with a raised median from Carl D. Silver Pkwy to a roundabout just west of the bridge over the Rappahannock Canal. Mary Washington Blvd was extended to the roundabout to provide a new connection between Jefferson Davis Hwy and Fall Hill Ave. The existing bridge over I-95 was replaced with a four-lane divided roadway section with pedestrian facilities on both sides.

**Similarities:** This was a major VDOT DB project with extensive traffic control (on I-95), hydraulics, ROW acquisition, signing and pavement markings, SWM, erosion and sediment control, retaining walls, environmental (4(f) coordination), sound barrier, bridge, and utility relocations. The utility impacts included relocating two Dominion Energy transmission poles and the coordination of a 2,000 ft parallel encroachment of the transmission line easement.

**Impact on the Project:** Gail led the development of design efforts to minimize impacts to the Dominion Energy transmission lines, which allowed Mary Washington Blvd to be partially located in the utility easement. She was responsible for WRA's roadway design and design submissions for this widening and reconstruction project of 2.2 miles of Fall Hill Ave and Mary Washington Blvd. This design included a roundabout at the intersection, roadway consisting of a four-lane divided curb and gutter section with a sidewalk on the south side, and a shared-use path on the north side. Gail coordinated design elements including roadway, hydraulic, SWM, bridge, retaining walls, sound barriers, utility relocation and coordination, traffic engineering, lighting, environmental coordination of permits, public involvement, ROW acquisition, and park design.

# ATTACHMENT 3.7 FORM C-78-RFP



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

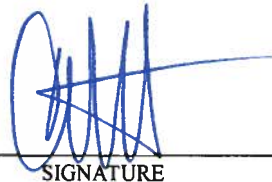


**ATTACHMENT 3.7****COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION****RFP NO.** C00117841DB111**PROJECT NO.:** 0064-114-374 P101, R201, C501**ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA**

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.7, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

- |                    |  |
|--------------------|--|
| 1. Cover letter of | <u>RFP – November 10, 2021</u><br>(Date)             |
| 2. Cover letter of | <u>RFP Addendum #1 - December 17, 2021</u><br>(Date) |
| 3. Cover letter of | <u>RFP Addendum #2 - January 25, 2022</u><br>(Date)  |
| 4. Cover letter of | <u>RFP Addendum #3 – February 15, 2022</u><br>(Date) |
| 5. Cover letter of | <u>RFP Addendum #4 – March 28, 2022</u><br>(Date)    |
| 6. Cover letter of | <u>RFP Addendum #5 – April 15, 2022</u><br>(Date)    |
| 7. Cover letter of | <u>RFP Addendum #6 – April 26, 2022</u><br>(Date)    |



SIGNATURE

May 12, 2022

DATE

Aaron T. Myers

PRINTED NAME

Executive Vice President - Operations

TITLE

# ATTACHMENT 9.3.1 PROPOSAL PAYMENT AGREEMENT



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

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**ATTACHMENT 9.3.1**  
**PROPOSAL PAYMENT AGREEMENT**

**THIS PROPOSAL PAYMENT AGREEMENT** (this “Agreement”) is made and entered into as of this 12<sup>th</sup> day of May, 2022, by and between the Virginia Department of Transportation (“VDOT”), and Myers Traylor a Joint Venture (“Offeror”).

**WITNESSETH:**

**WHEREAS**, Offeror is one of the entities who submitted Statements of Qualifications (“SOQs”) pursuant to VDOT’s April 30., 2021 Request for Qualifications (“RFQ”) and was invited to submit proposals in response to a Request for Proposals (“RFP”) for the **I-64 Hampton Roads Express Lanes (HREL) Segment 4C, Project No. 0064-114-374 P101, R201, C501** (“Project”), under a design-build contract with VDOT (“Design-Build Contract”); and

**WHEREAS**, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror’s proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively “Offeror’s Intellectual Property”); and

**WHEREAS**, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror’s Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP (“Offeror’s Proposal”), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

**WHEREAS**, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:



1. **VDOT's Rights in Offeror's Intellectual Property.** Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror's Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror's Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror's Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror's Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT's rights, title and interest in Offeror's Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT's ability to use Offeror's Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror's Intellectual Property.** Notwithstanding Section 1 above, it is understood and agreed that Offeror's Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment.** VDOT agrees to pay Offeror the lump sum amount of **Three Hundred Thousand and 00/100 Dollars (\$300,000.00)** ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror's Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror's Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date.** Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement.** The rights and obligations of VDOT and Offeror under this Agreement, including VDOT's ownership rights in Offeror's Intellectual Property, vests upon the date that Offeror's Proposal is submitted to VDOT. Notwithstanding the above, if Offeror's Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.

6. **Indemnity.** Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity (“Claims”) of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror’s obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. **Assignment.** Offeror shall not assign this Agreement, without VDOT’s prior written consent, which consent may be given or withheld in VDOT’s sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. **Authority to Enter into this Agreement.** By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror’s Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror’s Intellectual Property, free and clear of all liens, claims and encumbrances.

9. **Miscellaneous.**

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.

**IN WITNESS WHEREOF**, this Agreement has been executed and delivered as of the day and year first above written.

VIRGINIA DEPARTMENT OF TRANSPORTATION

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

*[Insert Offeror's Name]* Myers Traylor a Joint Venture

By:  \_\_\_\_\_

Name: Aaron T. Myers

Title: Executive Vice President - Operations

# ATTACHMENT 11.8.6(a) & (b) CERTIFICATION REGARDING DEBARMENT FORMS



A JOINT VENTURE  
**ALLAN MYERS TRAYLOR**  
TRAYLOR BROS., INC.

+ **WRA** +

  
KCI

**ATTACHMENT 11.8.6(a)**  
**CERTIFICATION REGARDING DEBARMENT**  
**PRIMARY COVERED TRANSACTIONS**

**Project No.: 0064-114-374 P101, R201, C501**

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

  
\_\_\_\_\_  
Signature

5/10/2022  
\_\_\_\_\_  
Date

Executive Vice President - Operations  
\_\_\_\_\_  
Title

Allan Myers VA, Inc.  
\_\_\_\_\_  
Name of Firm

**ATTACHMENT 11.8.6(a)**  
**CERTIFICATION REGARDING DEBARMENT**  
**PRIMARY COVERED TRANSACTIONS**

**Project No.: 0064-114-374 P101, R201, C501**

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

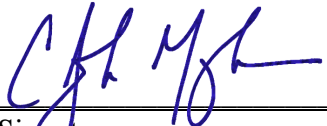
b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	<u>5/12/2022</u>	<u>C. John Meagher, Vice President/Division Manager</u>
Signature	Date	Title

Traylor Bros., Inc.  
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS

**Project No.: 0064-114-xxx**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



\_\_\_\_\_  
Signature

4/28/2022

\_\_\_\_\_  
Date

Partner

\_\_\_\_\_  
Title

Whitman, Requardt & Associates, LLP

\_\_\_\_\_  
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS

**Project No.: 0064-114-xxx**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



4/28/2022

Vice President

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

KCI Technologies, Inc.

\_\_\_\_\_  
Name of Firm



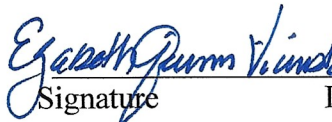
**ATTACHMENT 11.8.6(b)**  
**CERTIFICATION REGARDING DEBARMENT**  
**LOWER TIER COVERED TRANSACTIONS**

**Project No.: 0064-114-374 P101, R201, C501**

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

 4/28/2022  
Signature Date

President  
Title

Quinn Consulting Services, Inc.  
Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

4/29/22

Date

Vice President

Title

SCINABEL ENGINEERING, LLC

Name of Firm

**ATTACHMENT 3.2.7(b)**

**CERTIFICATION REGARDING DEBARMENT**  
**LOWER TIER COVERED TRANSACTIONS**

**Project No.: 0064-114- 374, RW-201, C-501**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



April 28, 2022

Director of Right of Way and  
Utility Coordination

---

Signature

---

Date

---

Title

Bowman Consulting Group Ltd.

---

Name of Firm

ATTACHMENT 3.2.7(b)

CERTIFICATION REGARDING DEBARMENT  
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-114-xxx

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

4/29/2022

Date

President

Title

Land Planning and Design Associates, Inc.

Name of Firm

**ATTACHMENT 11.8.6(b)**  
**CERTIFICATION REGARDING DEBARMENT**  
**LOWER TIER COVERED TRANSACTIONS**

**Project No.: 0064-114-374 P101, R201, C501**

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
  
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

April 28, 2022

Date

Thomas G. McLinden, President

Title

Aldridge Electric, Inc.

Name of Firm


**ATTACHMENT 11.8.6(b)**  
**CERTIFICATION REGARDING DEBARMENT**  
**LOWER TIER COVERED TRANSACTIONS**

**Project No.: 0064-114-374 P101, R201, C501**

1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

  
Signature \_\_\_\_\_ Date 4/28/22  
Jon W. Ebbert

\_\_\_\_\_  
Vice President  
Title

\_\_\_\_\_  
McCallum Testing Laboratories  
Name of Firm



301 Concourse Blvd, Suite 300  
Glen Allen, VA 23059  
804.290.8500



9030 Stony Point Parkway, Suite 220  
Richmond, VA 23235  
804.272.8700



317 Office Square Lane  
Suite 101A  
Virginia Beach, VA 23462

# TECHNICAL PROPOSAL VOLUME II

A DESIGN-BUILD PROJECT



## I-64 Hampton Roads Express Lanes (HREL) Segment 4C

*From: 0.138 miles East of LaSalle Ave To: 0.500 miles East of Settlers Landing Road*

**City of Hampton, Virginia**

**State Project No.** 0064-114-374 P101, R201, C501

**Federal Project No.** NHPP-064-3(522)

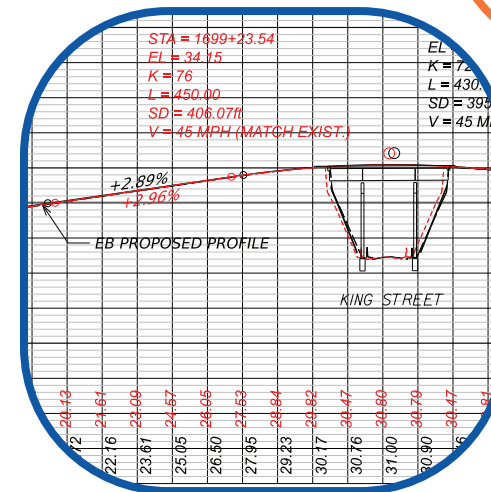
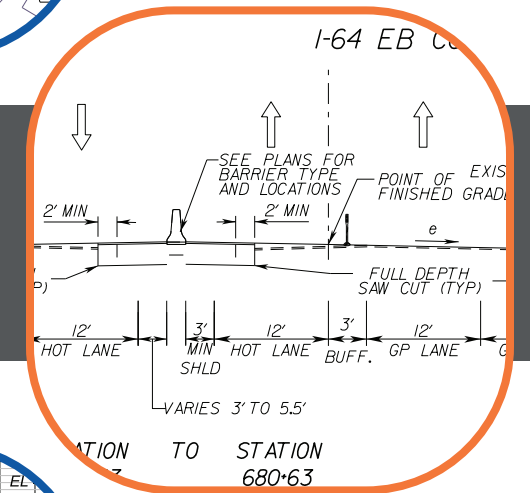
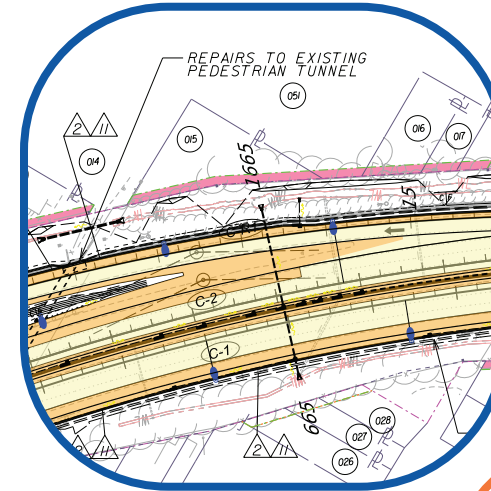
**Contract ID No.** C00117841DB111





# DESIGN CONCEPT GRAPHICS

I-64 Hampton Roads Express Lanes (HREL) Segment 4C



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STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	1

INDEX OF SHEETS

- 1 TITLE SHEET
- TS-01 to TS-06 TYPICAL SECTIONS
- PS-01 to PS-05 PLAN AND PROFILE
- B-01 to B-02 RIP RAP ROAD BRIDGE
- B-03 to B-05 KING STREET BRIDGE
- B-06 to B-16 HAMPTON RIVER BRIDGES
- B-17 to B-19 SETTLERS LANDING BRIDGE
- B-20 to B-21 RETAINING WALL TYPICAL SECTIONS

  
 COMMONWEALTH OF VIRGINIA  
 DEPARTMENT OF TRANSPORTATION

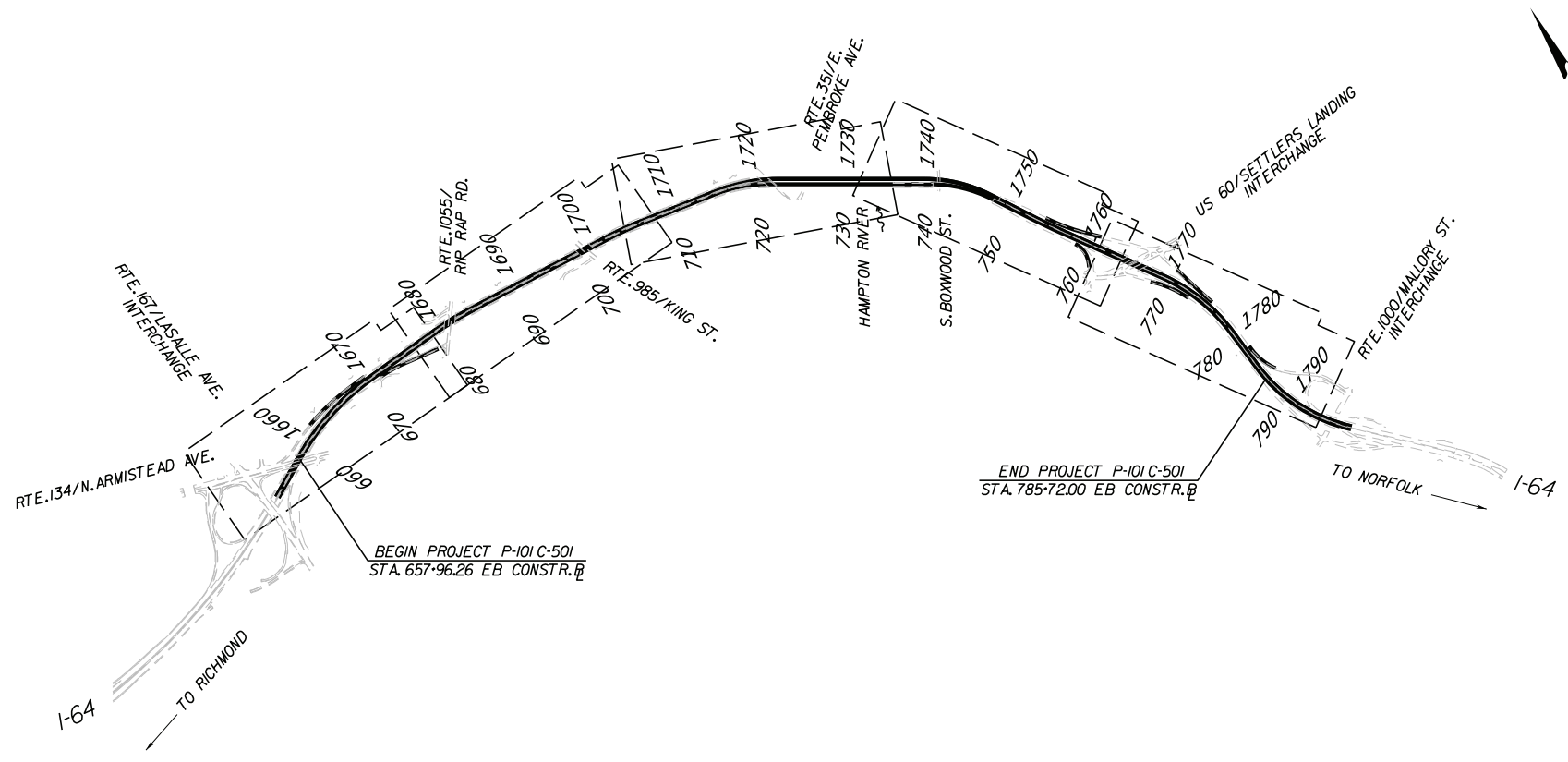
VOLUME II  
TECHNICAL PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

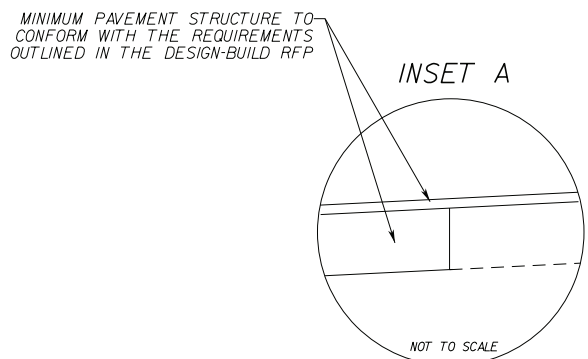
**PLAN AND PROFILE OF PROPOSED  
 STATE HIGHWAY**  
**I-64 HAMPTON ROADS EXPRESS LANES  
 SEGMENT 4C**  
 FROM: 0.139 MI. EAST OF LASALLE AVE.  
 TO: 0.379 MI. EAST OF SETTLERS LANDING RD.

- CONVENTIONAL SIGNS
- STATE LINE
  - COUNTY LINE
  - CITY, TOWN OR VILLAGE
  - RIGHT OF WAY LINE
  - FENCE LINE
  - UNFENCED PROPERTY LINE
  - FENCED PROPERTY LINE
  - WATER LINE
  - SANITARY SEWER LINE
  - GAS LINE
  - ELECTRIC UNDERGROUND CABLE
  - TRAVELED WAY
  - GUARD RAIL
  - RETAINING WALL
  - RAILROADS
  - BASE OR SURVEY LINE
- 
- LEVEE OR EMBANKMENT
  - BRIDGES
  - CULVERTS
  - DROP INLET
  - POWER POLES
  - TELEPHONE OR TELEGRAPH POLES
  - TELEPHONE OR TELEGRAPH LINES
  - HEDGE
  - TREES
  - HEAVY WOODS
  - GROUND ELEVATION
  - GRADE ELEVATION

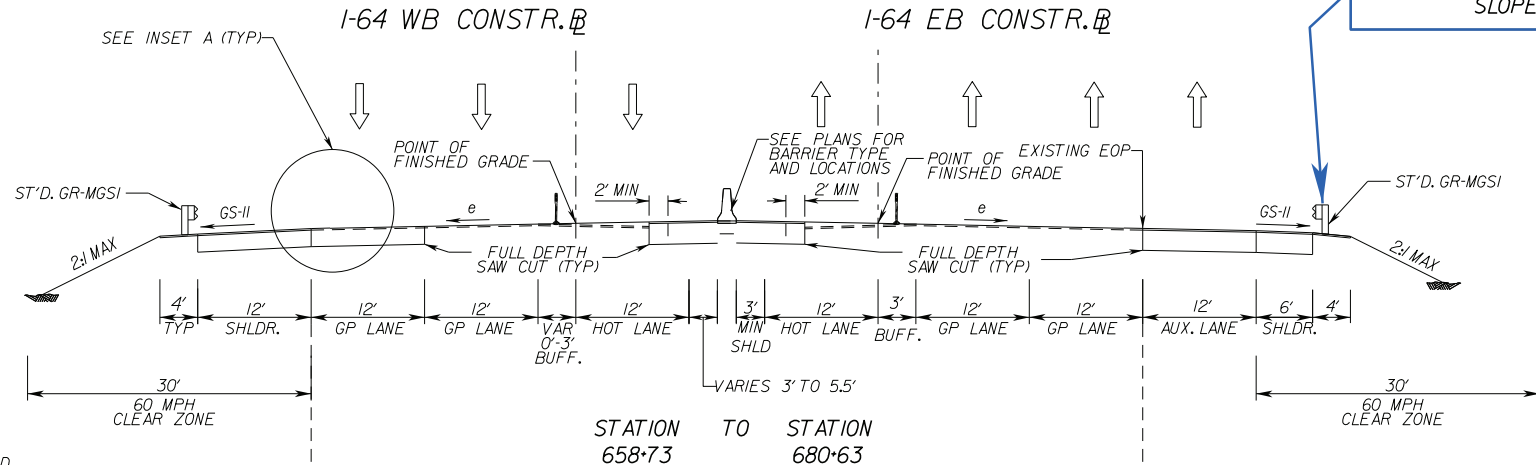


STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	TS-01

# TYPICAL SECTIONS



- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DETAILS.



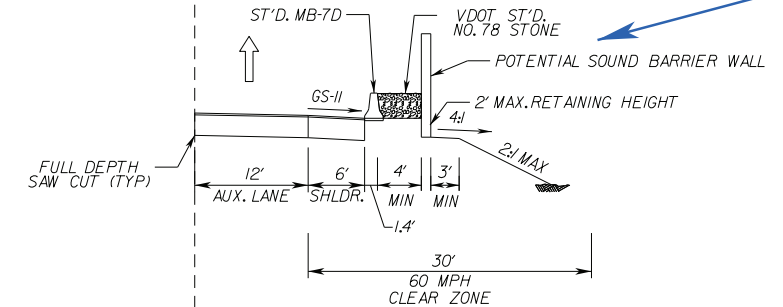
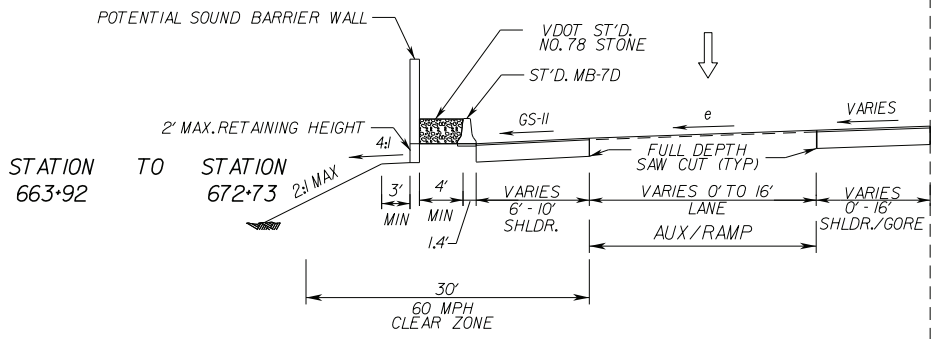
**DESIGN ENHANCEMENT**  
ELIMINATED 327 LF MSE WALL BY WIDENING THE FILL SLOPE

**VOLUME II TECHNICAL PLANS**

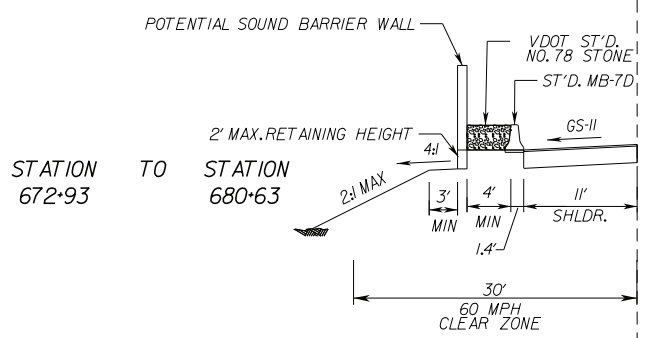
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

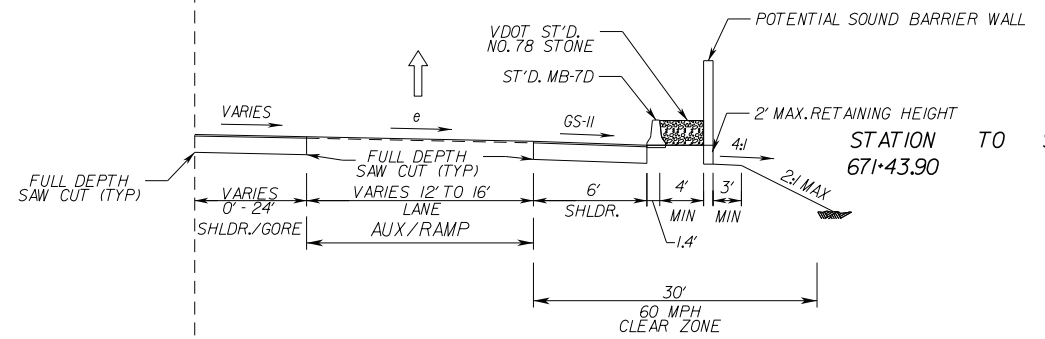
**DESIGN ENHANCEMENT**  
ELIMINATED 50 LF MSE WALL BY WIDENING THE FILL SLOPE



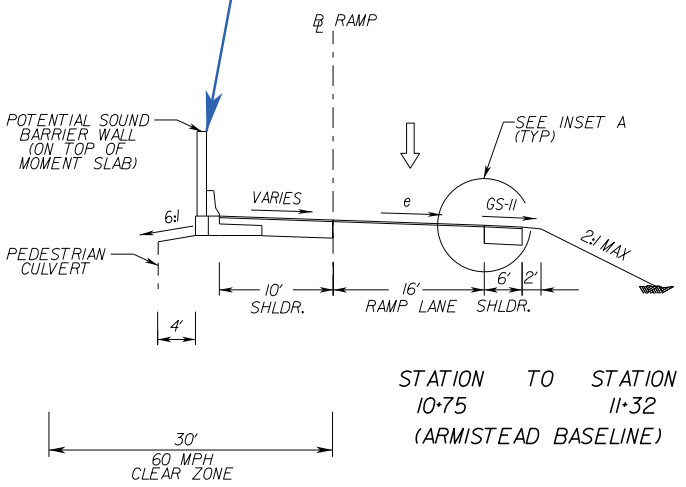
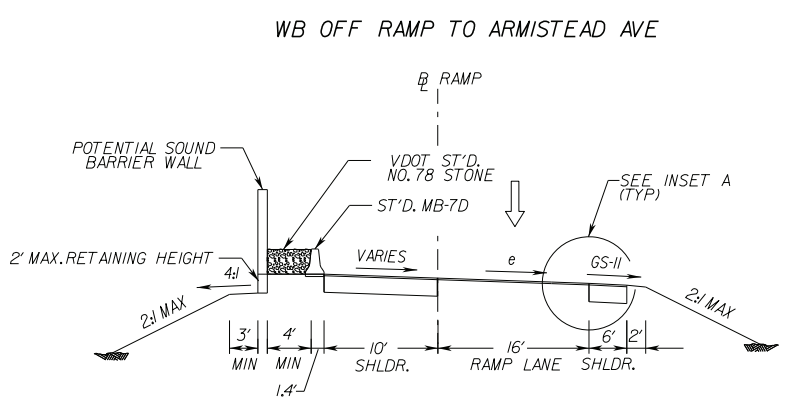
STATION 662+00 TO STATION 671+44



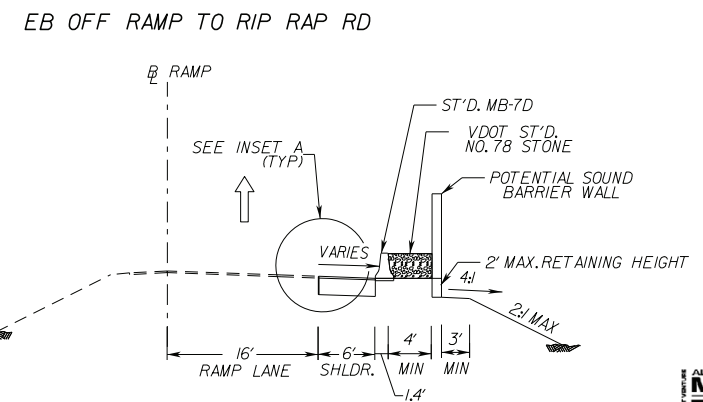
**DESIGN ENHANCEMENT**  
SPECIAL DESIGN MOMENT SLAB FOR SOUND BARRIER TO ADDRESS SKEWED PEDESTRIAN CULVERT



STATION 671+43.90 TO STATION 674+25



STATION 10+75 TO STATION 11+32 (ARMISTEAD BASELINE)



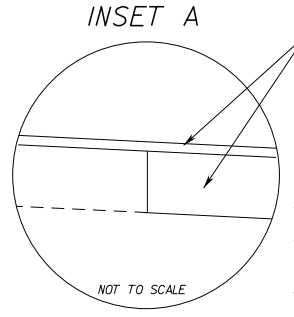
N.T.S.



# TYPICAL SECTIONS

**DESIGN ENHANCEMENT**  
ELIMINATED 127 LF MSE WALL BY WIDENING THE FILL SLOPE

**DESIGN ENHANCEMENT**  
ELIMINATED 663 LF MSE WALL BY WIDENING THE FILL SLOPE

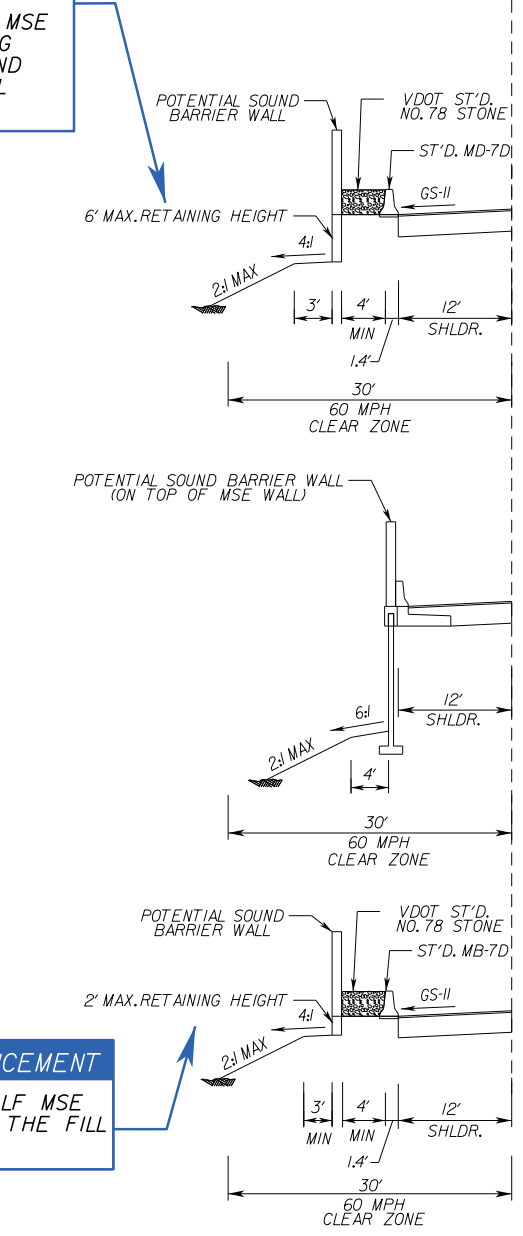
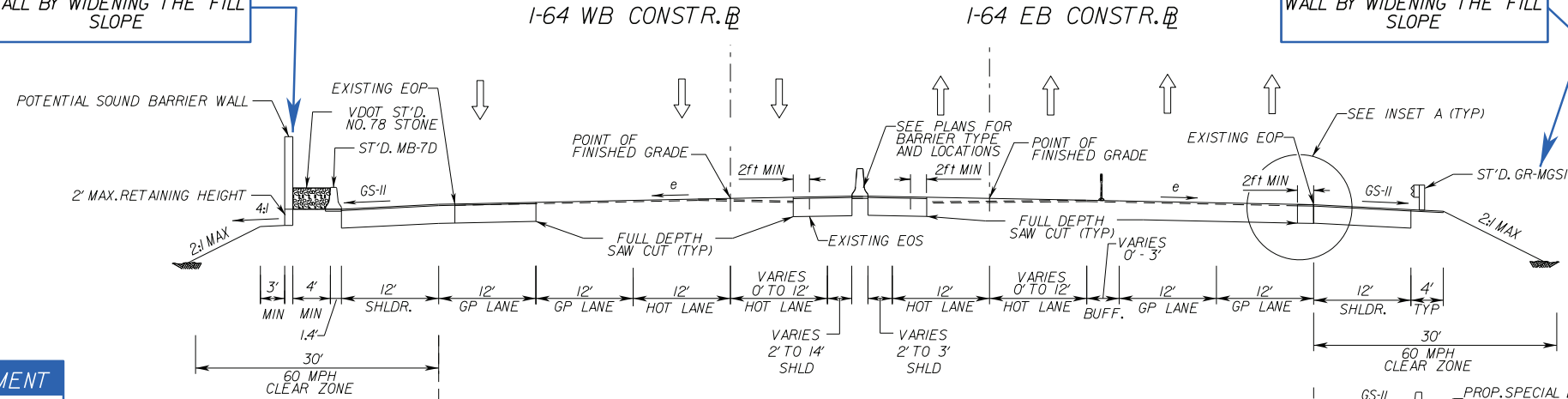


MINIMUM PAVEMENT STRUCTURE TO CONFORM WITH THE REQUIREMENTS OUTLINED IN THE DESIGN-BUILD RFP

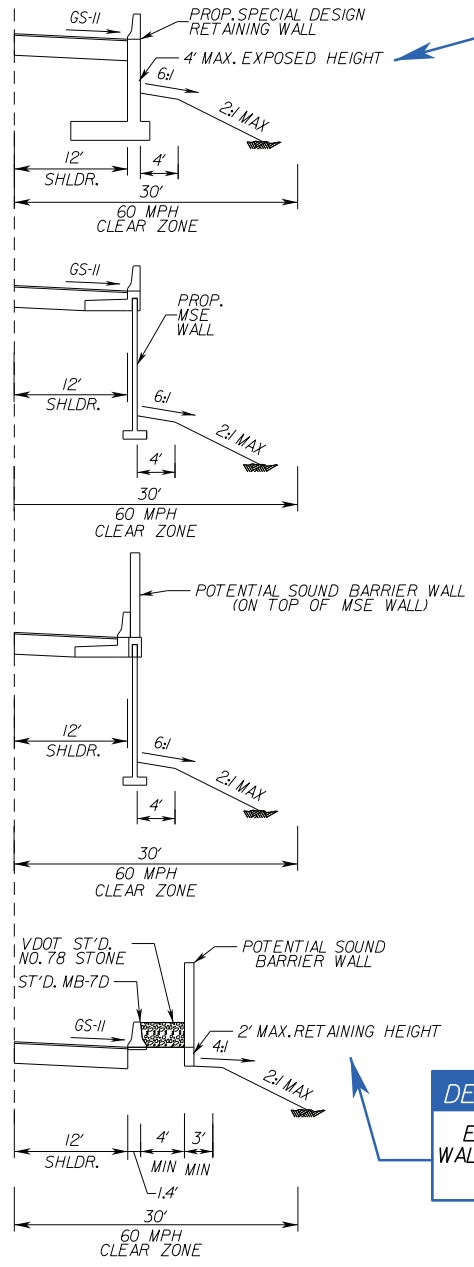
- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DETAILS.

**DESIGN ENHANCEMENT**  
ELIMINATED 636 LF MSE WALL BY UTILIZING COMBINATION SOUND BARRIER / WALL

**DESIGN ENHANCEMENT**  
UTILIZED SPECIAL DESIGN RETAINING WALLS TO ELIMINATE 95 LF MSE WALL AND TO ACCELERATE CONSTRUCTION



STATION	TO	STATION	TO	STATION	TO	STATION	TO
682+09		698+23		685+99		695+50	
699+95		707+00					
692+89		697+85					
699+80		701+20					
				700+17		703+90	
				703+90		706+60	
				706+60		707+00	



**VOLUME II TECHNICAL PLANS**

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

**DESIGN ENHANCEMENT**  
ELIMINATED 30 LF MSE WALL BY WIDENING THE FILL SLOPE

**DESIGN ENHANCEMENT**  
ELIMINATED 40 LF MSE WALL BY WIDENING THE FILL SLOPE

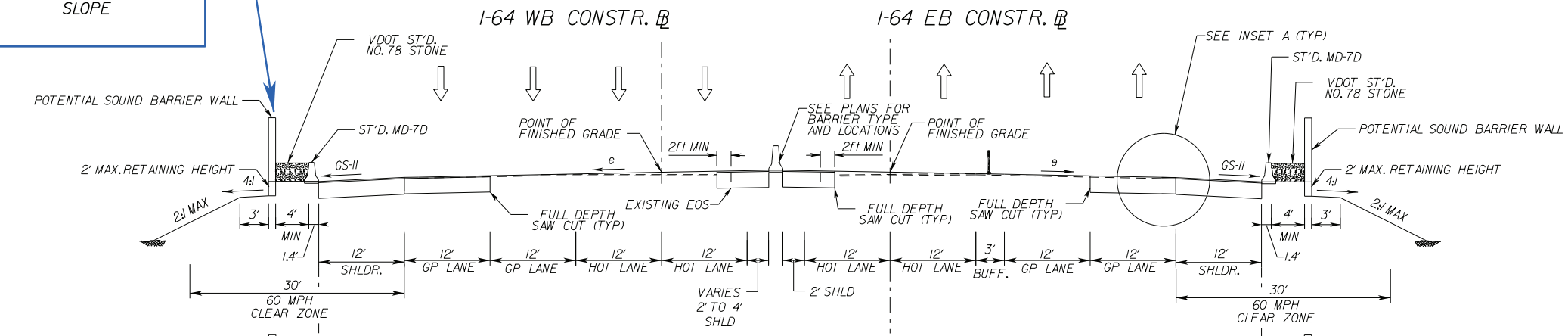


N.T.S.

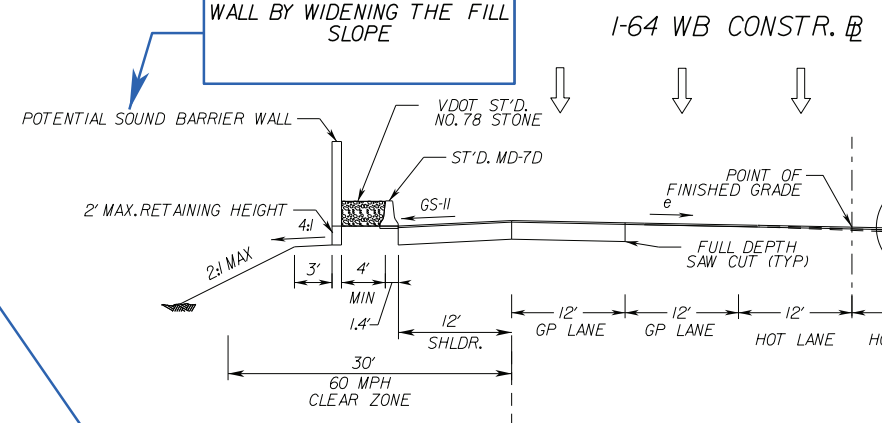
STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	TS-03

# TYPICAL SECTIONS

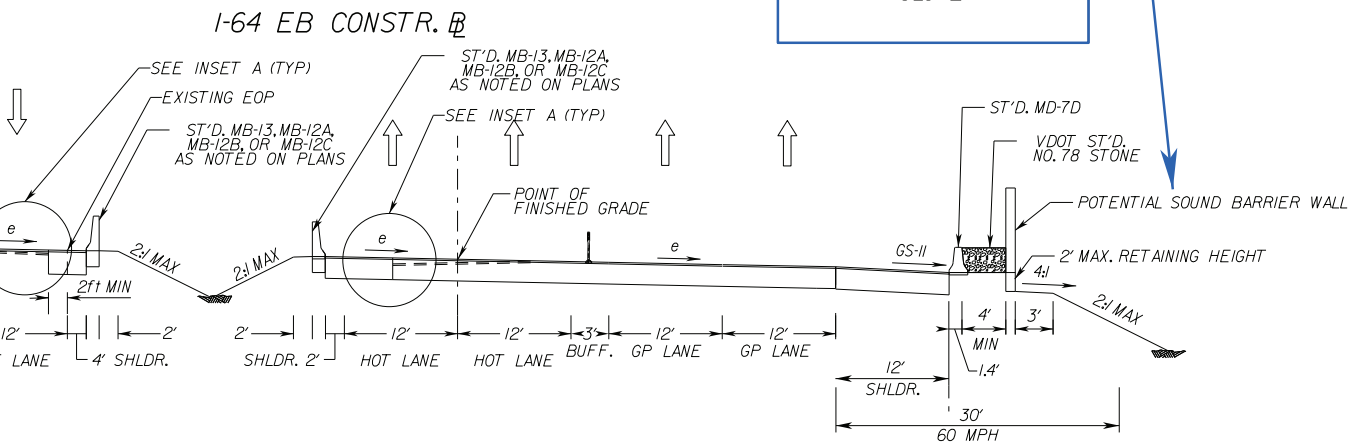
**DESIGN ENHANCEMENT**  
ELIMINATED 788 LF MSE WALL BY WIDENING THE FILL SLOPE



**DESIGN ENHANCEMENT**  
ELIMINATED 503 LF MSE WALL BY WIDENING THE FILL SLOPE

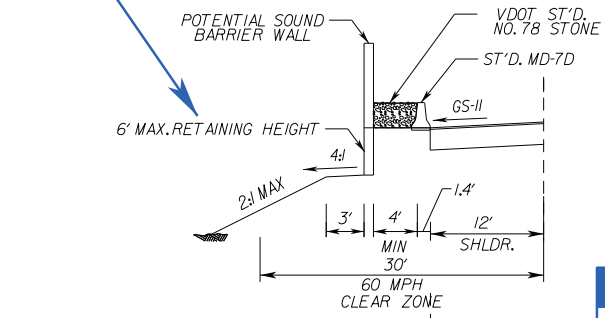


**DESIGN ENHANCEMENT**  
ELIMINATED 413 LF MSE WALL BY WIDENING THE FILL SLOPE

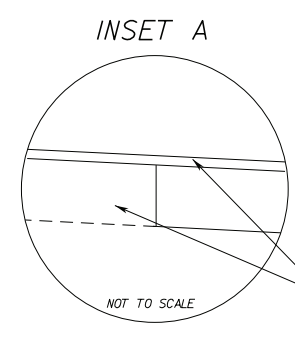
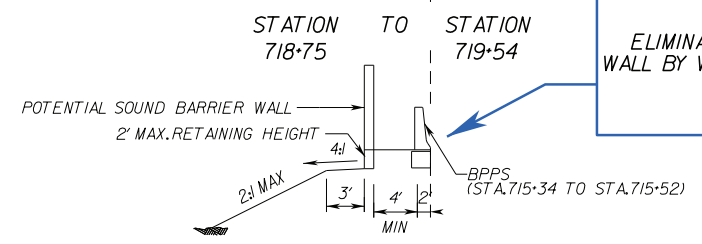


**DESIGN ENHANCEMENT**  
ELIMINATED 43 LF MSE WALL BY WIDENING THE FILL SLOPE

**DESIGN ENHANCEMENT**  
ELIMINATED 79 LF MSE WALL BY UTILIZING COMBINATION SOUND BARRIER / WALL



**DESIGN ENHANCEMENT**  
ELIMINATED 18 LF MSE WALL BY WIDENING THE FILL SLOPE



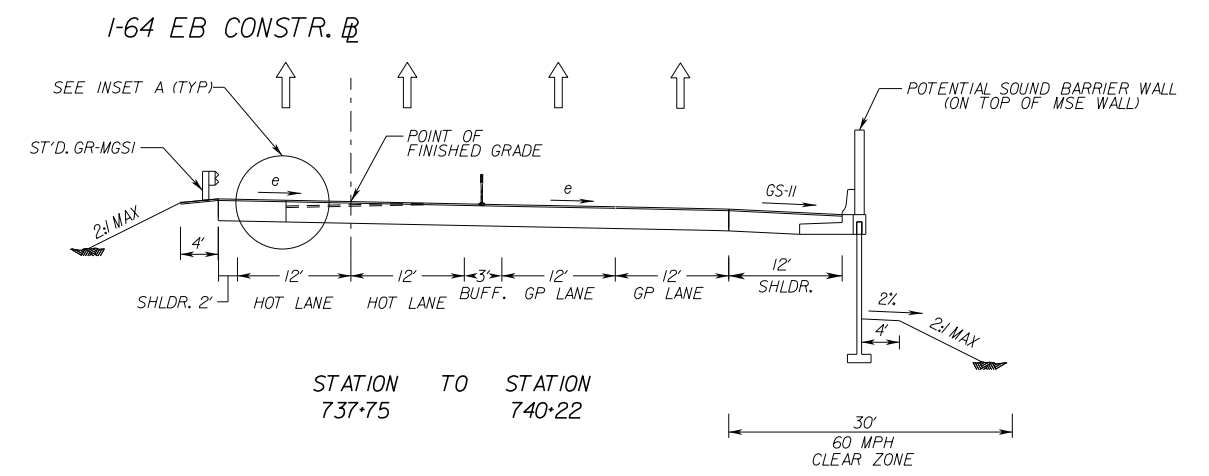
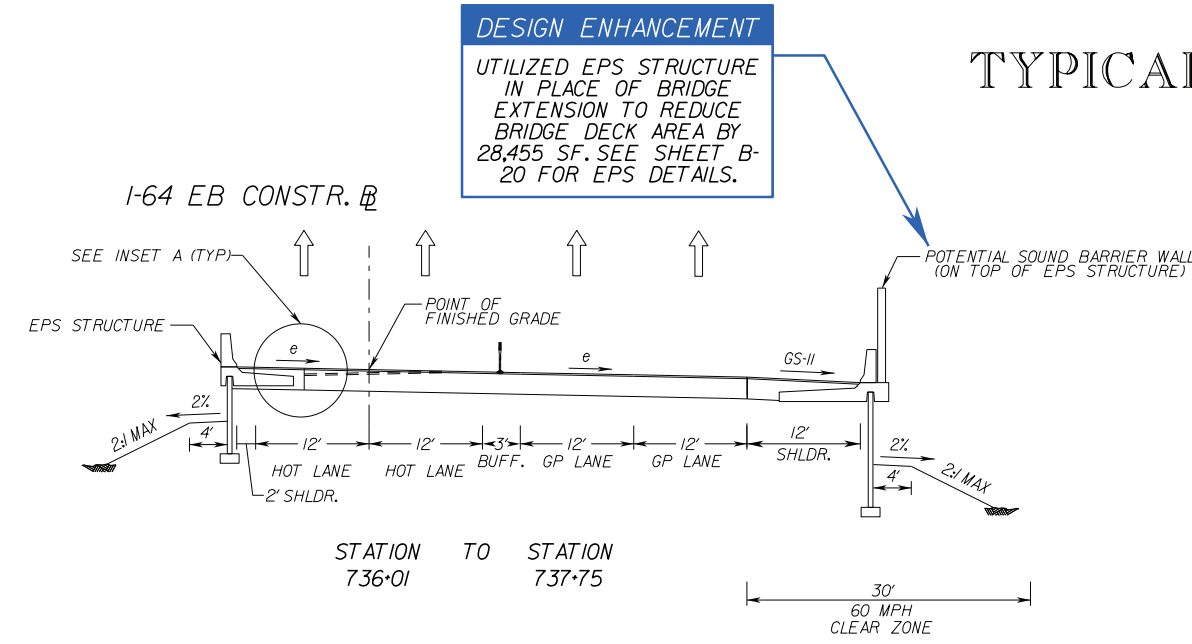
- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DEATILS.

**VOLUME II TECHNICAL PLANS**

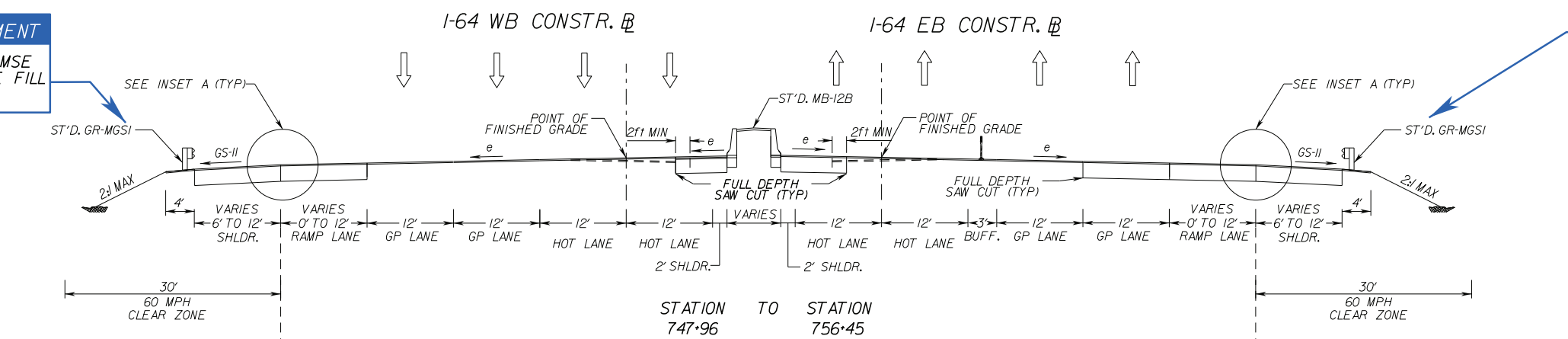
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY. ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	TS-04

# TYPICAL SECTIONS

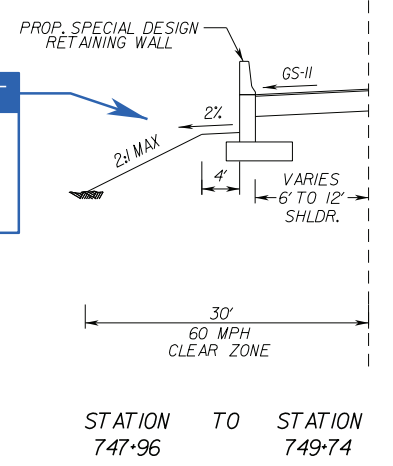


**DESIGN ENHANCEMENT**  
ELIMINATED 266 LF MSE WALL BY WIDENING THE FILL SLOPE



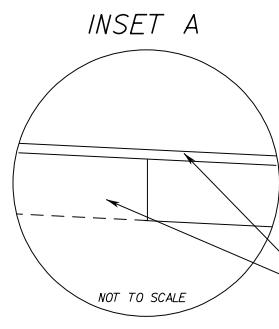
**DESIGN ENHANCEMENT**  
ELIMINATED 444 LF MSE WALL BY WIDENING THE FILL SLOPE

**DESIGN ENHANCEMENT**  
UTILIZED SPECIAL DESIGN RETAINING WALLS TO ELIMINATE 178 LF MSE WALL AND ACCELERATE CONSTRUCTION

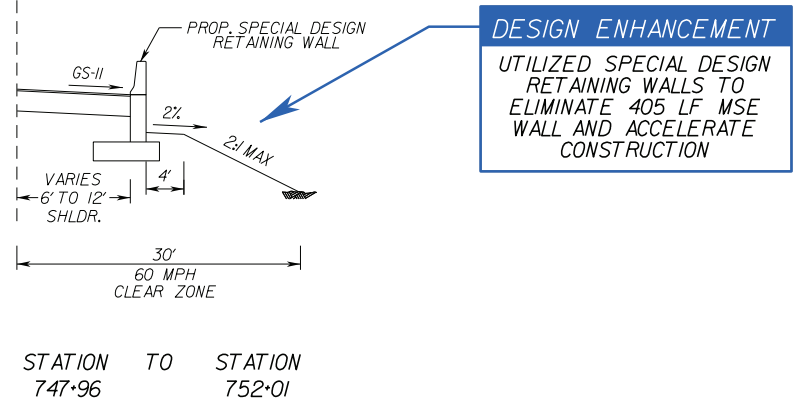


## VOLUME II TECHNICAL PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY. ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.



- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DETAILS.



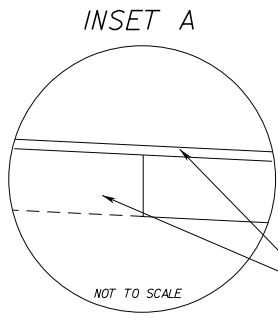
**DESIGN ENHANCEMENT**  
UTILIZED SPECIAL DESIGN RETAINING WALLS TO ELIMINATE 405 LF MSE WALL AND ACCELERATE CONSTRUCTION

N.T.S.



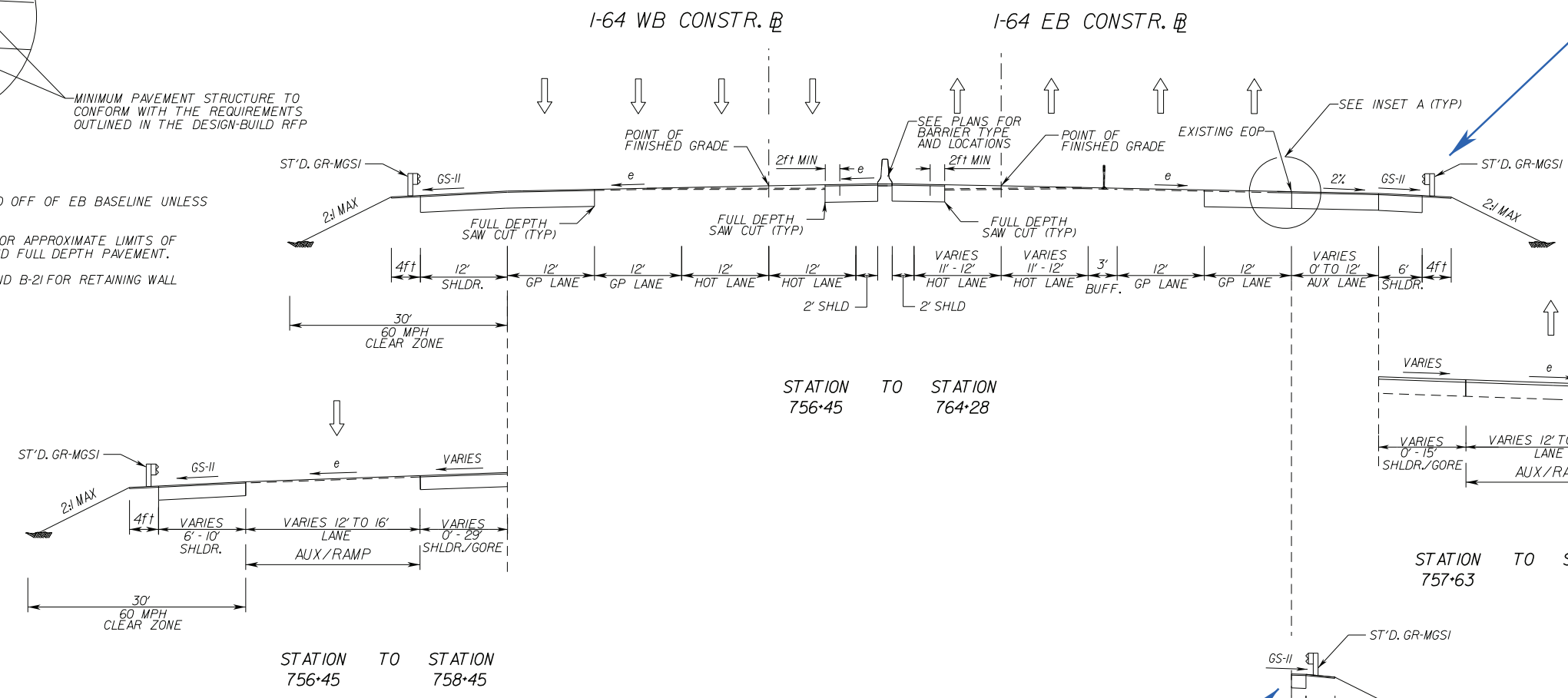
STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	TS-05

# TYPICAL SECTIONS



MINIMUM PAVEMENT STRUCTURE TO CONFORM WITH THE REQUIREMENTS OUTLINED IN THE DESIGN-BUILD RFP

- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DETAILS.

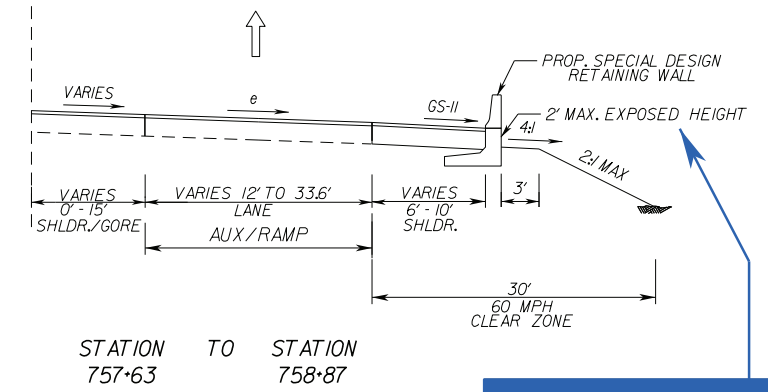


**DESIGN ENHANCEMENT**  
ELIMINATED 118 LF MSE WALL BY WIDENING THE FILL SLOPE

**VOLUME II TECHNICAL PLANS**

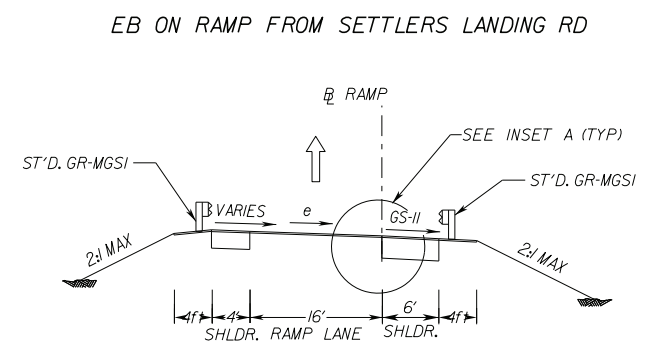
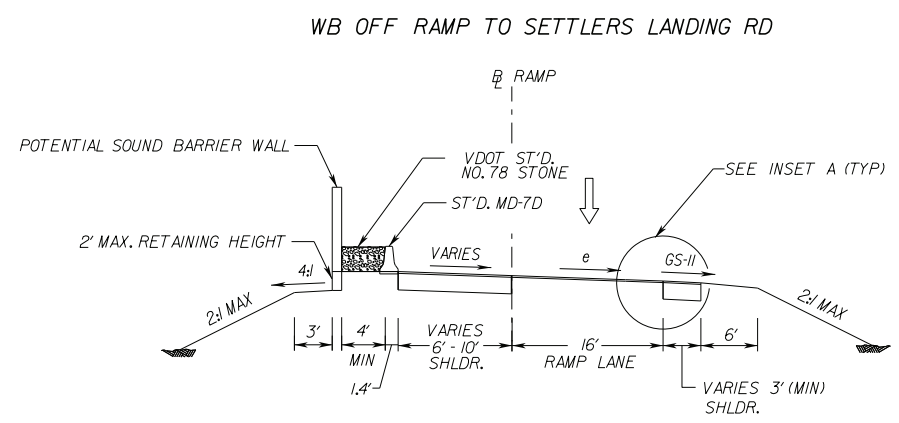
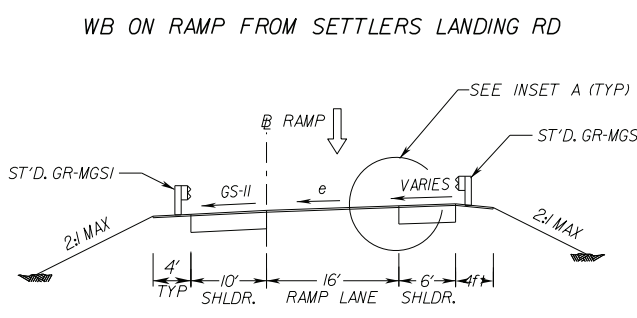
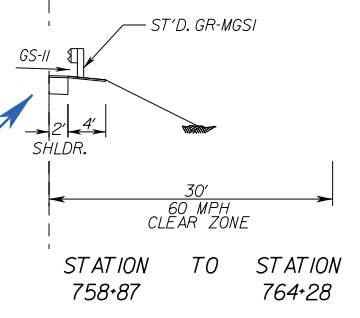
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.



**DESIGN ENHANCEMENT**  
UTILIZED SPECIAL DESIGN RETAINING WALLS TO ELIMINATE 124 LF MSE WALL AND ACCELERATE CONSTRUCTION

**DESIGN ENHANCEMENT**  
ELIMINATED 63 LF MSE WALL BY WIDENING THE FILL SLOPE

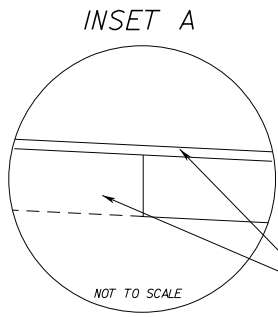


N.T.S.



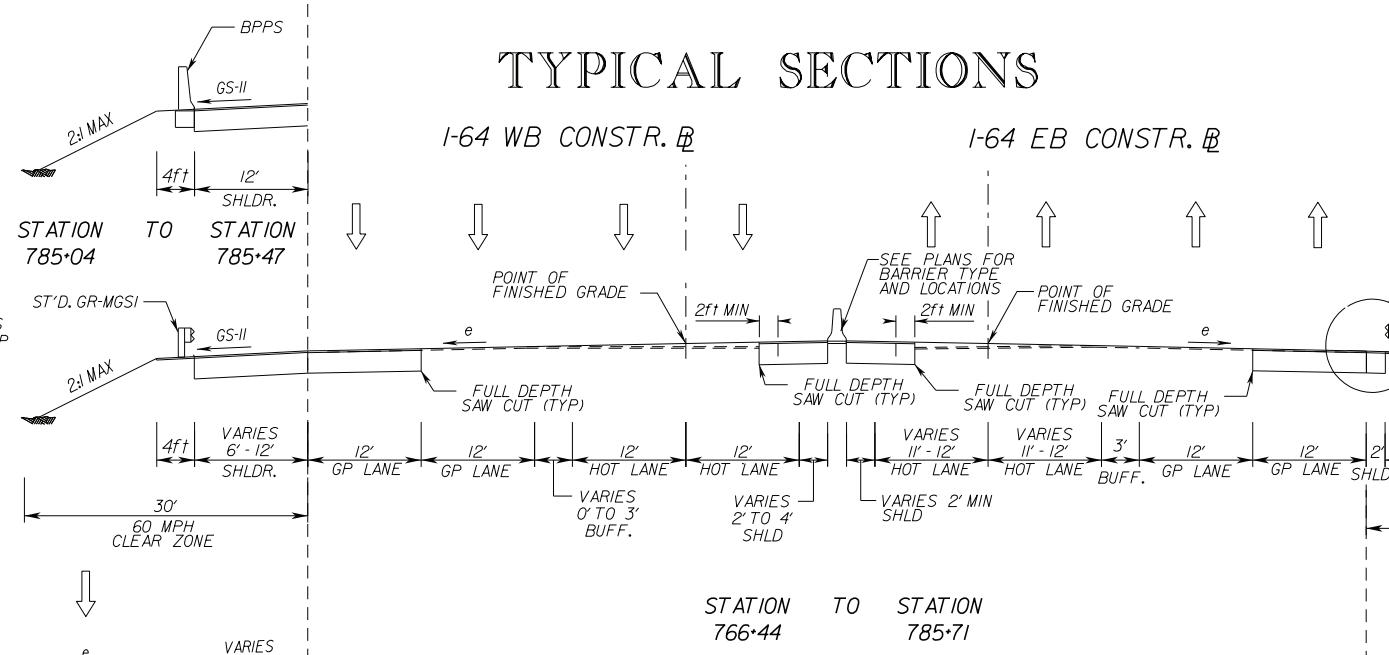
STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	TS-06

# TYPICAL SECTIONS



MINIMUM PAVEMENT STRUCTURE TO CONFORM WITH THE REQUIREMENTS OUTLINED IN THE DESIGN-BUILD RFP

- NOTES:
1. ALL STATIONING BASED OFF OF EB BASELINE UNLESS OTHERWISE NOTED.
  2. SEE PLAN SHEETS FOR APPROXIMATE LIMITS OF MILLING & OVERLAY AND FULL DEPTH PAVEMENT.
  3. SEE SHEETS B-20 AND B-21 FOR RETAINING WALL DETAILS.

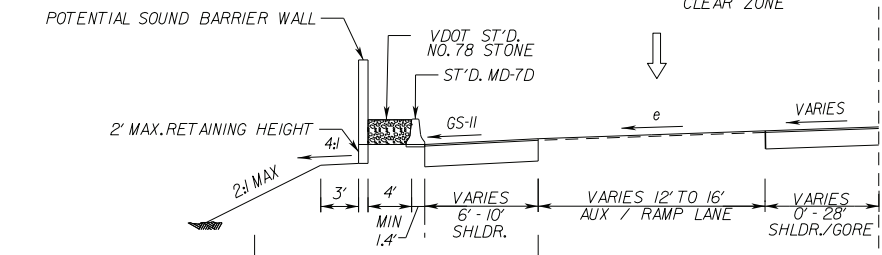


**DESIGN ENHANCEMENT**  
ELIMINATED 118 LF MSE WALL BY WIDENING THE FILL SLOPE

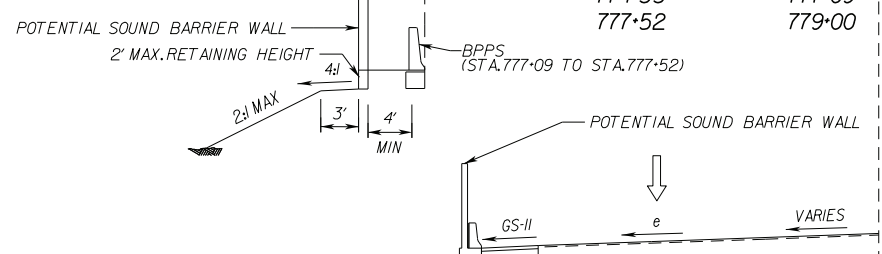
**VOLUME II TECHNICAL PLANS**

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

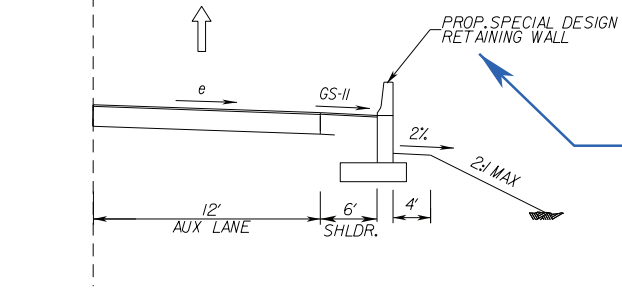
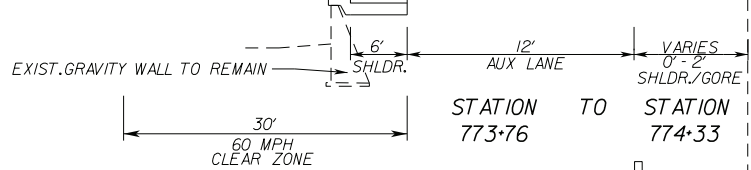
ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.



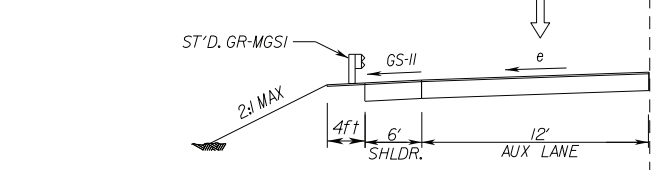
**DESIGN ENHANCEMENT**  
ELIMINATED 177 LF MSE WALL BY WIDENING THE FILL SLOPE



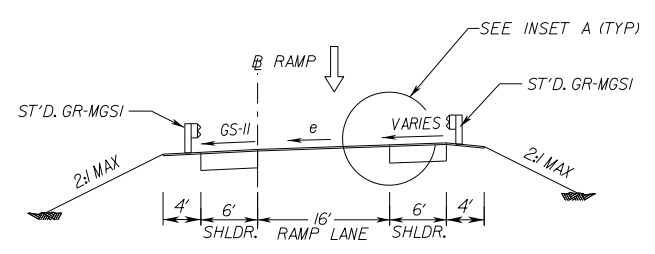
**DESIGN ENHANCEMENT**  
UTILIZED SPECIAL DESIGN RETAINING WALLS TO ELIMINATE 370 LF MSE WALL AND ACCELERATE CONSTRUCTION



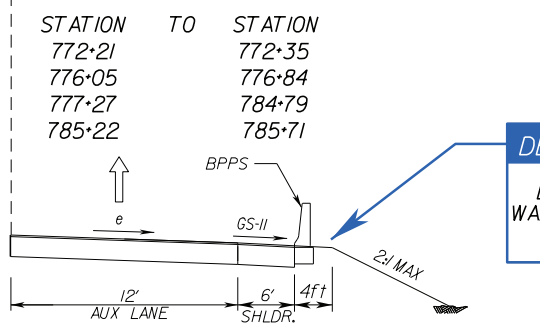
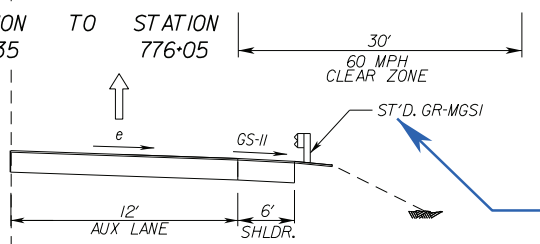
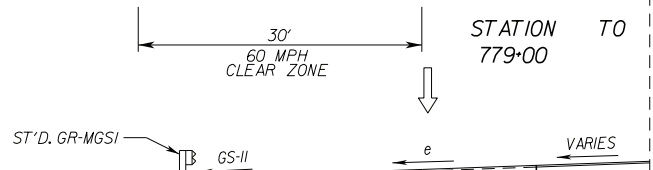
**DESIGN ENHANCEMENT**  
ELIMINATED 894 LF MSE WALL BY WIDENING THE FILL SLOPE



WB ON RAMP FROM MALLORY ST



**DESIGN ENHANCEMENT**  
ELIMINATED 86 LF MSE WALL BY WIDENING THE FILL SLOPE



N.T.S.







**LEGEND:**

- EXISTING RIGHT OF WAY AND/OR EXISTING LIMITED ACCESS LINE
- PROPOSED RIGHT OF WAY
- PROPOSED TEMPORARY EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED UTILITY EASEMENT
- MILL AND OVERLAY
- FULL DEPTH PAVEMENT
- AREAS OF REDUCED ROW / EASEMENT IMPACTS
- NEW BRIDGE
- BRIDGE REHAB
- PROPOSED TRAFFIC MOVEMENTS

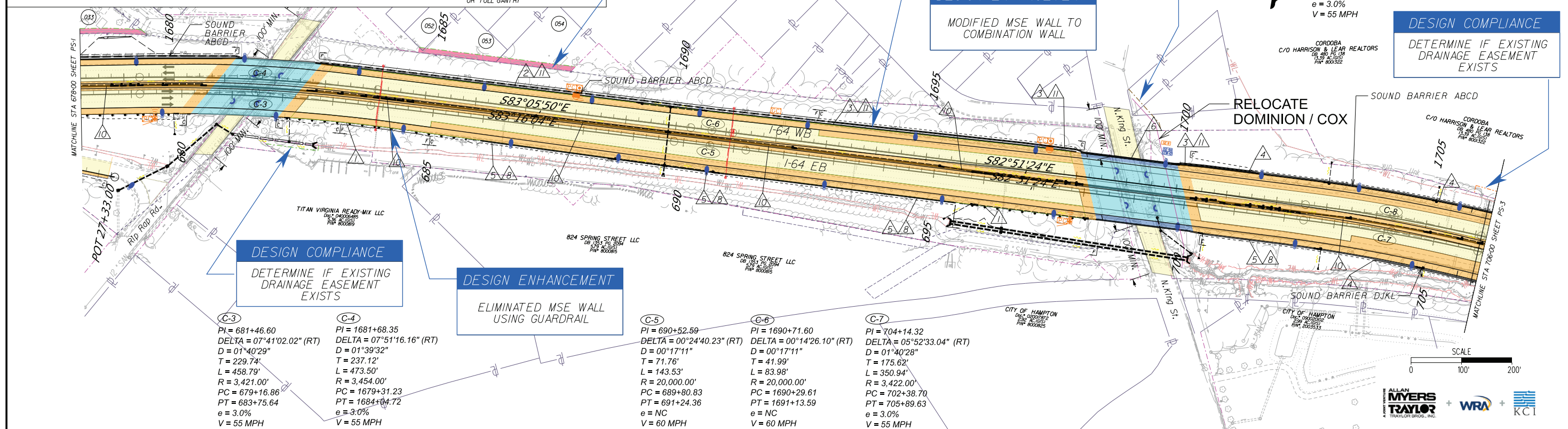
**1-64 Hampton Roads Express Lanes (HREL) Segment 4C**

- GUARDRAIL
- SOUND BARRIER
- COMBINATION SOUND BARRIER / WALL
- SOUND BARRIER / MSE WALL
- MSE WALL
- BRIDGE MOUNTED SOUND BARRIER
- SOUND BARRIER SPECIAL DESIGN
- SPECIAL DESIGN RETAINING WALL
- CONC. MED. BARRIER ST'D MB-12A,B,C
- CONC. MED. BARRIER ST'D MB-13 TY, II, OR III
- CONC. MED. BARRIER ST'D MB-7D
- EPS STRUCTURE
- EPS STRUCTURE WITH SOUND BARRIER
- BRIDGE PIER PROTECTION
- DENOTES CONSTRUCTION LIMITS IN CUT
- DENOTES CONSTRUCTION LIMITS IN FILL
- PROPOSED ROADWAY LIGHTING EQUIPMENT
- PROPOSED TOLLING AND ITS EQUIPMENT AND INFRASTRUCTURE
- PROPOSED OVERHEAD SIGN STRUCTURE OR TOLL GANTRY

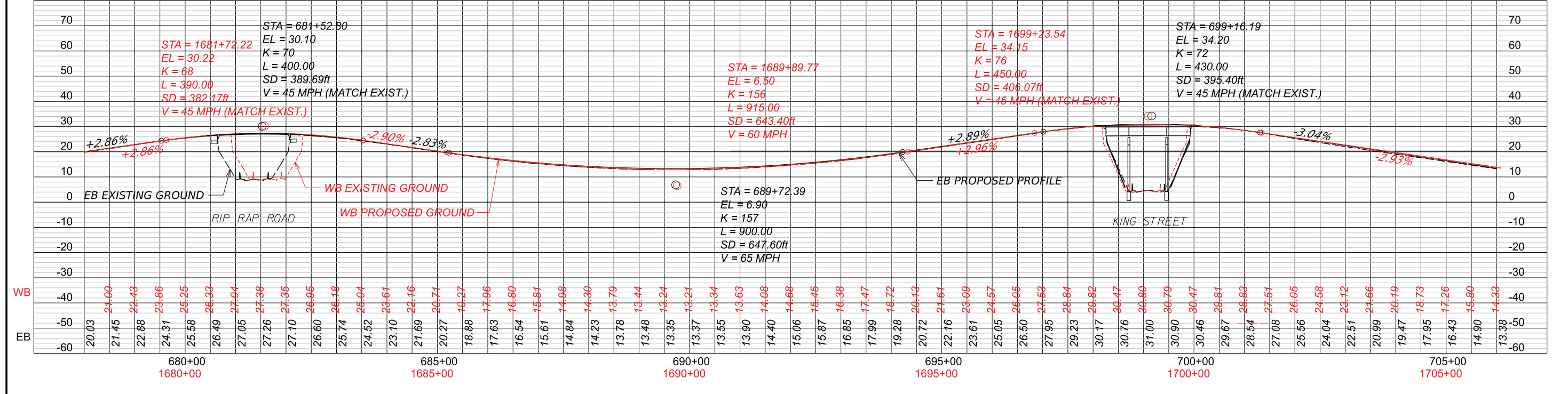
STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	PS-2

**C-8**  
 PI = 1704+34.90  
 DELTA = 05°52'33.04" (RT)  
 D = 01°39'33"  
 T = 177.21'  
 L = 354.12'  
 R = 3,453.00'  
 PC = 1702+57.69  
 PT = 1706+11.80  
 e = 3.0%  
 V = 55 MPH

**DESIGN COMPLIANCE**  
 DETERMINE IF EXISTING DRAINAGE EASEMENT EXISTS



Station	PI	Delta	D	T	L	R	PC	PT	e	V
681+46.60	681+46.60	07°41'02.02" (RT)	01°40'29"	229.74'	458.79'	3,421.00'	679+16.86	683+75.64	3.0%	55 MPH
681+52.80	681+52.80	07°51'16.16" (RT)	01°39'32"	237.12'	473.50'	3,454.00'	679+31.23	684+04.72	3.0%	55 MPH
689+52.59	689+52.59	00°24'40.23" (RT)	00°17'11"	143.53'	20,000.00'	689+80.83	691+24.36	NC		60 MPH
689+72.39	689+72.39	00°14'26.10" (RT)	00°17'11"	41.99'	83.98'	1690+29.61	691+13.59	NC		60 MPH
699+23.54	699+23.54	05°52'33.04" (RT)	01°40'28"	175.62'	350.94'	3,422.00'	702+38.70	705+89.63	3.0%	55 MPH



SCALE  
 0 100' 200'

ALLAN MYERS TAYLOR  
 TRAYLOR BROS., INC.

WRA

KCI

- LEGEND:**
- EXISTING RIGHT OF WAY AND/OR EXISTING LIMITED ACCESS LINE
  - PROPOSED RIGHT OF WAY
  - PROPOSED TEMPORARY EASEMENT
  - PROPOSED PERMANENT EASEMENT
  - PROPOSED UTILITY EASEMENT
  - MILL AND OVERLAY
  - FULL DEPTH PAVEMENT
  - AREAS OF REDUCED ROW / EASEMENT IMPACTS
  - NEW BRIDGE
  - BRIDGE REHAB
  - PROPOSED TRAFFIC MOVEMENTS
  - GUARDRAIL
  - SOUND BARRIER
  - COMBINATION SOUND BARRIER / WALL
  - SOUND BARRIER / MSE WALL
  - MSE WALL
  - BRIDGE MOUNTED SOUND BARRIER
  - SOUND BARRIER SPECIAL DESIGN
  - SPECIAL DESIGN RETAINING WALL
  - CONC. MED. BARRIER ST'D MB-12A,B,C
  - CONC. MED. BARRIER ST'D MB-13 TY, II, OR III
  - CONC. MED. BARRIER ST'D MB-7D
  - EPS STRUCTURE
  - EPS STRUCTURE WITH SOUND BARRIER
  - BRIDGE PIER PROTECTION
  - DENOTES CONSTRUCTION LIMITS IN CUT
  - DENOTES CONSTRUCTION LIMITS IN FILL
  - PROPOSED ROADWAY LIGHTING EQUIPMENT
  - PROPOSED TOLLING AND ITS EQUIPMENT AND INFRASTRUCTURE
  - PROPOSED OVERHEAD SIGN STRUCTURE OR TOLL GANTRY

# I-64 Hampton Roads Express Lanes (HREL) Segment 4C

STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	PS-3

### DESIGN COMPLIANCE

HAMPTON RIVER NAVIGATION CHANNEL TO REMAIN OPEN DURING CONSTRUCTION

### DESIGN ENHANCEMENT

MODIFIED MSE WALL TO COMBINATION WALL

### DESIGN ENHANCEMENT

SOUND BARRIERS AND RETAINING WALLS DESIGNED TO AVOID UTILITY CONFLICTS

### DESIGN ENHANCEMENT

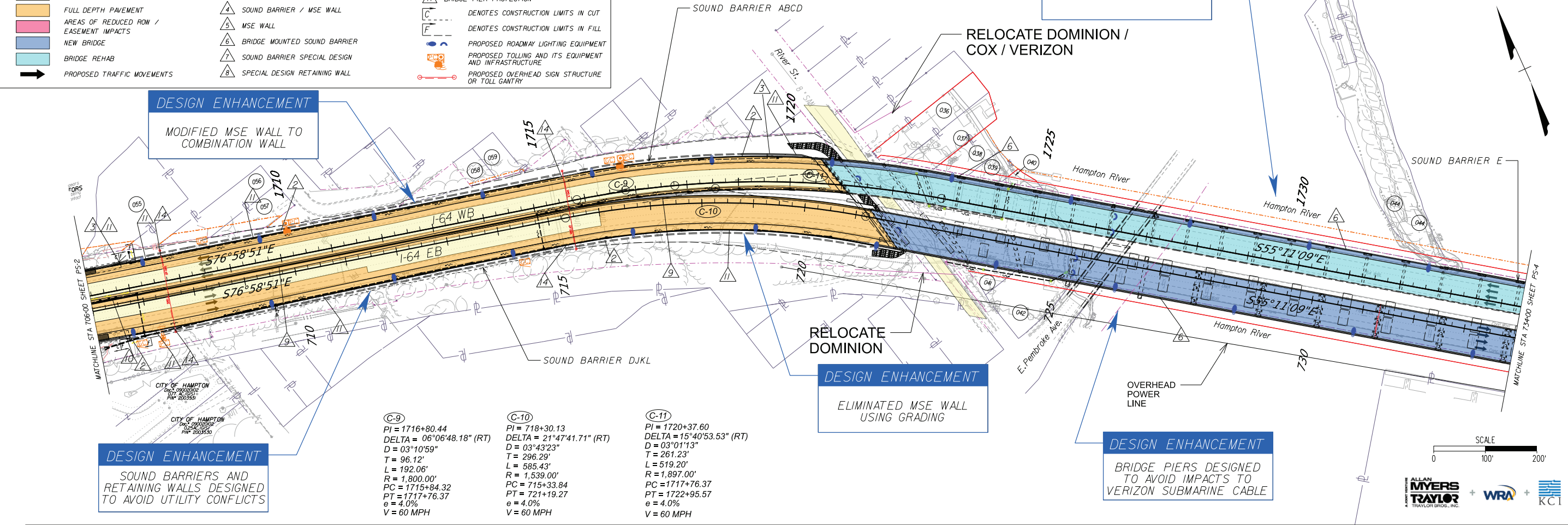
ELIMINATED MSE WALL USING GRADING

### DESIGN ENHANCEMENT

BRIDGE PIERS DESIGNED TO AVOID IMPACTS TO VERIZON SUBMARINE CABLE

### RELOCATE DOMINION / COX / VERIZON

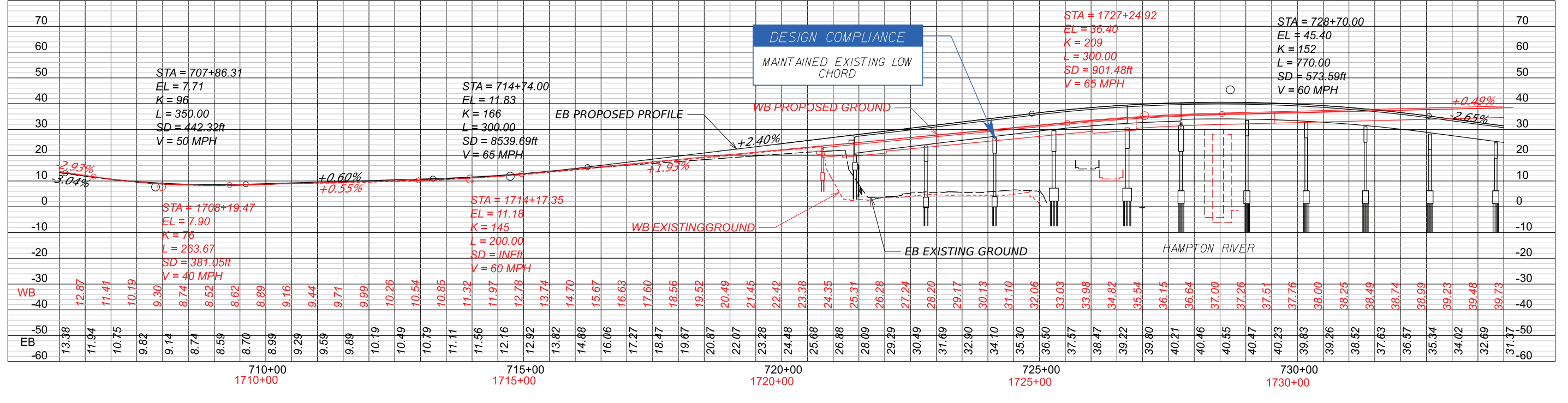
### RELOCATE DOMINION



Station	PI	DELTA	D	T	L	R	PC	PT	e	V
(C-9) 1716+80.44	1716+80.44	06°06'48.18" (RT)	03°10'59"	96.12'	192.06'	1,800.00'	1715+84.32	1717+76.37	4.0%	60 MPH
(C-10) 718+30.13	718+30.13	21°47'41.71" (RT)	03°43'23"	296.29'	585.43'	1,539.00'	721+33.84	721+19.27	4.0%	60 MPH
(C-11) 1720+37.60	1720+37.60	15°40'53.53" (RT)	03°01'13"	261.23'	519.20'	1,897.00'	1717+76.37	1722+95.57	4.0%	60 MPH



ALLAN MYERS TAYLOR + WRA + KCI



**LEGEND:**

- EXISTING RIGHT OF WAY AND/OR EXISTING LIMITED ACCESS LINE
- PROPOSED RIGHT OF WAY
- PROPOSED TEMPORARY EASEMENT
- PROPOSED PERMANENT EASEMENT
- PROPOSED UTILITY EASEMENT
- MILL AND OVERLAY
- FULL DEPTH PAVEMENT
- AREAS OF REDUCED ROW / EASEMENT IMPACTS
- NEW BRIDGE
- BRIDGE REHAB
- PROPOSED TRAFFIC MOVEMENTS
- GUARDRAIL
- SOUND BARRIER
- COMBINATION SOUND BARRIER / WALL
- SOUND BARRIER / MSE WALL
- MSE WALL
- BRIDGE MOUNTED SOUND BARRIER
- SOUND BARRIER SPECIAL DESIGN
- SPECIAL DESIGN RETAINING WALL
- CONC. MED. BARRIER ST'D MB-12A,B,C
- CONC. MED. BARRIER ST'D MB-13 TY,I,II,OR III
- CONC. MED. BARRIER ST'D MB-7D
- EPS STRUCTURE
- EPS STRUCTURE WITH SOUND BARRIER
- BRIDGE PIER PROTECTION
- NOTES CONSTRUCTION LIMITS IN CUT
- NOTES CONSTRUCTION LIMITS IN FILL
- PROPOSED ROADWAY LIGHTING EQUIPMENT
- PROPOSED TOLLING AND ITS EQUIPMENT AND INFRASTRUCTURE
- PROPOSED OVERHEAD SIGN STRUCTURE OR TOLL GANTRY

STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374.PI01, R201,C501	PS-4

**DESIGN ENHANCEMENT**  
BRIDGE PIERS DESIGNED TO AVOID UTILITY IMPACTS ALONG S. BOXWOOD ROAD. S. BOXWOOD ROAD WILL REMAIN OPEN DURING CONSTRUCTION

**DESIGN COMPLIANCE**  
DETERMINE IF UTILITY EASEMENT IS NEEDED

**DESIGN ENHANCEMENT**  
ELIMINATED MSE WALL USING GUARDRAIL

**DESIGN ENHANCEMENT**  
ADJUSTED EB PROFILE TO REDUCE BRIDGE DECK AREA

**DESIGN ENHANCEMENT**  
ADJUSTED HORIZONTAL CURVE LENGTHS TO BETTER MATCH EXISTING CURVE LENGTHS

**DESIGN ENHANCEMENT**  
ELIMINATED MSE WALL USING GUARDRAIL

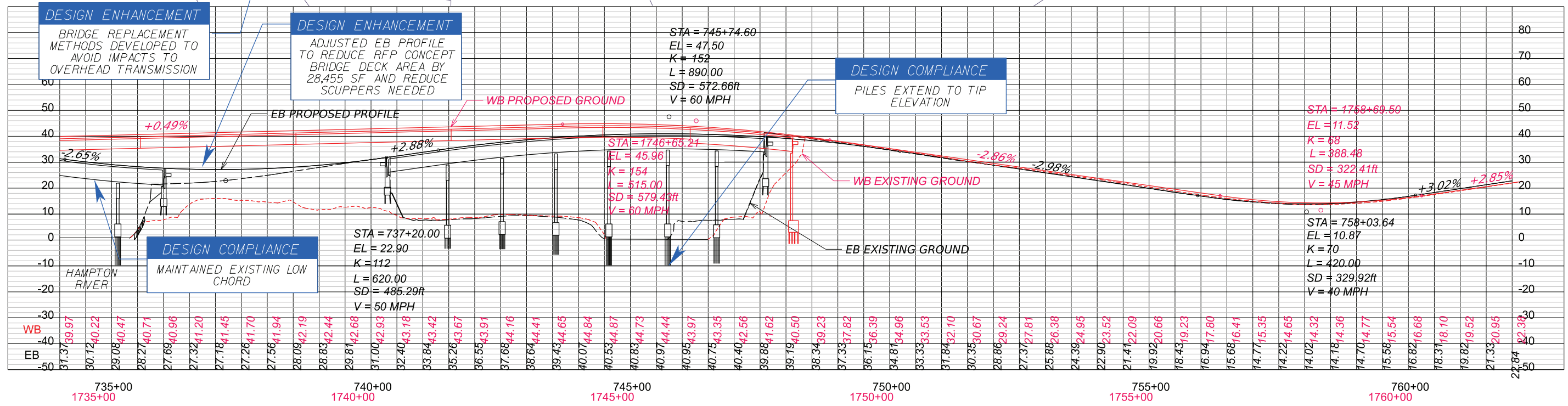
RELOCATE COX / DOMINION

**DESIGN ENHANCEMENT**  
BRIDGE REPLACEMENT METHODS DEVELOPED TO AVOID IMPACTS TO OVERHEAD TRANSMISSION

**DESIGN ENHANCEMENT**  
ADJUSTED EB PROFILE TO REDUCE RFP CONCEPT BRIDGE DECK AREA BY 28,455 SF AND REDUCE SCUPPERS NEEDED

**DESIGN COMPLIANCE**  
PILES EXTEND TO TIP ELEVATION

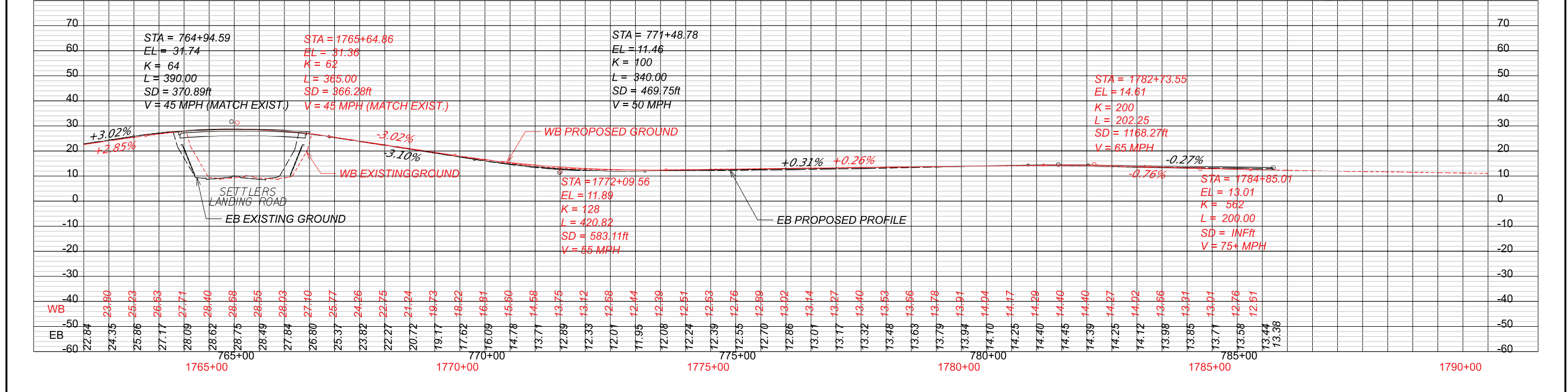
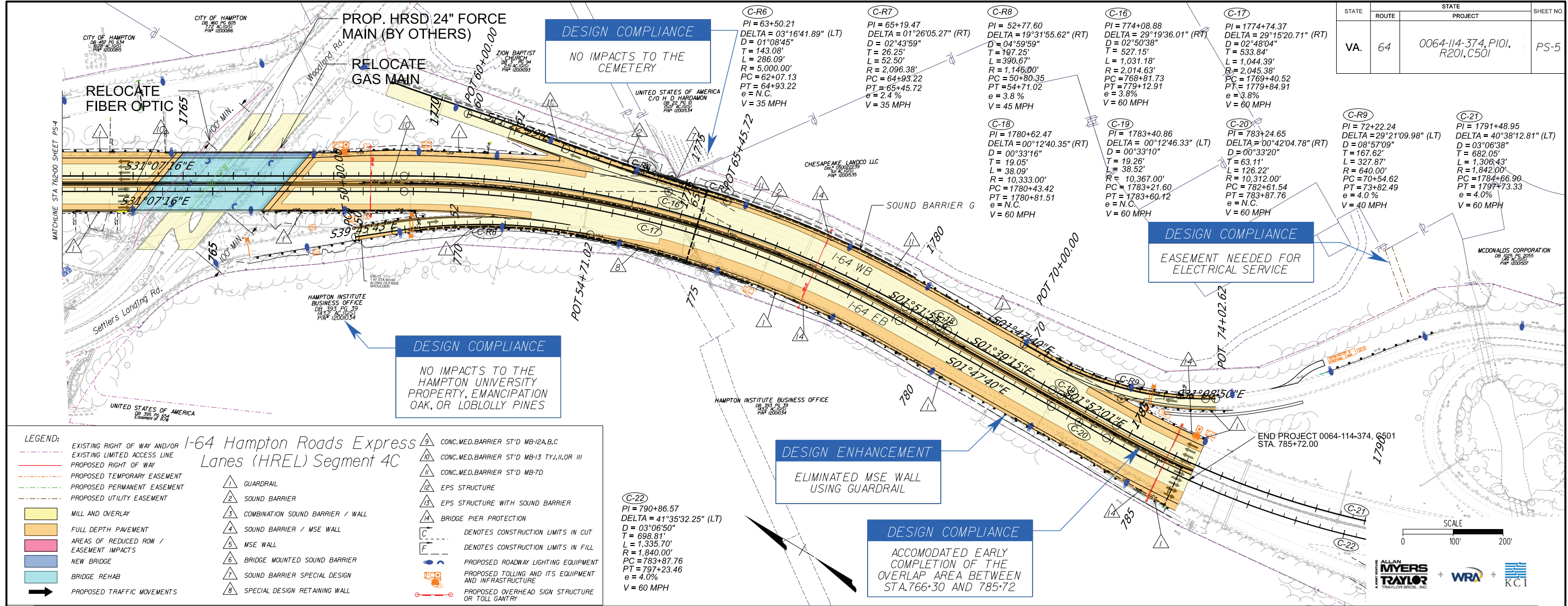
**DESIGN COMPLIANCE**  
MAINTAINED EXISTING LOW CHORD



SCALE 0 100' 200'

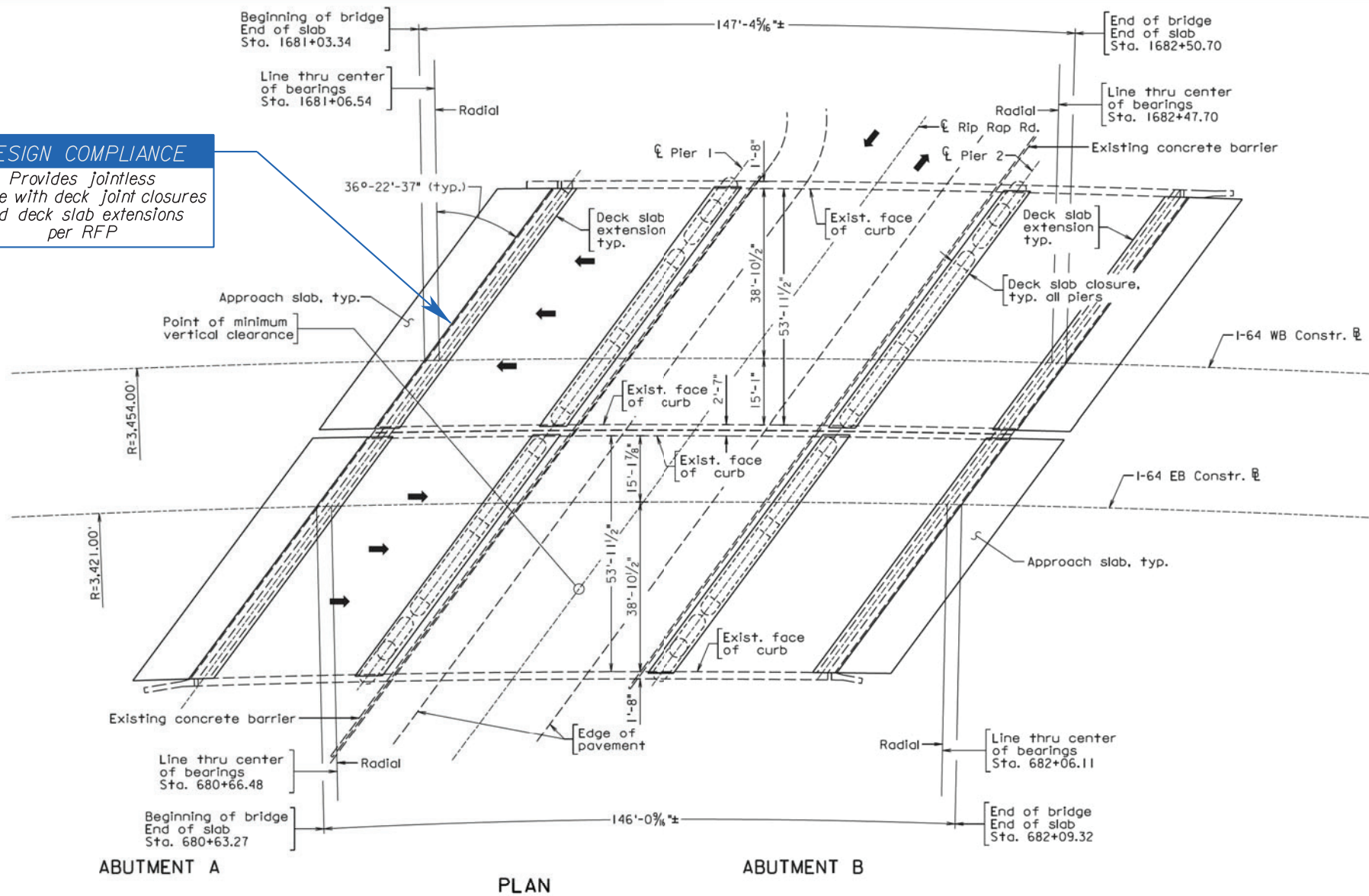
ALLAN MYERS TAYLOR TRAYLOR BROS., INC. + WRA + KCI

STATE	ROUTE	PROJECT	SHEET NO.
VA.	64	0064-114-374, P101, R201, C501	PS-5

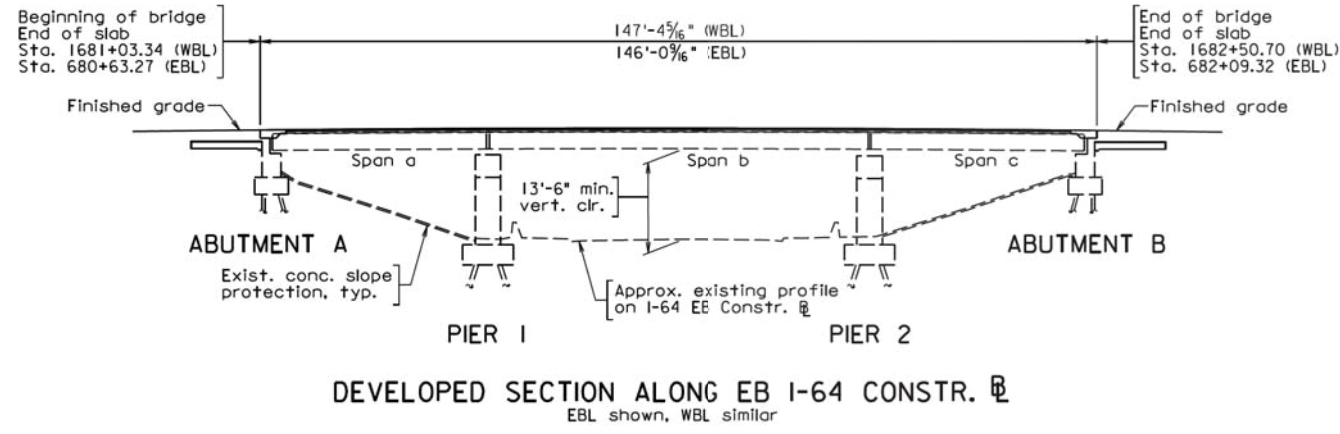




**DESIGN COMPLIANCE**  
Provides jointless bridge with deck joint closures and deck slab extensions per RFP



PLAN



DEVELOPED SECTION ALONG EB I-64 CONSTR. EBL shown, WBL similar

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION ENGINEER
KCI TECHNOLOGIES, INC RICHMOND, VA STRUCTURAL ENGINEER
PLANS BY:
COORDINATED:
SUPERVISED:
DESIGNED:
DRAWN:
CHECKED:



Scale: 1/16" = 1'-0"

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

STATE	FEDERAL AID	STATE	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B659
Federal Structure No.00000000020320		FHWA Construction and Scour Code: X281-SN	
Federal Stewardship and Oversight Code: N/A		UPC No. 119638	

**DESIGN EXCEPTION(S):**  
Maintained existing minimum vertical clearance of 13'-6". Approved by State Structure and Bridge Engineer on February 17, 2021.  
Reduced left shoulder width to 3'-0". Approved by State Structure and Bridge Engineer on xxx.

**GENERAL NOTES:**  
Width: 53'-11 1/2" face-to-face of curbs.  
Capacity: HS20-44 loading (original design).  
Specifications:  
Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020.  
Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.  
Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.  
These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.  
Bridge No. of existing bridge is 2809. Existing Plan Nos. are 171-11 and 171-11A.

**VDOT**  
COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
PROPOSED BRIDGE REPAIRS ON  
I-64 EBL/WBL OVER RIP RAP ROAD  
CITY OF HAMPTON 0.2 MI. N. OF RTE. 137  
PROJECT NO. 0064-114-374, B659

Recommended for Approval: \_\_\_\_\_ Date \_\_\_\_\_  
District Project Development Engineer

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
District Administrator

Date: \_\_\_\_\_ © 2022, Commonwealth of Virginia

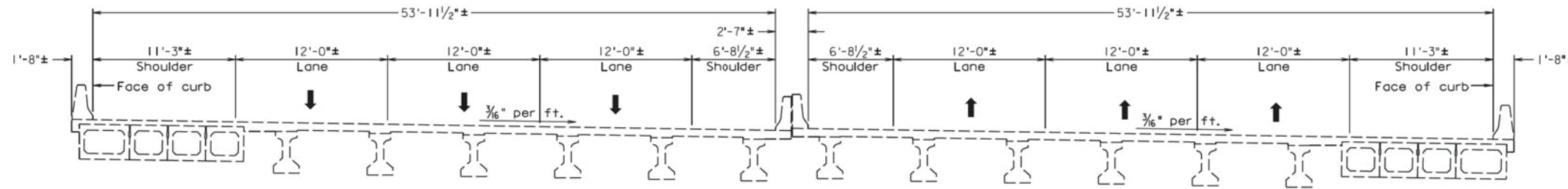
171-11B  
Sheet B-01

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B659	B-02

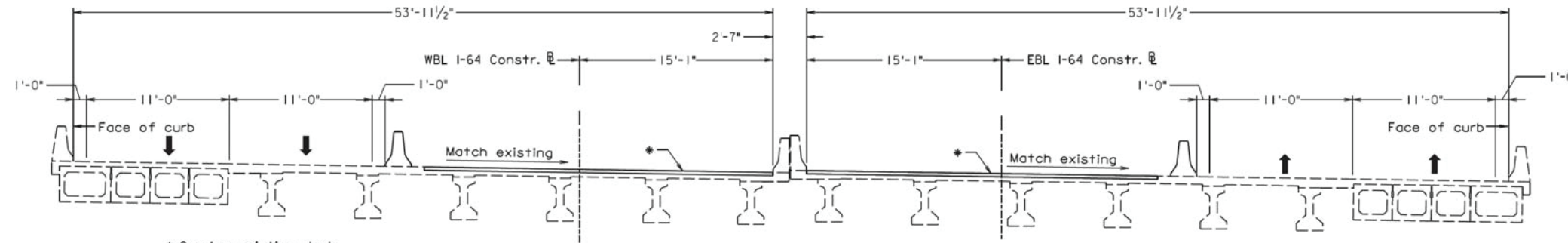
**Notes:**

Milled (or hydro-demolished) existing deck concrete shall be completely removed from the bridge deck before any repair is performed or overlay work is performed. After milling, limits of deck repair shall be determined and designated using sounding.

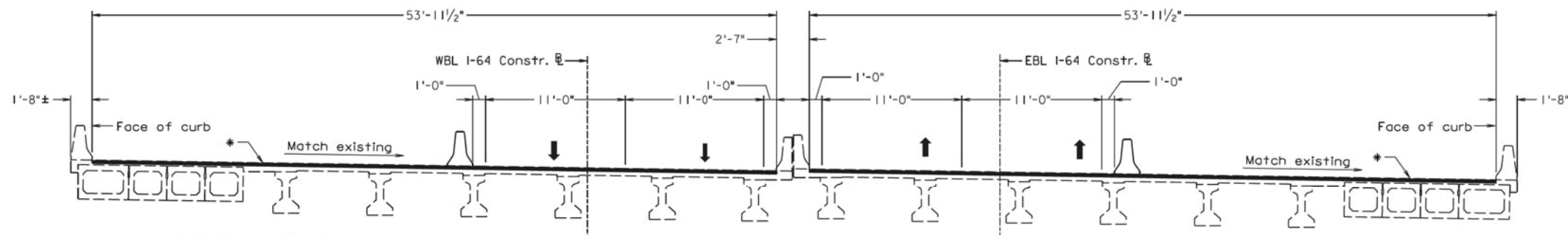
The existing concrete surface shall be prepared in accordance with VDOT Road and Bridge Specifications Section 412.03 and the special provisions for latex modified concrete overlay.



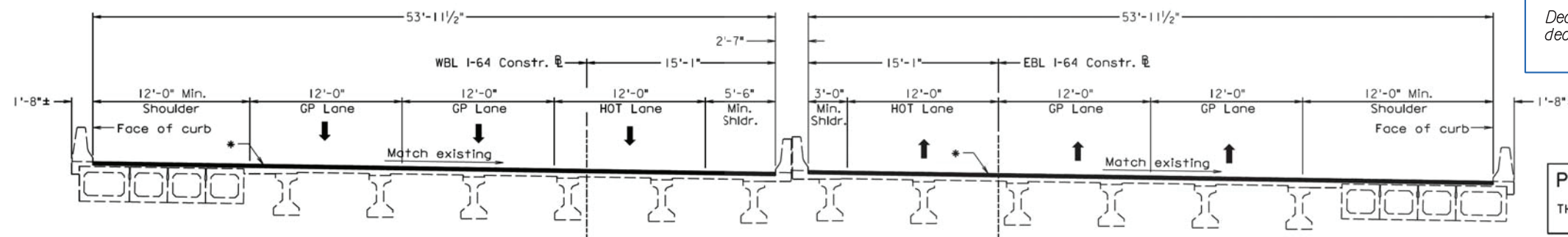
**EXISTING - TRANSVERSE SECTION**



**OVERLAY - TRANSVERSE SECTION PHASE II**

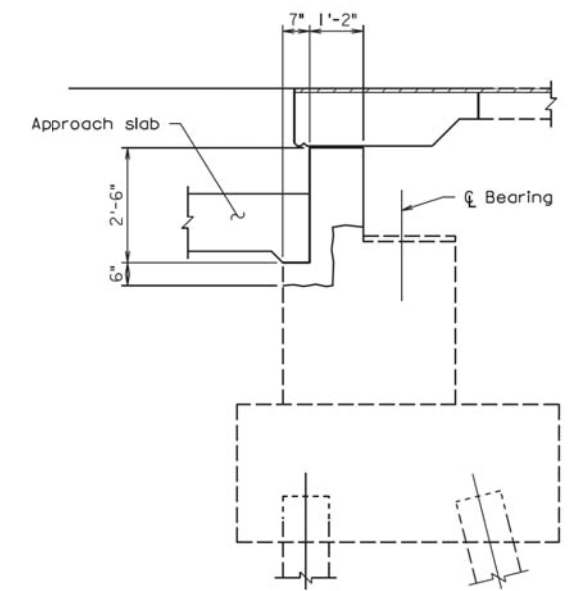


**OVERLAY - TRANSVERSE SECTION PHASE III**



**FINAL - TRANSVERSE SECTION**

Scale: 3/16" = 1'-0"



**ABUTMENT RETROFIT**

Scale: 1/2" = 1'-0"

**DESIGN COMPLIANCE**  
Deck overlay per RFP for deck rehabilitation/bearing replacements

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			
<b>TRANSVERSE SECTIONS</b>			
No.	Description	Date	Designed: KCI Drawn: KCI Checked: KCI
	Revisions		Date: MAY 2022 Plan No.: 171-11B Sheet No.: B-02



FEDERAL AID		STATE		SHEET	
STATE	ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		NHPP-064-3(522)	64	0064-114-374, B672	B-03
Federal Structure No.00000000020318			FHWA Construction and Scour Code: X281-SN		
Federal Stewardship and Oversight Code: N/A			UPC No. 119638		

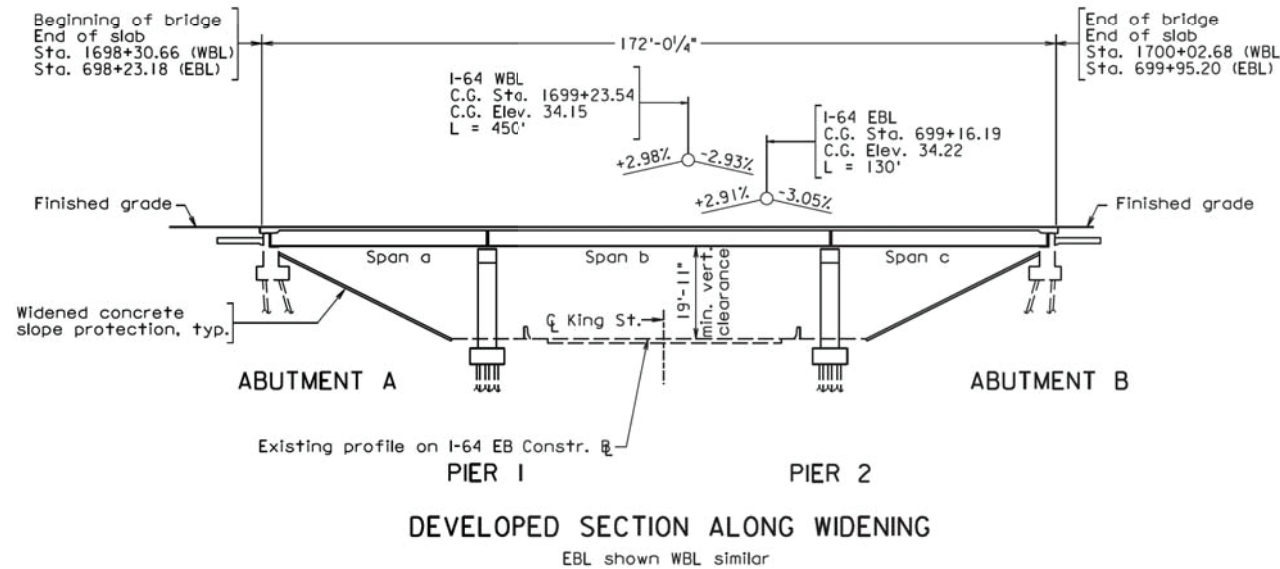
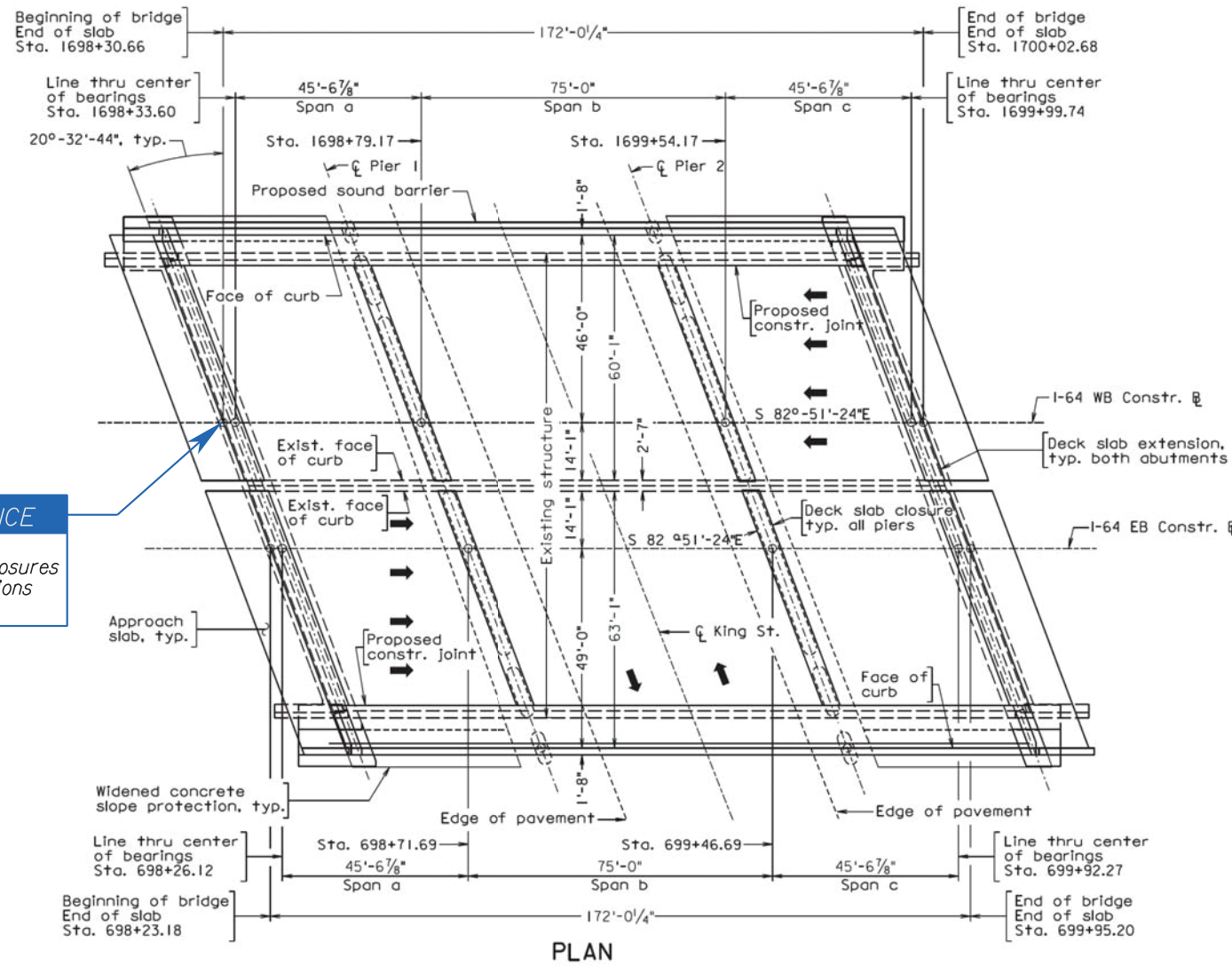
**DESIGN EXCEPTION(S):**

Reduce left shoulder width to 2'-0".  
Approved by State Structure and Bridge Engineer on xxx.

**GENERAL NOTES:**

- Width: 60'-1" face-to-face of curbs, including widening of 10'-8"± on outside of WBL
- 63'-1" face-to-face of curbs, including widening of 12'-1"± on outside of EBL
- Span layout: 45'-6 7/8" - 75'-0" - 45'-6 7/8" WBL  
45'-6 7/8" - 75'-0" - 45'-6 7/8" EBL
- Capacity: HL-93 loading (widening portion only).
- Specifications: Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020
- Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.
- Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions
- These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.
- Bridge No. of existing bridge is 2807. Existing Plan Nos. are 171-12 and 171-12A.

**DESIGN COMPLIANCE**  
Provides jointless bridge with deck joint closures and deck slab extensions per RFP



**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION ENGINEER
KCI TECHNOLOGIES, INC RICHMOND, VA STRUCTURAL ENGINEER
PLANS BY:
COORDINATED:
SUPERVISED:
DESIGNED:
DRAWN:
CHECKED:



Scale: 1" = 20'

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

Recommended for Approval: \_\_\_\_\_ Date \_\_\_\_\_  
District Project Development Engineer

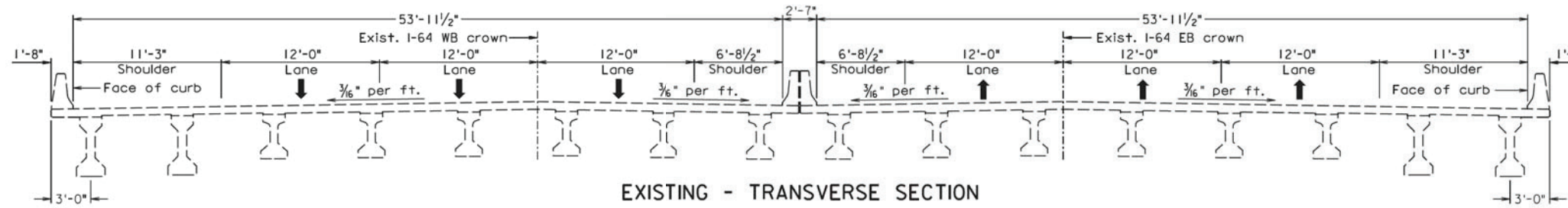
Approved: \_\_\_\_\_ Date \_\_\_\_\_  
District Administrator

Date: \_\_\_\_\_ © 2022, Commonwealth of Virginia Sheet B-03

171-12B



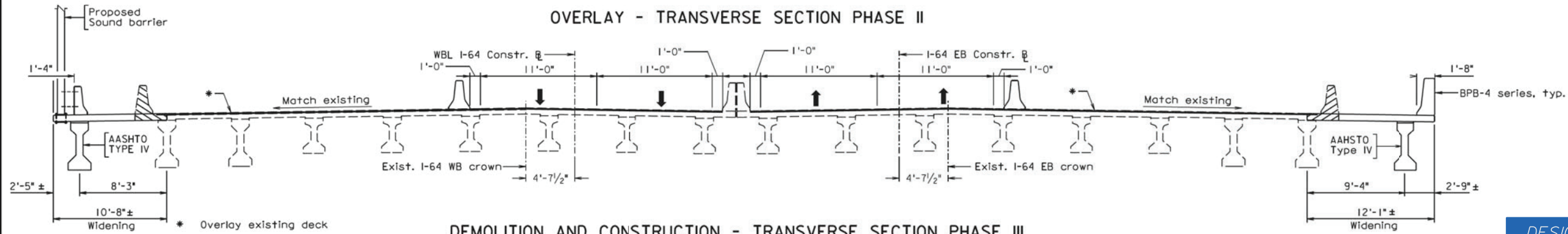
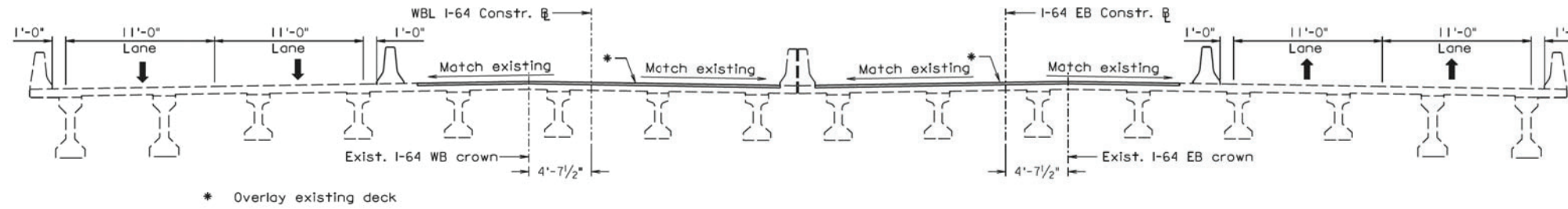
STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT		ROUTE	PROJECT
VA.	NHPP-064-3(522)		64	0064-114-374, B672
				B-04



Notes:

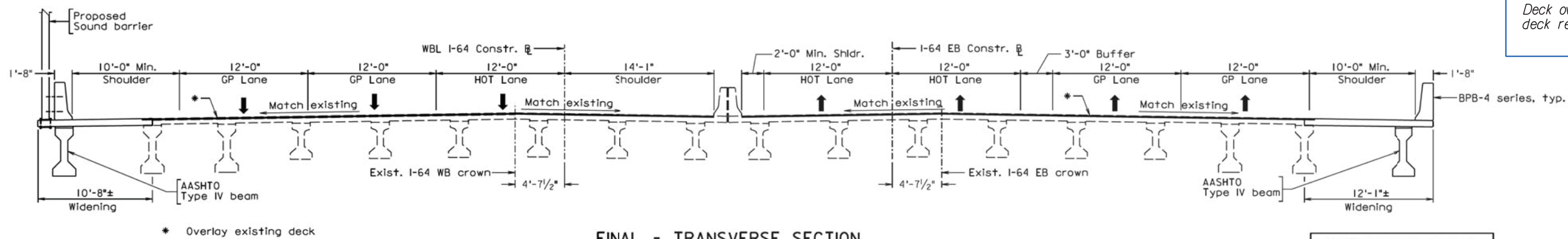
Milled (or hydro-demolished) existing deck concrete shall be completely removed from the bridge deck before any repair is performed or overlay work is performed. After milling, limits of deck repair shall be determined and designated using sounding.

The existing concrete surface shall be prepared in accordance with VDOT Road and Bridge Specifications Section 412.03 and the special provisions for latex modified concrete overlay.



**DESIGN COMPLIANCE**

Deck overlay per RFP for deck rehabilitation/bearing replacements



**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

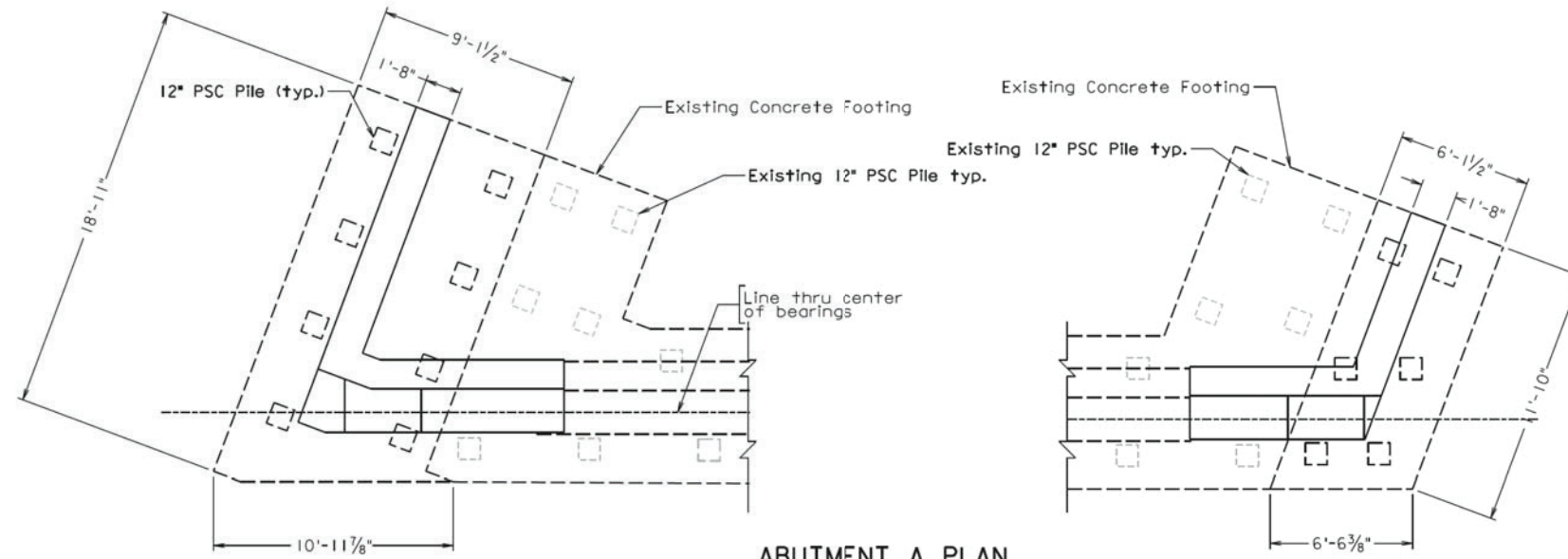
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			
<b>TRANSVERSE SECTIONS</b>			
No.	Description	Date	Designed: KCI Drawn: KCI Checked: KCI
	Revisions		
		Date	Plan No.
		MAY 2022	171-12B
			Sheet No. B-04



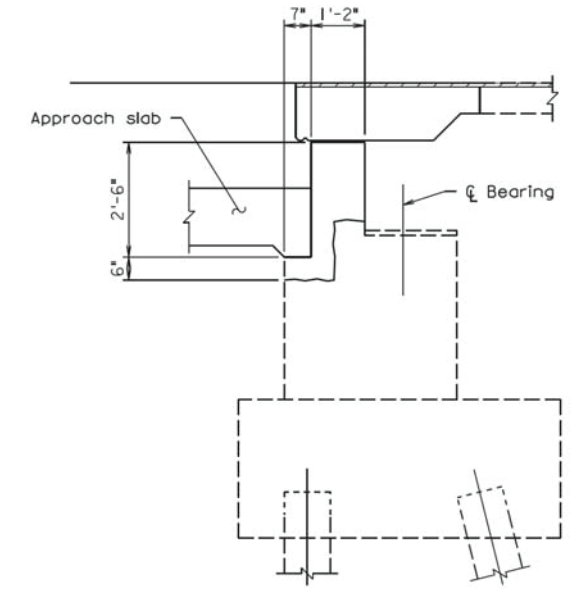
Scale: 3/16" = 1'-0"

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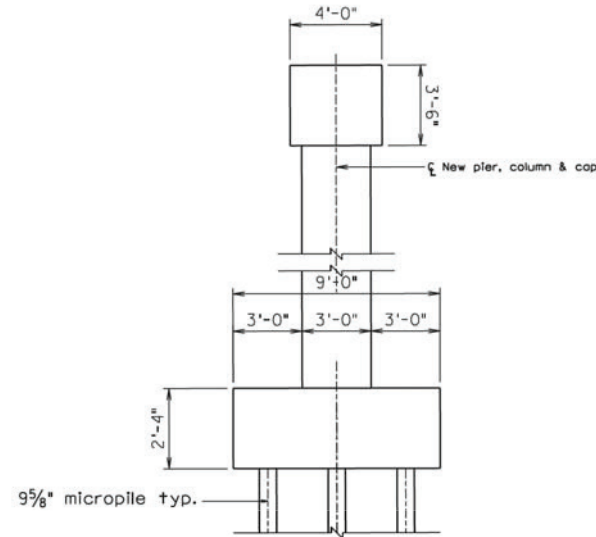
STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B672	B-05



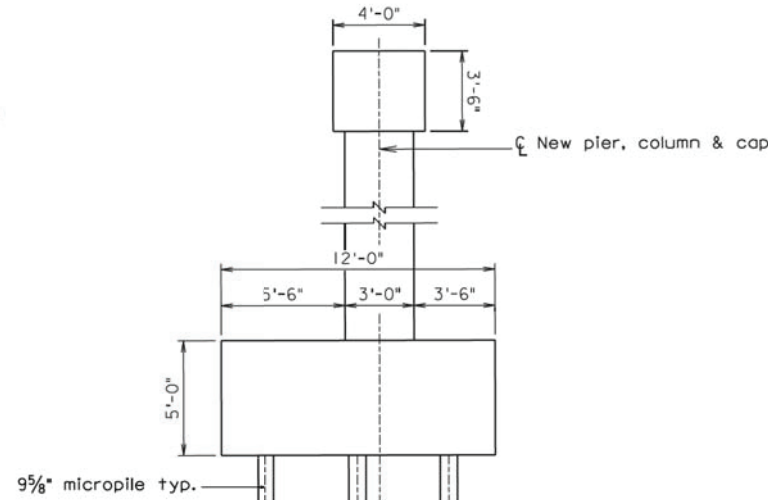
Notes:  
 Existing substructure requires concrete surface patching, crack repairs and concrete slope protection repairs.  
 All bearings and bearing assemblies are to be replaced. This includes sole plates, masonry plates, clip angles and anchor bolts. New bearings will be steel reinforced elastomeric bearings.



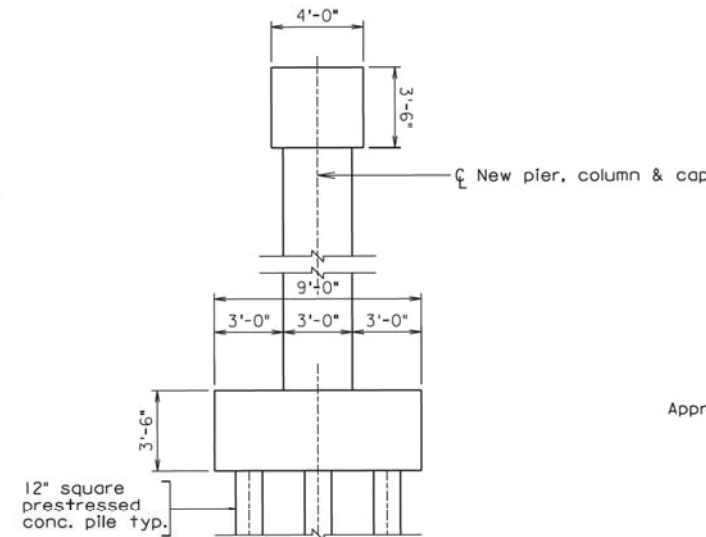
ABUTMENT RETROFIT  
 Scale: 1/2" = 1'-0"



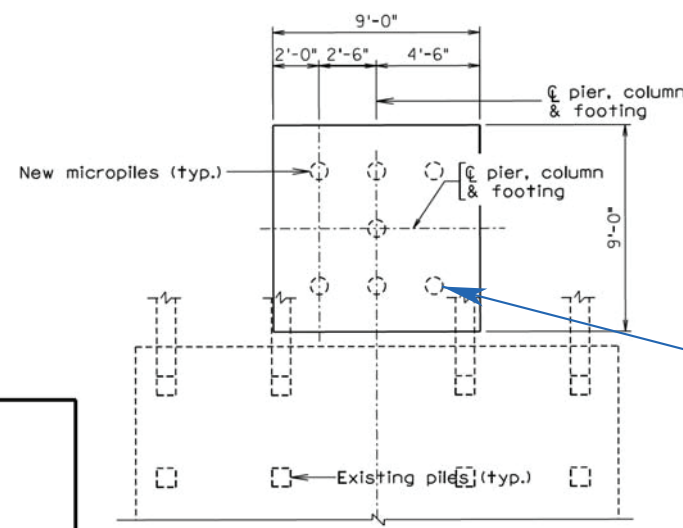
WB PIER 2 SECTION



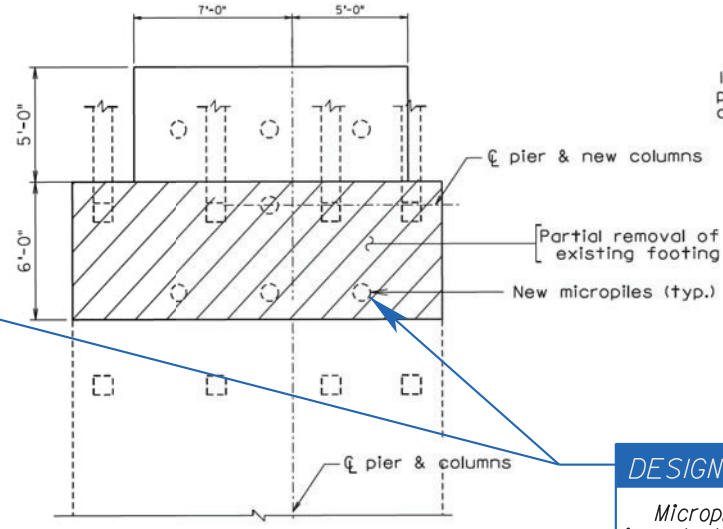
WB PIER 1 SECTION



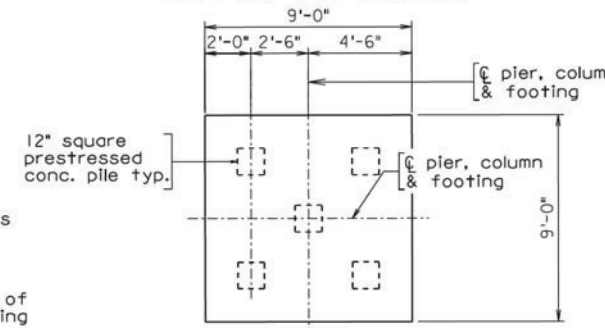
EB PIER 1-2 SECTION



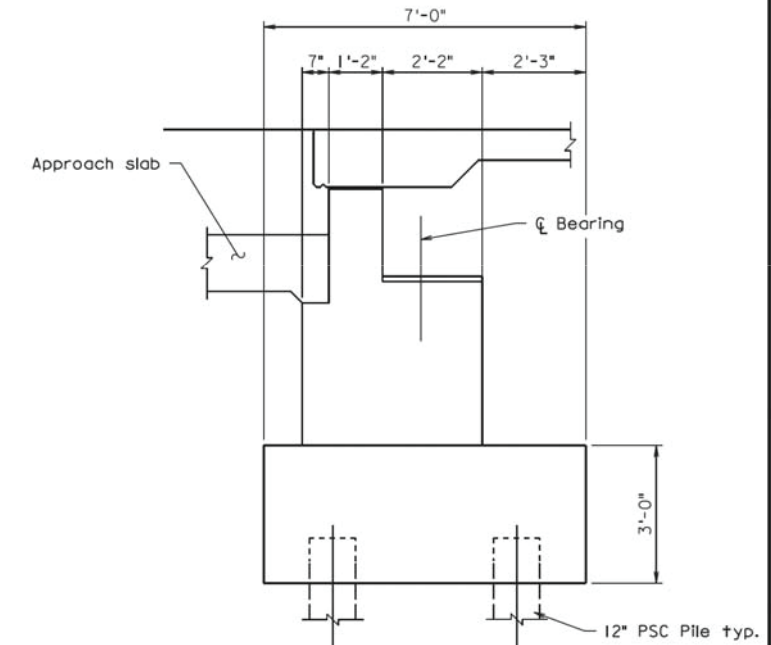
WB PIER 2 PLAN  
 Scale: 1/4" = 1'-0"



WB PIER 1 PLAN  
 Scale: 1/4" = 1'-0"



EB PIER 1-2 PLAN  
 Scale: 1/4" = 1'-0"



ABUTMENT WIDENING  
 Scale: 1/2" = 1'-0"

PRELIMINARY PLANS  
 THESE PLANS NOT TO BE USED  
 FOR CONSTRUCTION

**DESIGN ENHANCEMENT**

Micropiles used to avoid impacts to existing foundation with widened pier elements.

KCI TECHNOLOGIES, INC  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

ALLAN MYERS TAYLOR  
 WRA  
 KCI

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION				
ABUTMENT A & B PLAN (I-64 EBL/WBL OVER KING STREET)				
No.	Description	Date	Designed: KCI	Date
			Drawn: KCI	May 2022
			Checked: KCI	
	Revisions		Plan No.	Sheet No.
			171-12B	B-05

STATE	FEDERAL AID	ROUTE	PROJECT	STATE	PROJECT	SHEET NO.
VA.		64	0064-114-374, B673, B674			B-06
Federal Structure No. 00000000020346 00000000020316 000000000XXXXX			FHWA Construction and Scour Code: <b>X481-S-</b>			
Federal Stewardship and Oversight Code: N/A			UPC No. 119638			

**DESIGN EXCEPTION(S):**  
Reduce left shoulder width to 2'-0".  
Approved by State Structure and Bridge Engineer on xxx.

**GENERAL NOTES:**

Width: 60'-0" face-to-face of curbs, including widening of 12'-0" +/- to the outside of WBL Hampton River Bridge  
63'-0" face-to-face of curbs EBL Hampton River Bridge  
63'-0" face-to-face of curbs EBL Hampton Creek Bridge

Span layout: WBL Hampton River Bridge: 37'-2 3/8" - 85'-4 7/8" - 50'-3 5/8" - 49'-9 3/8" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 84'-0" - 67'-0" - 67'-0" - 67'-0" - 67'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 75'-0" - 74'-11 1/8" - 74'-10 1/4" - 74'-10 1/4" - 74'-10 1/4" - 74'-10 1/4" - 59'-10 5/8" - 59'-10 5/8" - 59'-10 5/8" - 109'-6 1/2" - 108'-3"

EBL Hampton River Bridge: 135'-0" - 133'-0" - 115'-0" - 142'-0" - 104'-6" - 127'-6" - 115'-0" - 115'-0" - 125'-0" - 127'-6" - 127'-6" - 85'-0"

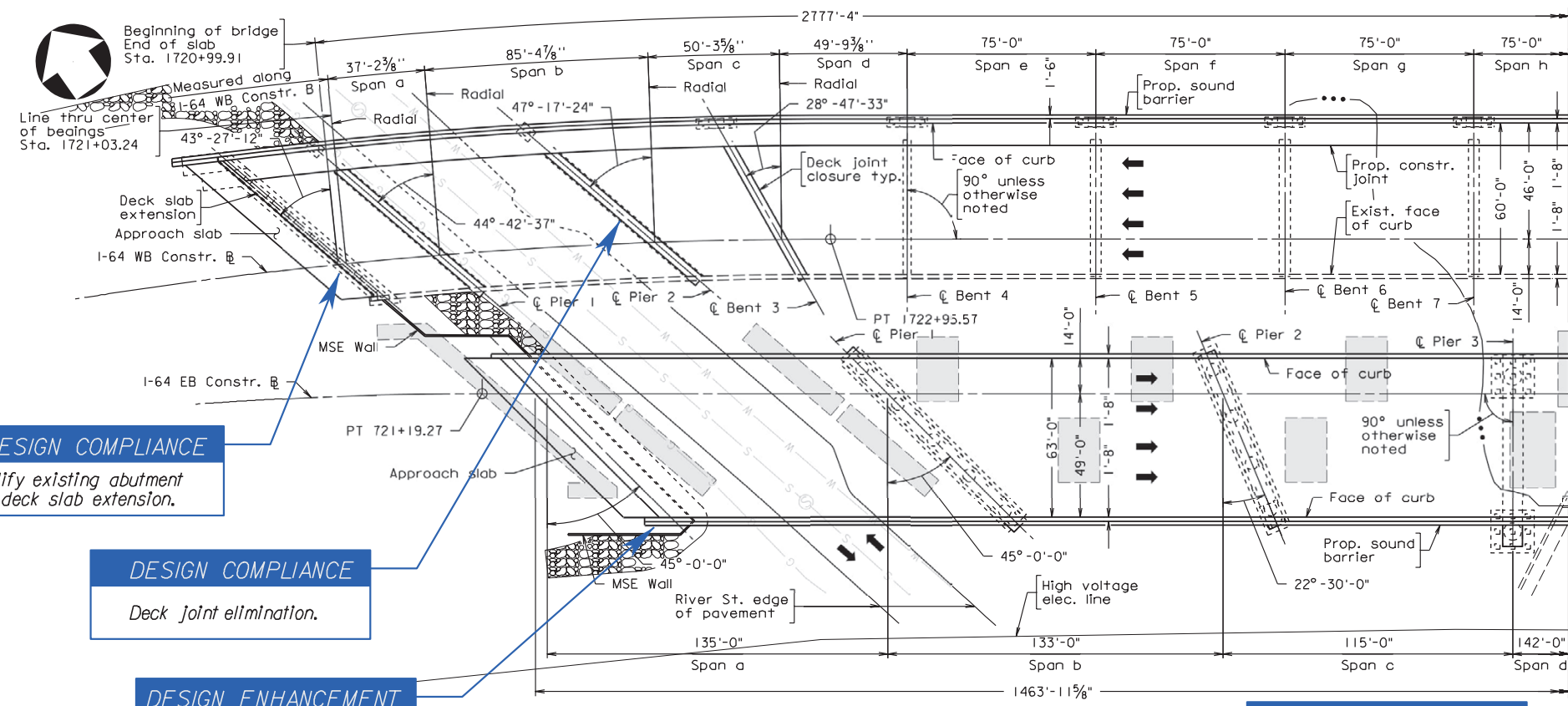
Hampton Creek Bridge: 120'-3" - 105'-8" - 105'-8" - 105'-8" - 120'-0" - 102'-6" - 102'-6"

Capacity: EBL Hampton River Bridge and Hampton Creek Bridge: HL-93 Loading.  
WBL Hampton River Bridge: HS-20 and alternate military loading (original design) HL-93 (widening).

Specifications:  
Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020.  
Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.  
Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge No. of existing bridges is 2804 & 2805 EBL and 2839 WBL. Existing Plan No. is 171-14, 171-14A, 171-13, 171-13A EBL and 260-79 WBL.



PLAN

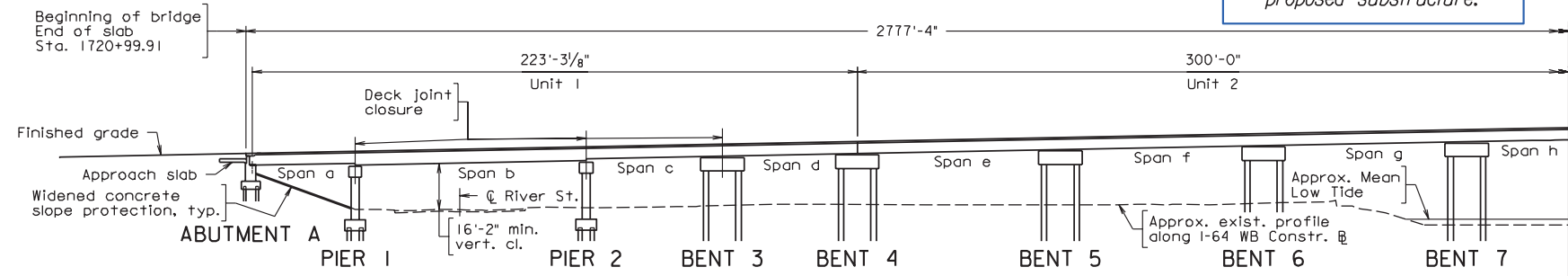
Denotes existing EB substructure units.

**DESIGN COMPLIANCE**  
Modify existing abutment to deck slab extension.

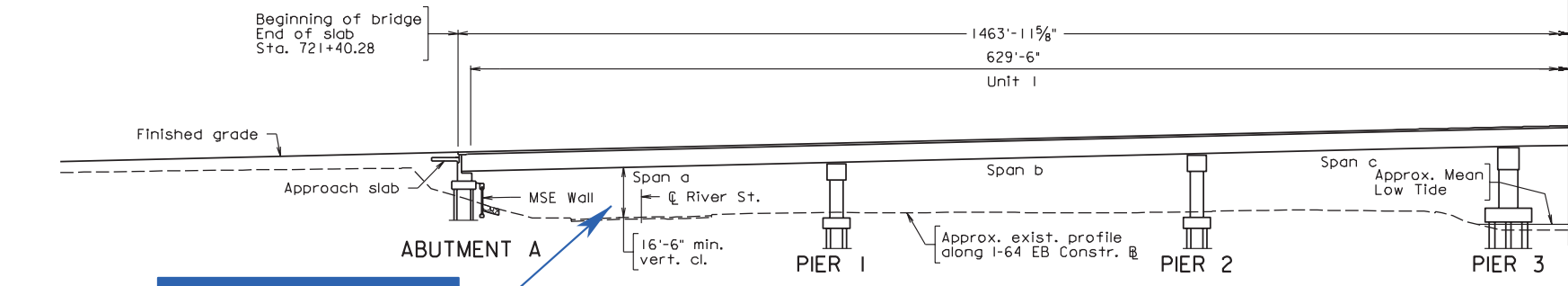
**DESIGN COMPLIANCE**  
Deck joint elimination.

**DESIGN ENHANCEMENT**  
Abutment location eliminates pier and reduces overall bridge length to use a deck slab extension style abutment.

**DESIGN ENHANCEMENT**  
Eliminated 12 conflict points between existing and RFP proposed substructure.



DEVELOPED SECTION ALONG I-64 WB WIDENING



DEVELOPED SECTION ALONG I-64 EB CONSTR.

**DESIGN ENHANCEMENT**  
Increased vertical clearance.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: 1" = 30'-0"

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION ENGINEER
WHITMAN REQUARDT & ASSOCIATES RICHMOND, VA STRUCTURAL ENGINEER
PLANS BY:
COORDINATED:
SUPERVISED:
DESIGNED:
DRAWN:
CHECKED:



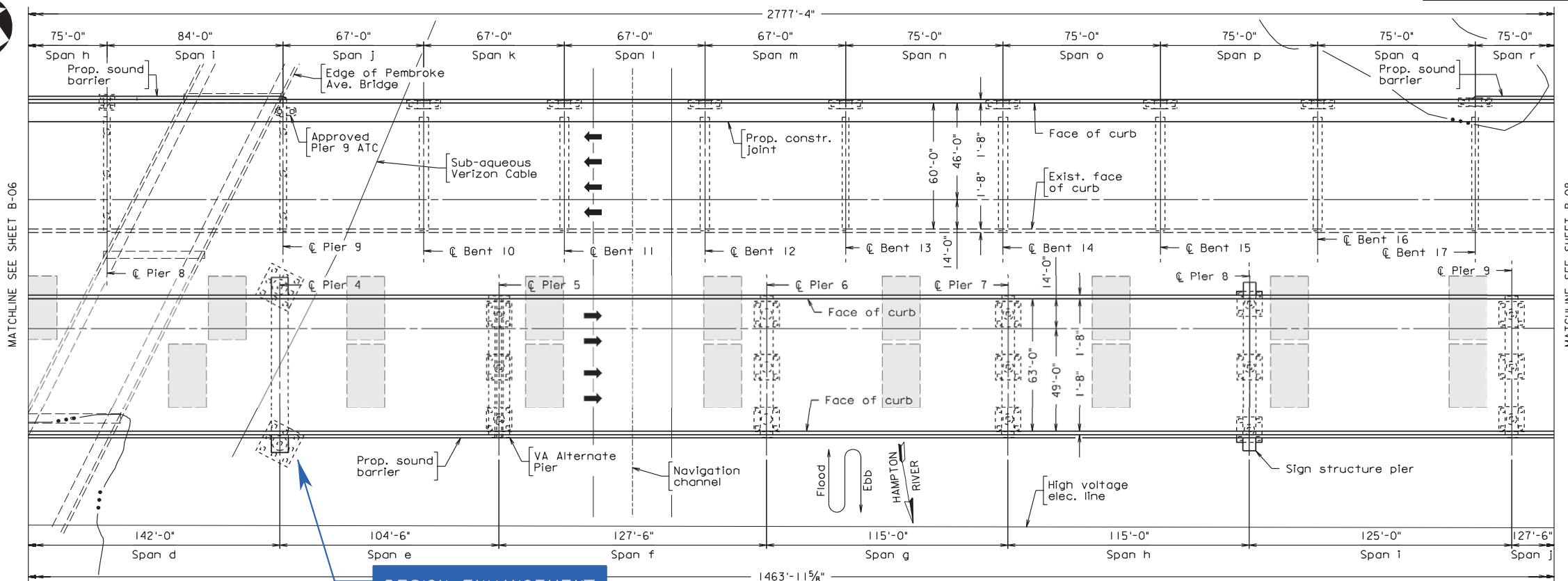
No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 3.		

Recommended for Approval: \_\_\_\_\_ Date \_\_\_\_\_  
District Project Development Engineer

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
District Administrator

Date: May 2022 © 2022, Commonwealth of Virginia Sheet B-06

STATE	FEDERAL AID	ROUTE	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674			B-07



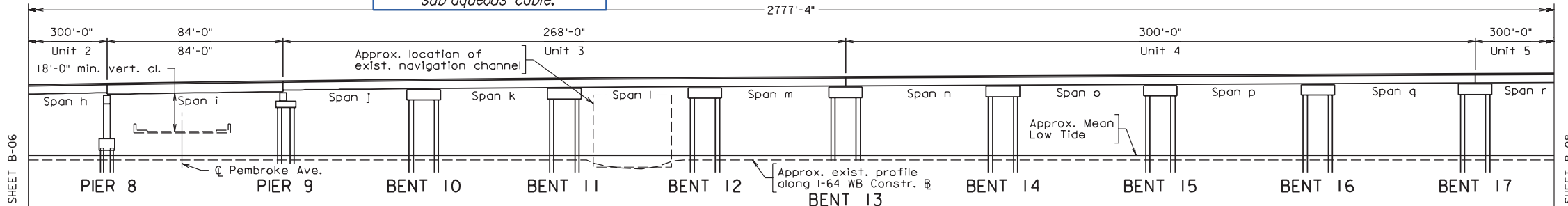
MATCHLINE SEE SHEET B-06

MATCHLINE SEE SHEET B-08

**DESIGN ENHANCEMENT**  
Eliminated 12 conflict points between existing and RFP proposed substructure.

**DESIGN ENHANCEMENT**  
Unique solution to mitigate potential conflict of sub-aqueous cable.

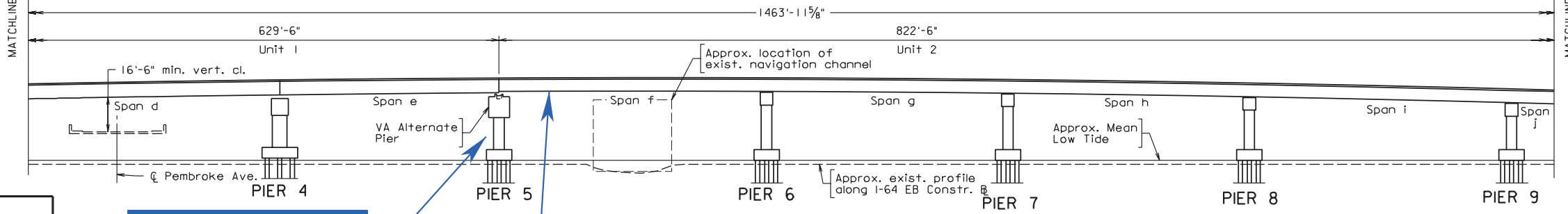
**PLAN**  Denotes existing EB substructure units.



MATCHLINE SEE SHEET B-06

MATCHLINE SEE SHEET B-08

**DEVELOPED SECTION ALONG I-64 WB WIDENING**



**DESIGN ENHANCEMENT**  
Use of one VA Pier located to limit unit length to allow use of deck slab extension at Abut. A.

**DESIGN ENHANCEMENT**  
Improved or maintained existing bridge low chord.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS TRAYLOR  
RICHMOND, VA  
TRAYLOR ENGINEERS, INC.

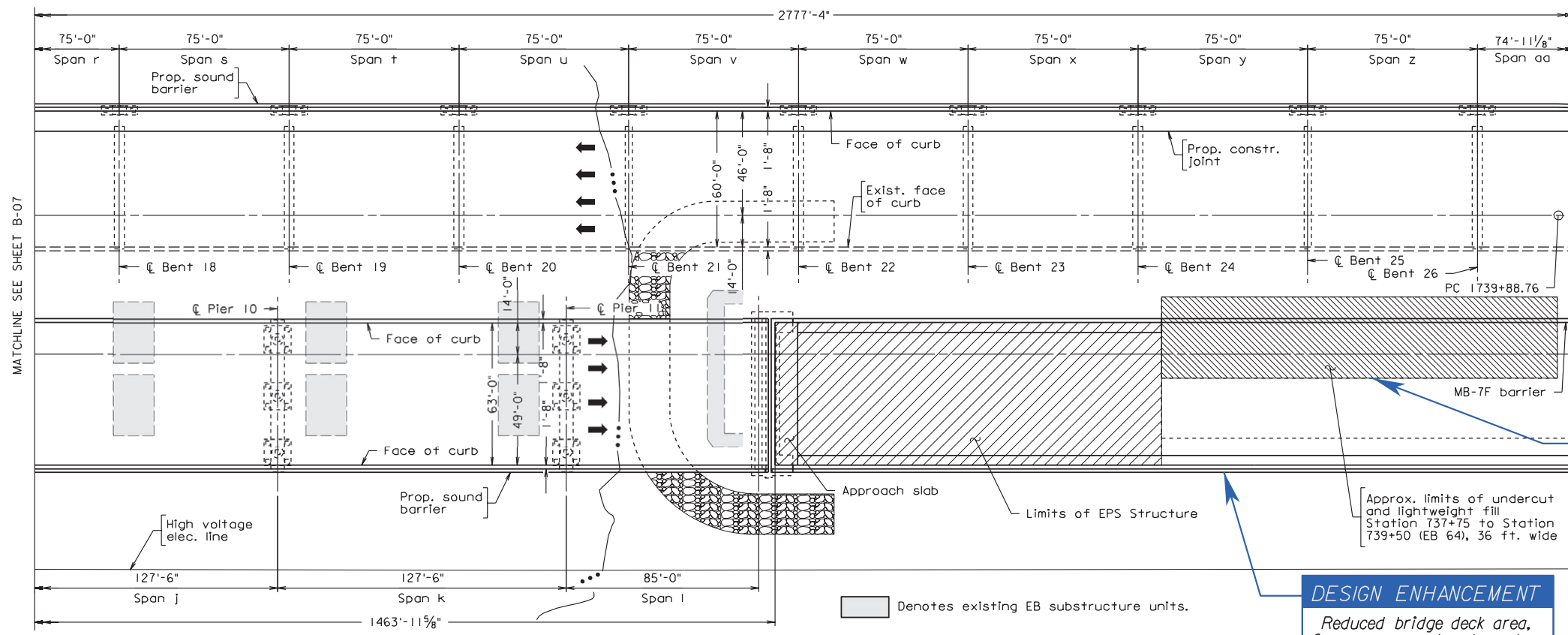
WRA

KC1

Scale: 1" = 30'

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			
<b>PLAN AND DEVELOPED SECTION</b>			
No.	Description	Date	Designed: W.R.A. Drawn: W.R.A. Checked: W.R.A.
			Date: May 2022
			Plan No. 171-14B
			Sheet No. B-07

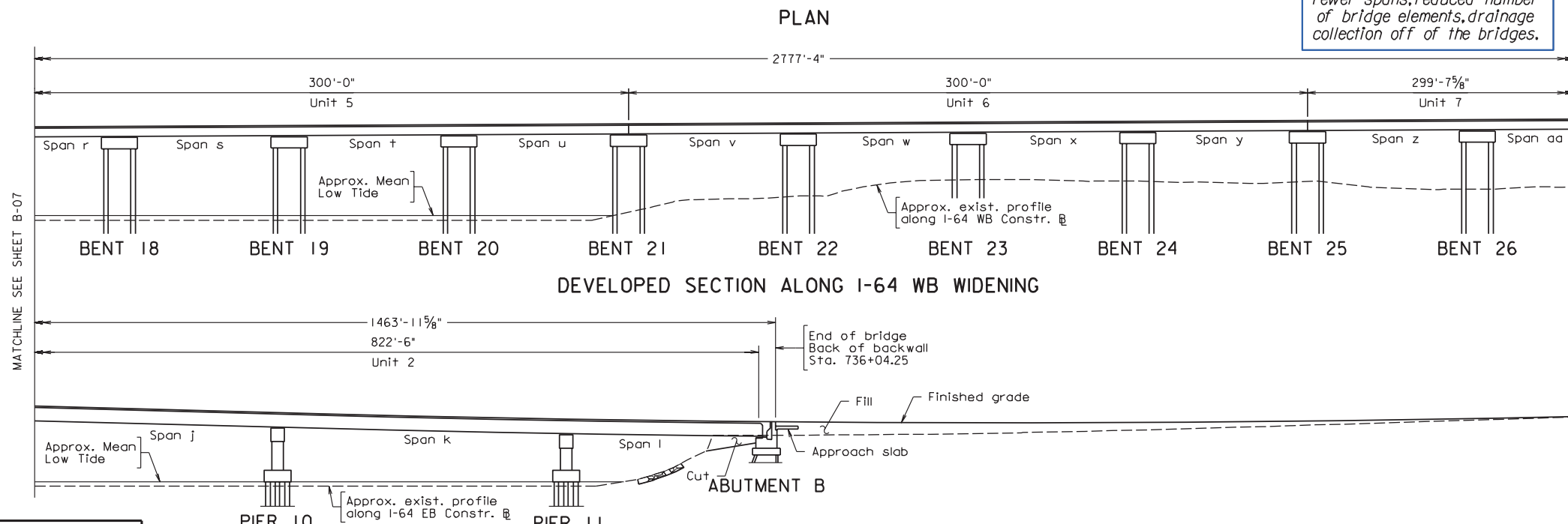


**DESIGN ENHANCEMENT**  
Eliminated 12 conflict points between existing and RFP proposed substructure.

**DESIGN ENHANCEMENT**  
Settlement mitigation using undercut and lightweight fill to protect existing WB bridge foundations.

**DESIGN ENHANCEMENT**  
Reduced bridge deck area, fewer spans, reduced number of bridge elements, drainage collection off of the bridges.

Item	RFP	MTJV	Difference	% Reduction
Bridge Deck Area (SF)	183,771	149,323	30,595	19%
No. of Spans	29	19	10	34%
No. of Beams	232	133	99	43%
No. of Piers	28	17	11	39%
No. of VA Piers	2	1	1	50%



WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TRAYLOR  
WRA  
KC1

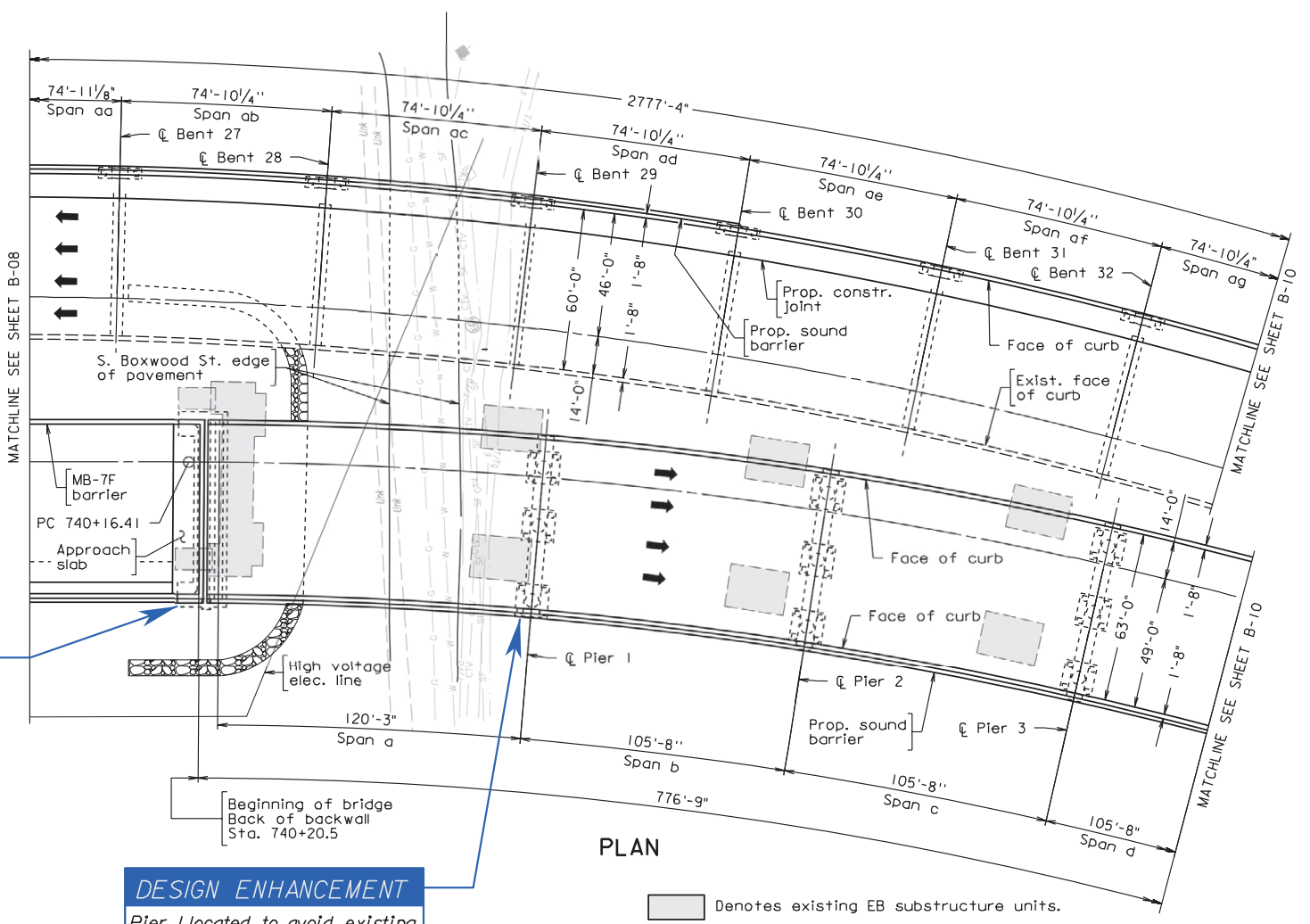
**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION					
PLAN AND DEVELOPED SECTION					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-08
Revisions					

Scale: 1" = 30'-0"

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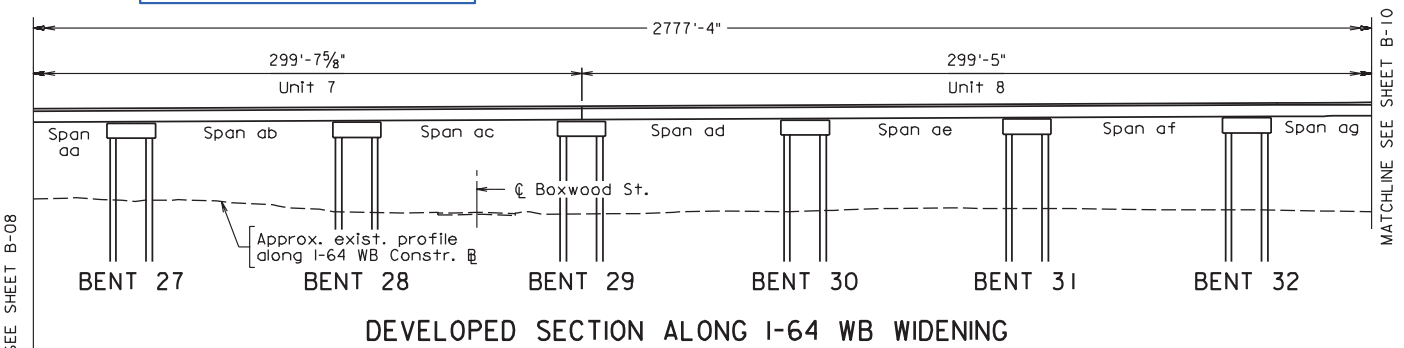
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VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674	B-09		



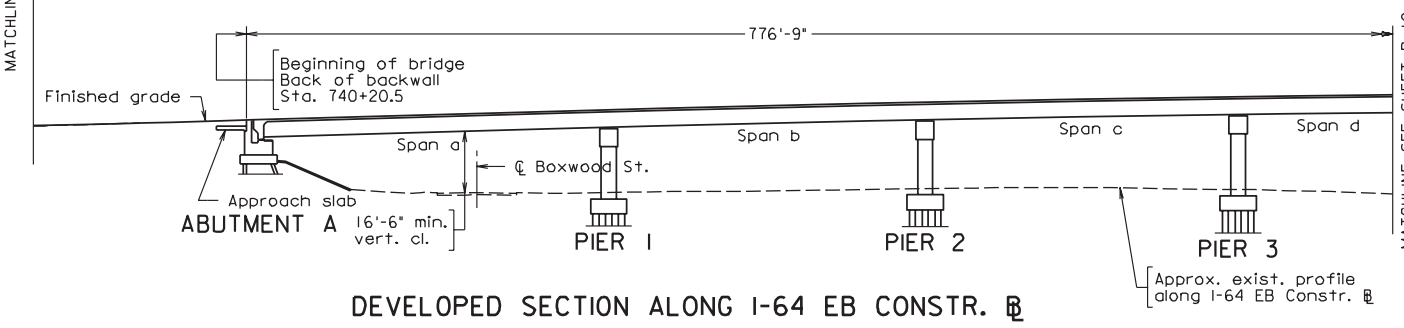
**DESIGN ENHANCEMENT**  
 Abutment location minimizes conflicts with the overhead transmission line that crosses I-64.

**DESIGN ENHANCEMENT**  
 Pier 1 located to avoid existing utilities and prevent impacts of S. Boxwood St.

**DESIGN ENHANCEMENT**  
 Eliminated 12 conflict points between existing and RFP proposed substructure.



**DESIGN ENHANCEMENT**  
 Reduced drainage system for EB bridges with sag point located in fill section.



**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

ALLAN MYERS  
 TAYLOR  
 TRAVELER ENGINEERS, P.C.

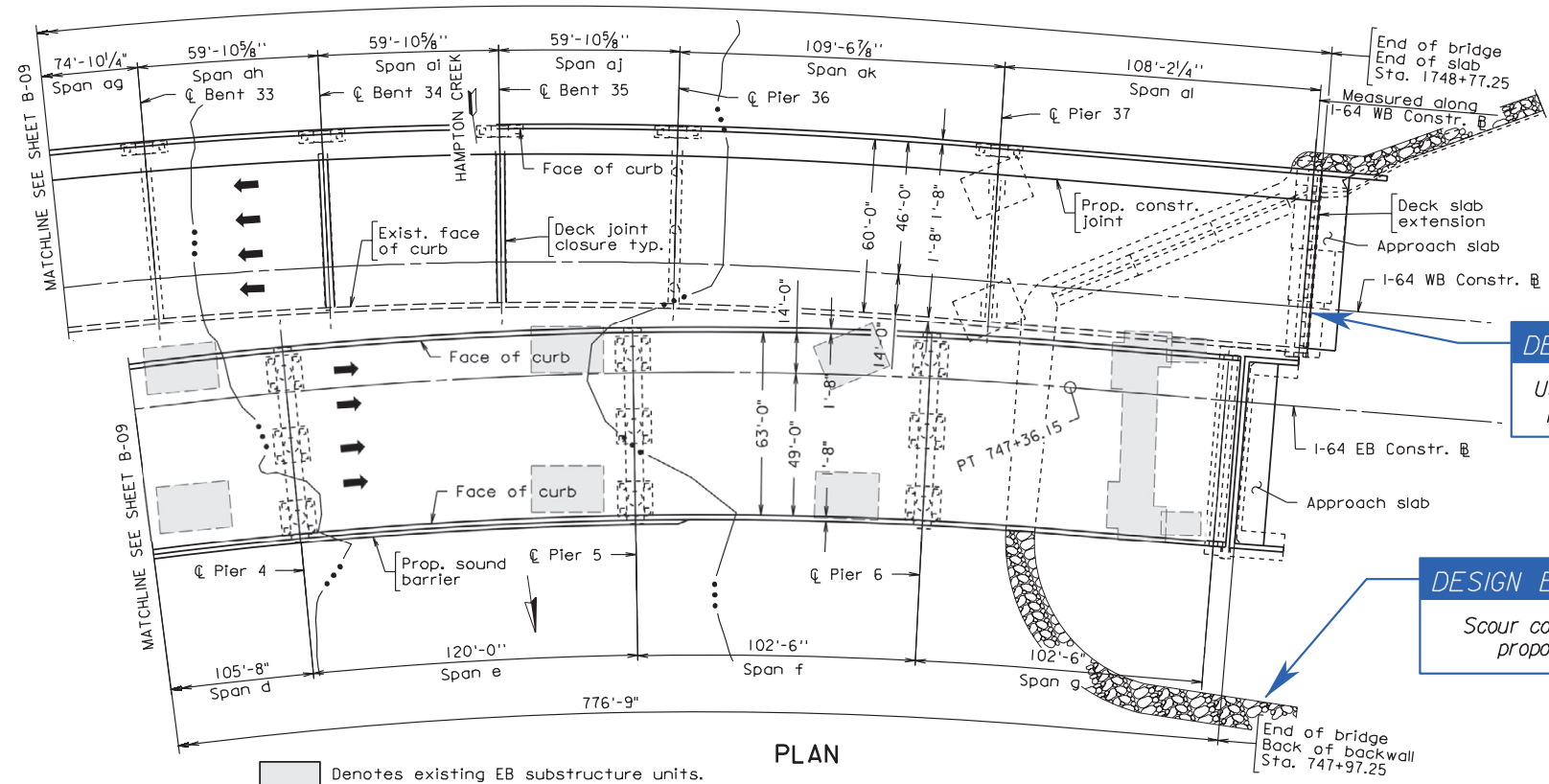
WRA + KCI

Scale: 1" = 30'-0"

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION				
STRUCTURE AND BRIDGE DIVISION				
PLAN AND DEVELOPED SECTION				
No.	Description	Date	Designed: W.R.A.	Sheet No.
			Drawn: W.R.A.	B-09
			Checked: W.R.A.	
Revisions			Date	Plan No.
			May 2022	171-14B

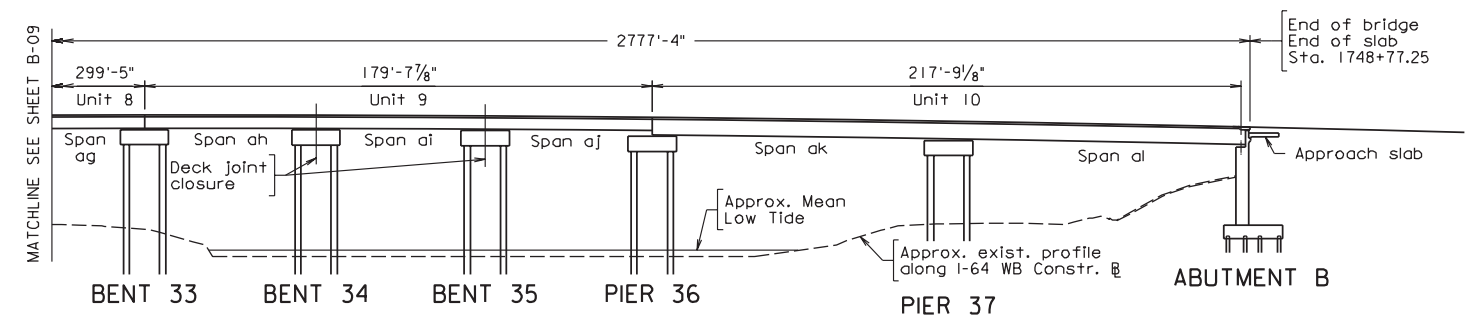
STATE	FEDERAL AID	ROUTE	PROJECT	STATE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674	B-10		



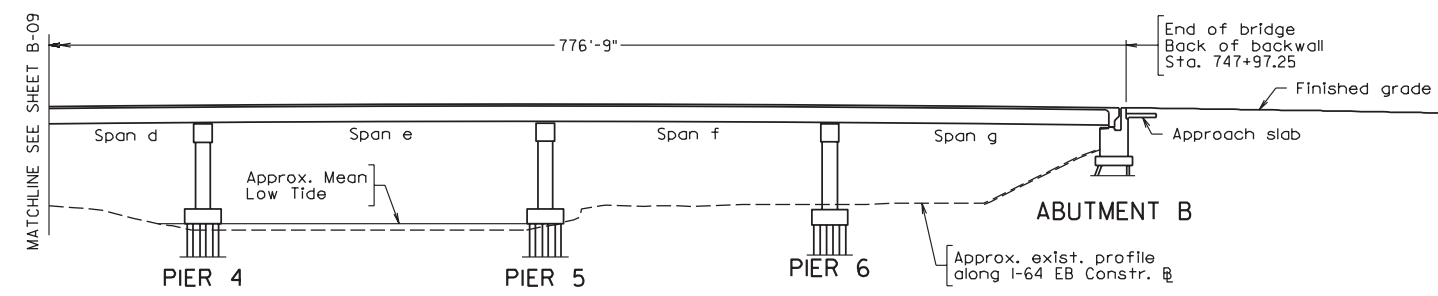
**DESIGN ENHANCEMENT**  
 Eliminated 12 conflict points between existing and RFP proposed substructure.

**DESIGN ENHANCEMENT**  
 Use deck slab extension to provide jointless bridge.

**DESIGN ENHANCEMENT**  
 Scour countermeasures proposed, typical.



DEVELOPED SECTION ALONG I-64 WB WIDENING



DEVELOPED SECTION ALONG I-64 EB CONSTR.

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION						
STRUCTURE AND BRIDGE DIVISION						
PLAN AND DEVELOPED SECTION						
No.	Description	Date	Designed: W.R.A. Drawn: W.R.A. Checked: W.R.A.	Date May 2022	Plan No. 171-14B	Sheet No. B-10
Revisions						

WHITMAN REQUARDT & ASSOCIATES  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

ALLAN MYERS  
 TAYLOR  
 TRAVELER GROUP, INC.

WRA

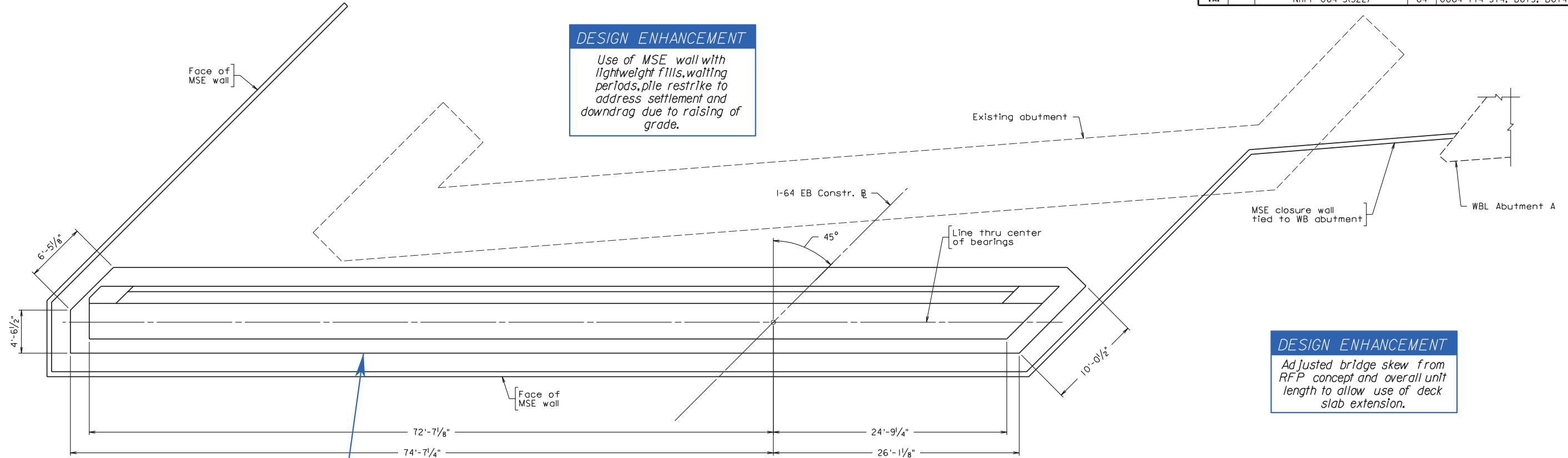
KCI

Scale: 1" = 30'-0"

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STATE	FEDERAL AID	ROUTE	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674			B-11

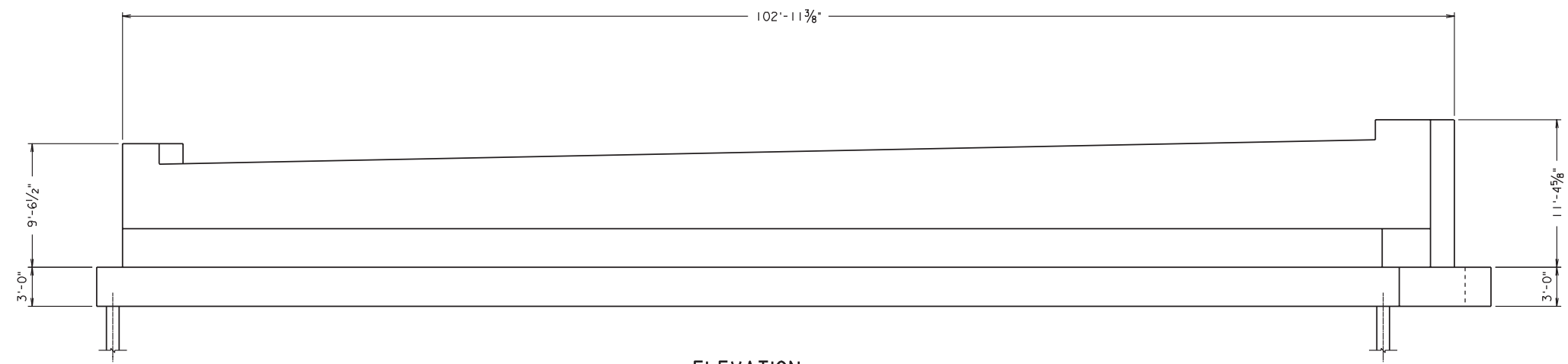
**DESIGN ENHANCEMENT**  
 Use of MSE wall with lightweight fills, waiting periods, pile restrike to address settlement and downdrag due to raising of grade.



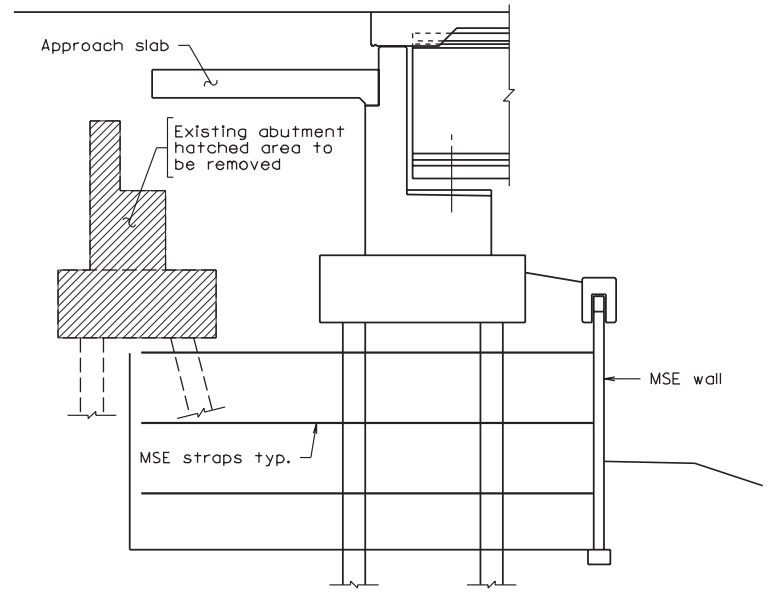
**DESIGN ENHANCEMENT**  
 Adjusted bridge skew from RFP concept and overall unit length to allow use of deck slab extension.

**DESIGN ENHANCEMENT**  
 Abutment at this location eliminates a pier and reduces overall bridge length.

**PLAN**  
 Scale: 3/16" = 1'-0"



**ELEVATION**  
 Scale: 3/16" = 1'-0"



**TYPICAL SECTION**  
 Scale: 1/4" = 1'-0"

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
EB HAMPTON RIVER BRIDGE ABUTMENT A PLAN, ELEVATION, AND SECTION					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-11
Revisions					

WHITMAN REQUARDT & ASSOCIATES  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

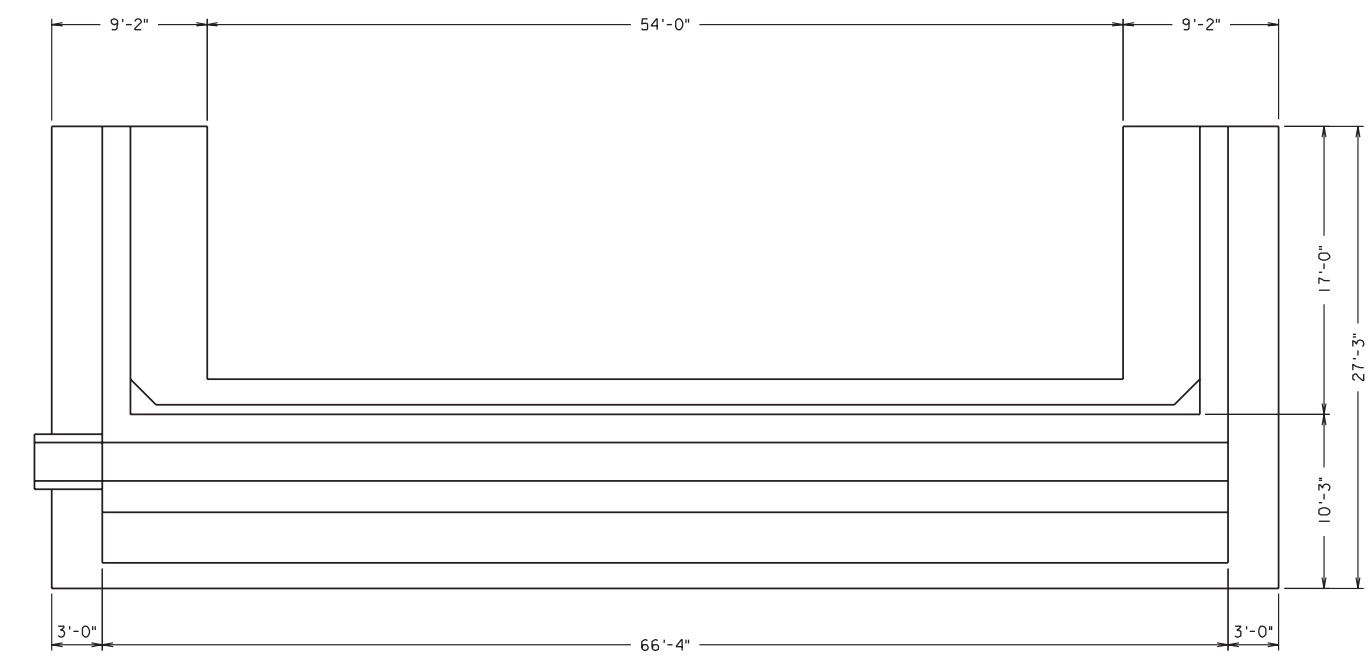
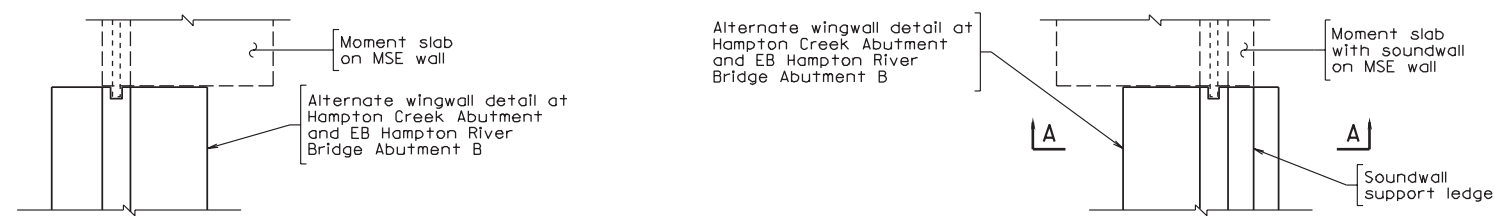
ALLAN MYERS  
 TAYLOR  
 TRAVELER GROUP, INC.

WRA

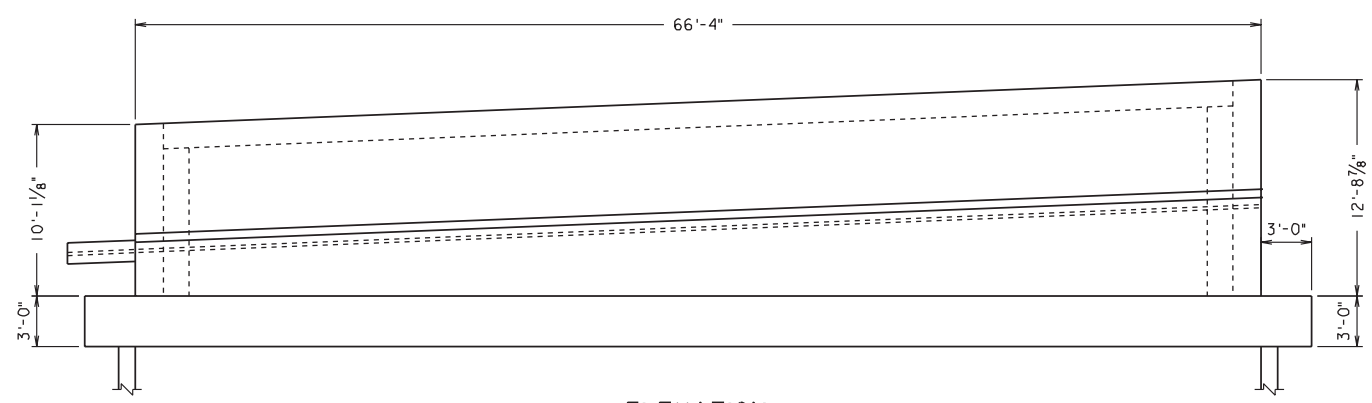
KCI



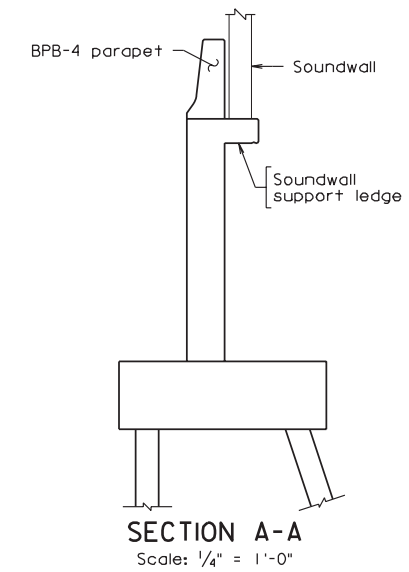
STATE	FEDERAL AID	STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674 B-12



**PLAN**  
Scale: 3/16" = 1'-0"  
East Branch Abutment B Shown, Abutment A and EB Hampton River Bridge Abutment B similar

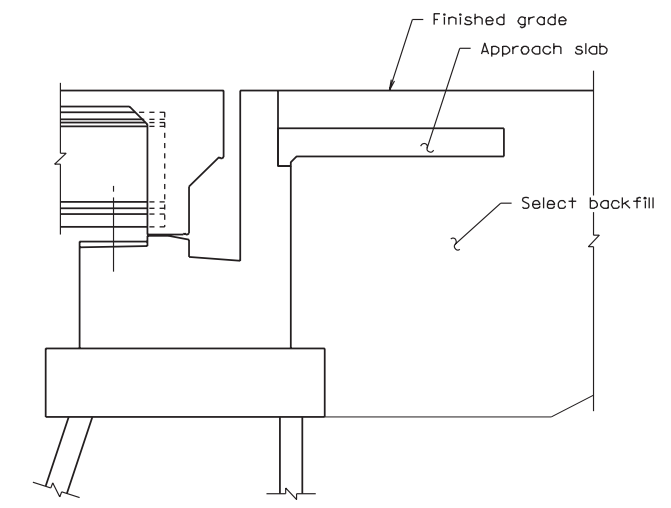


**ELEVATION**  
Scale: 3/16" = 1'-0"



**SECTION A-A**  
Scale: 1/4" = 1'-0"

**DESIGN ENHANCEMENT**  
*Virginia abutment for jointless superstructure.*



**TYPICAL SECTION**  
Scale: 1/4" = 1'-0"

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
<b>EB HAMPTON RIVER BRIDGE AND HAMPTON CREEK VA ABUTMENT</b>					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-12
Revisions					

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR  
TRAVELER ENGINEERS, P.C.

WRA

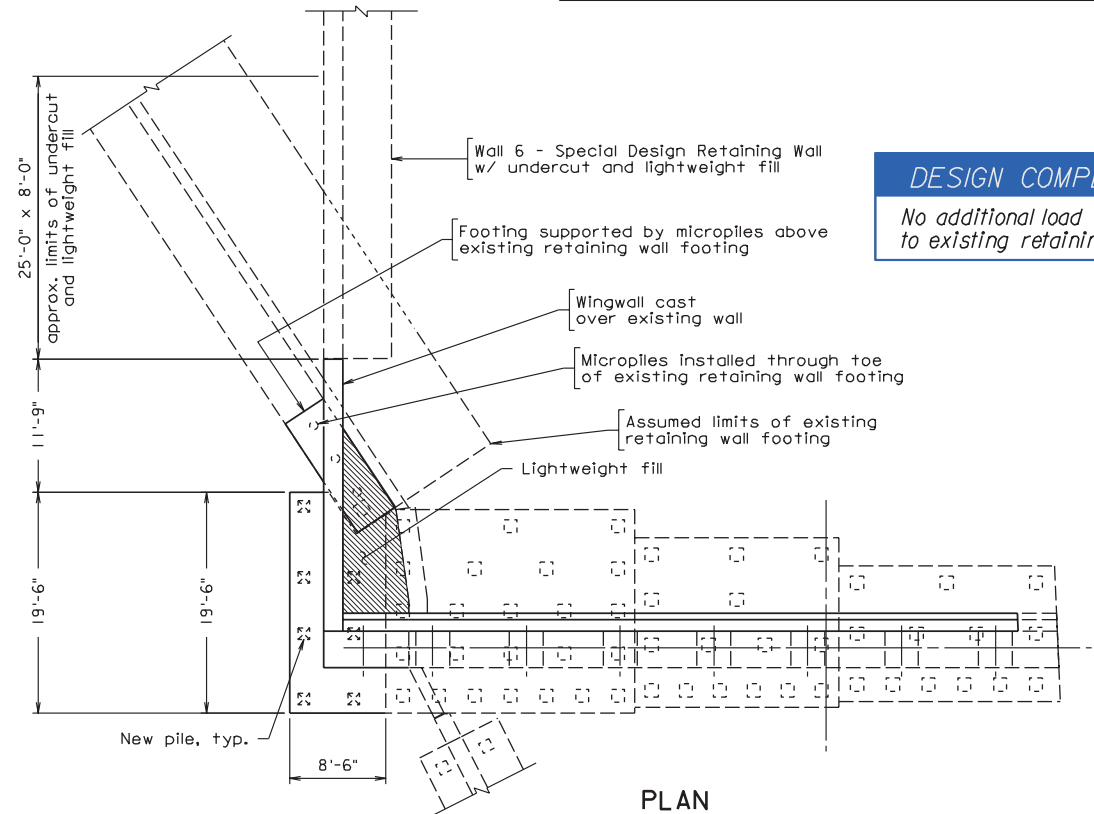
KCI

STATE	FEDERAL AID	ROUTE	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674			B-13



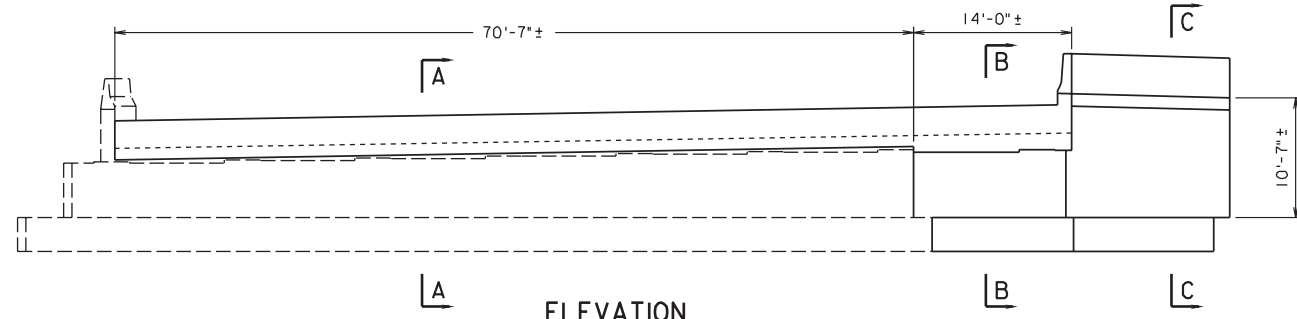
**PLAN**  
Scale: 1/8" = 1'-0"

**DESIGN COMPLIANCE**  
Deck slab extension for jointless superstructure.

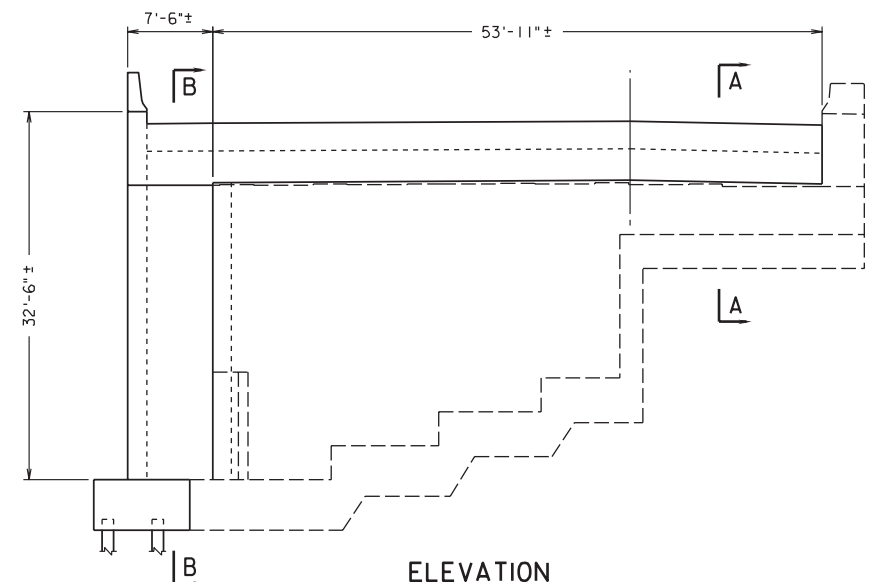


**DESIGN COMPLIANCE**  
No additional load applied to existing retaining wall.

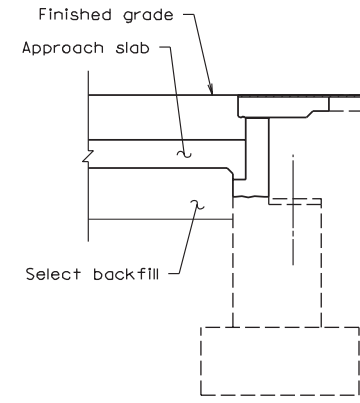
**PLAN**  
Scale: 1/8" = 1'-0"



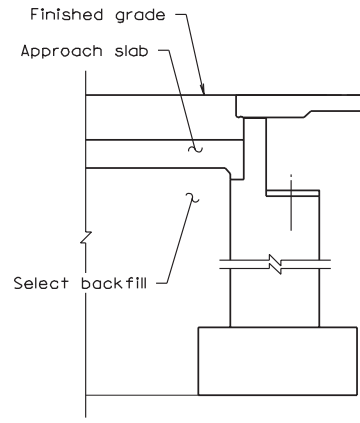
**ELEVATION**  
Scale: 1/8" = 1'-0"



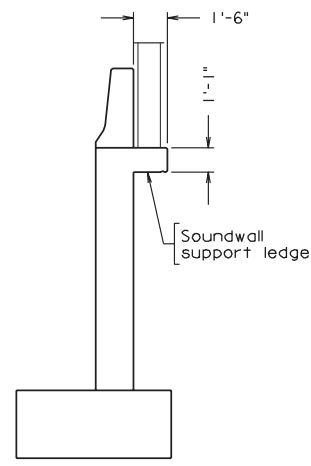
**ELEVATION**  
Scale: 1/8" = 1'-0"



**SECTION A-A**  
Scale: 1/4" = 1'-0"



**SECTION B-B**  
Scale: 1/4" = 1'-0"



**SECTION C-C**  
Scale: 1/4" = 1'-0"

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
<b>WB HAMPTON RIVER BRIDGE ABUTMENTS</b>					
No.	Description	Date	Designed: W.B.A.	Date	Plan No.
			Drawn: W.B.A.	May 2022	171-14B
			Checked: W.B.A.		B-13
Revisions					

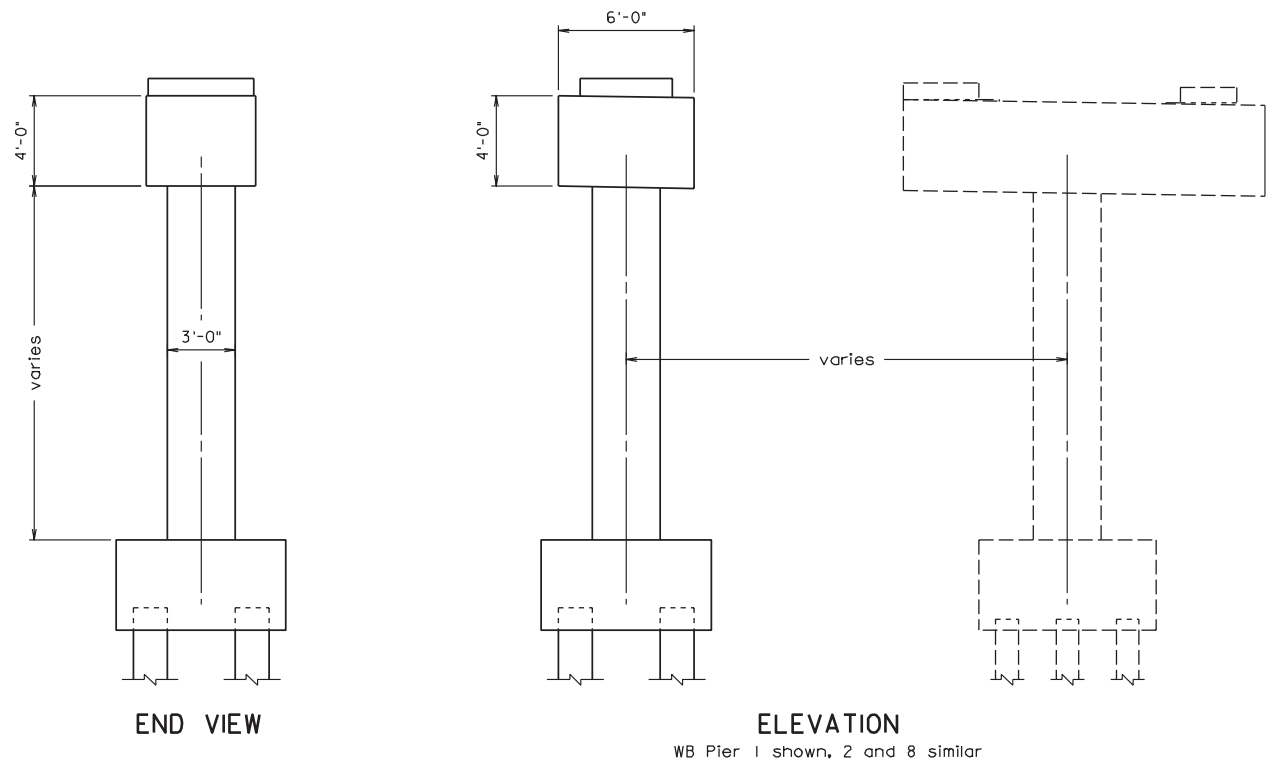
WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR  
TRAYLOR ENGINEERS, P.C.

WRA

KCI

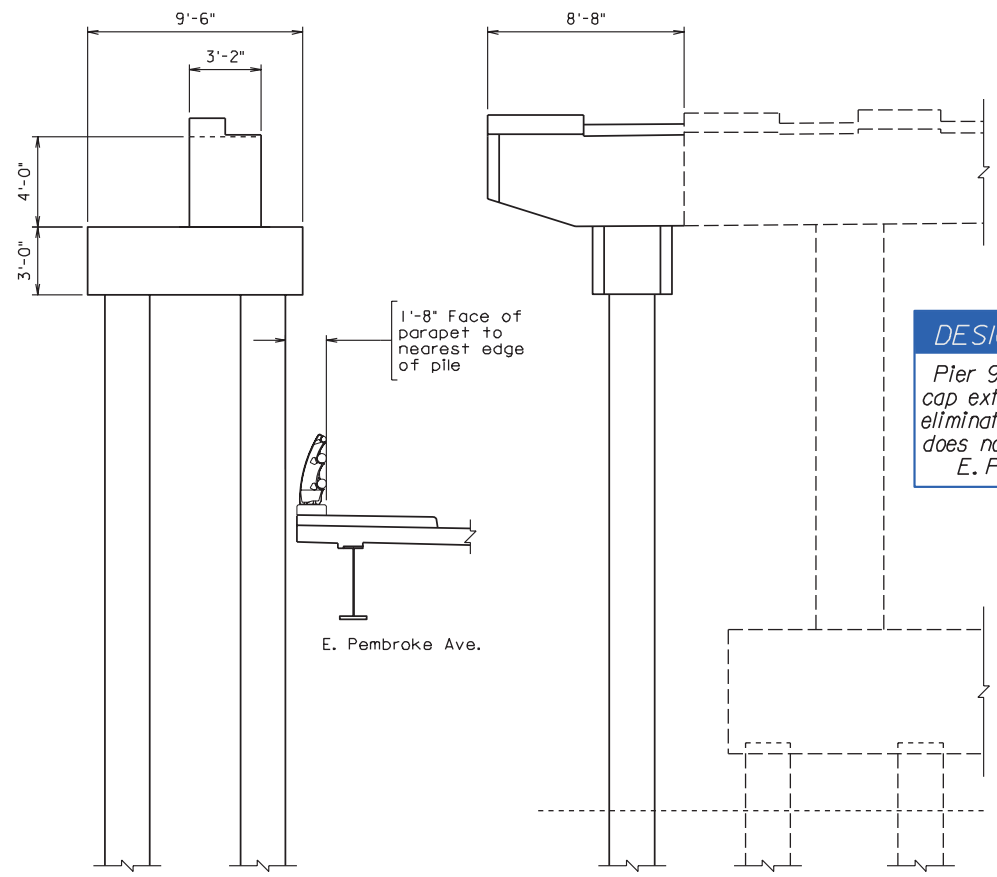
STATE	FEDERAL AID	ROUTE	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674			B-14



END VIEW

ELEVATION

WB Pier 1 shown, 2 and 8 similar

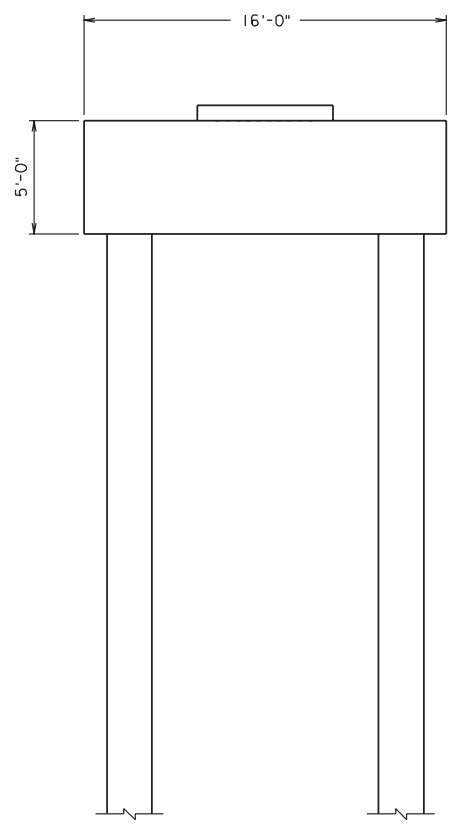


END VIEW

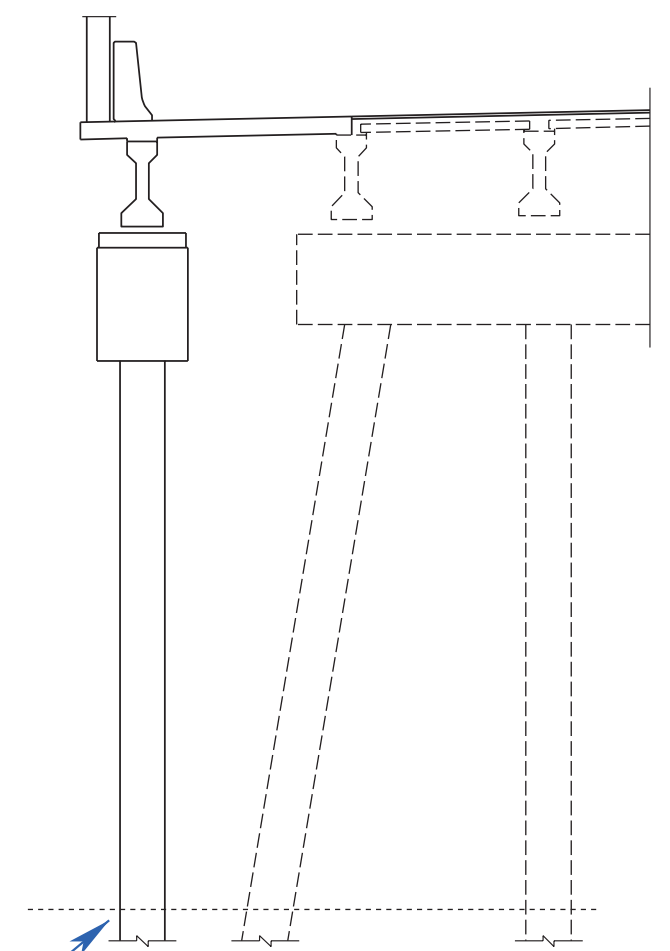
ELEVATION

WB PIER 9 ATC DETAILS

**DESIGN ENHANCEMENT**  
*Pier 9 ATC uses unique pier cap extension / bent system to eliminate skewed deck joint and does not extend beyond face of E. Pembroke Ave. parapet.*



END VIEW



ELEVATION

WB typical bent and Piers 3, 36, and 37

**DESIGN ENHANCEMENT**  
*New piles avoid existing piles that are battered outward.*

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES  
 RICHMOND, VA  
 STRUCTURAL ENGINEER

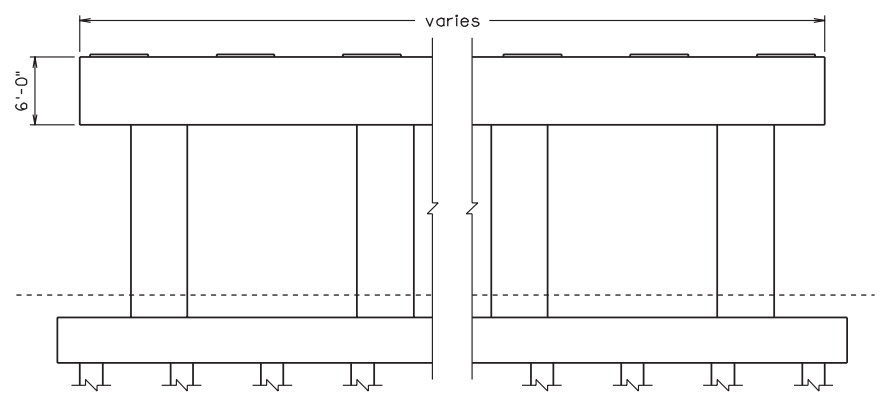
ALLAN MYERS  
 TAYLOR  
 WRA  
 KCI

Scale: 1/4" = 1'-0"

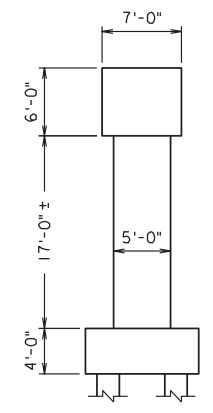
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION					
STRUCTURE AND BRIDGE DIVISION					
PIER ELEVATION AND SECTION (SHEET 1 of 2)					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-14
Revisions					

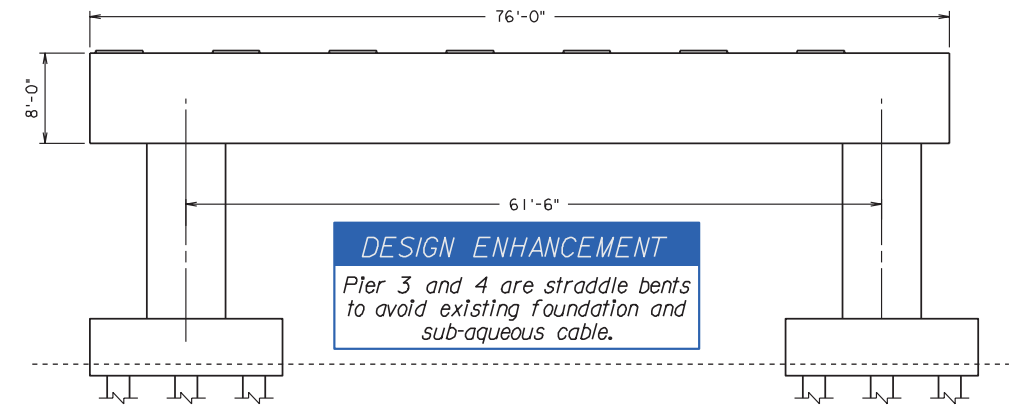
STATE	FEDERAL AID	STATE	SHEET NO.
ROUTE	PROJECT	ROUTE	PROJECT
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674
			B-15



**ELEVATION**  
EB Hampton River Bridge Piers 1 and 2

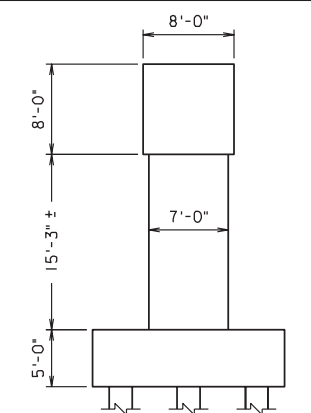


**END VIEW**

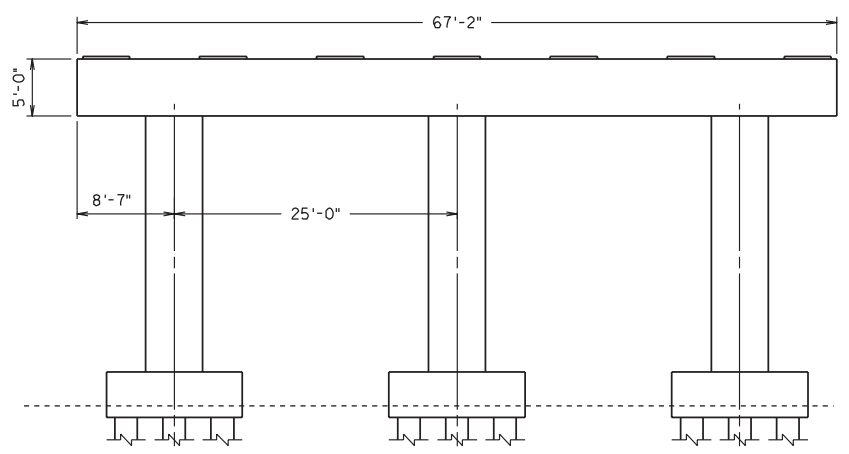


**DESIGN ENHANCEMENT**  
Pier 3 and 4 are straddle bents to avoid existing foundation and sub-aqueous cable.

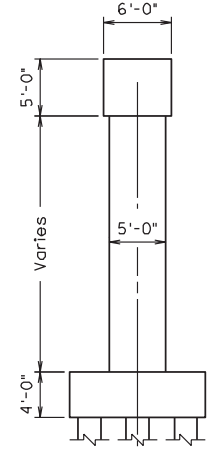
**ELEVATION**  
EB Hampton River Bridge Pier 3 shown, Pier 4 similar with rotated footing to avoid sub-aqueous Verizon Cable



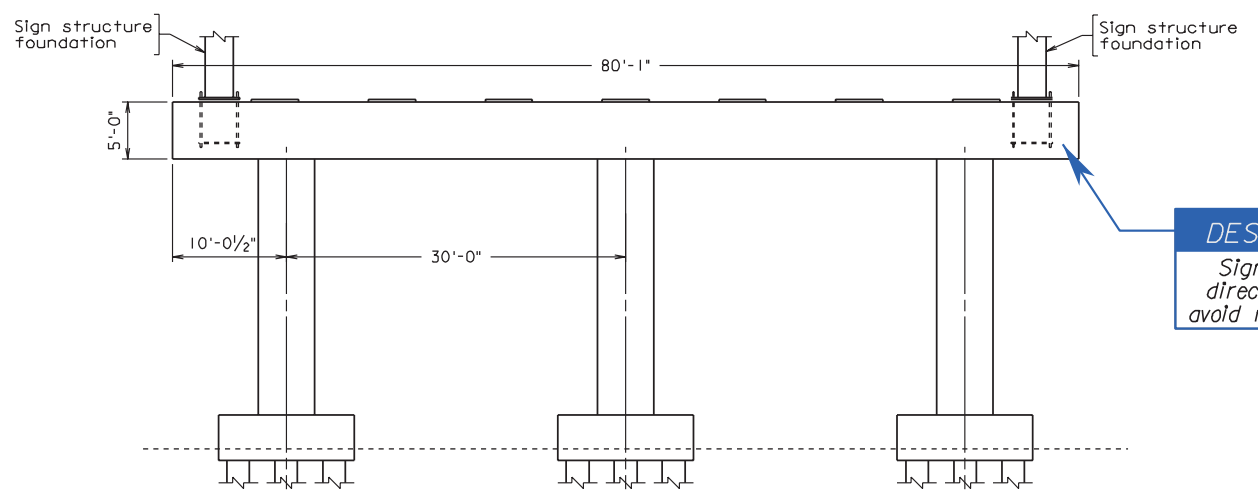
**END VIEW**



**ELEVATION**  
EB Hampton River Bridge and Hampton Creek typical multi-column pier

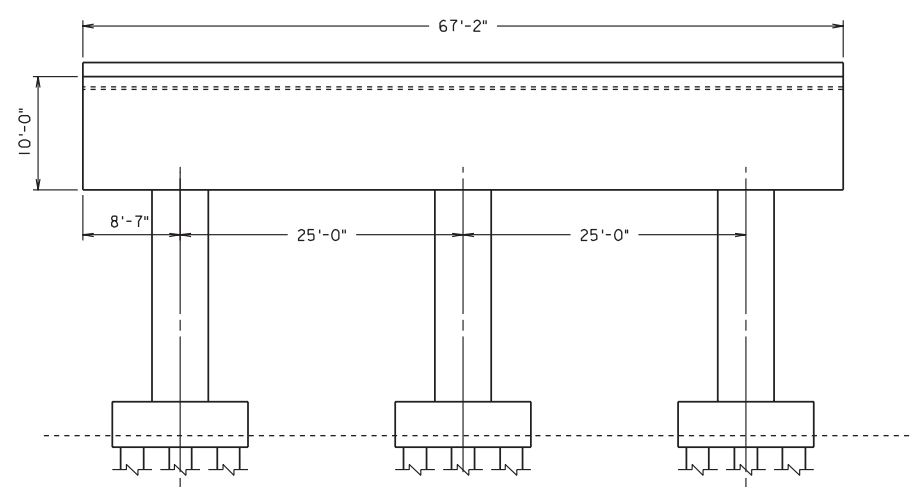


**END VIEW**

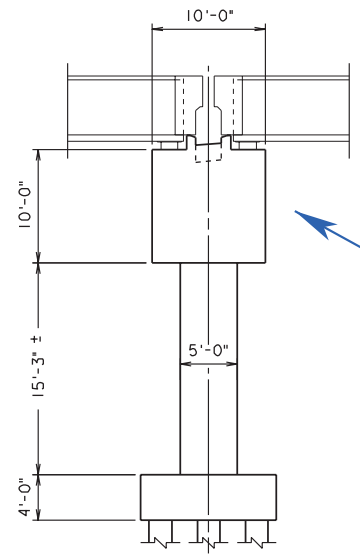


**DESIGN COMPLIANCE**  
Sign structure mounted directly to the pier cap to avoid mounting to the bridge.

**ELEVATION**  
EB Hampton River Bridge sign structure pier



**ELEVATION**  
EB Hampton River Bridge Pier 5



**END VIEW**

**DESIGN ENHANCEMENT**  
Virginia pier to control creep, shrinkage, and thermal effects from the long continuous superstructure.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

Scale: 1/8" = 1'-0"

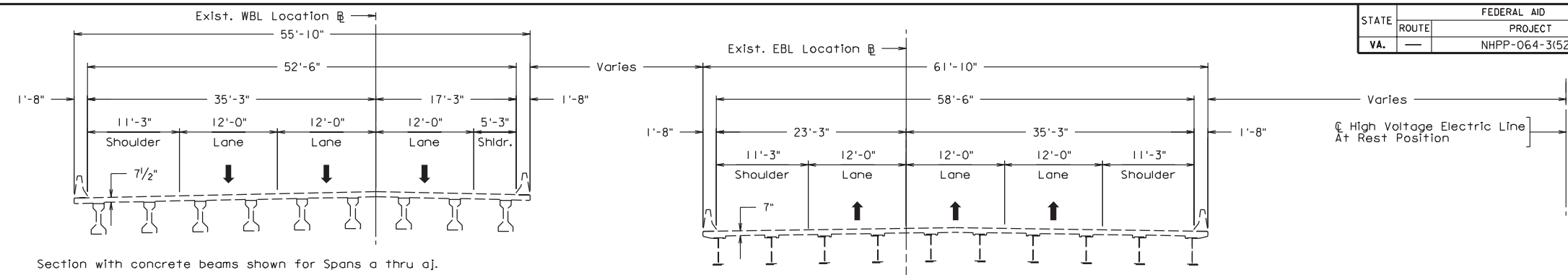
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RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR  
WRA  
KC1

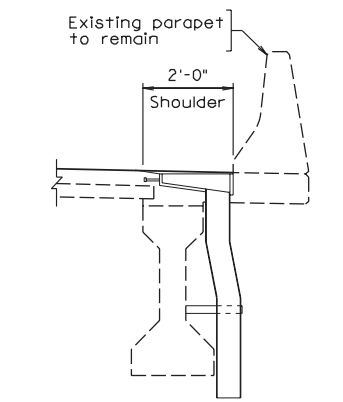
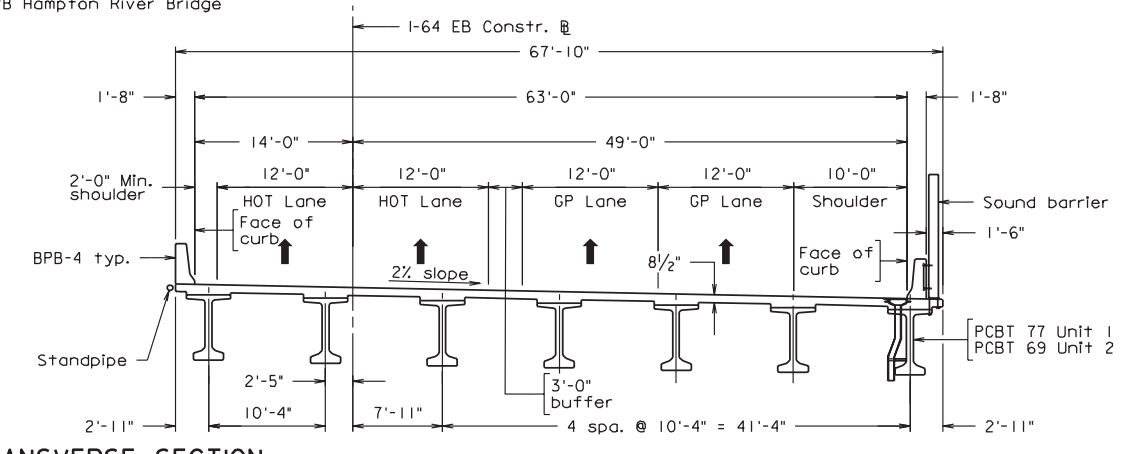
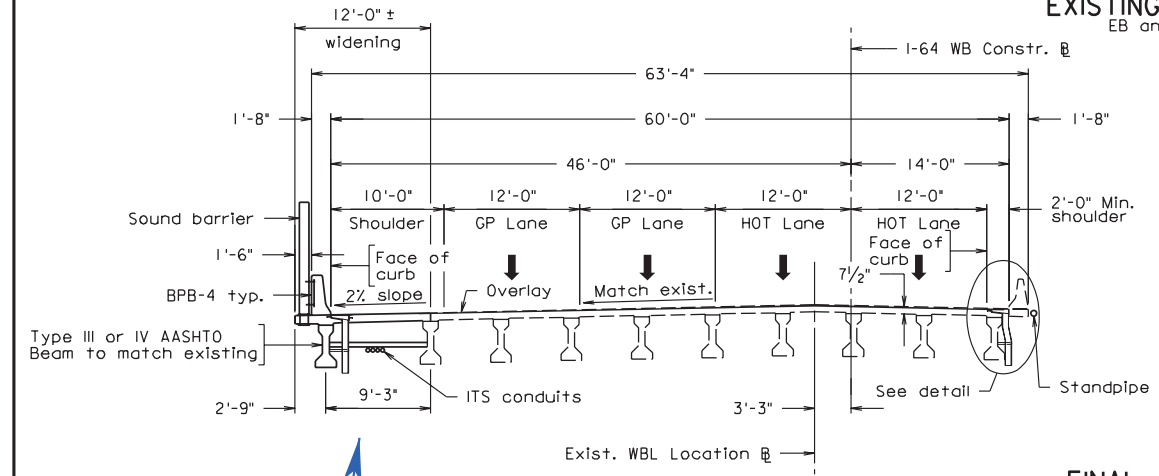
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
PIER ELEVATION AND SECTION (SHEET 2 of 2)			
No.	Description	Date	Revisions
Designed: W.R.A.	Date: May 2022	Plan No.: 171-14B	Sheet No.: B-15
Drawn: W.R.A.	Checked: W.R.A.		

STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT NHPP-064-3(522)	ROUTE 64	PROJECT 0064-114-374, B673, B674
			B-16

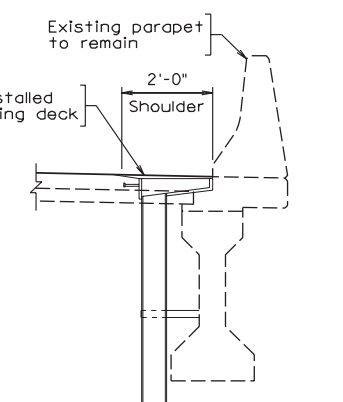


Section with concrete beams shown for Spans a thru aj.

**EXISTING TRANSVERSE SECTION**  
EB and WB Hampton River Bridge



PART SECTION DRAIN OUTSIDE OF BEAM

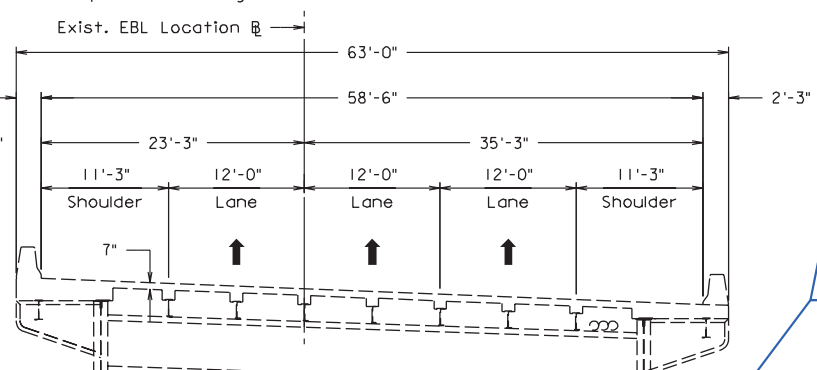
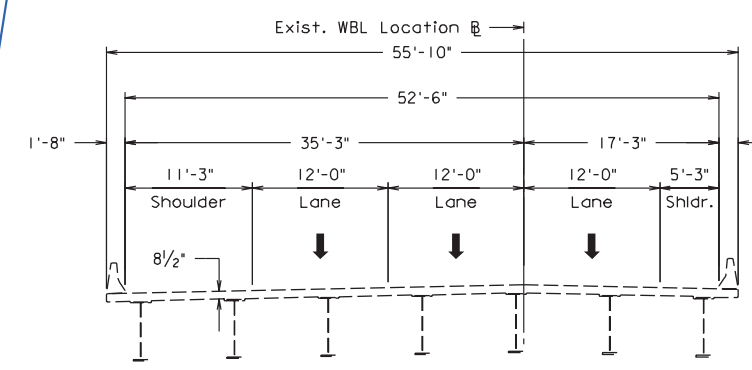


PART SECTION DRAIN INSIDE OF BEAM

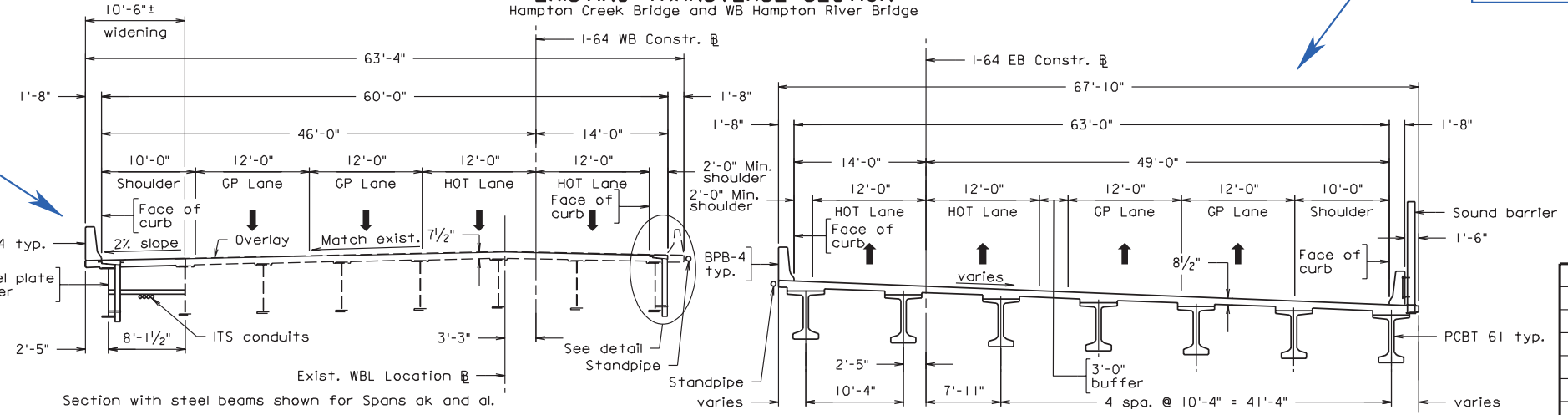
**DETAIL OF WB HAMPTON RIVER BRIDGE MEDIAN DECK DRAINAGE**  
Concrete beams shown, steel girders similar

**DESIGN ENHANCEMENT**  
Eliminated line of beams from RFP concept.

**DESIGN ENHANCEMENT**  
Eliminated line of beams from RFP concept. Maximized cross section span lengths to reduce proposed number of piers.



**EXISTING TRANSVERSE SECTION**  
Hampton Creek Bridge and WB Hampton River Bridge



Section with steel beams shown for Spans ak and al.

**FINAL TRANSVERSE SECTION**  
Hampton Creek Bridge and WB Hampton River Bridge  
Scale: 1/8" = 1'-0"

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>TYPICAL SECTIONS</b>			
No.	Description	Date	Designed: W.R.A. Drawn: W.R.A. Checked: W.R.A.
		May 2022	Plan No. 171-14B Sheet No. B-16

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

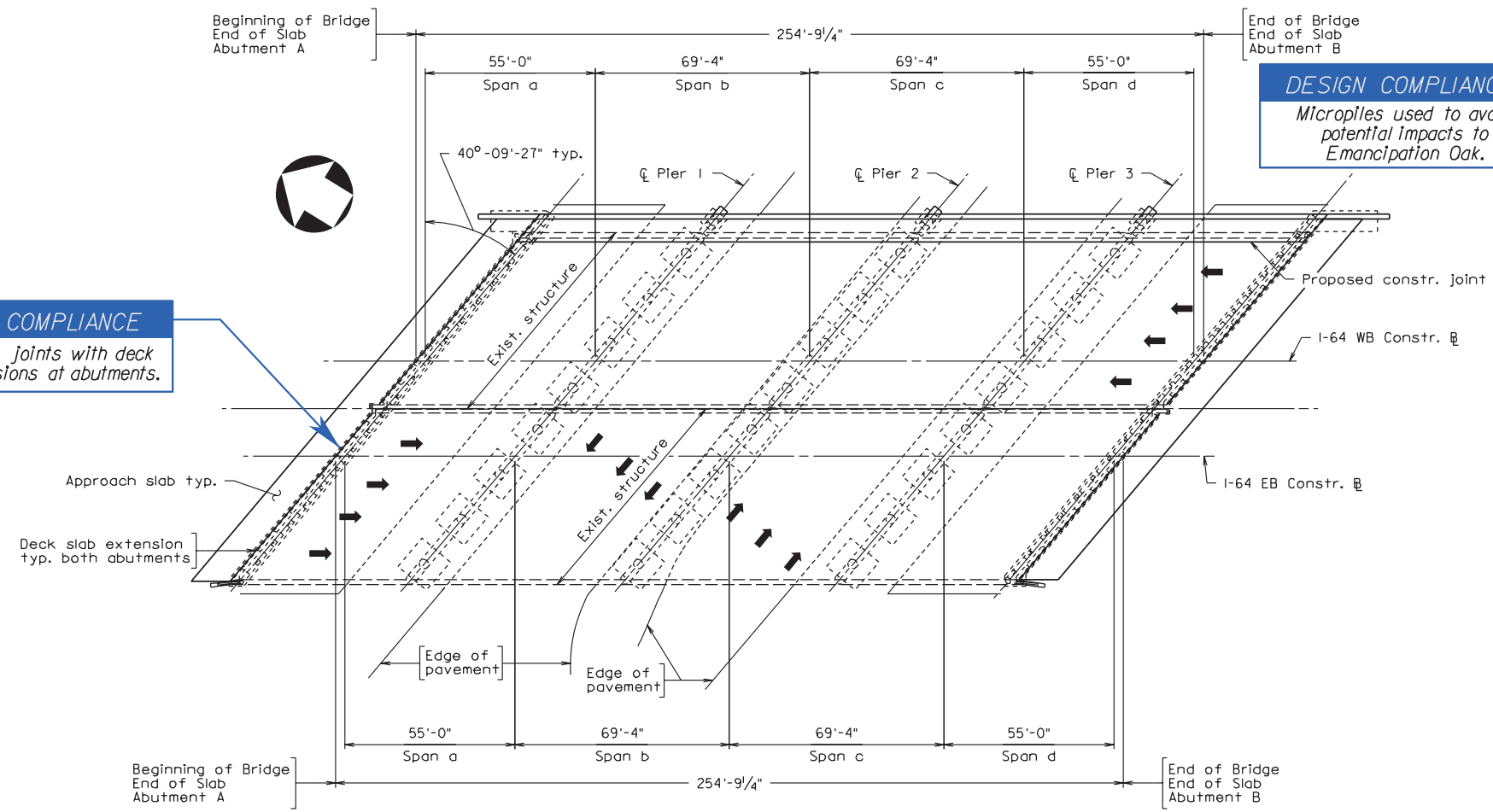
ALLAN MYERS  
TRAYLOR  
TRAYLOR ENGINEERS, P.C.

WRA  
KCI

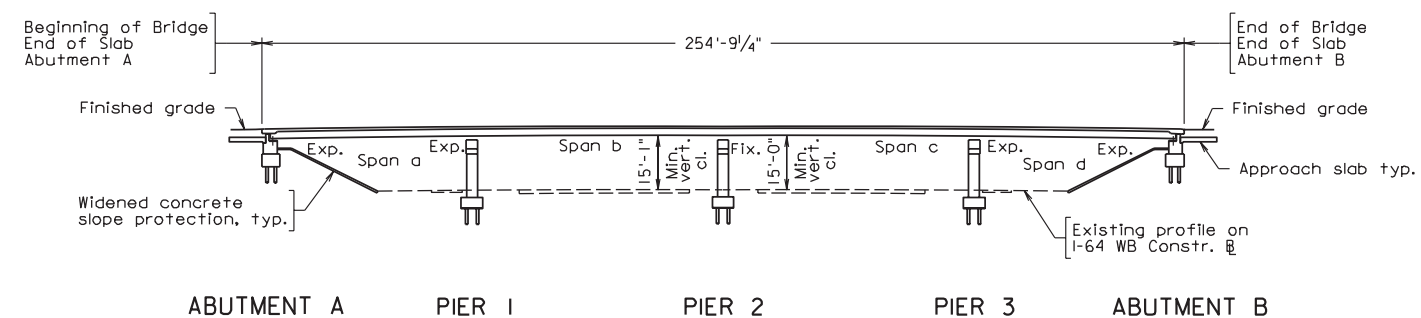
STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE	PROJECT
		64	0064-114-374, B676
Federal Structure No. 00000000020312		FHWA Construction and Scour Code: X271-SN	
Federal Stewardship and Oversight Code: N/A		UPC No. 119638	

**DESIGN COMPLIANCE**  
Eliminated joints with deck slab extensions at abutments.

**DESIGN COMPLIANCE**  
Microspiles used to avoid potential impacts to Emancipation Oak.



**PLAN**  
Scale: 1" = 25'



**ABUTMENT A    PIER 1    PIER 2    PIER 3    ABUTMENT B**  
**DEVELOPED SECTION ALONG WIDENING**  
WBL shown  
Scale: 1" = 25'

**DESIGN EXCEPTION(S):**  
Maintained existing vertical clearance of 15'-0".  
Approved by State Structure Bridge Engineer on December 21, 2020.

**GENERAL NOTES:**  
Width: 60'-1" face-to-face of curbs, including widening of 9'-1" +/- on outside of WBL.  
53'-11 1/2" +/- face-to-face of existing curbs on EBL.  
Span layout: 55'-0" - 69'-4" - 69'-4" - 55'-0" WBL  
55'-0" - 69'-4" - 69'-4" - 55'-0" WBL  
Capacity: HL-93 (widening)  
Specifications:  
Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020.  
Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.  
Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.  
These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.  
Bridge No. of existing bridges is 2802. Existing Plan No. is 171-15A.



**COMMONWEALTH OF VIRGINIA**  
**DEPARTMENT OF TRANSPORTATION**  
**PROPOSED BRIDGE WIDENING AND REPAIR ON**  
**I-64 EBL/WBL OVER US-60 SETTLER'S**  
**LANDING ROAD**  
**CITY OF HAMPTON - 2.02 MI. E. INT. RTE 134**  
**PROJ. NO. 0064-114-374, B676**

Recommended for Approval: \_\_\_\_\_ Date \_\_\_\_\_  
District Project Development Engineer

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
District Administrator

Date: May 2022 © 2022, Commonwealth of Virginia Sheet B-17

**PRELIMINARY PLANS**  
**THESE PLANS NOT TO BE USED**  
**FOR CONSTRUCTION**

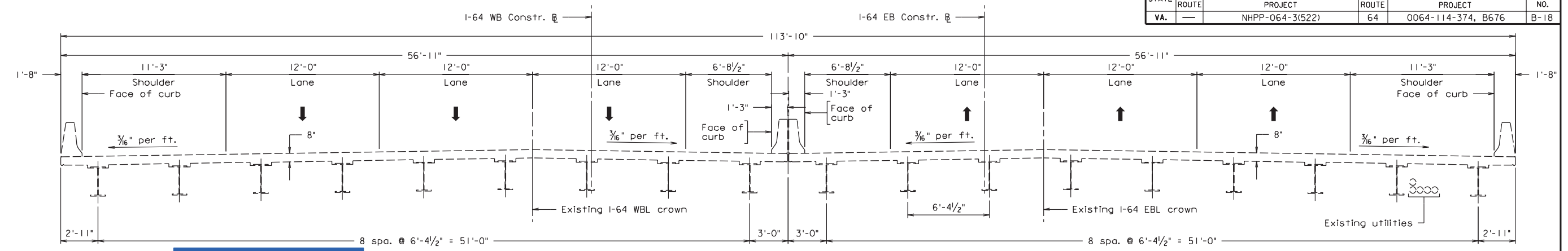
No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 3.		

5/10/2022

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION ENGINEER
WHITMAN REQUARDT & ASSOCIATES RICHMOND, VA STRUCTURAL ENGINEER
PLANS BY:
COORDINATED:
SUPERVISED:
DESIGNED:
DRAWN:
CHECKED:

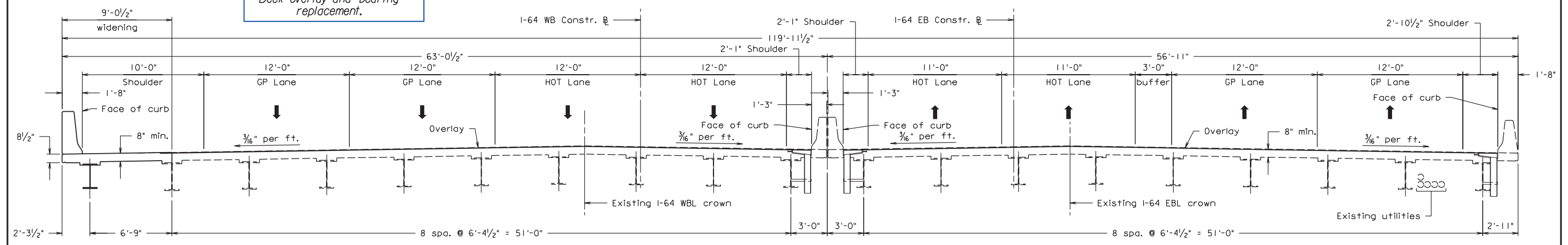


STATE	FEDERAL AID	ROUTE	STATE	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B676	B-18



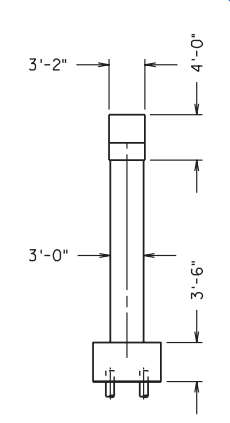
**EXISTING TRANSVERSE SECTION**  
Scale: 1/4" = 1'-0"

**DESIGN COMPLIANCE**  
Deck overlay and bearing replacement.

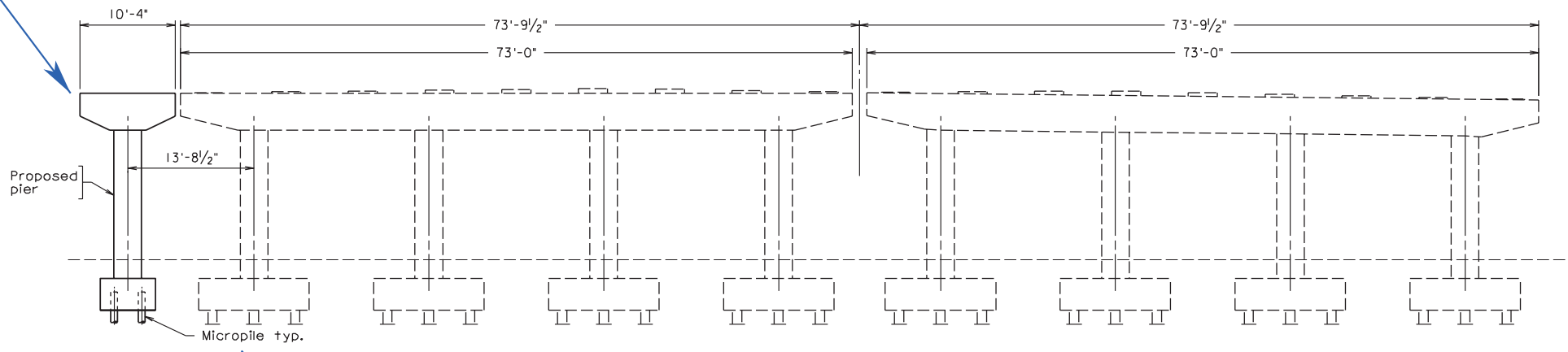


**PROPOSED TRANSVERSE SECTION**  
Scale: 1/4" = 1'-0"

**DESIGN COMPLIANCE**  
Pier cap chamfered to mimic existing pier architecturally.



**END VIEW**  
Scale: 1/8" = 1'-0"



**PIER ELEVATION**  
Scale: 1/8" = 1'-0"

**DESIGN COMPLIANCE**  
Micropiles used to avoid potential impacts to Emancipation Oak.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION				
<b>TYPICAL SECTION AND TYPICAL PIER ELEVATION</b>				
No.	Description	Date	Designed: W.R.A.	Sheet No.
			Drawn: W.R.A.	B-18
			Checked: W.R.A.	
			Date: May 2022	
			Plan No.: 171-15B	

5/10/2022

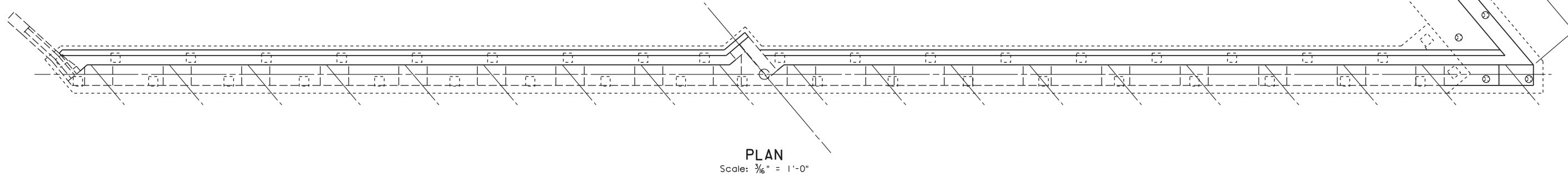
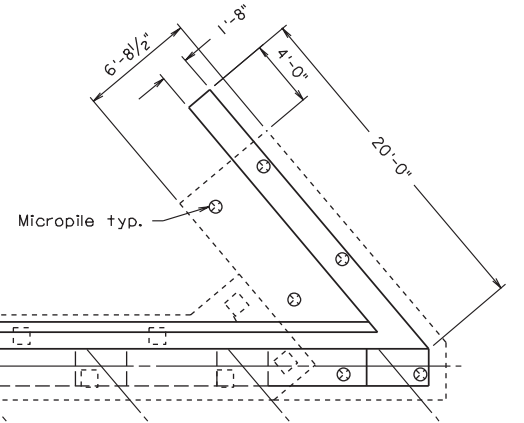
WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR  
TRAVELER ENGINEERS, P.C.

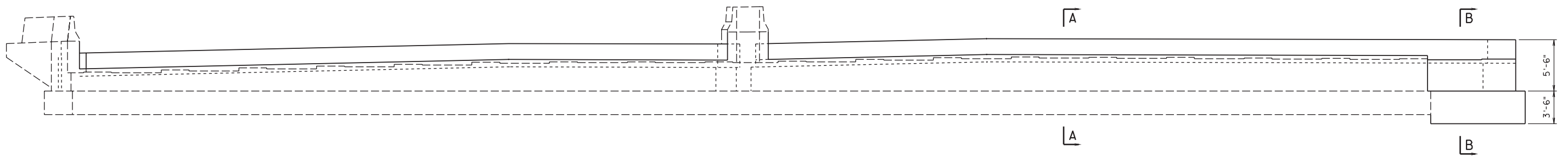
WRA

KC1

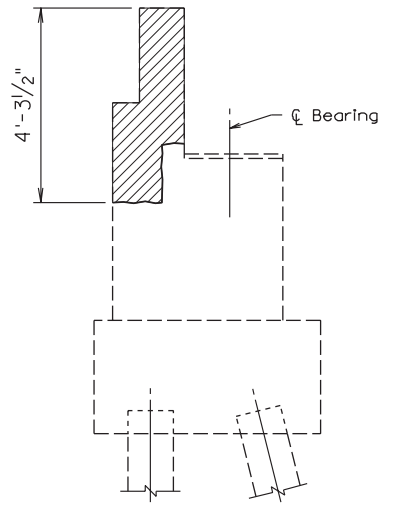
STATE		FEDERAL AID		STATE		SHEET NO.
ROUTE		PROJECT		ROUTE		PROJECT
VA.	—	NHPP-064-3(522)	64	0064-114-374, B676	B-19	



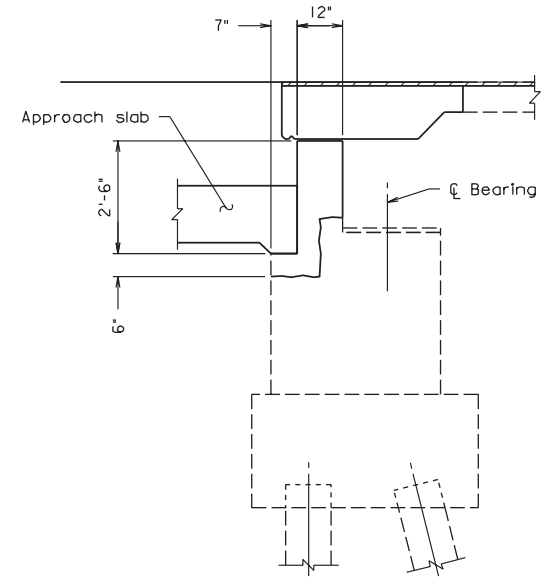
**PLAN**  
Scale: 3/16" = 1'-0"



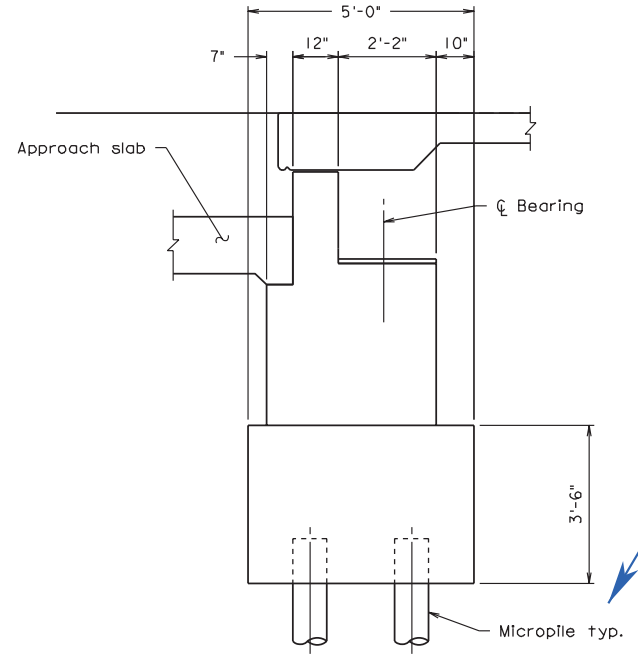
**ELEVATION**  
Scale: 3/16" = 1'-0"



**TYPICAL SECTION - REMOVAL**  
Scale: 1/2" = 1'-0"



**SECTION A-A**  
Scale: 1/2" = 1'-0"



**SECTION B-B**  
Scale: 1/2" = 1'-0"

**DESIGN COMPLIANCE**  
Micropiles used to avoid potential impacts to Emancipation Oak.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

5/10/2022

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR

WRA

KCI

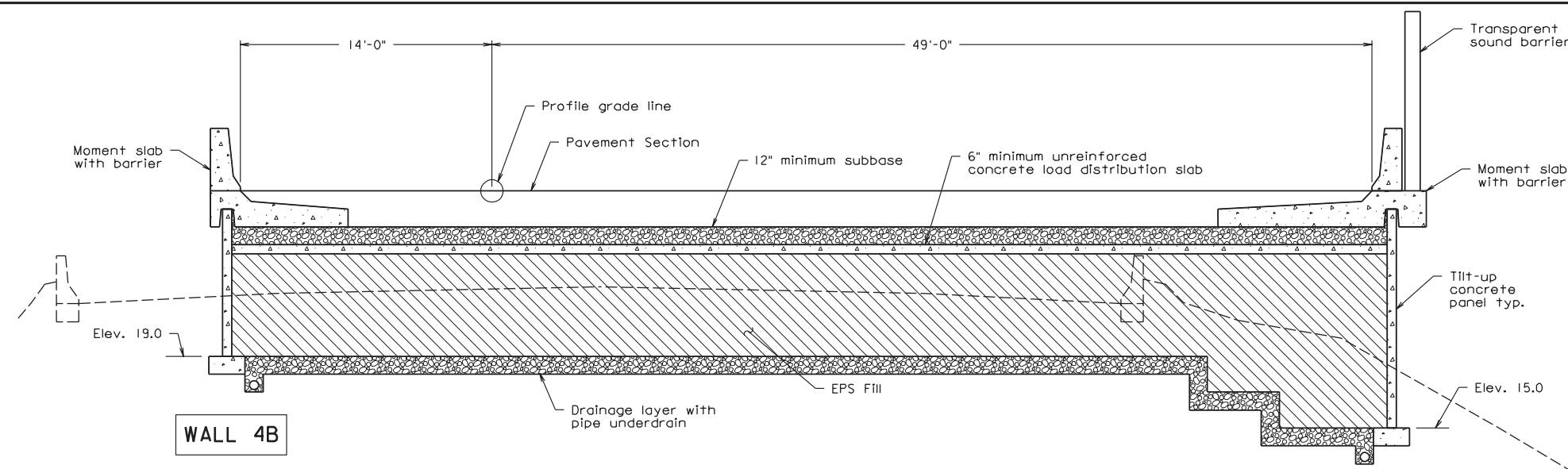
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			ABUTMENT PLAN, ELEVATION, AND SECTIONS		
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-15B
			Checked: W.R.A.		B-19
Revisions					

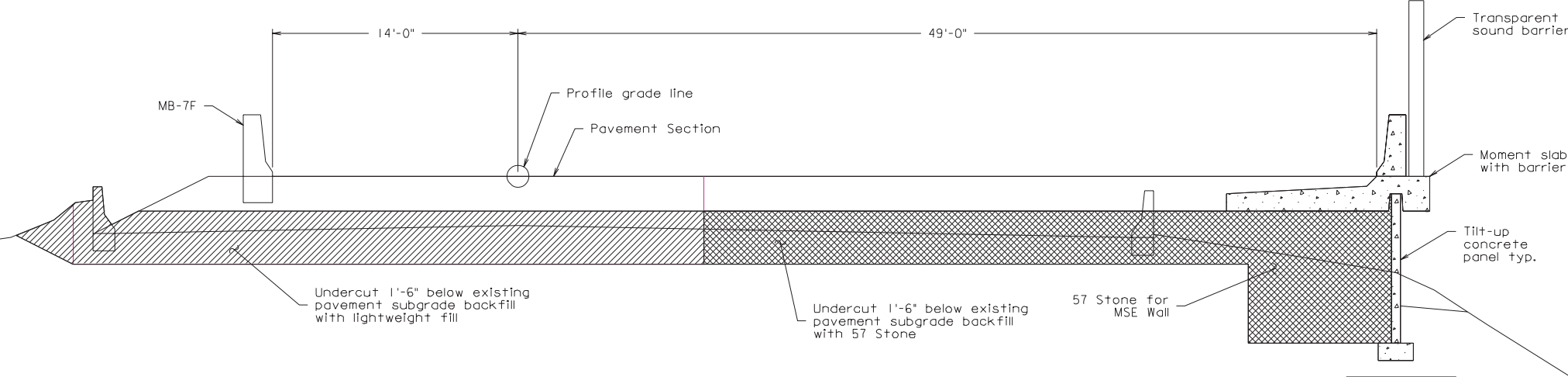


STATE	FEDERAL AID		STATE		SHEET NO.
VA.	ROUTE	PROJECT	ROUTE	PROJECT	
		NHPP-064-3(522)	64	0064-114-374, B673, B674	B-20

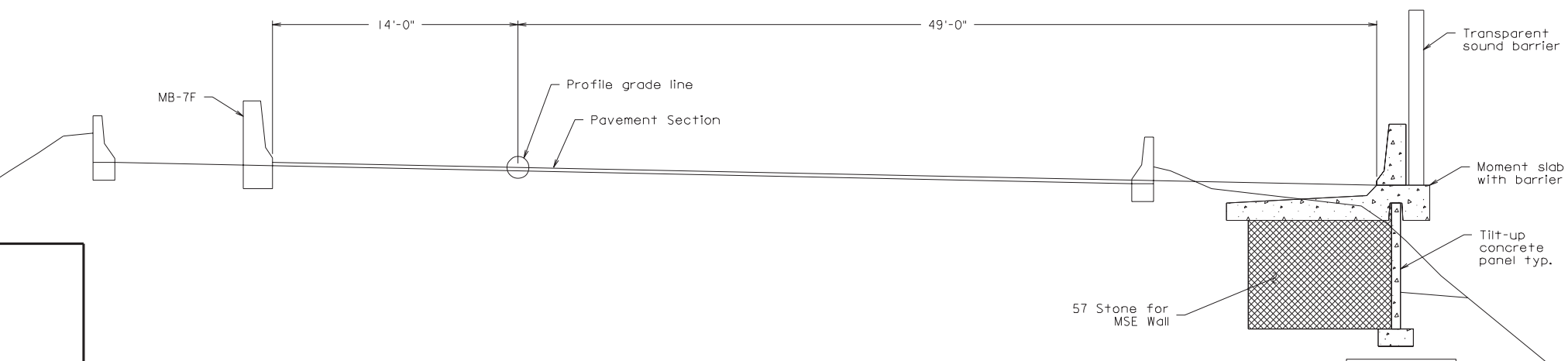
Location	w/Sound Barrier	RFP Concept Type	RFP Concept Length	MTJV Type	MTJV Length
EB 659+00 to 662+50	Yes	MSE	320	Sound Barrier Only	0
EB 679+17 to 680+63	No	MSE	115	Guardrail	0
EB 682+09 to 698+23	No	MSE	1,660	Guardrail / MSE	950
WB 692+00 to 698+23	Yes	MSE	595	Combo Wall	496
WB 699+95 to 705+50	Yes	MSE	632	MSE	632
EB 699+95 to 704+00	No	MSE	336	MSE	375
EB 704+00 to 707+00	Yes	MSE	308	MSE	266
WB 706+40 to 720+50	Yes	MSE	1,417	Sound Barrier Only / Combo Wall / MSE	137
EB 717+00 to 721+13	Yes	MSE	424	Sound Barrier Only	0
WB 748+22 to 751+50	No	MSE	313	Guardrail / Special Design	134
EB 748+22 to 759+50	No	MSE	1,097	Guardrail / Special Design	538
EB 772+00 to 785+72	No	MSE	1,340	Guardrail / Special Design	358
WB 773+60 to 774+40	Yes	Special Design	70	Special Design	70
EB 735+75 to 737+75 (right)	Yes	Bridge	N/A	EPS Structure	163
EB 737+75 to 740+00	Yes	Bridge	N/A	MSE	216
EB 735+75 to 737+75 (left)	No	Bridge	N/A	EPS Structure	163
<b>Total</b>			<b>8,627</b>		<b>4,498</b>



FILL SECTION - STATION 736+12.21 to 737+75  
Scale: 1/4" = 1'-0"



FILL SECTION - STATION 737+75 to 739+50  
Scale: 1/4" = 1'-0"



FILL SECTION - STATION 739+50 to 740+12.5  
Scale: 1/4" = 1'-0"

**DESIGN ENHANCEMENT**  
Optimized the design and reduced bridge area to use MSE Walls, Special Design Retaining Walls, Combination Sound Barrier / Walls, EPS Structures, and open guardrail sections. This analysis has reduced our wall lengths by almost half (reduction of approximately 4,129 LF).

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS TAYLOR  
TRAYLOR ENGINEERS, P.C.

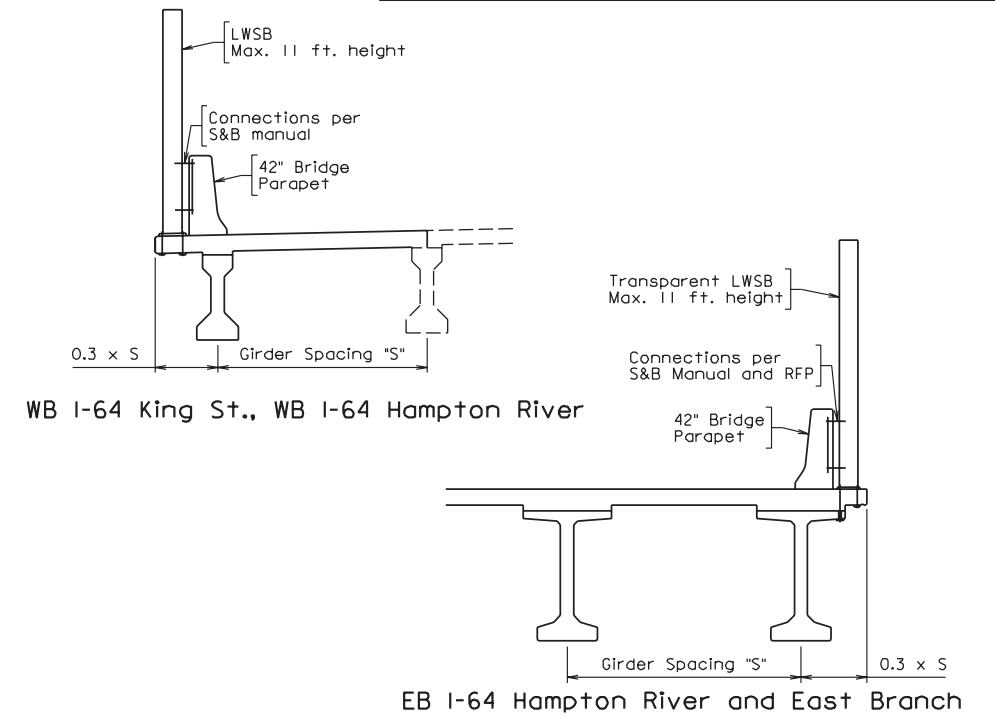
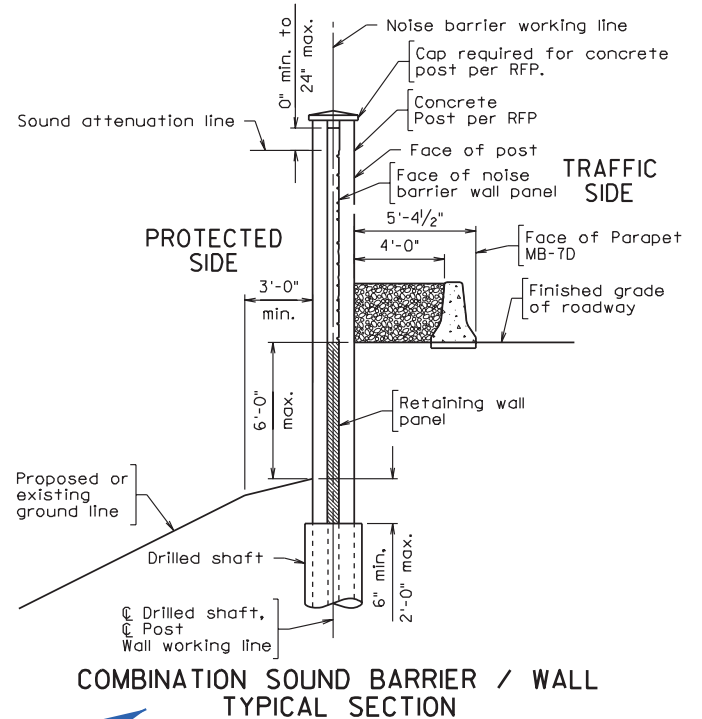
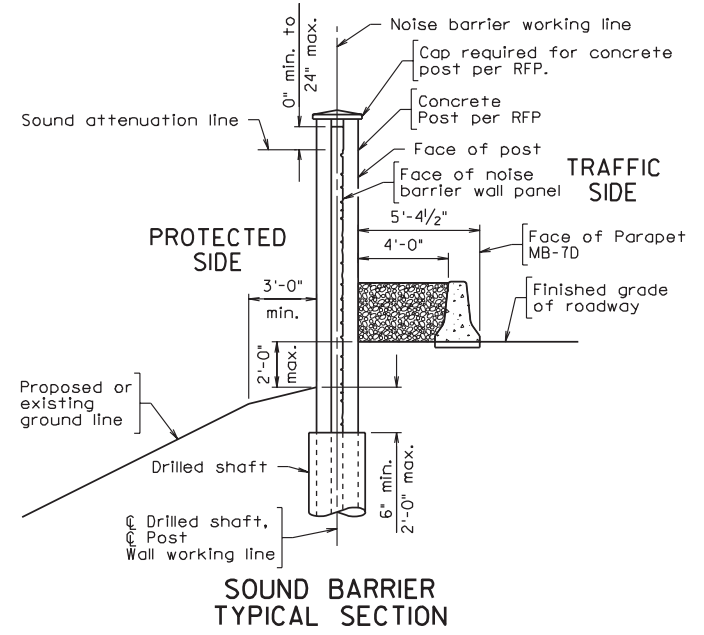
WRA

KC1

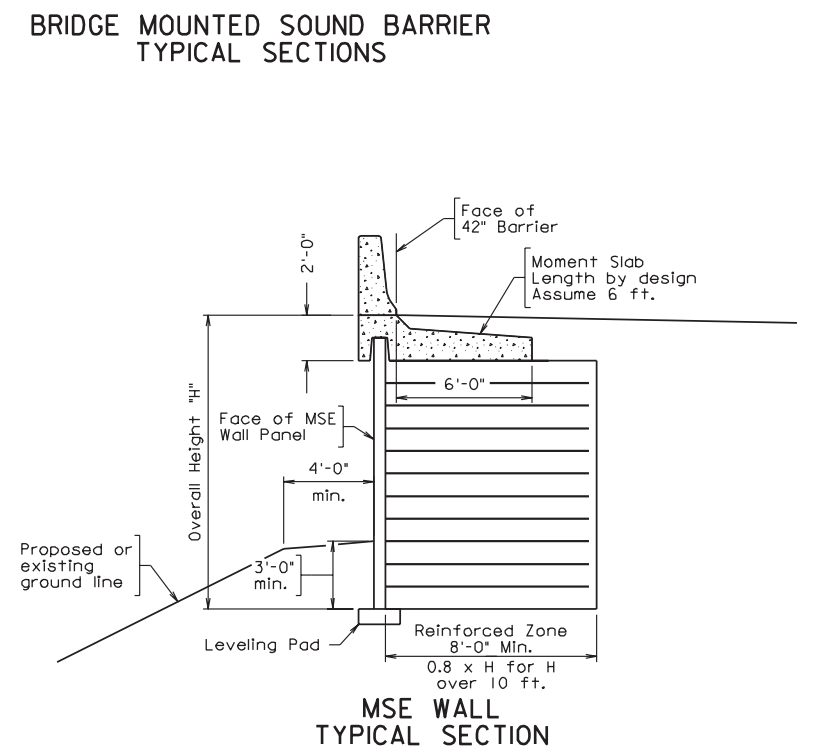
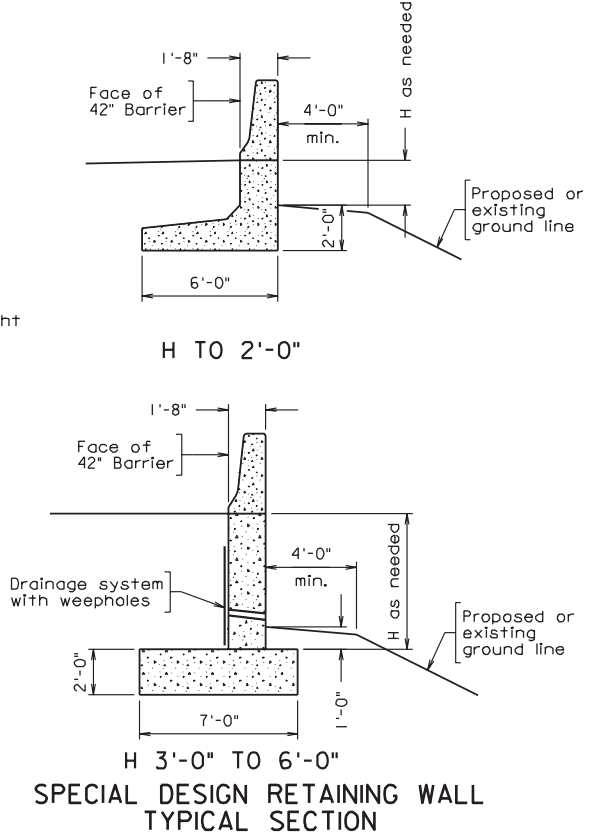
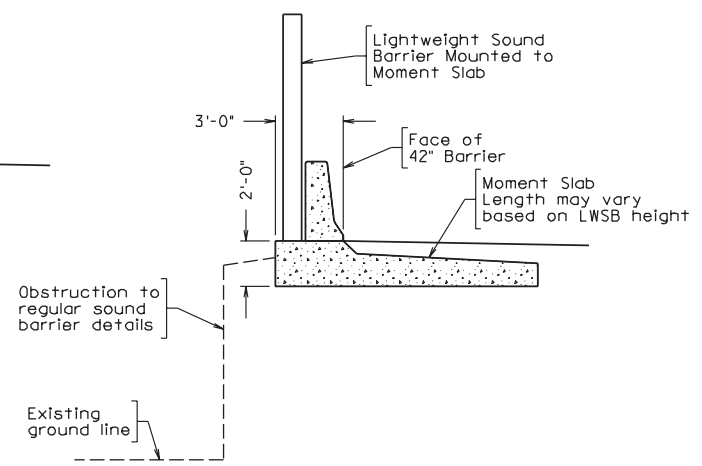
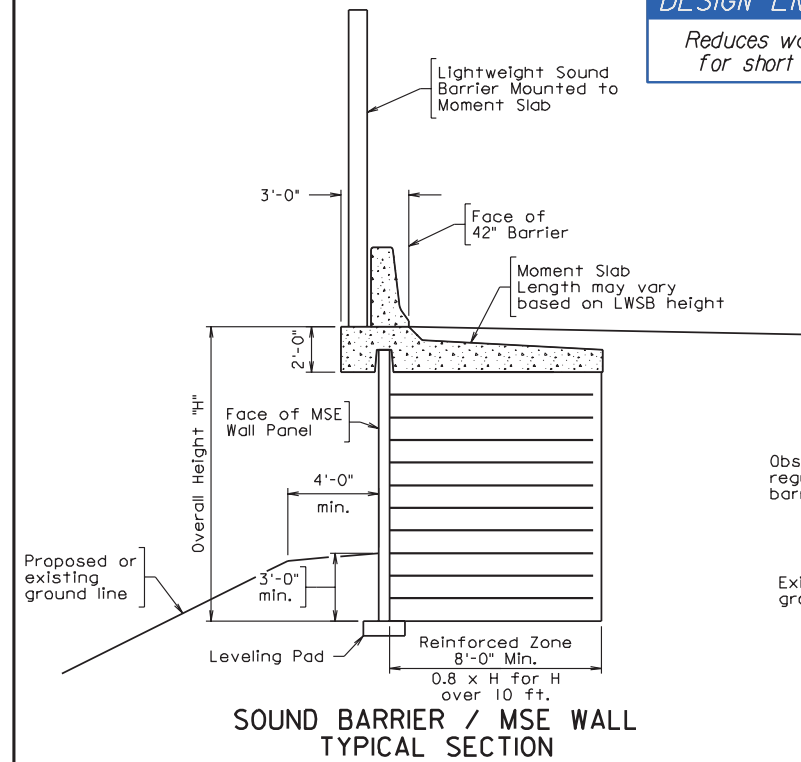
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION					
EPS STRUCTURE BETWEEN EB BRIDGES					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-20
Revisions					

STATE	FEDERAL AID	ROUTE	PROJECT	ROUTE	PROJECT	SHEET NO.
VA.	NHPP-064-3(522)	64	0064-114-374, B673, B674			B-21



**DESIGN ENHANCEMENT**  
Reduces wall complexity for short fill heights.



**DESIGN ENHANCEMENT**  
Eliminates conflicts with existing structure.

**DESIGN ENHANCEMENT**  
Economical alternative to RW wall and moment slab.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES  
RICHMOND, VA  
STRUCTURAL ENGINEER

ALLAN MYERS  
TAYLOR  
TRAYLOR ENGINEERS, P.C.

WRA

KCI

Scale: 1/4" = 1'-0"

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION					
RETAINING WALL SECTIONS					
No.	Description	Date	Designed: W.R.A.	Date	Plan No.
			Drawn: W.R.A.	May 2022	171-14B
			Checked: W.R.A.		B-21
Revisions					

# PROPOSAL SCHEDULE

I-64 Hampton Roads Express Lanes (HREL) Segment 4C

MS0000001000	Notice of Intent to Award (24
MS0000001010	CTB Approval / Notice to Award (2
MS0000001020	Design-Build Contract Execution (2
MS0000001030	Notice to Proceed (1-Aug-2022)
MS0000001040	Scope Validation Period
MS0000001055	VDOT Issues - Notice to Proceed with
MS0000001050	Begin Construction Management / Pla
MS0000001060	VDOT Issues - Limited Notice to Con
MS0000001070	VDOT Issues - Limited Notice to Con
MS0000001080	VDOT Issues - Limited Notice to Con
MS0000001082	Begin Construction of WB Hampton
MS0000001085	VDOT Issues - Limited Notice to Co
MS0000001090	VDOT Issues - Notice to Commence
MS0000001095	VDOT Issues - Limited Notice to C
MS0000005010	Phase 1A Completion
MS0000005015	Phase 1B Completion

16-Jun-23	Project Startu
16-Jun-23	Setup VDOT Field Office
16-Jun-23	Setup DBJV Field Office
16-Jun-23	Install Project Wide Advan
16-Jun-23	Mobilize for Construction
04-Apr-23	Management Subm
04-Apr-23	Prepare Right-of-Way (RW) Acquisition Pla
04-Apr-23	Prepare Environmental Management Plan
04-Apr-23	SFC Right-of-Way (RW) Acquisition Pl
04-Apr-23	SFC (VDOT) Environmental Ma
04-Apr-23	R/C R

30-Nov-26	
30-Dec-26	
30-Dec-26	
30-Dec-26	
30-Dec-26	
16-Jun-23	16-Jun-23
16-Jun-23	16-Jun-23
16-Jun-23	16-Jun-23
02-Jun-23	02-Jun-23
16-Jun-23	16-Jun-23
04-Apr-23	04-Apr-23
04-Apr-23	04-Apr-23
12-Sep-22	12-Sep-22
12-Sep-22	12-Sep-22
15-Sep-22	15-Sep-22
15-Sep-22	15-Sep-22
06-Oct-22	06-Oct-22



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Activity ID	Activity Name	Original Duration	Start	Finish	2022	2023	2024	2025	2026																																										
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D
<b>I-64 Hampton Roads Express Lanes (HREL) Segment 4C Design-Build</b>					943	24-Jun-22	30-Dec-26																																												
<b>Milestones</b>					943	24-Jun-22	30-Dec-26																																												
MS0000001000	Notice of Intent to Award (24-June-2022)	0	24-Jun-22		◆ Notice of Intent to Award (24-June-2022)																																														
MS0000001010	CTB Approval / Notice to Award (20-July-2022)	0	20-Jul-22*		◆ CTB Approval / Notice to Award (20-July-2022)																																														
MS0000001020	Design-Build Contract Execution (27-July-2022)	0	27-Jul-22*		◆ Design-Build Contract Execution (27-July-2022)																																														
MS0000001030	Notice to Proceed (1-Aug-2022)	0	01-Aug-22*		◆ Notice to Proceed (1-Aug-2022)																																														
MS0000001040	Scope Validation Period	120	01-Aug-22	28-Nov-22	■ Scope Validation Period																																														
MS0000001055	VDOT Issues - Notice to Proceed with River Borings	0	31-Oct-22		◆ VDOT Issues - Notice to Proceed with River Borings																																														
MS0000001050	Begin Construction Management / Planning	128	07-Dec-22	13-Apr-23	■ Begin Construction Management / Planning																																														
MS0000001060	VDOT Issues - Limited Notice to Commence Construction - Pre-Construction Phase TMP/ MOT Plans	0	19-May-23		◆ VDOT Issues - Limited Notice to Commence Construction - Pre-Construction Phase																																														
MS0000001070	VDOT Issues - Limited Notice to Commence Construction - Phase 1 C&G / ESC Plans	0	03-Jun-23		◆ VDOT Issues - Limited Notice to Commence Construction - Phase 1 C&G / ESC Plans																																														
MS0000001080	VDOT Issues - Limited Notice to Commence Construction - Phase 1 ITS & Sign Structure Plans	0	07-Jun-23		◆ VDOT Issues - Limited Notice to Commence Construction - Phase 1 ITS & Sign Structure Plans																																														
MS0000001082	Begin Construction of WB Hampton River Bridge WB Trestle	0	08-Jun-23		◆ Begin Construction of WB Hampton River Bridge WB Trestle																																														
MS0000001085	VDOT Issues - Limited Notice to Commence Construction - WB Hampton River Bridge / USCG Bridge Permit	0	09-Oct-23		◆ VDOT Issues - Limited Notice to Commence Construction - WB Hampton River Bridge / USCG Bridge Permit																																														
MS0000001090	VDOT Issues - Notice to Commence Construction - Roadway	0	25-Oct-23		◆ VDOT Issues - Notice to Commence Construction - Roadway																																														
MS0000001095	VDOT Issues - Limited Notice to Commence Construction - EB Hampton River Bridge / USCG Bridge Permit	0	11-Dec-23		◆ VDOT Issues - Limited Notice to Commence Construction - EB Hampton River Bridge / USCG Bridge Permit																																														
MS0000005010	Phase 1A Completion	0		25-Jul-24	◆ Phase 1A Completion																																														
MS0000005015	Phase 1B Completion	0		29-Oct-24	◆ Phase 1B Completion																																														
MS0099999900	Interim Completion Milestone - Road Work East of Settlers Landing Road Open to Traffic	0		02-Jul-26*	◆ Interim Completion Milestone - Road Work East of Settlers Landing Road Open to Traffic																																														
MS0000009000	180-day TSI Window	180	03-Jul-26	29-Dec-26	■ 180-day TSI Window																																														
MS0000005025	Phase 2 Completion	0		06-Oct-26	◆ Phase 2 Completion																																														
MS0000005030	Phase 3 Completion	0		30-Nov-26	◆ Phase 3 Completion																																														
MS0099999910	VDOT/DBJV Complete Project Closeout	30	01-Dec-26	30-Dec-26	■ VDOT/DBJV Complete Project Closeout																																														
MS0099999920	Final Completion - VDOT Issues C-5	0		30-Dec-26	◆ Final Completion - VDOT Issues C-5																																														
MS0099999930	Project Closeout Complete	0		30-Dec-26	◆ Project Closeout Complete																																														
<b>Project Administration</b>					922	27-Jul-22	30-Dec-26																																												
<b>Project Startup</b>					20	19-May-23	16-Jun-23																																												
PAS000001000	Setup VDOT Field Office	20	19-May-23	16-Jun-23	■ Setup VDOT Field Office																																														
PAS000001010	Setup DBJV Field Office	20	19-May-23	16-Jun-23	■ Setup DBJV Field Office																																														
PAS000001020	Install Project Wide Advance Work Zone Signage - Phase 1 MOT	10	19-May-23	02-Jun-23	■ Install Project Wide Advance Work Zone Signage - Phase 1 MOT																																														
PAS000001030	Mobilize for Construction	20	19-May-23	16-Jun-23	■ Mobilize for Construction																																														
<b>Management Submittals</b>					136	01-Aug-22	04-Apr-23																																												
PAM000002000	Prepare Right-of-Way (RW) Acquisition Plan	30	01-Aug-22	12-Sep-22	■ Prepare Right-of-Way (RW) Acquisition Plan																																														
PAM000003000	Prepare Environmental Management Plan	30	01-Aug-22	12-Sep-22	■ Prepare Environmental Management Plan																																														
PAM000002010	SFC Right-of-Way (RW) Acquisition Plan	3	13-Sep-22	15-Sep-22	■ SFC Right-of-Way (RW) Acquisition Plan																																														
PAM000003010	SFC (VDOT) Environmental Management Plan	3	13-Sep-22	15-Sep-22	■ SFC (VDOT) Environmental Management Plan																																														
PAM000002020	R/C Right-of-Way (RW) Acquisition Plan	21	16-Sep-22	06-Oct-22	■ R/C Right-of-Way (RW) Acquisition Plan																																														
PAM000003020	VDOT R/C Environmental Management Plan	21	16-Sep-22	06-Oct-22	■ VDOT R/C Environmental Management Plan																																														
PAM000002030	AC Right-of-Way (RW) Acquisition Plan	10	07-Oct-22	20-Oct-22	■ AC Right-of-Way (RW) Acquisition Plan																																														
PAM000003030	AC Environmental Management Plan	10	07-Oct-22	20-Oct-22	■ AC Environmental Management Plan																																														
PAM000002040	SFA Right-of-Way (RW) Acquisition Plan	3	21-Oct-22	25-Oct-22	■ SFA Right-of-Way (RW) Acquisition Plan																																														
PAM000003040	SFA (VDOT) Environmental Management Plan	3	21-Oct-22	25-Oct-22	■ SFA (VDOT) Environmental Management Plan																																														
PAM000002050	VDOT R/A Right-of-Way (RW) Acquisition Plan	21	26-Oct-22	15-Nov-22	■ VDOT R/A Right-of-Way (RW) Acquisition Plan																																														

Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026																							
					J			A			S			O			N			D			J			A			S			O			N			D			J			A			S			O			N			D			J			A			S			O			N			D		
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																																									
PAM000003050	VDOT R/A Environmental Management Plan	21	26-Oct-22	15-Nov-22	█ VDOT R/A Environmental Management Plan																																																																							
PAM000002060	VDOT Approves Right-of-Way (RW) Acquisition Plan	5	16-Nov-22	22-Nov-22	█ VDOT Approves Right-of-Way (RW) Acquisition Plan																																																																							
PAM000003060	VDOT Approves Environmental Management Plan	5	16-Nov-22	22-Nov-22	█ VDOT Approves Environmental Management Plan																																																																							
PAM000001000	Prepare Site Specific Safety & Hazardous Materials Management Plan	30	07-Dec-22	25-Jan-23	█ Prepare Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001010	SFC Site Specific Safety & Hazardous Materials Management Plan	3	26-Jan-23	30-Jan-23	█ SFC Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001020	R/C Site Specific Safety & Hazardous Materials Management Plan	21	31-Jan-23	20-Feb-23	█ R/C Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001030	AC Site Specific Safety & Hazardous Materials Management Plan	10	21-Feb-23	06-Mar-23	█ AC Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001040	SFA Site Specific Safety & Hazardous Materials Management Plan	3	07-Mar-23	09-Mar-23	█ SFA Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001050	VDOT R/A Site Specific Safety & Hazardous Materials Management Plan	21	10-Mar-23	30-Mar-23	█ VDOT R/A Site Specific Safety & Hazardous Materials Management Plan																																																																							
PAM000001060	VDOT Approves Site Specific Safety & Hazardous Materials Management Plan	3	31-Mar-23	04-Apr-23	█ VDOT Approves Site Specific Safety & Hazardous Materials Management Plan																																																																							
<b>General Conditions</b>		76	27-Jul-22	06-Dec-22	█ 06-Dec-22, General Conditions																																																																							
<b>Project Schedule</b>		76	27-Jul-22	06-Dec-22	█ 06-Dec-22, Project Schedule																																																																							
PAGPS0001000	Prepare Baseline Schedule	40	27-Jul-22	21-Sep-22	█ Prepare Baseline Schedule																																																																							
PAGPS0001010	SFC Baseline Schedule	3	22-Sep-22	26-Sep-22	█ SFC Baseline Schedule																																																																							
PAGPS0001020	R/C Baseline Schedule	21	27-Sep-22	17-Oct-22	█ R/C Baseline Schedule																																																																							
PAGPS0001030	AC Baseline Schedule Revision No. 1	15	18-Oct-22	07-Nov-22	█ AC Baseline Schedule Revision No. 1																																																																							
PAGPS0001040	SFA Baseline Schedule Revision No. 1	3	08-Nov-22	10-Nov-22	█ SFA Baseline Schedule Revision No. 1																																																																							
PAGPS0001050	VDOT R/A Baseline Schedule Revision No. 1	21	11-Nov-22	01-Dec-22	█ VDOT R/A Baseline Schedule Revision No. 1																																																																							
PAGPS0001060	VDOT Approves Baseline Schedule Revision No. 1	3	02-Dec-22	06-Dec-22	█ VDOT Approves Baseline Schedule Revision No. 1																																																																							
<b>Quality Assurance/Quality Control (QA/QC)</b>		332	01-Aug-22	13-Mar-24	█ 13-Mar-24, Quality Assurance/Quality Control (QA/QC)																																																																							
<b>Management Submittals</b>		63	01-Aug-22	14-Nov-22	█ 14-Nov-22, Management Submittals																																																																							
PAQMS00000100	Prepare QA/QC Plan	25	01-Aug-22	25-Aug-22	█ Prepare QA/QC Plan																																																																							
PAQMS00000101	Schedule / Conduct DM/QAM QA/QC Presentation	5	26-Aug-22	01-Sep-22	█ Schedule / Conduct DM/QAM QA/QC Presentation																																																																							
PAQMS00000102	SFC QA/QC Plan	3	02-Sep-22	07-Sep-22	█ SFC QA/QC Plan																																																																							
PAQMS00000103	R/C QA/QC Plan	21	08-Sep-22	28-Sep-22	█ R/C QA/QC Plan																																																																							
PAQMS00000104	AC QA/QC Plan Revision No. 1	10	29-Sep-22	12-Oct-22	█ AC QA/QC Plan Revision No. 1																																																																							
PAQMS00000105	SFA QA/QC Plan Revision No. 1	3	13-Oct-22	17-Oct-22	█ SFA QA/QC Plan Revision No. 1																																																																							
PAQMS00000106	VDOT R/A QA/QC Plan Revision No. 1	21	18-Oct-22	07-Nov-22	█ VDOT R/A QA/QC Plan Revision No. 1																																																																							
PAQMS00000107	VDOT Approves QA/QC Plan Revision No. 1	5	08-Nov-22	14-Nov-22	█ VDOT Approves QA/QC Plan Revision No. 1																																																																							
<b>Preparatory Meetings</b>		204	18-May-23	13-Mar-24	█ 13-Mar-24, Preparatory Meetings																																																																							
PAQPM0001010	S/C/D - Preparatory Meeting - MOT (HOLD POINT)	1	18-May-23	18-May-23	█ S/C/D - Preparatory Meeting - MOT (HOLD POINT)																																																																							
PAQPM0001000	S/C/D - Preparatory Meeting - Erosion & Sedimentation Control (HOLD POINT)	1	23-Jun-23	23-Jun-23	█ S/C/D - Preparatory Meeting - Erosion & Sedimentation Control (HOLD POINT)																																																																							
PAQPM0001180	S/C/D - Preparatory Meeting - Clear & Grub (HOLD POINT)	1	10-Jul-23	10-Jul-23	█ S/C/D - Preparatory Meeting - Clear & Grub (HOLD POINT)																																																																							
PAQPM0001060	S/C/D - Preparatory Meeting - Bridge Demo (HOLD POINT)	1	26-Jul-23	26-Jul-23	█ S/C/D - Preparatory Meeting - Bridge Demo (HOLD POINT)																																																																							
PAQPM0001050	S/C/D - Preparatory Meeting - Bridge Substructure (HOLD POINT)	1	27-Sep-23	27-Sep-23	█ S/C/D - Preparatory Meeting - Bridge Substructure (HOLD POINT)																																																																							
PAQPM0001040	S/C/D - Preparatory Meeting - Piles (HOLD POINT)	1	13-Oct-23	13-Oct-23	█ S/C/D - Preparatory Meeting - Piles (HOLD POINT)																																																																							
PAQPM0001030	S/C/D - Preparatory Meeting - Storm Drainage (HOLD POINT)	1	03-Nov-23	03-Nov-23	█ S/C/D - Preparatory Meeting - Storm Drainage (HOLD POINT)																																																																							
PAQPM0001150	S/C/D - Preparatory Meeting - Signage (HOLD POINT)	1	07-Nov-23	07-Nov-23	█ S/C/D - Preparatory Meeting - Signage (HOLD POINT)																																																																							
PAQPM0001140	S/C/D - Preparatory Meeting - Electrical (HOLD POINT)	1	13-Nov-23	13-Nov-23	█ S/C/D - Preparatory Meeting - Electrical (HOLD POINT)																																																																							
PAQPM0001130	S/C/D - Preparatory Meeting - Retaining Walls (HOLD POINT)	1	04-Dec-23	04-Dec-23	█ S/C/D - Preparatory Meeting - Retaining Walls (HOLD POINT)																																																																							
PAQPM0001170	S/C/D - Preparatory Meeting - Drilled Shafts (HOLD POINT)	1	05-Dec-23	05-Dec-23	█ S/C/D - Preparatory Meeting - Drilled Shafts (HOLD POINT)																																																																							
PAQPM0001120	S/C/D - Preparatory Meeting - Sound Barrier (HOLD POINT)	1	15-Dec-23	15-Dec-23	█ S/C/D - Preparatory Meeting - Sound Barrier (HOLD POINT)																																																																							
PAQPM0001020	S/C/D - Preparatory Meeting - Subgrade & Aggregate Base (HOLD POINT)	1	18-Dec-23	18-Dec-23	█ S/C/D - Preparatory Meeting - Subgrade & Aggregate Base (HOLD POINT)																																																																							
PAQPM0001160	S/C/D - Preparatory Meeting - Barrier (HOLD POINT)	1	22-Jan-24	22-Jan-24	█ S/C/D - Preparatory Meeting - Barrier (HOLD POINT)																																																																							

Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026																							
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D																																			
PAQPM0001070	S/C/D - Preparatory Meeting - Asphalt Pavement (HOLD POINT)	1	01-Mar-24	01-Mar-24																																					S/C/D - Preparatory Meeting - Asphalt Pavement (HOLD POINT)																																			
PAQPM0001100	S/C/D - Preparatory Meeting - Pavement Markings (HOLD POINT)	1	05-Mar-24	05-Mar-24																																					S/C/D - Preparatory Meeting - Pavement Markings (HOLD POINT)																																			
PAQPM0001090	S/C/D - Preparatory Meeting - Topsoil & Seeding (HOLD POINT)	1	05-Mar-24	05-Mar-24																																					S/C/D - Preparatory Meeting - Topsoil & Seeding (HOLD POINT)																																			
PAQPM0001080	S/C/D - Preparatory Meeting - Beam Erection (HOLD POINT)	1	11-Mar-24	11-Mar-24																																					S/C/D - Preparatory Meeting - Beam Erection (HOLD POINT)																																			
PAQPM0001110	S/C/D - Preparatory Meeting - Bridge Deck (HOLD POINT)	1	13-Mar-24	13-Mar-24																																					S/C/D - Preparatory Meeting - Bridge Deck (HOLD POINT)																																			
<b>Quality Staffing</b>		<b>365</b>	<b>01-Aug-22</b>	<b>31-Jul-23</b>													31-Jul-23, Quality Staffing																																																											
<b>Design</b>		<b>365</b>	<b>01-Aug-22</b>	<b>31-Jul-23</b>													31-Jul-23, Design																																																											
PAQQAD001010	Quality Assurance Staffing - Design - July 2022	31	01-Aug-22	31-Aug-22													Quality Assurance Staffing - Design - July 2022																																																											
PAQQAD001020	Quality Assurance Staffing - Design - August 2022	31	01-Sep-22	01-Oct-22													Quality Assurance Staffing - Design - August 2022																																																											
PAQQAD001030	Quality Assurance Staffing - Design - September 2022	30	02-Oct-22	31-Oct-22													Quality Assurance Staffing - Design - September 2022																																																											
PAQQAD001040	Quality Assurance Staffing - Design - October 2022	31	01-Nov-22	01-Dec-22													Quality Assurance Staffing - Design - October 2022																																																											
PAQQAD001050	Quality Assurance Staffing - Design - November 2022	30	02-Dec-22	31-Dec-22													Quality Assurance Staffing - Design - November 2022																																																											
PAQQAD001060	Quality Assurance Staffing - Design - December 2022	31	01-Jan-23	31-Jan-23													Quality Assurance Staffing - Design - December 2022																																																											
PAQQAD001070	Quality Assurance Staffing - Design - January 2023	31	01-Feb-23	03-Mar-23													Quality Assurance Staffing - Design - January 2023																																																											
PAQQAD001080	Quality Assurance Staffing - Design - February 2023	28	04-Mar-23	31-Mar-23													Quality Assurance Staffing - Design - February 2023																																																											
PAQQAD001090	Quality Assurance Staffing - Design - March 2023	31	01-Apr-23	01-May-23													Quality Assurance Staffing - Design - March 2023																																																											
PAQQAD001100	Quality Assurance Staffing - Design - April 2023	30	02-May-23	31-May-23													Quality Assurance Staffing - Design - April 2023																																																											
PAQQAD001110	Quality Assurance Staffing - Design - May 2023	31	01-Jun-23	01-Jul-23													Quality Assurance Staffing - Design - May 2023																																																											
PAQQAD001120	Quality Assurance Staffing - Design - June 2023	30	02-Jul-23	31-Jul-23													Quality Assurance Staffing - Design - June 2023																																																											
<b>Project Closeout</b>		<b>1029</b>	<b>07-Mar-24</b>	<b>30-Dec-26</b>																																																																								
PAP000009020	Project Closeout / As-Built Drawings	30	07-Mar-24	05-Apr-24																																					Project Closeout / As-Built Drawings																																			
PAP000009010	Final Punchlist / VDOT Issues Completed C-5	30	01-Dec-26	30-Dec-26																																																																								
<b>Scope Validation</b>		<b>227</b>	<b>01-Aug-22</b>	<b>15-Mar-23</b>													15-Mar-23, Scope Validation																																																											
SV0000000000	Perform Scope Validation Studies	115	01-Aug-22	23-Nov-22													Perform Scope Validation Studies																																																											
SV0000000010	SFC Scope Validation Letter	5	29-Nov-22	03-Dec-22													SFC Scope Validation Letter																																																											
SV0000000020	VDOT Responds to Scope Validation Items	21	04-Dec-22	24-Dec-22													VDOT Responds to Scope Validation Items																																																											
SV0000001000	Scope Validation Resolution - Issue #1	60	25-Dec-22	22-Feb-23													Scope Validation Resolution - Issue #1																																																											
SV0000002000	Scope Validation Resolution - Issue #2	60	25-Dec-22	22-Feb-23													Scope Validation Resolution - Issue #2																																																											
SV0000003000	Scope Validation Resolution - Issue #3	60	25-Dec-22	22-Feb-23													Scope Validation Resolution - Issue #3																																																											
SV0000004000	Scope Validation Resolution - Issue #4	60	25-Dec-22	22-Feb-23													Scope Validation Resolution - Issue #4																																																											
SV0000005000	VDOT Final Scope Validation Resolution Letter	21	23-Feb-23	15-Mar-23													VDOT Final Scope Validation Resolution Letter																																																											
<b>Public Involvement</b>		<b>74</b>	<b>01-Aug-22</b>	<b>06-Dec-22</b>													06-Dec-22, Public Involvement																																																											
<b>Notifications</b>		<b>74</b>	<b>01-Aug-22</b>	<b>06-Dec-22</b>													06-Dec-22, Notifications																																																											
PNN000000010	Prepare Property Owner Notification Letters	5	01-Aug-22	05-Aug-22													Prepare Property Owner Notification Letters																																																											
PNN000000060	Prepare Public Involvement / Communication Plan	50	01-Aug-22	19-Sep-22													Prepare Public Involvement / Communication Plan																																																											
PNN000000020	SFA Property Owner Notification Letters	2	08-Aug-22	09-Aug-22													SFA Property Owner Notification Letters																																																											
PNN000000030	VDOT R/A Property Owner Notification Letters	21	10-Aug-22	30-Aug-22													VDOT R/A Property Owner Notification Letters																																																											
PNN000000040	Distribute Property Owner Notification Letters	1	31-Aug-22	31-Aug-22													Distribute Property Owner Notification Letters																																																											
PNN000000050	Property Owner Notification Period	15	01-Sep-22	15-Sep-22													Property Owner Notification Period																																																											
PNN000000070	Schedule / Conduct Communications Plan Presentation	5	20-Sep-22	26-Sep-22													Schedule / Conduct Communications Plan Presentation																																																											
PNN000000080	SPC Communications Plan	3	27-Sep-22	29-Sep-22													SPC Communications Plan																																																											
PNN000000090	R/C Communications Plan	21	30-Sep-22	20-Oct-22													R/C Communications Plan																																																											
PNN000000100	AC Communications Plan	15	21-Oct-22	10-Nov-22													AC Communications Plan																																																											
PNN000000110	SFA Communications Plan	21	11-Nov-22	01-Dec-22													SFA Communications Plan																																																											



Activity ID	Activity Name	Original Duration	Start	Finish	Gantt Chart (2022-2026)											
					2022	2023	2024	2025	2026							
PNN00000120	VDOT Approves Project Communications Plan	3	02-Dec-22	06-Dec-22	VDOT Approves Project Communications Plan											
<b>Design</b>		<b>342</b>	<b>24-Jun-22</b>	<b>20-Feb-24</b>	20-Feb-24, Design											
<b>General Design Efforts</b>		<b>15</b>	<b>27-Jul-22</b>	<b>16-Aug-22</b>	16-Aug-22, General Design Efforts											
DSD000001000	Assess Existing Conditions Data - Identify Supplementary Data Needs	5	27-Jul-22	02-Aug-22	Assess Existing Conditions Data - Identify Supplementary Data Needs											
DSD000001010	Review Final Contract Documents	5	03-Aug-22	09-Aug-22	Review Final Contract Documents											
DSD000001020	Schedule / Perform Site Visits / Assessments	5	10-Aug-22	16-Aug-22	Schedule / Perform Site Visits / Assessments											
<b>Design Survey</b>		<b>76</b>	<b>17-Aug-22</b>	<b>05-Dec-22</b>	05-Dec-22, Design Survey											
DSS000001000	Conduct General Reviews - Topographic Site Conditions	5	17-Aug-22	23-Aug-22	Conduct General Reviews - Topographic Site Conditions											
DSS000002000	Conduct General Field Review - Roadways	5	17-Aug-22	23-Aug-22	Conduct General Field Review - Roadways											
DSS000003000	Perform Existing Sign Surveys	5	17-Aug-22	23-Aug-22	Perform Existing Sign Surveys											
DSS000002010	Document Existing Pavement Conditions	5	24-Aug-22	30-Aug-22	Document Existing Pavement Conditions											
DSS000003010	Prepare Existing Sign Inventory Report	20	24-Aug-22	21-Sep-22	Prepare Existing Sign Inventory Report											
DSS000002020	SFI Existing Pavement Conditions Findings	1	31-Aug-22	31-Aug-22	SFI Existing Pavement Conditions Findings											
DSS000001010	Perform Supplemental Topographic Surveys	40	16-Sep-22	10-Nov-22	Perform Supplemental Topographic Surveys											
DSS000003020	SFI Existing Sign Inventory Findings	1	22-Sep-22	22-Sep-22	SFI Existing Sign Inventory Findings											
DSS000001040	Compile Topographic Survey Basemap	10	11-Nov-22	28-Nov-22	Compile Topographic Survey Basemap											
DSS000001050	Develop Topographic Survey Basemap	5	29-Nov-22	05-Dec-22	Develop Topographic Survey Basemap											
<b>Geotechnical</b>		<b>226</b>	<b>24-Jun-22</b>	<b>20-Jul-23</b>	20-Jul-23, Geotechnical											
<b>Hampton River Bridge Borings</b>		<b>23</b>	<b>24-Jun-22</b>	<b>29-Jul-22</b>	29-Jul-22, Hampton River Bridge Borings											
DSGHB0001000	Compile Geotechnical Information Basemap - Bridge River Borings	5	24-Jun-22	30-Jun-22	Compile Geotechnical Information Basemap - Bridge River Borings											
DSGHB0001010	Prepare Geotechnical Investigation Plan - Bridge River Borings	5	01-Jul-22	08-Jul-22	Prepare Geotechnical Investigation Plan - Bridge River Borings											
DSGHB0001020	SFI (VDOT) Geotechnical Investigation Plan - Bridge River Borings	21	09-Jul-22	29-Jul-22	SFI (VDOT) Geotechnical Investigation Plan - Bridge River Borings											
<b>Hampton River Borings - Supplemental Borings</b>		<b>115</b>	<b>01-Aug-22</b>	<b>28-Feb-23</b>	28-Feb-23, Hampton River Borings - Supplemental Borings											
DSGHS0001040	Locate/Conduct Geotechnical Borings - Bridge Landside Borings	40	01-Aug-22	26-Sep-22	Locate/Conduct Geotechnical Borings - Bridge Landside Borings											
DSGHS0001050	Compile Boring Logs - Bridge Landside Borings	10	27-Sep-22	12-Oct-22	Compile Boring Logs - Bridge Landside Borings											
DSGHS0001060	Conduct Boring Laboratory Analysis - Bridge Landside Borings	30	13-Oct-22	08-Dec-22	Conduct Boring Laboratory Analysis - Bridge Landside Borings											
DSGHS0001000	Locate/Conduct Geotechnical Borings - Bridge River Borings	20	31-Oct-22	29-Nov-22	Locate/Conduct Geotechnical Borings - Bridge River Borings											
DSGHS0001010	Compile Boring Logs - Bridge River Borings	10	30-Nov-22	15-Dec-22	Compile Boring Logs - Bridge River Borings											
DSGHS0001070	Compile Boring Laboratory Analysis - Bridge Landside Borings	5	12-Dec-22	19-Dec-22	Compile Boring Laboratory Analysis - Bridge Landside Borings											
DSGHS0001020	Conduct Boring Laboratory Analysis - Bridge River Borings	30	19-Dec-22	20-Feb-23	Conduct Boring Laboratory Analysis - Bridge River Borings											
DSGHS0001030	Compile Boring Laboratory Analysis - Bridge River Borings	5	21-Feb-23	28-Feb-23	Compile Boring Laboratory Analysis - Bridge River Borings											
<b>Reports and Recommendations - Hampton River Bridge</b>		<b>88</b>	<b>01-Mar-23</b>	<b>20-Jul-23</b>	20-Jul-23, Reports and Recommendations - Hampton River Bridge											
DSGHR0001030	Conduct Geotechnical Analyses and Design - Hampton River Bridges	20	01-Mar-23	28-Mar-23	Conduct Geotechnical Analyses and Design - Hampton River Bridges											
DSGHR0001000	Compile Geotechnical Data Report (GDR) - Hampton River Bridges	10	01-Mar-23	14-Mar-23	Compile Geotechnical Data Report (GDR) - Hampton River Bridges											
DSGHR0001010	Submit Geotechnical Data Report (GDR) - Hampton River Bridges	3	15-Mar-23	17-Mar-23	Submit Geotechnical Data Report (GDR) - Hampton River Bridges											
DSGHR0001020	R/A (VDOT) Geotechnical Data Report (GDR) - Hampton River Bridges	21	18-Mar-23	07-Apr-23	R/A (VDOT) Geotechnical Data Report (GDR) - Hampton River Bridges											
DSGHR0001040	Prepare Preliminary Geotechnical Engineering Recommendations - Hampton River Bridges	10	29-Mar-23	11-Apr-23	Prepare Preliminary Geotechnical Engineering Recommendations - Hampton River Bridges											
DSGHR0001050	Compile Geotechnical Engineering Report (GER) - Hampton River Bridges	10	12-Apr-23	25-Apr-23	Compile Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001060	SFC (DBJV) Geotechnical Engineering Report (GER) - Hampton River Bridges	3	26-Apr-23	28-Apr-23	SFC (DBJV) Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001070	DBJV R/C Geotechnical Engineering Report (GER) - Hampton River Bridges	5	01-May-23	05-May-23	DBJV R/C Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001080	A/C Geotechnical Engineering Report (GER) - Hampton River Bridges	5	08-May-23	12-May-23	A/C Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001090	SFC (VDOT) Geotechnical Engineering Report (GER) - Hampton River Bridges	3	15-May-23	17-May-23	SFC (VDOT) Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001100	VDOT R/C Geotechnical Engineering Report (GER) - Hampton River Bridges	21	18-May-23	07-Jun-23	VDOT R/C Geotechnical Engineering Report (GER) - Hampton River Bridges											
DSGHR0001110	A/C Advance to Final Geotechnical Engineering Report (GER) - Hampton River Bridges	10	08-Jun-23	21-Jun-23	A/C Advance to Final Geotechnical Engineering Report (GER) - Hampton River Bridges											





Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D													
<b>Hampton Creek Branch Branch H&amp;HA</b>					242	17-Aug-22	10-Oct-23	10-Oct-23, Hampton Creek Branch Branch H&HA																																																								
DSH000002000	Obtain / Colate Available H&HA Information / Models / Files - Hampton Creek Branch	20	17-Aug-22	14-Sep-22	■ Obtain / Colate Available H&HA Information / Models / Files - Hampton Creek Branch																																																											
DSH000002010	Evaluate / Update Available H&HA Information - Hampton Creek Branch	10	15-Sep-22	28-Sep-22	■ Evaluate / Update Available H&HA Information - Hampton Creek Branch																																																											
DSH000002020	Develop Hydraulic Model / Hydraulic Constraints - Hampton Creek Branch	5	29-Sep-22	05-Oct-22	■ Develop Hydraulic Model / Hydraulic Constraints - Hampton Creek Branch																																																											
DSH000002030	Conduct H&HA Analysis / Develop Recommendations - Hampton Creek Branch	10	06-Oct-22	19-Oct-22	■ Conduct H&HA Analysis / Develop Recommendations - Hampton Creek Branch																																																											
DSH000002040	Develop Draft H&HA Report - Hampton Creek Branch	20	20-Oct-22	16-Nov-22	■ Develop Draft H&HA Report - Hampton Creek Branch																																																											
DSH000002050	SFC (VDOT) Draft H&HA Report - Hampton Creek Branch	3	17-Nov-22	21-Nov-22	■ SFC (VDOT) Draft H&HA Report - Hampton Creek Branch																																																											
DSH000002060	VDOT R/C Draft H&HA Report - Hampton Creek Branch	21	22-Nov-22	12-Dec-22	■ VDOT R/C Draft H&HA Report - Hampton Creek Branch																																																											
DSH000002070	Address Comments / Develop Final H&HA Report - Hampton Creek Branch	10	13-Dec-22	03-Jan-23	■ Address Comments / Develop Final H&HA Report - Hampton Creek Branch																																																											
DSH000002080	SFA (VDOT) Final H&HA Report - Hampton Creek Branch	3	04-Jan-23	06-Jan-23	■ SFA (VDOT) Final H&HA Report - Hampton Creek Branch																																																											
DSH000002090	VDOT R/A Final H&HA Report - Hampton Creek Branch	21	07-Jan-23	27-Jan-23	■ VDOT R/A Final H&HA Report - Hampton Creek Branch																																																											
DSH000002100	FEMA Concurrence on Final H&HA Report - Hampton Creek Branch	21	20-Sep-23	10-Oct-23	■ FEMA Concurrence on Final H&HA Report - Hampton Creek Branch																																																											
<b>Bright's Creek H&amp;HA</b>					98	17-Aug-22	17-Feb-23	17-Feb-23, Bright's Creek H&HA																																																								
DSH000003000	Obtain / Colate Available H&HA Information / Models / Files - Bright's Creek	20	17-Aug-22	14-Sep-22	■ Obtain / Colate Available H&HA Information / Models / Files - Bright's Creek																																																											
DSH000003010	Evaluate / Update Available H&HA Information - Bright's Creek	10	15-Sep-22	28-Sep-22	■ Evaluate / Update Available H&HA Information - Bright's Creek																																																											
DSH000003020	Develop Hydraulic Model / Hydraulic Constraints - Bright's Creek	5	29-Sep-22	05-Oct-22	■ Develop Hydraulic Model / Hydraulic Constraints - Bright's Creek																																																											
DSH000003030	Conduct H&HA Analysis / Develop Recommendations - Bright's Creek	10	06-Oct-22	19-Oct-22	■ Conduct H&HA Analysis / Develop Recommendations - Bright's Creek																																																											
DSH000003040	Develop Draft H&HA Report - Bright's Creek	20	20-Oct-22	16-Nov-22	■ Develop Draft H&HA Report - Bright's Creek																																																											
DSH000003050	SFC (VDOT) Draft H&HA Report - Bright's Creek	3	17-Nov-22	21-Nov-22	■ SFC (VDOT) Draft H&HA Report - Bright's Creek																																																											
DSH000003060	VDOT R/C Draft H&HA Report - Bright's Creek	21	22-Nov-22	12-Dec-22	■ VDOT R/C Draft H&HA Report - Bright's Creek																																																											
DSH000003070	Address Comments / Develop Final H&HA Report - Bright's Creek	10	13-Dec-22	03-Jan-23	■ Address Comments / Develop Final H&HA Report - Bright's Creek																																																											
DSH000003080	SFA (VDOT) Final H&HA Report - Bright's Creek	3	04-Jan-23	06-Jan-23	■ SFA (VDOT) Final H&HA Report - Bright's Creek																																																											
DSH000003090	VDOT R/A Final H&HA Report - Bright's Creek	21	07-Jan-23	27-Jan-23	■ VDOT R/A Final H&HA Report - Bright's Creek																																																											
DSH000003100	FEMA Concurrence on Final H&HA Report - Bright's Creek	21	28-Jan-23	17-Feb-23	■ FEMA Concurrence on Final H&HA Report - Bright's Creek																																																											
<b>Advanced Roadway Plans</b>					163	17-Aug-22	06-Jun-23	06-Jun-23, Advanced Roadway Plans																																																								
<b>Pre-Construction Phase - Maintenance of Traffic (MOT) / Traffic Management Plan (TMP)</b>					101	20-Oct-22	28-Apr-23	28-Apr-23, Pre-Construction Phase - Maintenance of Traffic (MOT) / Traffic Management																																																								
DSAA00001000	Advance Design to Pre-Construction Phase - MOT Plans / Analysis Report (No Required RW Acquisition)	20	20-Oct-22	16-Nov-22	■ Advance Design to Pre-Construction Phase - MOT Plans / Analysis Report (No Required RW Acquisition)																																																											
DSAA00001010	Advance Design to Pre-Construction Phase - TMP / Incident Management Plan	20	20-Oct-22	16-Nov-22	■ Advance Design to Pre-Construction Phase - TMP / Incident Management Plan																																																											
DSAA00001020	Compile Pre-Construction Phase - TMP / MOT Plans / Report	5	17-Nov-22	23-Nov-22	■ Compile Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001030	SFC (DBJV) Pre-Construction Phase - TMP / MOT Plans / Report	1	28-Nov-22	28-Nov-22	■ SFC (DBJV) Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001040	R/C (DBJV) Pre-Construction Phase - TMP / MOT Plans / Report	5	29-Nov-22	05-Dec-22	■ R/C (DBJV) Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001050	Prepare Pre-Construction Phase - TMP / MOT Plans / Report for VDOT Review	5	06-Dec-22	12-Dec-22	■ Prepare Pre-Construction Phase - TMP / MOT Plans / Report for VDOT Review																																																											
DSAA00001060	SFC (VDOT) Pre-Construction Phase - TMP / MOT Plans / Report	1	13-Dec-22	13-Dec-22	■ SFC (VDOT) Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001070	VDOT R/C Pre-Construction Phase - TMP / MOT Plans / Report	21	14-Dec-22	03-Jan-23	■ VDOT R/C Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001080	AC Pre-Construction Phase - TMP / MOT Plans / Report	10	04-Jan-23	17-Jan-23	■ AC Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001090	SFA (VDOT) AFC Pre-Construction Phase - TMP / MOT Plans / Report/Comment Resolution Matrix	3	18-Jan-23	20-Jan-23	■ SFA (VDOT) AFC Pre-Construction Phase - TMP / MOT Plans / Report/Comment Resolution Matrix																																																											
DSAA00001100	VDOT R/A AFC Pre-Construction Phase - TMP / MOT Plans / Report	21	21-Jan-23	10-Feb-23	■ VDOT R/A AFC Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001110	VDOT Approves - AFC Pre-Construction Phase - TMP / MOT Plans / Report	3	13-Feb-23	15-Feb-23	■ VDOT Approves - AFC Pre-Construction Phase - TMP / MOT Plans / Report																																																											
DSAA00001120	VDOT Issues Limited Notice to Commence Construction - Pre-Construction Phase - TMP / MOT Plans	3	26-Apr-23	28-Apr-23	■ VDOT Issues Limited Notice to Commence Construction - Pre-Construction Phase - TMP / MOT Plans																																																											
<b>Clearing &amp; Grubbing (C&amp;G) / Erosion and Sediment Control (ESC) Plans</b>					88	03-Jan-23	02-Jun-23	02-Jun-23, Clearing & Grubbing (C&G) / Erosion and Sediment Control (ESC) Plans																																																								
DSAD00001000	Advance Design to Phase 1 - C&G / ESC Plans	30	03-Jan-23	13-Feb-23	■ Advance Design to Phase 1 - C&G / ESC Plans																																																											
DSAD00001010	Compile Phase 1 - C&G / ESC Plans	5	14-Feb-23	20-Feb-23	■ Compile Phase 1 - C&G / ESC Plans																																																											
DSAD00001020	SFC (DBJV) Phase 1 - C&G / ESC Plans	1	21-Feb-23	21-Feb-23	■ SFC (DBJV) Phase 1 - C&G / ESC Plans																																																											
DSAD00001030	R/C (DBJV) Phase 1 - C&G / ESC Plans	10	22-Feb-23	07-Mar-23	■ R/C (DBJV) Phase 1 - C&G / ESC Plans																																																											



C00117841DB11BD01: I-64 Hampton Roads Express Lanes (HREL) Segment 4C Design-					Proposal Layout											09-May-22 14:02															
Activity ID	Activity Name	Original Duration	Start	Finish	2022		2023					2024				2025				2026											
					J	A	J	A	S	O	N	D	J	A	J	A	S	O	N	D	J	A	J	A	S	O	N	D	J	A	J
DSRA00001060	VDOT R/C Final Design Roadway Plans	21	16-Jun-23	06-Jul-23																											
DSRA00001070	AC Advance to AFC Roadway Plans	20	07-Jul-23	03-Aug-23																											
DSRA00001080	SFA (VDOT) AFC Roadway Plans / Comment Resolution Matrix	3	04-Aug-23	08-Aug-23																											
DSRA00001090	VDOT R/A AFC Roadway Plans	21	09-Aug-23	29-Aug-23																											
DSRA00001100	VDOT Approves AFC Roadway Plans	3	30-Aug-23	01-Sep-23																											
DSRA00001110	VDOT Issues Notice to Commence Construction AFC Roadway Plans	10	11-Oct-23	24-Oct-23																											
<b>Final Maintenance of Traffic (MOT) / Traffic Management Plan (TMP) Plans</b>		<b>101</b>	<b>16-Jun-23</b>	<b>05-Dec-23</b>																											
DSRB00001000	Advance Final MOT / TMP Plans	30	16-Jun-23	28-Jul-23																											
DSRB00001010	Compile Final MOT / TMP Plans	5	31-Jul-23	04-Aug-23																											
DSRB00001020	SFC Final MOT / TMP Plans (Internal DBJV Review)	1	07-Aug-23	07-Aug-23																											
DSRB00001030	R/C Final MOT / TMP Plans (Internal DBJV Review)	10	08-Aug-23	21-Aug-23																											
DSRB00001040	Compile Final MOT / TMP Plans	5	22-Aug-23	28-Aug-23																											
DSRB00001050	SFC Final MOT / TMP Plans (VDOT Review)	3	29-Aug-23	31-Aug-23																											
DSRB00001060	VDOT R/C Final MOT / TMP Plans	21	01-Sep-23	21-Sep-23																											
DSRB00001070	AC Final MOT / TMP Plans	20	22-Sep-23	19-Oct-23																											
DSRB00001080	SFA Final MOT / TMP Plans/ Comment Resolution Matrix (VDOT Acceptance)	3	20-Oct-23	24-Oct-23																											
DSRB00001090	VDOT R/A Final MOT / TMP Plans	21	25-Oct-23	14-Nov-23																											
DSRB00001100	VDOT Approves Final MOT / TMP Plans	3	15-Nov-23	17-Nov-23																											
DSRB00001110	VDOT Issues Notice to Commence Construction Final MOT / TMP Plans	10	20-Nov-23	05-Dec-23																											
<b>Landscape Plans</b>		<b>88</b>	<b>05-Sep-23</b>	<b>20-Feb-24</b>																											
DSRC00001000	Prepare Landscape Plans	30	05-Sep-23	16-Oct-23																											
DSRC00001010	SFC (DBJV) Landscape Plans	1	17-Oct-23	17-Oct-23																											
DSRC00001020	R/C (DBJV) Landscape Plans	10	18-Oct-23	31-Oct-23																											
DSRC00001030	Compile Landscape Plans	5	01-Nov-23	07-Nov-23																											
DSRC00001040	SFC (VDOT) Landscape Plans	3	08-Nov-23	10-Nov-23																											
DSRC00001050	VDOT R/C Landscape Plans	21	11-Nov-23	01-Dec-23																											
DSRC00001060	AC Advance to AFC Landscape Plans	20	04-Dec-23	08-Jan-24																											
DSRC00001070	SFA (VDOT) AFC Landscape Plans / Comment Resolution Matrix	3	09-Jan-24	11-Jan-24																											
DSRC00001080	VDOT R/A AFC Landscape Plans	21	12-Jan-24	01-Feb-24																											
DSRC00001090	VDOT Approves AFC Landscape Plans	3	02-Feb-24	06-Feb-24																											
DSRC00001100	VDOT Issues Notice to Commence Construction AFC Landscape Plans	10	07-Feb-24	20-Feb-24																											
<b>Lighting / ITS / Signage Plans</b>		<b>97</b>	<b>16-Jun-23</b>	<b>28-Nov-23</b>																											
DSRD00001000	Prepare Lighting / ITS / Signage Plans	30	16-Jun-23	28-Jul-23																											
DSRD00001010	SFC (DBJV) Lighting / ITS / Signage Plans	1	31-Jul-23	31-Jul-23																											
DSRD00001020	R/C (DBJV) Lighting / ITS / Signage Plans	10	01-Aug-23	14-Aug-23																											
DSRD00001030	Compile Lighting / ITS / Signage Plans	5	15-Aug-23	21-Aug-23																											
DSRD00001040	SFC (VDOT) Lighting / ITS / Signage Plans	3	22-Aug-23	24-Aug-23																											
DSRD00001050	VDOT R/C Lighting / ITS / Signage Plans	21	25-Aug-23	14-Sep-23																											
DSRD00001060	AC Advance to AFC Lighting / ITS / Signage Plans	20	15-Sep-23	12-Oct-23																											
DSRD00001070	SFA (VDOT) AFC Lighting / ITS / Signage Plans / Comment Resolution Matrix	3	13-Oct-23	17-Oct-23																											
DSRD00001080	VDOT R/A AFC Lighting / ITS / Signage Plans	21	18-Oct-23	07-Nov-23																											
DSRD00001090	VDOT Approves AFC Lighting / ITS / Signage Plans	3	08-Nov-23	10-Nov-23																											
DSRD00001100	VDOT Issues Notice to Commence Construction AFC Lighting / ITS / Signage Plans	10	13-Nov-23	28-Nov-23																											
<b>Structure Design</b>		<b>284</b>	<b>24-Jun-22</b>	<b>24-Oct-23</b>																											

Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026														
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D																
<b>Stage I Bridge Plans</b>					127	24-Jun-22	08-Feb-23	08-Feb-23, Stage I Bridge Plans																																																											
<b>Bridge - Rip Rap Road</b>					64	01-Aug-22	15-Nov-22	15-Nov-22, Bridge - Rip Rap Road																																																											
DSBAA0001000	DBJV Develops - Rip Rap Road - Stage I Bridge Plans	25	01-Aug-22	02-Sep-22	DBJV Develops - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001010	DBJV SFC (VDOT Review) - Rip Rap Road - Stage I Bridge Plans	3	06-Sep-22	08-Sep-22	DBJV SFC (VDOT Review) - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001020	VDOT Reviews/Comments - Rip Rap Road - Stage I Bridge Plans	21	09-Sep-22	29-Sep-22	VDOT Reviews/Comments - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001030	A/C - Rip Rap Road - Stage I Bridge Plans	10	30-Sep-22	13-Oct-22	A/C - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001040	DBJV SFA - Rip Rap Road - Stage I Bridge Plans	3	14-Oct-22	18-Oct-22	DBJV SFA - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001050	VDOT R/A - Rip Rap Road - Stage I Bridge Plans	21	19-Oct-22	08-Nov-22	VDOT R/A - Rip Rap Road - Stage I Bridge Plans																																																														
DSBAA0001060	VDOT Approves - Rip Rap Road - Stage I Bridge Plans	5	09-Nov-22	15-Nov-22	VDOT Approves - Rip Rap Road - Stage I Bridge Plans																																																														
<b>Bridge - King Street</b>					74	01-Aug-22	06-Dec-22	06-Dec-22, Bridge - King Street																																																											
DSBAB0001000	DBJV Develops - King Street - Stage I Bridge Plans	40	01-Aug-22	26-Sep-22	DBJV Develops - King Street - Stage I Bridge Plans																																																														
DSBAB0001010	DBJV SFC (VDOT Review) - King Street - Stage I Bridge Plans	3	27-Sep-22	29-Sep-22	DBJV SFC (VDOT Review) - King Street - Stage I Bridge Plans																																																														
DSBAB0001020	VDOT Reviews/Comments - King Street - Stage I Bridge Plans	21	30-Sep-22	20-Oct-22	VDOT Reviews/Comments - King Street - Stage I Bridge Plans																																																														
DSBAB0001030	A/C - King Street - Stage I Bridge Plans	10	21-Oct-22	03-Nov-22	A/C - King Street - Stage I Bridge Plans																																																														
DSBAB0001040	DBJV SFA - King Street - Stage I Bridge Plans	3	04-Nov-22	08-Nov-22	DBJV SFA - King Street - Stage I Bridge Plans																																																														
DSBAB0001050	VDOT R/A - King Street - Stage I Bridge Plans	21	09-Nov-22	29-Nov-22	VDOT R/A - King Street - Stage I Bridge Plans																																																														
DSBAB0001060	VDOT Approves - King Street - Stage I Bridge Plans	5	30-Nov-22	06-Dec-22	VDOT Approves - King Street - Stage I Bridge Plans																																																														
<b>Bridge - Settlers Landing Road</b>					78	01-Aug-22	13-Dec-22	13-Dec-22, Bridge - Settlers Landing Road																																																											
DSBAC0001000	DBJV Develops - Settlers Landing Road - Stage I Bridge Plans	40	01-Aug-22	26-Sep-22	DBJV Develops - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001010	DBJV SFC (VDOT Review) - Settlers Landing Road - Stage I Bridge Plans	3	27-Sep-22	29-Sep-22	DBJV SFC (VDOT Review) - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001020	VDOT Reviews/Comments - Settlers Landing Road - Stage I Bridge Plans	21	30-Sep-22	20-Oct-22	VDOT Reviews/Comments - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001030	A/C - Settlers Landing Road - Stage I Bridge Plans	15	21-Oct-22	10-Nov-22	A/C - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001040	DBJV SFA - Settlers Landing Road - Stage I Bridge Plans	3	11-Nov-22	15-Nov-22	DBJV SFA - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001050	VDOT R/A - Settlers Landing Road - Stage I Bridge Plans	21	16-Nov-22	06-Dec-22	VDOT R/A - Settlers Landing Road - Stage I Bridge Plans																																																														
DSBAC0001060	VDOT Approves - Settlers Landing Road - Stage I Bridge Plans	5	07-Dec-22	13-Dec-22	VDOT Approves - Settlers Landing Road - Stage I Bridge Plans																																																														
<b>Bridge - WB Hampton River Bridge</b>					87	24-Jun-22	15-Nov-22	15-Nov-22, Bridge - WB Hampton River Bridge																																																											
DSBAD0001000	DBJV Develops - WB Hampton River Bridge - Stage I Bridge Plans	50	24-Jun-22	02-Sep-22	DBJV Develops - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001010	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Stage I Bridge Plans	3	06-Sep-22	08-Sep-22	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001020	VDOT Reviews/Comments - WB Hampton River Bridge - Stage I Bridge Plans	21	09-Sep-22	29-Sep-22	VDOT Reviews/Comments - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001030	A/C - WB Hampton River Bridge - Stage I Bridge Plans	10	30-Sep-22	13-Oct-22	A/C - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001040	DBJV SFA - WB Hampton River Bridge - Stage I Bridge Plans	3	14-Oct-22	18-Oct-22	DBJV SFA - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001050	VDOT R/A - WB Hampton River Bridge - Stage I Bridge Plans	21	19-Oct-22	08-Nov-22	VDOT R/A - WB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAD0001060	VDOT Approves - WB Hampton River Bridge - Stage I Bridge Plans	5	09-Nov-22	15-Nov-22	VDOT Approves - WB Hampton River Bridge - Stage I Bridge Plans																																																														
<b>Bridge - EB Hampton River Bridge</b>					104	01-Aug-22	08-Feb-23	08-Feb-23, Bridge - EB Hampton River Bridge																																																											
DSBAE0001000	DBJV Develops - EB Hampton River Bridge - Stage I Bridge Plans	70	01-Aug-22	07-Nov-22	DBJV Develops - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001010	DBJV SFC (VDOT Review) - EB Hampton River Bridge - Stage I Bridge Plans	3	08-Nov-22	10-Nov-22	DBJV SFC (VDOT Review) - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001020	VDOT Reviews/Comments - EB Hampton River Bridge - Stage I Bridge Plans	21	11-Nov-22	01-Dec-22	VDOT Reviews/Comments - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001030	A/C - EB Hampton River Bridge - Stage I Bridge Plans	20	02-Dec-22	06-Jan-23	A/C - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001040	DBJV SFA - EB Hampton River Bridge - Stage I Bridge Plans	3	09-Jan-23	11-Jan-23	DBJV SFA - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001050	VDOT R/A - EB Hampton River Bridge - Stage I Bridge Plans	21	12-Jan-23	01-Feb-23	VDOT R/A - EB Hampton River Bridge - Stage I Bridge Plans																																																														
DSBAE0001060	VDOT Approves - EB Hampton River Bridge - Stage I Bridge Plans	5	02-Feb-23	08-Feb-23	VDOT Approves - EB Hampton River Bridge - Stage I Bridge Plans																																																														
<b>Bridge - EB over Hampton Branch Creek</b>					90	01-Aug-22	12-Jan-23	12-Jan-23, Bridge - EB over Hampton Branch Creek																																																											
DSBAF0001000	DBJV Develops - EB over Hampton Branch Creek - Stage I Bridge Plans	60	01-Aug-22	24-Oct-22	DBJV Develops - EB over Hampton Branch Creek - Stage I Bridge Plans																																																														
DSBAF0001010	DBJV SFC (VDOT Review) - EB over Hampton Branch Creek - Stage I Bridge Plans	3	25-Oct-22	27-Oct-22	DBJV SFC (VDOT Review) - EB over Hampton Branch Creek - Stage I Bridge Plans																																																														

Activity ID	Activity Name	Original Duration	Start	Finish	Gantt Chart																															
					2022				2023				2024				2025				2026															
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J
DSBAF0001020	VDOT Reviews/Comments - EB over Hampton Branch Creek - Stage I Bridge Plans	21	28-Oct-22	17-Nov-22	VDOT Reviews/Comments - EB over Hampton Branch Creek - Stage I Bridge Plans																															
DSBAF0001030	A/C - EB over Hampton Branch Creek - Stage I Bridge Plans	15	18-Nov-22	12-Dec-22	A/C - EB over Hampton Branch Creek - Stage I Bridge Plans																															
DSBAF0001040	DBJV SFA - EB over Hampton Branch Creek - Stage I Bridge Plans	3	13-Dec-22	15-Dec-22	DBJV SFA - EB over Hampton Branch Creek - Stage I Bridge Plans																															
DSBAF0001050	VDOT R/A - EB over Hampton Branch Creek - Stage I Bridge Plans	21	16-Dec-22	05-Jan-23	VDOT R/A - EB over Hampton Branch Creek - Stage I Bridge Plans																															
DSBAF0001060	VDOT Approves - EB over Hampton Branch Creek - Stage I Bridge Plans	5	06-Jan-23	12-Jan-23	VDOT Approves - EB over Hampton Branch Creek - Stage I Bridge Plans																															
<b>Stage II Final Bridge Plans</b>		197	16-Nov-22	24-Oct-23	24-Oct-23, Stage II Final Bridge Plans																															
<b>Bridge - Rip Rap Road</b>		79	16-Nov-22	17-Apr-23	17-Apr-23, Bridge - Rip Rap Road																															
DSBBA0001000	DBJV Develops - Rip Rap Road - Stage II Final Bridge Plans	40	16-Nov-22	20-Jan-23	DBJV Develops - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001010	DBJV SFC (VDOT Review) - Rip Rap Road - Stage II Final Bridge Plans	3	23-Jan-23	25-Jan-23	DBJV SFC (VDOT Review) - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001020	VDOT Reviews/Comments - Rip Rap Road - Stage II Final Bridge Plans	21	26-Jan-23	15-Feb-23	VDOT Reviews/Comments - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001030	DBJV Addresses Comments - Rip Rap Road - Stage II Final Bridge Plans	20	16-Feb-23	15-Mar-23	DBJV Addresses Comments - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001040	DBJV SFA - Rip Rap Road - Stage II Final Bridge Plans	3	16-Mar-23	20-Mar-23	DBJV SFA - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001050	VDOT R/A - Rip Rap Road - Stage II Final Bridge Plans	21	21-Mar-23	10-Apr-23	VDOT R/A - Rip Rap Road - Stage II Final Bridge Plans																															
DSBBA0001060	VDOT Approves - Rip Rap Road - Stage II Final Bridge Plans	5	11-Apr-23	17-Apr-23	VDOT Approves - Rip Rap Road - Stage II Final Bridge Plans																															
<b>Bridge - King Street</b>		117	07-Dec-22	30-Jun-23	30-Jun-23, Bridge - King Street																															
DSBBB0001000	DBJV Develops - King Street - Stage II Final Bridge Plans	80	07-Dec-22	05-Apr-23	DBJV Develops - King Street - Stage II Final Bridge Plans																															
DSBBB0001010	DBJV SFC (VDOT Review) - King Street - Stage II Final Bridge Plans	3	06-Apr-23	10-Apr-23	DBJV SFC (VDOT Review) - King Street - Stage II Final Bridge Plans																															
DSBBB0001020	VDOT Reviews/Comments - King Street - Stage II Final Bridge Plans	21	11-Apr-23	01-May-23	VDOT Reviews/Comments - King Street - Stage II Final Bridge Plans																															
DSBBB0001030	DBJV Addresses Comments - King Street - Stage II Final Bridge Plans	20	02-May-23	30-May-23	DBJV Addresses Comments - King Street - Stage II Final Bridge Plans																															
DSBBB0001040	DBJV SFA - King Street - Stage II Final Bridge Plans	3	31-May-23	02-Jun-23	DBJV SFA - King Street - Stage II Final Bridge Plans																															
DSBBB0001050	VDOT R/A - King Street - Stage II Final Bridge Plans	21	03-Jun-23	23-Jun-23	VDOT R/A - King Street - Stage II Final Bridge Plans																															
DSBBB0001060	VDOT Approves - King Street - Stage II Final Bridge Plans	5	26-Jun-23	30-Jun-23	VDOT Approves - King Street - Stage II Final Bridge Plans																															
<b>Bridge - Settlers Landing Road</b>		107	14-Dec-22	22-Jun-23	22-Jun-23, Bridge - Settlers Landing Road																															
DSBBC0001000	DBJV Develops - Settlers Landing Road - Stage II Final Bridge Plans	70	14-Dec-22	29-Mar-23	DBJV Develops - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001010	DBJV SFC (VDOT Review) - Settlers Landing Road - Stage II Final Bridge Plans	3	30-Mar-23	03-Apr-23	DBJV SFC (VDOT Review) - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001020	VDOT Reviews/Comments - Settlers Landing Road - Stage II Final Bridge Plans	21	04-Apr-23	24-Apr-23	VDOT Reviews/Comments - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001030	DBJV Addresses Comments - Settlers Landing Road - Stage II Final Bridge Plans	20	25-Apr-23	22-May-23	DBJV Addresses Comments - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001040	DBJV SFA - Settlers Landing Road - Stage II Final Bridge Plans	3	23-May-23	25-May-23	DBJV SFA - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001050	VDOT R/A - Settlers Landing Road - Stage II Final Bridge Plans	21	26-May-23	15-Jun-23	VDOT R/A - Settlers Landing Road - Stage II Final Bridge Plans																															
DSBBC0001060	VDOT Approves - Settlers Landing Road - Stage II Final Bridge Plans	5	16-Jun-23	22-Jun-23	VDOT Approves - Settlers Landing Road - Stage II Final Bridge Plans																															
<b>Bridge - WB Hampton River Bridge - Steel Superstructure Plan Package</b>		66	16-Nov-22	27-Mar-23	27-Mar-23, Bridge - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001000	DBJV Develops - WB Hampton River Bridge - Steel Superstructure Plan Package	30	16-Nov-22	06-Jan-23	DBJV Develops - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001010	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Steel Superstructure Plan Package	3	09-Jan-23	11-Jan-23	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001020	VDOT Reviews/Comments - WB Hampton River Bridge - Steel Superstructure Plan Package	21	12-Jan-23	01-Feb-23	VDOT Reviews/Comments - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001030	DBJV Addresses Comments - WB Hampton River Bridge - Steel Superstructure Plan Package	15	02-Feb-23	22-Feb-23	DBJV Addresses Comments - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001040	DBJV SFA - WB Hampton River Bridge - Steel Superstructure Plan Package	3	23-Feb-23	27-Feb-23	DBJV SFA - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001050	VDOT R/A - WB Hampton River Bridge - Steel Superstructure Plan Package	21	28-Feb-23	20-Mar-23	VDOT R/A - WB Hampton River Bridge - Steel Superstructure Plan Package																															
DSBBD0001060	VDOT Approves - WB Hampton River Bridge - Steel Superstructure Plan Package	5	21-Mar-23	27-Mar-23	VDOT Approves - WB Hampton River Bridge - Steel Superstructure Plan Package																															
<b>Bridge - WB Hampton River Bridge - Stage II Final Plans</b>		160	16-Nov-22	22-Aug-23	22-Aug-23, Bridge - WB Hampton River Bridge - Stage II Final Plans																															
DSBBE0001000	DBJV Develops - WB Hampton River Bridge - Stage II Final Bridge Plans	80	16-Nov-22	17-Mar-23	DBJV Develops - WB Hampton River Bridge - Stage II Final Bridge Plans																															
DSBBE0001010	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Stage II Final Bridge Plans	3	20-Mar-23	22-Mar-23	DBJV SFC (VDOT Review) - WB Hampton River Bridge - Stage II Final Bridge Plans																															
DSBBE0001020	VDOT Reviews/Comments - WB Hampton River Bridge - Stage II Final Bridge Plans	21	23-Mar-23	12-Apr-23	VDOT Reviews/Comments - WB Hampton River Bridge - Stage II Final Bridge Plans																															
DSBBE0001030	DBJV Addresses Comments - WB Hampton River Bridge - Stage II Final Bridge Plans	20	13-Apr-23	10-May-23	DBJV Addresses Comments - WB Hampton River Bridge - Stage II Final Bridge Plans																															
DSBBE0001040	DBJV SFA - WB Hampton River Bridge - Stage II Final Bridge Plans	3	21-Jul-23	25-Jul-23	DBJV SFA - WB Hampton River Bridge - Stage II Final Bridge Plans																															





Activity ID	Activity Name	Original Duration	Start	Finish	Gantt Chart																															
					2022				2023				2024				2025				2026															
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J
ENCG00001030	R/C (DBJV) USCG Bridge Permit Applications	5	07-Oct-22	13-Oct-22	█ R/C (DBJV) USCG Bridge Permit Applications																															
ENCG00001040	AC USCG Bridge Permit Applications	5	14-Oct-22	20-Oct-22	█ AC USCG Bridge Permit Applications																															
ENCG00001050	SFC (USGC) USCG Bridge Permit Applications	30	21-Oct-22	19-Nov-22	█ SFC (USGC) USCG Bridge Permit Applications																															
ENCG00001060	AC USCG Bridge Permit Applications	10	09-Feb-23	22-Feb-23	█ AC USCG Bridge Permit Applications																															
ENCG00001070	SFA USCG Bridge Permit Applications	3	23-Feb-23	27-Feb-23	█ SFA USCG Bridge Permit Applications																															
ENCG00001075	USCG Reviews Final Bridge Permit Applications	60	28-Feb-23	28-Apr-23	█ USCG Reviews Final Bridge Permit Applications																															
ENCG00001080	USCG Determines Bridge Permit Applications are Complete	30	29-Apr-23	28-May-23	█ USCG Determines Bridge Permit Applications are Complete																															
ENCG00001090	Submit Approved Waters of the US Permits to USGC	15	31-May-23	20-Jun-23	█ Submit Approved Waters of the US Permits to USGC																															
ENCG00001200	Provide USCG with Final WB River Bridge Plans	5	23-Aug-23	29-Aug-23	█ Provide USCG with Final WB River Bridge Plans																															
ENCG00001210	USCG Processes Permit - Issues Final USCG Permit for WB River Bridge	30	30-Aug-23	28-Sep-23	█ USCG Processes Permit - Issues Final USCG Permit for WB River Bridge																															
ENCG00001220	Provide VDOT PM with USCG Permit Requirement Confirmation for WB River Bridge from Agencies (HOLD POI)	5	29-Sep-23	05-Oct-23	█ Provide VDOT PM with USCG Permit Requirement Confirmation for WB River Bridge																															
ENCG00001100	Provide USCG with Final EB River Bridges Plans	5	25-Oct-23	31-Oct-23	█ Provide USCG with Final EB River Bridges Plans																															
ENCG00001110	USCG Processes Permit - Issues Final USCG Permit for EB River Bridges	30	01-Nov-23	30-Nov-23	█ USCG Processes Permit - Issues Final USCG Permit for EB River Bridges																															
ENCG00001120	Provide VDOT PM with USCG Permit Requirement Confirmation for EB River Bridges from Agencies (HOLD POI)	5	01-Dec-23	07-Dec-23	█ Provide VDOT PM with USCG Permit Requirement Confirmation for EB River Bridges																															
<b>Pollution Prevention (P2) Plan (2.7.3)</b>		<b>45</b>	<b>08-Mar-23</b>	<b>18-May-23</b>	█ 18-May-23, Pollution Prevention (P2) Plan (2.7.3)																															
ENL000001000	Compile Pollution Prevention Plan	10	08-Mar-23	21-Mar-23	█ Compile Pollution Prevention Plan																															
ENL000001010	SFC (VDOT) Pollution Prevention Plan	3	22-Mar-23	24-Mar-23	█ SFC (VDOT) Pollution Prevention Plan																															
ENL000001020	VDOT R/C Pollution Prevention Plan	21	25-Mar-23	14-Apr-23	█ VDOT R/C Pollution Prevention Plan																															
ENL000001030	Address Comments / Compile Final Pollution Prevention Plan	5	17-Apr-23	21-Apr-23	█ Address Comments / Compile Final Pollution Prevention Plan																															
ENL000001040	SFA (VDOT) Final Pollution Prevention Plan	1	24-Apr-23	24-Apr-23	█ SFA (VDOT) Final Pollution Prevention Plan																															
ENL000001050	VDOT R/A Final Pollution Prevention Plan	21	25-Apr-23	15-May-23	█ VDOT R/A Final Pollution Prevention Plan																															
ENL000001060	VDOT Approves Final Pollution Prevention Plan	3	16-May-23	18-May-23	█ VDOT Approves Final Pollution Prevention Plan																															
<b>Stormwater Pollution Prevention Plan</b>		<b>185</b>	<b>08-Jun-23</b>	<b>06-Mar-24</b>	█ 06-Mar-24, Stormwater Pollution Prevention Plan																															
ENS000001000	Develop SWPPP Compliance Notebook	10	08-Jun-23	21-Jun-23	█ Develop SWPPP Compliance Notebook																															
ENS000001010	Update SWPPP - Include Approved Site Specific Safety & Hazardous Materials Management Plan	3	22-Jun-23	26-Jun-23	█ Update SWPPP - Include Approved Site Specific Safety & Hazardous Materials Management Plan																															
ENS000001020	Update SWPPP - Include Approved P2 Plan	3	22-Jun-23	26-Jun-23	█ Update SWPPP - Include Approved P2 Plan																															
ENS000001030	Update SWPPP - Include Approved Phase 1 - C&G / ESC Plans	3	22-Jun-23	26-Jun-23	█ Update SWPPP - Include Approved Phase 1 - C&G / ESC Plans																															
ENS000001040	Update SWPPP - Include Approved Phase 1 - MOT / TMP Plans	3	22-Jun-23	26-Jun-23	█ Update SWPPP - Include Approved Phase 1 - MOT / TMP Plans																															
ENS000001050	Update SWPPP - Include Approved Final Roadway Plans	3	25-Oct-23	27-Oct-23	█ Update SWPPP - Include Approved Final Roadway Plans																															
ENS000001080	Update SWPPP - Include Approved AFC Lighting / ITS / Signage Plans	3	29-Nov-23	01-Dec-23	█ Update SWPPP - Include Approved AFC Lighting / ITS / Signage Plans																															
ENS000001060	Update SWPPP - Include Approved Final MOT / TMP Plans	3	06-Dec-23	08-Dec-23	█ Update SWPPP - Include Approved Final MOT / TMP Plans																															
ENS000001090	Update SWPPP - Include Approved Landscape Plans	3	21-Feb-24	23-Feb-24	█ Update SWPPP - Include Approved Landscape Plans																															
ENS000001100	Refresh SWPPP Documents as Project Progresses	3	26-Feb-24	28-Feb-24	█ Refresh SWPPP Documents as Project Progresses																															
ENS000001110	SWPPP Document Complete	5	29-Feb-24	06-Mar-24	█ SWPPP Document Complete																															
<b>Right-of-Way</b>		<b>205</b>	<b>13-Oct-22</b>	<b>05-Oct-23</b>	█ 05-Oct-23, Right-of-Way																															
<b>Right of Entry Agreements</b>		<b>60</b>	<b>17-Feb-23</b>	<b>11-May-23</b>	█ 11-May-23, Right of Entry Agreements																															
<b>Right of Entry Agreements from VDOT (Parcels 038, 039, 041, and 044)</b>		<b>60</b>	<b>17-Feb-23</b>	<b>11-May-23</b>	█ 11-May-23, Right of Entry Agreements from VDOT (Parcels 038, 039, 041, and 044)																															
RWRA00001000	Develop Right of Entry Agreement - Parcels 038, 039, 041, and 044	20	17-Feb-23	16-Mar-23	█ Develop Right of Entry Agreement - Parcels 038, 039, 041, and 044																															
RWRA00001010	Coordinate Right of Entry Agreement with VDOT - Parcels 038, 039, 041, and 044	20	17-Mar-23	13-Apr-23	█ Coordinate Right of Entry Agreement with VDOT - Parcels 038, 039, 041, and 044																															
RWRA00001020	Negotiate Signature of Agreement - Parcels 038, 039, 041, and 044	20	14-Apr-23	11-May-23	█ Negotiate Signature of Agreement - Parcels 038, 039, 041, and 044																															
<b>Right of Entry Agreements from City of Hampton (Parcels 040, 042, 046, and 049)</b>		<b>60</b>	<b>17-Feb-23</b>	<b>11-May-23</b>	█ 11-May-23, Right of Entry Agreements from City of Hampton (Parcels 040, 042, 046, and 049)																															
RWRB00001000	Develop Right of Entry Agreement - Parcels 040, 042, and 046	20	17-Feb-23	16-Mar-23	█ Develop Right of Entry Agreement - Parcels 040, 042, and 046																															
RWRB00001010	Coordinate Right of Entry Agreement with City of Hampton - Parcels 040, 042, and 046	20	17-Mar-23	13-Apr-23	█ Coordinate Right of Entry Agreement with City of Hampton - Parcels 040, 042, and 046																															
RWRB00001020	Negotiate Signature of Agreement - Parcels 040, 042, and 046	20	14-Apr-23	11-May-23	█ Negotiate Signature of Agreement - Parcels 040, 042, and 046																															



Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D													
<b>Site Assessments/Survey/Research</b>					91	13-Oct-22	28-Feb-23	28-Feb-23, Site Assessments/Survey/Research																																																								
<b>ROW Package No. 001 (Parcel 047 &amp; 048)</b>					81	13-Oct-22	14-Feb-23	14-Feb-23, ROW Package No. 001 (Parcel 047 & 048)																																																								
RWSA00001000	Confirm that Parcelss in Package No. 001 are Impacted by FI/RW Design	1	13-Oct-22	13-Oct-22	Confirm that Parcelss in Package No. 001 are Impacted by FI/RW Design																																																											
RWSA00001010	Secure Last Deeds of Record - ROW Package No. 001	25	14-Oct-22	17-Nov-22	█ Secure Last Deeds of Record - ROW Package No. 001																																																											
RWSA00001020	Survey Property Lines - ROW Package No. 001	10	18-Nov-22	05-Dec-22	█ Survey Property Lines - ROW Package No. 001																																																											
RWSA00001030	Perform Phase 1 ESA - ROW Package No. 001	10	18-Nov-22	05-Dec-22	█ Perform Phase 1 ESA - ROW Package No. 001																																																											
RWSA00001040	Perform Preliminary Title Reports - ROW Package No. 001	45	06-Dec-22	14-Feb-23	█ Perform Preliminary Title Reports - ROW Package No. 001																																																											
<b>ROW Package No. 002 (Parcels 040, 042, 046, and 049)</b>					71	13-Oct-22	31-Jan-23	31-Jan-23, ROW Package No. 002 (Parcels 040, 042, 046, and 049)																																																								
RWSB00001000	Confirm that Parcelss in Package No. 002 are Impacted by FI/RW Design	1	13-Oct-22	13-Oct-22	Confirm that Parcelss in Package No. 002 are Impacted by FI/RW Design																																																											
RWSB00001010	Secure Last Deeds of Record - ROW Package No. 002	20	14-Oct-22	10-Nov-22	█ Secure Last Deeds of Record - ROW Package No. 002																																																											
RWSB00001020	Survey Property Lines - ROW Package No. 002	10	11-Nov-22	28-Nov-22	█ Survey Property Lines - ROW Package No. 002																																																											
RWSB00001030	Perform Phase 1 ESA - ROW Package No. 002	10	11-Nov-22	28-Nov-22	█ Perform Phase 1 ESA - ROW Package No. 002																																																											
RWSB00001040	Perform Preliminary Title Reports - ROW Package No. 002	40	29-Nov-22	31-Jan-23	█ Perform Preliminary Title Reports - ROW Package No. 002																																																											
<b>ROW Package No. 003 (Parcels 038, 039, 041, and 044)</b>					51	13-Oct-22	03-Jan-23	03-Jan-23, ROW Package No. 003 (Parcels 038, 039, 041, and 044)																																																								
RWSC00001000	Confirm that Parcelss in Package No. 003 are Impacted by FI/RW Design	1	13-Oct-22	13-Oct-22	Confirm that Parcelss in Package No. 003 are Impacted by FI/RW Design																																																											
RWSC00001010	Secure Last Deeds of Record - ROW Package No. 003	10	14-Oct-22	27-Oct-22	█ Secure Last Deeds of Record - ROW Package No. 003																																																											
RWSC00001020	Survey Property Lines - ROW Package No. 003	10	28-Oct-22	10-Nov-22	█ Survey Property Lines - ROW Package No. 003																																																											
RWSC00001030	Perform Phase 1 ESA - ROW Package No. 003	10	28-Oct-22	10-Nov-22	█ Perform Phase 1 ESA - ROW Package No. 003																																																											
RWSC00001040	Perform Preliminary Title Reports - ROW Package No. 003	30	11-Nov-22	03-Jan-23	█ Perform Preliminary Title Reports - ROW Package No. 003																																																											
<b>ROW Package No. 004 (Parcels 026, 027, 028, 055, 056, 057, 058 and 059)</b>					61	13-Oct-22	17-Jan-23	17-Jan-23, ROW Package No. 004 (Parcels 026, 027, 028, 055, 056, 057, 058 and 059)																																																								
RWSD00001000	Confirm that Parcelss in Package No. 004 are Impacted by FI/RW Design	1	13-Oct-22	13-Oct-22	Confirm that Parcelss in Package No. 004 are Impacted by FI/RW Design																																																											
RWSD00001010	Secure Last Deeds of Record - ROW Package No. 004	15	14-Oct-22	03-Nov-22	█ Secure Last Deeds of Record - ROW Package No. 004																																																											
RWSD00001020	Survey Property Lines - ROW Package No. 004	10	04-Nov-22	17-Nov-22	█ Survey Property Lines - ROW Package No. 004																																																											
RWSD00001030	Perform Phase 1 ESA - ROW Package No. 004	10	04-Nov-22	17-Nov-22	█ Perform Phase 1 ESA - ROW Package No. 004																																																											
RWSD00001040	Perform Preliminary Title Reports - ROW Package No. 004	35	18-Nov-22	17-Jan-23	█ Perform Preliminary Title Reports - ROW Package No. 004																																																											
<b>ROW Package No. 005 (Parcels 001, 002, and 003)</b>					91	13-Oct-22	28-Feb-23	28-Feb-23, ROW Package No. 005 (Parcels 001, 002, and 003)																																																								
RWSE00001000	Confirm that Parcelss in Package No. 005 are Impacted by FI/RW Design	1	13-Oct-22	13-Oct-22	Confirm that Parcelss in Package No. 005 are Impacted by FI/RW Design																																																											
RWSE00001010	Secure Last Deeds of Record - ROW Package No. 005	30	14-Oct-22	28-Nov-22	█ Secure Last Deeds of Record - ROW Package No. 005																																																											
RWSE00001020	Survey Property Lines - ROW Package No. 005	10	29-Nov-22	12-Dec-22	█ Survey Property Lines - ROW Package No. 005																																																											
RWSE00001030	Perform Phase 1 ESA - ROW Package No. 005	10	29-Nov-22	12-Dec-22	█ Perform Phase 1 ESA - ROW Package No. 005																																																											
RWSE00001040	Perform Preliminary Title Reports - ROW Package No. 005	50	13-Dec-22	28-Feb-23	█ Perform Preliminary Title Reports - ROW Package No. 005																																																											
<b>Appraisals</b>					86	04-Jan-23	31-May-23	31-May-23, Appraisals																																																								
<b>ROW Package No. 001 (Parcel 047 &amp; 048)</b>					46	15-Feb-23	02-May-23	02-May-23, ROW Package No. 001 (Parcel 047 & 048)																																																								
RWAA00001000	Develop Appraisals - ROW Package No. 001	30	15-Feb-23	28-Mar-23	█ Develop Appraisals - ROW Package No. 001																																																											
RWAA00001010	Perform Title Report Update - ROW Package No. 001	5	03-Mar-23	09-Mar-23	█ Perform Title Report Update - ROW Package No. 001																																																											
RWAA00001020	Review Appraisal & Phase 1 ESA - ROW Package No. 001	5	29-Mar-23	04-Apr-23	█ Review Appraisal & Phase 1 ESA - ROW Package No. 001																																																											
RWAA00001030	SFA Appraisal & Phase 1 ESA - ROW Package No. 001	3	05-Apr-23	07-Apr-23	█ SFA Appraisal & Phase 1 ESA - ROW Package No. 001																																																											
RWAA00001040	VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 001	21	08-Apr-23	28-Apr-23	█ VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 001																																																											
RWAA00001050	VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 001 (HOLD POINT)	2	01-May-23	02-May-23	█ VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 001 (HOLD POINT)																																																											
<b>ROW Package No. 002 (Parcels 040, 042, 046, and 049)</b>					72	01-Feb-23	31-May-23	31-May-23, ROW Package No. 002 (Parcels 040, 042, 046, and 049)																																																								
RWAB00001000	Develop Appraisals - ROW Package No. 002	60	01-Feb-23	25-Apr-23	█ Develop Appraisals - ROW Package No. 002																																																											
RWAB00001010	Perform Title Report Update - ROW Package No. 002	5	03-Mar-23	09-Mar-23	█ Perform Title Report Update - ROW Package No. 002																																																											
RWAB00001020	Review Appraisal & Phase 1 ESA - ROW Package No. 002	5	26-Apr-23	02-May-23	█ Review Appraisal & Phase 1 ESA - ROW Package No. 002																																																											
RWAB00001030	SFA Appraisal & Phase 1 ESA - ROW Package No. 002	3	03-May-23	05-May-23	█ SFA Appraisal & Phase 1 ESA - ROW Package No. 002																																																											

Activity ID	Activity Name	Original Duration	Start	Finish	2022	2023		2024		2025		2026								
					J	J	A	S	O	N	D	J	J	A	S	O	N	D	J	J
RWAB00001040	VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 002	21	06-May-23	26-May-23																
RWAB00001050	VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 002 (HOLD POINT)	2	30-May-23	31-May-23																
<b>ROW Package No. 003 (Parcels 038, 039, 041, and 044)</b>		57	04-Jan-23	13-Apr-23																
RWAC00001000	Develop Appraisals - ROW Package No. 003	45	04-Jan-23	07-Mar-23																
RWAC00001010	Perform Title Report Update - ROW Package No. 003	5	03-Mar-23	09-Mar-23																
RWAC00001020	Review Appraisal & Phase 1 ESA - ROW Package No. 003	5	10-Mar-23	16-Mar-23																
RWAC00001030	SFA Appraisal & Phase 1 ESA - ROW Package No. 003	3	17-Mar-23	21-Mar-23																
RWAC00001040	VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 003	21	22-Mar-23	11-Apr-23																
RWAC00001050	VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 003 (HOLD POINT)	2	12-Apr-23	13-Apr-23																
<b>ROW Package No. 004 (Parcels 026, 027, 028, 055, 056, 057, 058 and 059)</b>		56	18-Jan-23	25-Apr-23																
RWAD00001000	Develop Appraisals - ROW Package No. 004	45	18-Jan-23	21-Mar-23																
RWAD00001010	Perform Title Report Update - ROW Package No. 004	5	03-Mar-23	09-Mar-23																
RWAD00001020	Review Appraisal & Phase 1 ESA - ROW Package No. 004	5	22-Mar-23	28-Mar-23																
RWAD00001030	SFA Appraisal & Phase 1 ESA - ROW Package No. 004	3	29-Mar-23	31-Mar-23																
RWAD00001040	VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 004	21	01-Apr-23	21-Apr-23																
RWAD00001050	VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 004 (HOLD POINT)	2	24-Apr-23	25-Apr-23																
<b>ROW Package No. 005 (Parcels 001, 002, and 003)</b>		33	01-Mar-23	25-Apr-23																
RWAE00001000	Develop Appraisals - ROW Package No. 005	15	01-Mar-23	21-Mar-23																
RWAE00001010	Perform Title Report Update - ROW Package No. 005	5	03-Mar-23	09-Mar-23																
RWAE00001020	Review Appraisal & Phase 1 ESA - ROW Package No. 005	5	22-Mar-23	28-Mar-23																
RWAE00001030	SFA Appraisal & Phase 1 ESA - ROW Package No. 005	3	29-Mar-23	31-Mar-23																
RWAE00001040	VDOT R/A Appraisal & Phase 1 ESA - ROW Package No. 005	21	01-Apr-23	21-Apr-23																
RWAE00001050	VDOT Approval of Just Compensation & Offer Letter - ROW Package No. 005 (HOLD POINT)	2	24-Apr-23	25-Apr-23																
<b>Negotiations / Clear for Construction</b>		122	14-Apr-23	05-Oct-23																
<b>ROW Package No. 001 (Parcel 047 &amp; 048)</b>		89	03-May-23	07-Sep-23																
RWNA00001000	Present Offer Package to Property Owner - ROW Package No. 001	2	03-May-23	04-May-23																
RWNA00001010	Negotiation Parcel Acquisition - ROW Package No. 001	45	05-May-23	10-Jul-23																
RWNA00001020	VDOT Agrees to Condemnation NOI - ROW Package No. 001	5	11-Jul-23	17-Jul-23																
RWNA00001030	VDOT Agrees to Certificate of Take and Provide Check - ROW Package No. 001	30	18-Jul-23	28-Aug-23																
RWNA00001040	Closing with Landowner by Settlement Company - ROW Package No. 001	2	29-Aug-23	30-Aug-23																
RWNA00001050	Parcels Clear for Construction - ROW Package No. 001	5	31-Aug-23	07-Sep-23																
<b>ROW Package No. 002 (Parcels 040, 042, 046, and 049)</b>		89	01-Jun-23	05-Oct-23																
RWNB00001000	Present Offer Package to Property Owner - ROW Package No. 002	2	01-Jun-23	02-Jun-23																
RWNB00001010	Negotiation Parcel Acquisition - ROW Package No. 002	45	05-Jun-23	07-Aug-23																
RWNB00001020	VDOT Agrees to Condemnation NOI - ROW Package No. 002	5	08-Aug-23	14-Aug-23																
RWNB00001030	VDOT Agrees to Certificate of Take and Provide Check - ROW Package No. 002	30	15-Aug-23	26-Sep-23																
RWNB00001040	Closing with Landowner by Settlement Company - ROW Package No. 002	2	27-Sep-23	28-Sep-23																
RWNB00001050	Parcels Clear for Construction - ROW Package No. 002	5	29-Sep-23	05-Oct-23																
<b>ROW Package No. 003 (Parcels 038, 039, 041, and 044)</b>		89	14-Apr-23	18-Aug-23																
RWNC00001000	Present Offer Package to Property Owner - ROW Package No. 003	2	14-Apr-23	17-Apr-23																
RWNC00001010	Negotiation Parcel Acquisition - ROW Package No. 003	45	18-Apr-23	20-Jun-23																
RWNC00001020	VDOT Agrees to Condemnation NOI - ROW Package No. 003	5	21-Jun-23	27-Jun-23																
RWNC00001030	VDOT Agrees to Certificate of Take and Provide Check - ROW Package No. 003	30	28-Jun-23	09-Aug-23																
RWNC00001040	Closing with Landowner by Settlement Company - ROW Package No. 003	2	10-Aug-23	11-Aug-23																



Activity ID	Activity Name	Original Duration	Start	Finish	Gantt Chart																																																											
					2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D													
UTFG00001020	R/C Utility Relocation Concept Plan (DBJV and VDOT) - Virginia Natural Gas	21	25-Apr-23	15-May-23	[Gantt bar from 25-Apr-23 to 15-May-23]																																																											
UTFG00001030	Update VDOT RUMS with Utility Status Report Data - Virginia Natural Gas	3	16-May-23	18-May-23	[Gantt bar from 16-May-23 to 18-May-23]																																																											
<b>Windstream</b>		<b>102</b>	<b>03-Mar-23</b>	<b>12-Jun-23</b>	[Gantt bar from 03-Mar-23 to 12-Jun-23]																																																											
UTFV00001000	Prepare Utility Relocation Concept Plan - Windstream	75	03-Mar-23	16-May-23	[Gantt bar from 03-Mar-23 to 16-May-23]																																																											
UTFV00001010	SFC Utility Relocation Concept Plan - Windstream	3	17-May-23	19-May-23	[Gantt bar from 17-May-23 to 19-May-23]																																																											
UTFV00001020	R/C Utility Relocation Concept Plan (DBJV and VDOT) - Windstream	21	20-May-23	09-Jun-23	[Gantt bar from 20-May-23 to 09-Jun-23]																																																											
UTFV00001030	Update VDOT RUMS with Utility Status Report Data - Windstream	3	10-Jun-23	12-Jun-23	[Gantt bar from 10-Jun-23 to 12-Jun-23]																																																											
<b>Utility Plans &amp; Estimates</b>		<b>228</b>	<b>19-May-23</b>	<b>01-Jan-24</b>	[Gantt bar from 19-May-23 to 01-Jan-24]																																																											
<b>Cox Communications</b>		<b>52</b>	<b>11-Nov-23</b>	<b>01-Jan-24</b>	[Gantt bar from 11-Nov-23 to 01-Jan-24]																																																											
UTPC00001000	Advance to Final Relocation Plan / Complete UT-9's - Cox Communications	20	11-Nov-23	30-Nov-23	[Gantt bar from 11-Nov-23 to 30-Nov-23]																																																											
UTPC00001010	SFA Final Utility Relocation Plan / UT-9's - Cox Communications	3	01-Dec-23	03-Dec-23	[Gantt bar from 01-Dec-23 to 03-Dec-23]																																																											
UTPC00001020	VDOT R/A Final Utility Relocation Plan - Cox Communications	21	04-Dec-23	24-Dec-23	[Gantt bar from 04-Dec-23 to 24-Dec-23]																																																											
UTPC00001030	VDOT Approves Final Utility Relocation Plan / DBJV Issues NTPto - Cox Communications	5	25-Dec-23	29-Dec-23	[Gantt bar from 25-Dec-23 to 29-Dec-23]																																																											
UTPC00001040	Update VDOT RUMS with Utility Status Report Data - Cox Communications	3	30-Dec-23	01-Jan-24	[Gantt bar from 30-Dec-23 to 01-Jan-24]																																																											
<b>Dominion Energy</b>		<b>62</b>	<b>19-May-23</b>	<b>19-Jul-23</b>	[Gantt bar from 19-May-23 to 19-Jul-23]																																																											
UTPD00001000	Advance to Final Relocation Plan / Complete UT-9's - Dominion Energy	30	19-May-23	17-Jun-23	[Gantt bar from 19-May-23 to 17-Jun-23]																																																											
UTPD00001010	SFA Final Utility Relocation Plan / UT-9's - Dominion Energy	3	18-Jun-23	20-Jun-23	[Gantt bar from 18-Jun-23 to 20-Jun-23]																																																											
UTPD00001020	VDOT R/A Final Utility Relocation Plan - Dominion Energy	21	21-Jun-23	11-Jul-23	[Gantt bar from 21-Jun-23 to 11-Jul-23]																																																											
UTPD00001030	VDOT Approves Final Utility Relocation Plan / DBJV Issues NTPto - Dominion Energy	5	12-Jul-23	16-Jul-23	[Gantt bar from 12-Jul-23 to 16-Jul-23]																																																											
UTPD00001040	Update VDOT RUMS with Utility Status Report Data - Dominion Energy	3	17-Jul-23	19-Jul-23	[Gantt bar from 17-Jul-23 to 19-Jul-23]																																																											
<b>Virginia Natural Gas</b>		<b>62</b>	<b>19-May-23</b>	<b>19-Jul-23</b>	[Gantt bar from 19-May-23 to 19-Jul-23]																																																											
UTPG00001000	Advance to Final Relocation Plan / Complete UT-9's - Virginia Natural Gas	30	19-May-23	17-Jun-23	[Gantt bar from 19-May-23 to 17-Jun-23]																																																											
UTPG00001010	SFA Final Utility Relocation Plan / UT-9's - Virginia Natural Gas	3	18-Jun-23	20-Jun-23	[Gantt bar from 18-Jun-23 to 20-Jun-23]																																																											
UTPG00001020	VDOT R/A Final Utility Relocation Plan - Virginia Natural Gas	21	21-Jun-23	11-Jul-23	[Gantt bar from 21-Jun-23 to 11-Jul-23]																																																											
UTPG00001030	VDOT Approves Final Utility Relocation Plan / DBJV Issues NTPto - Virginia Natural Gas	5	12-Jul-23	16-Jul-23	[Gantt bar from 12-Jul-23 to 16-Jul-23]																																																											
UTPG00001040	Update VDOT RUMS with Utility Status Report Data - Virginia Natural Gas	3	17-Jul-23	19-Jul-23	[Gantt bar from 17-Jul-23 to 19-Jul-23]																																																											
<b>Windstream</b>		<b>62</b>	<b>13-Jun-23</b>	<b>13-Aug-23</b>	[Gantt bar from 13-Jun-23 to 13-Aug-23]																																																											
UTPV00001000	Advance to Final Relocation Plan / Complete UT-9's - Windstream	30	13-Jun-23	12-Jul-23	[Gantt bar from 13-Jun-23 to 12-Jul-23]																																																											
UTPV00001010	SFA Final Utility Relocation Plan / UT-9's - Windstream	3	13-Jul-23	15-Jul-23	[Gantt bar from 13-Jul-23 to 15-Jul-23]																																																											
UTPV00001020	VDOT R/A Final Utility Relocation Plan - Windstream	21	16-Jul-23	05-Aug-23	[Gantt bar from 16-Jul-23 to 05-Aug-23]																																																											
UTPV00001030	VDOT Approves Final Utility Relocation Plan / DBJV Issues NTPto - Windstream	5	06-Aug-23	10-Aug-23	[Gantt bar from 06-Aug-23 to 10-Aug-23]																																																											
UTPV00001040	Update VDOT RUMS with Utility Status Report Data - Windstream	3	11-Aug-23	13-Aug-23	[Gantt bar from 11-Aug-23 to 13-Aug-23]																																																											
<b>Utility Relocations</b>		<b>183</b>	<b>20-Jul-23</b>	<b>18-Jan-24</b>	[Gantt bar from 20-Jul-23 to 18-Jan-24]																																																											
<b>Cox Communications</b>		<b>17</b>	<b>02-Jan-24</b>	<b>18-Jan-24</b>	[Gantt bar from 02-Jan-24 to 18-Jan-24]																																																											
UTUC00001000	Perform Utility Relocations - Cox Communications	15	02-Jan-24	16-Jan-24	[Gantt bar from 02-Jan-24 to 16-Jan-24]																																																											
UTUC00001010	Relocations Complete - Secure UT-11's - Cox Communications	1	17-Jan-24	17-Jan-24	[Gantt bar from 17-Jan-24 to 17-Jan-24]																																																											
UTUC00001020	Complete Utility As-builts - Cox Communications	1	18-Jan-24	18-Jan-24	[Gantt bar from 18-Jan-24 to 18-Jan-24]																																																											
<b>Dominion Energy</b>		<b>47</b>	<b>20-Jul-23</b>	<b>04-Sep-23</b>	[Gantt bar from 20-Jul-23 to 04-Sep-23]																																																											
UTUD00001000	Perform Utility Relocations - Dominion Energy	45	20-Jul-23	02-Sep-23	[Gantt bar from 20-Jul-23 to 02-Sep-23]																																																											
UTUD00001010	Relocations Complete - Secure UT-11's - Dominion Energy	1	03-Sep-23	03-Sep-23	[Gantt bar from 03-Sep-23 to 03-Sep-23]																																																											
UTUD00001020	Complete Utility As-builts - Dominion Energy	1	04-Sep-23	04-Sep-23	[Gantt bar from 04-Sep-23 to 04-Sep-23]																																																											
<b>Virginia Natural Gas</b>		<b>32</b>	<b>20-Jul-23</b>	<b>20-Aug-23</b>	[Gantt bar from 20-Jul-23 to 20-Aug-23]																																																											
UTUG00001000	Perform Utility Relocations - Virginia Natural Gas	30	20-Jul-23	18-Aug-23	[Gantt bar from 20-Jul-23 to 18-Aug-23]																																																											
UTUG00001010	Relocations Complete - Secure UT-11's - Virginia Natural Gas	1	19-Aug-23	19-Aug-23	[Gantt bar from 19-Aug-23 to 19-Aug-23]																																																											

C00117841DB111BD01: I-64 Hampton Roads Express Lanes (HREL) Segment 4C Design-					Proposal Layout		09-May-22 14:02																
Activity ID	Activity Name	Original Duration	Start	Finish	2022		2023				2024				2025				2026				
					J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
UTUG00001020	Complete Utility As-builts - Virginia Natural Gas	1	20-Aug-23	20-Aug-23					Complete Utility As-builts - Virginia Natural Gas														
<b>Windstream</b>		<b>32</b>	<b>14-Aug-23</b>	<b>14-Sep-23</b>				▼	14-Sep-23, Windstream														
UTUV00001000	Perform Utility Relocations - Windstream	30	14-Aug-23	12-Sep-23				■	Perform Utility Relocations - Windstream														
UTUV00001010	Relocations Complete - Secure UT-11's - Windstream	1	13-Sep-23	13-Sep-23					Relocations Complete - Secure UT-11's - Windstream														
UTUV00001020	Complete Utility As-builts - Windstream	1	14-Sep-23	14-Sep-23					Complete Utility As-builts - Windstream														
<b>Procurement</b>		<b>275</b>	<b>23-Jan-23</b>	<b>13-May-24</b>				▶	13-May-24, Procurement														
<b>Vendor Procurement</b>		<b>189</b>	<b>23-Jan-23</b>	<b>18-Oct-23</b>				▶	18-Oct-23, Vendor Procurement														
PCVP00001020	Procure MOT Package Vendor	0	23-Jan-23	23-Jan-23					Procure MOT Package Vendor														
PCVP00001030	Procure Grading & Drainage Package Vendor	0	17-Feb-23	17-Feb-23					Procure Grading & Drainage Package Vendor														
PCVP00001130	Procure Rip Rap Road Bridge Package Vendor	0	21-Mar-23	21-Mar-23					Procure Rip Rap Road Bridge Package Vendor														
PCVP00001010	Procure E&S Package Vendor	0	25-Apr-23	25-Apr-23					Procure E&S Package Vendor														
PCVP00001000	Procure Clearing / Grubbing Package Vendor	0	25-Apr-23	25-Apr-23					Procure Clearing / Grubbing Package Vendor														
PCVP00001110	Procure Settlers Landing Road Bridge Package Vendor	0	26-May-23	26-May-23					Procure Settlers Landing Road Bridge Package Vendor														
PCVP00001120	Procure King Street Bridge Package Vendor	0	05-Jun-23	05-Jun-23					Procure King Street Bridge Package Vendor														
PCVP00001080	Procure WB Hampton River Bridge Package Vendor	0	26-Jul-23	26-Jul-23					Procure WB Hampton River Bridge Package Vendor														
PCVP00001050	Procure MSE Wall Package Vendor	0	09-Aug-23	09-Aug-23					Procure MSE Wall Package Vendor														
PCVP00001060	Procure Sound Barrier Package Vendor	0	09-Aug-23	09-Aug-23					Procure Sound Barrier Package Vendor														
PCVP00001040	Procure Signing / Markings Package Vendor	0	09-Aug-23	09-Aug-23					Procure Signing / Markings Package Vendor														
PCVP00001100	Procure East Branch Creek Bridge Package Vendor	0	30-Aug-23	30-Aug-23					Procure East Branch Creek Bridge Package Vendor														
PCVP00001090	Procure EB Hampton River Bridge Package Vendor	0	27-Sep-23	27-Sep-23					Procure EB Hampton River Bridge Package Vendor														
PCVP00001070	Procure Electrical Package Vendor	0	18-Oct-23	18-Oct-23					Procure Electrical Package Vendor														
<b>Construction Submittals</b>		<b>157</b>	<b>21-Mar-23</b>	<b>06-Dec-23</b>				▶	06-Dec-23, Construction Submittals														
PCCS00012000	Prepare - Substructure Rebar Shop Drawings - Rip Rap Road Bridge	20	21-Mar-23	17-Apr-23				■	Prepare - Substructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00012100	Prepare - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge	20	21-Mar-23	17-Apr-23				■	Prepare - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00012010	SFA - Substructure Rebar Shop Drawings - Rip Rap Road Bridge	1	18-Apr-23	18-Apr-23					SFA - Substructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00012110	SFA - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge	1	18-Apr-23	18-Apr-23					SFA - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00012020	VDOT R/A - Substructure Rebar Shop Drawings - Rip Rap Road Bridge	21	19-Apr-23	09-May-23				■	VDOT R/A - Substructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00012120	VDOT R/A - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge	21	19-Apr-23	09-May-23				■	VDOT R/A - Superstructure Rebar Shop Drawings - Rip Rap Road Bridge														
PCCS00010000	Prepare - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge	20	26-May-23	23-Jun-23				■	Prepare - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010100	Prepare - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge	20	26-May-23	23-Jun-23				■	Prepare - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010200	Prepare - Foundation Material Shop Drawings - Settlers Landing Road Bridge	20	26-May-23	23-Jun-23				■	Prepare - Foundation Material Shop Drawings - Settlers Landing Road Bridge														
PCCS00010300	Prepare - Bridge Beam Shop Drawings - Settlers Landing Road Bridge	20	26-May-23	23-Jun-23				■	Prepare - Bridge Beam Shop Drawings - Settlers Landing Road Bridge														
PCCS00011000	Prepare - Substructure Rebar Shop Drawings - King Street Bridge	20	05-Jun-23	30-Jun-23				■	Prepare - Substructure Rebar Shop Drawings - King Street Bridge														
PCCS00011100	Prepare - Superstructure Rebar Shop Drawings - King Street Bridge	20	05-Jun-23	30-Jun-23				■	Prepare - Superstructure Rebar Shop Drawings - King Street Bridge														
PCCS00011200	Prepare - Foundation Material Shop Drawings - King Street Bridge	20	05-Jun-23	30-Jun-23				■	Prepare - Foundation Material Shop Drawings - King Street Bridge														
PCCS00011300	Prepare - Bridge Beam Shop Drawings - King Street Bridge	20	05-Jun-23	30-Jun-23				■	Prepare - Bridge Beam Shop Drawings - King Street Bridge														
PCCS00010010	SFA - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge	1	26-Jun-23	26-Jun-23					SFA - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010110	SFA - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge	1	26-Jun-23	26-Jun-23					SFA - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010210	SFA - Foundation Material Shop Drawings - Settlers Landing Road Bridge	1	26-Jun-23	26-Jun-23					SFA - Foundation Material Shop Drawings - Settlers Landing Road Bridge														
PCCS00010310	SFA - Bridge Beam Shop Drawings - Settlers Landing Road Bridge	1	26-Jun-23	26-Jun-23					SFA - Bridge Beam Shop Drawings - Settlers Landing Road Bridge														
PCCS00010020	VDOT R/A - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge	21	27-Jun-23	17-Jul-23				■	VDOT R/A - Substructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010120	VDOT R/A - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge	21	27-Jun-23	17-Jul-23				■	VDOT R/A - Superstructure Rebar Shop Drawings - Settlers Landing Road Bridge														
PCCS00010220	VDOT R/A - Foundation Material Shop Drawings - Settlers Landing Road Bridge	21	27-Jun-23	17-Jul-23				■	VDOT R/A - Foundation Material Shop Drawings - Settlers Landing Road Bridge														
PCCS00010320	VDOT R/A - Bridge Beam Shop Drawings - Settlers Landing Road Bridge	21	27-Jun-23	17-Jul-23				■	VDOT R/A - Bridge Beam Shop Drawings - Settlers Landing Road Bridge														



Activity ID	Activity Name	Original Duration	Start	Finish	2022		2023					2024					2025					2026													
					J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J
PCCS00009020	VDOT R/A - Substructure Rebar Shop Drawings - East Branch Creek Bridge	21	29-Sep-23	19-Oct-23											█	VDOT R/A - Substructure Rebar Shop Drawings - East Branch Creek Bridge																			
PCCS00009120	VDOT R/A - Superstructure Rebar Shop Drawings - East Branch Creek Bridge	21	29-Sep-23	19-Oct-23											█	VDOT R/A - Superstructure Rebar Shop Drawings - East Branch Creek Bridge																			
PCCS00009220	VDOT R/A - Foundation Material Shop Drawings - East Branch Creek Bridge	21	29-Sep-23	19-Oct-23											█	VDOT R/A - Foundation Material Shop Drawings - East Branch Creek Bridge																			
PCCS00009320	VDOT R/A - Bridge Beam Shop Drawings - East Branch Creek Bridge	21	29-Sep-23	19-Oct-23											█	VDOT R/A - Bridge Beam Shop Drawings - East Branch Creek Bridge																			
PCCS00004000	Prepare Lighting Shop Drawings	20	18-Oct-23	14-Nov-23											█	Prepare Lighting Shop Drawings																			
PCCS00005000	Prepare ITS Shop Drawings	20	18-Oct-23	14-Nov-23											█	Prepare ITS Shop Drawings																			
PCCS00008010	SFA - Substructure Rebar Shop Drawings - Hampton River Bridge EB	1	25-Oct-23	25-Oct-23												SFA - Substructure Rebar Shop Drawings - Hampton River Bridge EB																			
PCCS00008110	SFA - Superstructure Rebar Shop Drawings - Hampton River Bridge EB	1	25-Oct-23	25-Oct-23												SFA - Superstructure Rebar Shop Drawings - Hampton River Bridge EB																			
PCCS00008210	SFA - Foundation Material Shop Drawings - Hampton River Bridge EB	1	25-Oct-23	25-Oct-23												SFA - Foundation Material Shop Drawings - Hampton River Bridge EB																			
PCCS00008310	SFA - Bridge Beam Shop Drawings - Hampton River Bridge EB	1	25-Oct-23	25-Oct-23												SFA - Bridge Beam Shop Drawings - Hampton River Bridge EB																			
PCCS00008020	VDOT R/A - Substructure Rebar Shop Drawings - Hampton River Bridge EB	21	26-Oct-23	15-Nov-23											█	VDOT R/A - Substructure Rebar Shop Drawings - Hampton River Bridge EB																			
PCCS00008120	VDOT R/A - Superstructure Rebar Shop Drawings - Hampton River Bridge EB	21	26-Oct-23	15-Nov-23											█	VDOT R/A - Superstructure Rebar Shop Drawings - Hampton River Bridge EB																			
PCCS00008220	VDOT R/A - Foundation Material Shop Drawings - Hampton River Bridge EB	21	26-Oct-23	15-Nov-23											█	VDOT R/A - Foundation Material Shop Drawings - Hampton River Bridge EB																			
PCCS00008320	VDOT R/A - Bridge Beam Shop Drawings - Hampton River Bridge EB	21	26-Oct-23	15-Nov-23											█	VDOT R/A - Bridge Beam Shop Drawings - Hampton River Bridge EB																			
PCCS00004010	SFA Lighting Shop Drawings	1	15-Nov-23	15-Nov-23												SFA Lighting Shop Drawings																			
PCCS00005010	SFA ITS Shop Drawings	1	15-Nov-23	15-Nov-23												SFA ITS Shop Drawings																			
PCCS00004020	VDOT R/A Lighting Shop Drawings	21	16-Nov-23	06-Dec-23											█	VDOT R/A Lighting Shop Drawings																			
PCCS00005020	VDOT R/A ITS Shop Drawings	21	16-Nov-23	06-Dec-23											█	VDOT R/A ITS Shop Drawings																			
<b>Fabrication</b>		<b>370</b>	<b>10-May-23</b>	<b>13-May-24</b>	13-May-24, Fabrication																														
PCFB00012000	Fab & Deliver - Substructure Rebar - Rip Rap Road Bridge	30	10-May-23	08-Jun-23											█	Fab & Deliver - Substructure Rebar - Rip Rap Road Bridge																			
PCFB00012100	Fab & Deliver - Superstructure Rebar - Rip Rap Road Bridge	90	10-May-23	07-Aug-23											█	Fab & Deliver - Superstructure Rebar - Rip Rap Road Bridge																			
PCFB00010000	Fab & Deliver - Substructure Rebar - Settlers Landing Road Bridge	30	18-Jul-23	16-Aug-23											█	Fab & Deliver - Substructure Rebar - Settlers Landing Road Bridge																			
PCFB00010100	Fab & Deliver - Superstructure Rebar - Settlers Landing Road Bridge	90	18-Jul-23	15-Oct-23											█	Fab & Deliver - Superstructure Rebar - Settlers Landing Road Bridge																			
PCFB00010200	Fab & Deliver - Foundation Materials - Settlers Landing Road Bridge	30	18-Jul-23	16-Aug-23											█	Fab & Deliver - Foundation Materials - Settlers Landing Road Bridge																			
PCFB00010300	Fab & Deliver - Bridge Beams - Settlers Landing Road Bridge	180	18-Jul-23	13-Jan-24											█	Fab & Deliver - Bridge Beams - Settlers Landing Road Bridge																			
PCFB00011000	Fab & Deliver - Substructure Rebar - King Street Bridge	30	25-Jul-23	23-Aug-23											█	Fab & Deliver - Substructure Rebar - King Street Bridge																			
PCFB00011100	Fab & Deliver - Superstructure Rebar - King Street Bridge	90	25-Jul-23	22-Oct-23											█	Fab & Deliver - Superstructure Rebar - King Street Bridge																			
PCFB00011200	Fab & Deliver - Foundation Materials - King Street Bridge	30	25-Jul-23	23-Aug-23											█	Fab & Deliver - Foundation Materials - King Street Bridge																			
PCFB00011300	Fab & Deliver - Bridge Beams - King Street Bridge	180	25-Jul-23	20-Jan-24											█	Fab & Deliver - Bridge Beams - King Street Bridge																			
PCFB00007000	Fab & Deliver - Substructure Rebar - Hampton River Bridge WB	30	14-Sep-23	13-Oct-23											█	Fab & Deliver - Substructure Rebar - Hampton River Bridge WB																			
PCFB00007100	Fab & Deliver - Superstructure Rebar - Hampton River Bridge WB	90	14-Sep-23	12-Dec-23											█	Fab & Deliver - Superstructure Rebar - Hampton River Bridge WB																			
PCFB00007200	Fab & Deliver - Foundation Materials - Hampton River Bridge WB	30	14-Sep-23	13-Oct-23											█	Fab & Deliver - Foundation Materials - Hampton River Bridge WB																			
PCFB00007300	Fab & Deliver - Bridge Beams - Hampton River Bridge WB	180	14-Sep-23	11-Mar-24											█	Fab & Deliver - Bridge Beams - Hampton River Bridge WB																			
PCFB00001000	Fab & Deliver - MSE Wall Materials	60	29-Sep-23	27-Nov-23											█	Fab & Deliver - MSE Wall Materials																			
PCFB00002000	Fab & Deliver - Sound Barrier Materials	60	29-Sep-23	27-Nov-23											█	Fab & Deliver - Sound Barrier Materials																			
PCFB00003000	Fab & Deliver - Combination Wall Materials	60	29-Sep-23	27-Nov-23											█	Fab & Deliver - Combination Wall Materials																			
PCFB00006000	Fab & Deliver - Signs	90	29-Sep-23	27-Dec-23											█	Fab & Deliver - Signs																			
PCFB00009000	Fab & Deliver - Substructure Rebar - East Branch Creek Bridge	30	20-Oct-23	18-Nov-23											█	Fab & Deliver - Substructure Rebar - East Branch Creek Bridge																			
PCFB00009100	Fab & Deliver - Superstructure Rebar - East Branch Creek Bridge	90	20-Oct-23	17-Jan-24											█	Fab & Deliver - Superstructure Rebar - East Branch Creek Bridge																			
PCFB00009200	Fab & Deliver - Foundation Materials - East Branch Creek Bridge	30	20-Oct-23	18-Nov-23											█	Fab & Deliver - Foundation Materials - East Branch Creek Bridge																			
PCFB00009300	Fab & Deliver - Bridge Beams - East Branch Creek Bridge	180	20-Oct-23	16-Apr-24											█	Fab & Deliver - Bridge Beams - East Branch Creek Bridge																			
PCFB00008000	Fab & Deliver - Substructure Rebar - Hampton River Bridge EB	30	16-Nov-23	15-Dec-23											█	Fab & Deliver - Substructure Rebar - Hampton River Bridge EB																			
PCFB00008100	Fab & Deliver - Superstructure Rebar - Hampton River Bridge EB	90	16-Nov-23	13-Feb-24											█	Fab & Deliver - Superstructure Rebar - Hampton River Bridge EB																			
PCFB00008200	Fab & Deliver - Foundation Materials - Hampton River Bridge EB	30	16-Nov-23	15-Dec-23											█	Fab & Deliver - Foundation Materials - Hampton River Bridge EB																			

Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D													
PCFB00008300	Fab & Deliver - Bridge Beams - Hampton River Bridge EB	180	16-Nov-23	13-May-24																																																												
PCFB00004000	Fab & Deliver - Lighting Materials	90	07-Dec-23	05-Mar-24																																																												
PCFB00005000	Fab & Deliver - ITS Materials	90	07-Dec-23	05-Mar-24																																																												
<b>Construction</b>		734	05-Jun-23	30-Nov-26																																																												
<b>Segment 1 - Sta. 766+30 to Sta. 785+72</b>		642	09-Jun-23	01-Jul-26																																																												
<b>Pre-Construction</b>		2	09-Jun-23	12-Jun-23																																																												
<b>Roadway</b>		2	09-Jun-23	12-Jun-23																																																												
CN10R0001000	Perform Shoulder Strengthening - Segment 1 EB	1	09-Jun-23	09-Jun-23																																																												
CN10R0002000	Perform Shoulder Strengthening - Segment 1 WB	1	12-Jun-23	12-Jun-23																																																												
<b>Phase 1</b>		277	19-Jun-23	02-Oct-24																																																												
<b>Phase 1A</b>		147	19-Jun-23	06-Mar-24																																																												
CN11AT001000	Install Traffic Control Measures - Segment 1 - Phase 1A	5	19-Jun-23	23-Jun-23																																																												
CN11AE001000	Install Erosion Control Measures - Segment 1 - Phase 1A	5	26-Jun-23	30-Jun-23																																																												
CN11ARM01000	Sawcut - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	25-Oct-23	25-Oct-23																																																												
CN11ARM01010	Remove Existing Pavement - Median/Center Lane EB/WB - Segment 1 - Phase 1A	15	26-Oct-23	27-Nov-23																																																												
CN11ARM01020	Cut/Fill - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	28-Nov-23	28-Nov-23																																																												
CN11ARM01030	Install Drainage - Median/Center Lane EB/WB - Segment 1 - Phase 1A	25	29-Nov-23	22-Jan-24																																																												
CN11ARM01040	Finegrade Subgrade - Median/Center Lane EB/WB - Segment 1 - Phase 1A	2	23-Jan-24	25-Jan-24																																																												
CN11ARM01050	Place CTA - Median/Center Lane EB/WB - Segment 1 - Phase 1A	2	29-Jan-24	30-Jan-24																																																												
CN11ARM01060	Install Underdrain - Median/Center Lane EB/WB - Segment 1 - Phase 1A	10	31-Jan-24	15-Feb-24																																																												
CN11ARM01070	Place Drainage Material (OGDL) - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	19-Feb-24	19-Feb-24																																																												
CN11ARM01080	Finegrade Subbase - Median/Center Lane EB/WB - Segment 1 - Phase 1A	2	20-Feb-24	21-Feb-24																																																												
CN11ARM01090	Construct Median Barrier - Median/Center Lane EB/WB - Segment 1 - Phase 1A	3	22-Feb-24	27-Feb-24																																																												
CN11ARM01100	Place Base Asphalt - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	04-Mar-24	04-Mar-24																																																												
CN11ARM01110	Place Intermediate Asphalt - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	05-Mar-24	05-Mar-24																																																												
CN11ARM01120	Apply Temporary Pavement Markings - Median/Center Lane EB/WB - Segment 1 - Phase 1A	1	06-Mar-24	06-Mar-24																																																												
<b>Phase 1B</b>		3	30-Sep-24	02-Oct-24																																																												
CN12AR009000	Mill/Level/Overlay - Segment 1 - Phase 1B	3	30-Sep-24	02-Oct-24																																																												
<b>Phase 2</b>		345	30-Oct-24	01-Jul-26																																																												
<b>Traffic Control Measures</b>		5	30-Oct-24	06-Nov-24																																																												
CN12AT001000	Install Traffic Control Measures - Segment 1 - Phase 2	5	30-Oct-24	06-Nov-24																																																												
<b>Erosion Control Measures</b>		5	07-Nov-24	18-Nov-24																																																												
CN12AE001000	Clear & Grub/Install Erosion Control Measures - Segment 1 - Phase 2	5	07-Nov-24	18-Nov-24																																																												
<b>Roadway</b>		335	19-Nov-24	01-Jul-26																																																												
CN12ARE01000	Sawcut - EB Widening - Segment 1 - Phase 2	1	19-Nov-24	19-Nov-24																																																												
CN12ARW01000	Sawcut - WB Widening - Segment 1 - Phase 2	1	19-Nov-24	19-Nov-24																																																												
CN12ARE01010	Remove Existing Pavement - EB Widening - Segment 1 - Phase 2	3	20-Nov-24	25-Nov-24																																																												
CN12ARW01010	Remove Existing Pavement - WB Widening - Segment 1 - Phase 2	3	20-Nov-24	25-Nov-24																																																												
CN12ARE01020	Cut/Fill - EB Widening - Segment 1 - Phase 2	5	26-Nov-24	04-Dec-24																																																												
CN12ARW01020	Cut/Fill - WB Widening - Segment 1 - Phase 2	5	26-Nov-24	04-Dec-24																																																												
CN12ARE01030	Install Drainage - EB Widening - Segment 1 - Phase 2	27	05-Dec-24	03-Feb-25																																																												
CN12ARW01030	Install Drainage - WB Widening - Segment 1 - Phase 2	14	05-Dec-24	08-Jan-25																																																												
CN12ARW01040	Finegrade Subgrade - WB Widening - Segment 1 - Phase 2	1	09-Jan-25	09-Jan-25																																																												
CN12ARW01050	Place CTA - WB Widening - Segment 1 - Phase 2	2	13-Jan-25	14-Jan-25																																																												



Table with columns for Activity ID, Activity Name, Original Duration, Start, Finish, and monthly effort bars for years 2022 through 2026. Includes sub-sections for Structures and ITS/Electrical/Signage.



Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026														
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D																
<b>Segment 2 - Sta. 748+00 to Sta. 766+30</b>					729	07-Jun-23	23-Nov-26	▼ 13-Jun-23, Pre-Construction																																																											
<b>Pre-Construction</b>					5	07-Jun-23	13-Jun-23	▼ 13-Jun-23, Roadway																																																											
<b>Roadway</b>					5	07-Jun-23	13-Jun-23	Perform Shoulder Strengthening - Segment 2 Median																																																											
CN20R0003000	Perform Shoulder Strengthening - Segment 2 Median	1	07-Jun-23	07-Jun-23	Perform Shoulder Strengthening - Segment 2 EB																																																														
CN20R0001000	Perform Shoulder Strengthening - Segment 2 EB	1	08-Jun-23	08-Jun-23	Perform Shoulder Strengthening - Segment 2 WB																																																														
CN20R0002000	Perform Shoulder Strengthening - Segment 2 WB	1	13-Jun-23	13-Jun-23	▼ 08-Oct-24, Phase 1																																																														
<b>Phase 1</b>					280	19-Jun-23	08-Oct-24	▼ 02-Apr-24, Phase 1A																																																											
<b>Phase 1A</b>					163	19-Jun-23	02-Apr-24	Install Traffic Control Measures - Segment 2 - Phase 1A																																																											
CN21AT001000	Install Traffic Control Measures - Segment 2 - Phase 1A	5	19-Jun-23	23-Jun-23	Install Erosion Control Measures - Segment 2 - Phase 1A																																																														
CN21AE001000	Install Erosion Control Measures - Segment 2 - Phase 1A	5	03-Jul-23	10-Jul-23	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	10	11-Jul-23	25-Jul-23	Perform Surface Repairs - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA900	Perform Surface Repairs - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	5	11-Jul-23	18-Jul-23	Demo Portion Existing - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB0000	Demo Portion Existing - Settlers Landing Road Bridge - Median - Phase 1A	2	27-Jul-23	31-Jul-23	Install Temporary Sheet Piles - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA000	Install Temporary Sheet Piles - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	6	01-Aug-23	08-Aug-23	Mill Deck - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB4000	Mill Deck - Settlers Landing Road Bridge - Median - Phase 1A	4	01-Aug-23	04-Aug-23	Patch / Repair Deck - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB4010	Patch / Repair Deck - Settlers Landing Road Bridge - Median - Phase 1A	5	07-Aug-23	14-Aug-23	Demo Portion Existing - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA100	Demo Portion Existing - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	6	09-Aug-23	17-Aug-23	Install Temporary Sheet Piles - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAB000	Install Temporary Sheet Piles - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A	6	09-Aug-23	17-Aug-23	F/R/P Backwall - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA110	F/R/P Backwall - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	10	18-Aug-23	01-Sep-23	Demo Portion Existing - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAB100	Demo Portion Existing - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A	6	18-Aug-23	28-Aug-23	F/R/P Backwall - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAB110	F/R/P Backwall - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A	10	29-Aug-23	12-Sep-23	Cure Backwall - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAA120	Cure Backwall - Abutment A - Settlers Landing Road Bridge - Median - Phase 1A	3	02-Sep-23	04-Sep-23	F/R/P Deck Extension - West - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB2100	F/R/P Deck Extension - West - Settlers Landing Road Bridge - Median - Phase 1A	10	05-Sep-23	19-Sep-23	Cure Backwall - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAB120	Cure Backwall - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A	3	13-Sep-23	15-Sep-23	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Settlers Landing Road Bridge - Median - Phase 1A	10	13-Sep-23	28-Sep-23	Perform Surface Repairs - Pier 1 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAC900	Perform Surface Repairs - Pier 1 - Settlers Landing Road Bridge - Median - Phase 1A	5	13-Sep-23	20-Sep-23	F/R/P Deck Extension - East - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB2000	F/R/P Deck Extension - East - Settlers Landing Road Bridge - Median - Phase 1A	10	18-Sep-23	03-Oct-23	Cure Deck Extension - West - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB2110	Cure Deck Extension - West - Settlers Landing Road Bridge - Median - Phase 1A	3	20-Sep-23	22-Sep-23	Perform Surface Repairs - Pier 2 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAD900	Perform Surface Repairs - Pier 2 - Settlers Landing Road Bridge - Median - Phase 1A	5	21-Sep-23	28-Sep-23	F/R/P Approach Slab - West - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB3100	F/R/P Approach Slab - West - Settlers Landing Road Bridge - Median - Phase 1A	6	25-Sep-23	03-Oct-23	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAD800	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - Settlers Landing Road Bridge - Median - Phase 1A	10	02-Oct-23	17-Oct-23	Perform Surface Repairs - Pier 3 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAE900	Perform Surface Repairs - Pier 3 - Settlers Landing Road Bridge - Median - Phase 1A	5	02-Oct-23	09-Oct-23	Cure Approach Slab - West - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB3110	Cure Approach Slab - West - Settlers Landing Road Bridge - Median - Phase 1A	3	04-Oct-23	06-Oct-23	Cure Deck Extension - East - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB2010	Cure Deck Extension - East - Settlers Landing Road Bridge - Median - Phase 1A	3	04-Oct-23	06-Oct-23	F/R/P Approach Slab - East - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB3000	F/R/P Approach Slab - East - Settlers Landing Road Bridge - Median - Phase 1A	6	09-Oct-23	17-Oct-23	Perform Surface Repairs - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAB900	Perform Surface Repairs - Abutment B - Settlers Landing Road Bridge - Median - Phase 1A	5	10-Oct-23	17-Oct-23	Jack/Repair Bearing Seat/Replace Bearings - Pier 3 - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBAE800	Jack/Repair Bearing Seat/Replace Bearings - Pier 3 - Settlers Landing Road Bridge - Median - Phase 1A	10	18-Oct-23	06-Nov-23	Cure Approach Slab - East - Settlers Landing Road Bridge - Median - Phase 1A																																																														
CN21ASBB3010	Cure Approach Slab - East - Settlers Landing Road Bridge - Median - Phase 1A	3	18-Oct-23	20-Oct-23	Sawcut - Median/Center Lane EB/WB - Segment 2 - Phase 1A																																																														
CN21ARM01000	Sawcut - Median/Center Lane EB/WB - Segment 2 - Phase 1A	1	25-Oct-23	25-Oct-23	Sawcut - WB Widening - Segment 2 - Phase 1A																																																														
CN21ARW01000	Sawcut - WB Widening - Segment 2 - Phase 1A	1	25-Oct-23	25-Oct-23	Remove Existing Pavement - Median/Center Lane EB/WB - Segment 2 - Phase 1A																																																														
CN21ARM01010	Remove Existing Pavement - Median/Center Lane EB/WB - Segment 2 - Phase 1A	1	26-Oct-23	26-Oct-23	Remove Existing Pavement - WB Widening - Segment 2 - Phase 1A																																																														
CN21ARW01010	Remove Existing Pavement - WB Widening - Segment 2 - Phase 1A	3	26-Oct-23	31-Oct-23	Cut/Fill - Median/Center Lane EB/WB - Segment 2 - Phase 1A																																																														
CN21ARM01020	Cut/Fill - Median/Center Lane EB/WB - Segment 2 - Phase 1A	1	30-Oct-23	30-Oct-23	Cut/Fill - WB Widening - Segment 2 - Phase 1A																																																														
CN21ARW01020	Cut/Fill - WB Widening - Segment 2 - Phase 1A	3	02-Nov-23	07-Nov-23																																																															









Activity ID	Activity Name	Original Duration	Start	Finish	2022				2023				2024				2025				2026							
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S
CN22ASBB1040	Install Overhangs - Settlers Landing Road Bridge - WB - LT - Phase 2	2	06-Mar-25	10-Mar-25																								Install Overhangs - Settlers Landing Road
CN22ASC01000	Excavate / Grade - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	1	10-Mar-25	10-Mar-25																								Excavate / Grade - Wall #7 - Sta. 748+14
CN22ASD01000	Excavate / Grade - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	1	10-Mar-25	10-Mar-25																								Excavate / Grade - Wall #8 - Sta. 757+63
CN22ASC01010	F/R/P Footing - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	3	11-Mar-25	13-Mar-25																								F/R/P Footing - Wall #7 - Sta. 748+14 to
CN22ASD01010	F/R/P Footing - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	1	11-Mar-25	11-Mar-25																								F/R/P Footing - Wall #8 - Sta. 757+63 to
CN22ASBB1050	Set Rebar - Settlers Landing Road Bridge - WB - LT - Phase 2	2	11-Mar-25	12-Mar-25																								Set Rebar - Settlers Landing Road Bridge
CN22ASD01020	Cure Footing - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	3	12-Mar-25	14-Mar-25																								Cure Footing - Wall #8 - Sta. 757+63 to 7
CN22ASBB1060	Setup / Dry-Run Bidwell - Settlers Landing Road Bridge - WB - LT - Phase 2	1	13-Mar-25	13-Mar-25																								Setup / Dry-Run Bidwell - Settlers Landi
CN22ASC01020	Cure Footing - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	3	14-Mar-25	16-Mar-25																								Cure Footing - Wall #7 - Sta. 748+14 to 7
CN22ASC01030	F/R/P Wall - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	7	17-Mar-25	26-Mar-25																								F/R/P Wal - Wall #7 - Sta. 748+14 to 75
CN22ASD01030	F/R/P Wall - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	3	17-Mar-25	19-Mar-25																								F/R/P Wal - Wall #8 - Sta. 757+63 to 758
CN22ASBB1070	Pour Deck - Settlers Landing Road Bridge - WB - LT - Phase 2	2	17-Mar-25	18-Mar-25																								Pour Deck - Settlers Landing Road Bridge
CN22ASBB3100	F/R/P Approach Slab - West - Settlers Landing Road Bridge - WB - LT - Phase 2	5	19-Mar-25	26-Mar-25																								F/R/P Approach Slab - West - Settlers La
CN22ASBB1080	Cure Deck - Settlers Landing Road Bridge - WB - LT - Phase 2	14	19-Mar-25	01-Apr-25																								Cure Deck - Settlers Landing Road Brid
CN22ASD01040	Cure Wall - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	3	20-Mar-25	22-Mar-25																								Cure Wall - Wall #8 - Sta. 757+63 to 758
CN22ASD01050	F/R/P Barrier - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	2	24-Mar-25	25-Mar-25																								F/R/P Barrier - Wall #8 - Sta. 757+63 to
CN22ASD01060	Cure Barrier - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	3	26-Mar-25	28-Mar-25																								Cure Barrier - Wall #8 - Sta. 757+63 to 7
CN22ASC01040	Cure Wall - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	3	27-Mar-25	29-Mar-25																								Cure Wall - Wall #7 - Sta. 748+14 to 750
CN22ASBB3000	F/R/P Approach Slab - East - Settlers Landing Road Bridge - WB - LT - Phase 2	5	27-Mar-25	03-Apr-25																								F/R/P Approach Slab - East - Settlers La
CN22ASBB3110	Cure Approach Slab - West - Settlers Landing Road Bridge - WB - LT - Phase 2	3	27-Mar-25	29-Mar-25																								Cure Approach Slab - West - Settlers Lar
CN22ASC01050	F/R/P Barrier - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	6	31-Mar-25	08-Apr-25																								F/R/P Barrier - Wall #7 - Sta. 748+14 to
CN22ASD01070	Backfill - Wall #8 - Sta. 757+63 to 758+87 - I64 EB RT - Phase 2	1	31-Mar-25	31-Mar-25																								Backfill - Wall #8 - Sta. 757+63 to 758+
CN22ASBB3010	Cure Approach Slab - East - Settlers Landing Road Bridge - WB - LT - Phase 2	3	04-Apr-25	06-Apr-25																								Cure Approach Slab - East - Settlers Lar
CN22ASBB1500	F/R/P Parapet - LT - Settlers Landing Road Bridge - WB - LT - Phase 2	5	07-Apr-25	14-Apr-25																								F/R/P Parapet - LT - Settlers Landing R
CN22ASC01060	Cure Barrier - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	3	09-Apr-25	11-Apr-25																								Cure Barrier - Wall #7 - Sta. 748+14 to
CN22ASC01070	Backfill - Wall #7 - Sta. 748+14 to 750+00 - I64 EB RT - Phase 2	1	14-Apr-25	14-Apr-25																								Backfill - Wall #7 - Sta. 748+14 to 750
CN22ASBB1510	Cure Parapet - LT - Settlers Landing Road Bridge - WB - LT - Phase 2	3	15-Apr-25	17-Apr-25																								Cure Parapet - LT - Settlers Landing Rc
CN22ASBB1520	F/R/P Terminal Wall - LT - Settlers Landing Road Bridge - WB - LT - Phase 2	3	15-Apr-25	17-Apr-25																								F/R/P Terminal Wall - LT - Settlers Lan
CN22ASBB1530	Cure Terminal Wall - LT - Settlers Landing Road Bridge - WB - LT - Phase 2	3	18-Apr-25	20-Apr-25																								Cure Terminal Wall - LT - Settlers Land
CN22ASBB4030	Groove Deck - Settlers Landing Road Bridge - WB - LT - Phase 2	2	21-Apr-25	22-Apr-25																								Groove Deck - Settlers Landing Road B
CN22ASBB4040	Recoat Existing Deck - Settlers Landing Road Bridge - WB - LT - Phase 2	2	23-Apr-25	24-Apr-25																								Recoat Existing Deck - Settlers Landin
CN22ASAB0000	Demo Portion Existing - Settlers Landing Road Bridge - EB - RT - Phase 2	1	16-Apr-26	16-Apr-26																								Demo Portion E
CN22ASAAA100	Demo Portion Existing - Abutment A - Settlers Landing Road Bridge - EB - RT - Phase 2	5	20-Apr-26	24-Apr-26																								Demo Portion I
CN22ASAB4000	Mill Deck - Settlers Landing Road Bridge - EB - RT - Phase 2	2	20-Apr-26	21-Apr-26																								Mill Deck - Sett
CN22ASAB4010	Patch / Repair Deck - Settlers Landing Road Bridge - EB - RT - Phase 2	5	22-Apr-26	28-Apr-26																								Patch / Repair
CN22ASAAA110	F/R/P Backwall - Abutment A - Settlers Landing Road Bridge - EB - RT - Phase 2	5	27-Apr-26	04-May-26																								F/R/P Backwa
CN22ASAAB100	Demo Portion Existing - Abutment B - Settlers Landing Road Bridge - EB - RT - Phase 2	5	27-Apr-26	04-May-26																								Demo Portion
CN22ASAAA120	Cure Backwall - Abutment A - Settlers Landing Road Bridge - EB - RT - Phase 2	3	05-May-26	07-May-26																								Cure Backwal
CN22ASAAB110	F/R/P Backwall - Abutment B - Settlers Landing Road Bridge - EB - RT - Phase 2	5	05-May-26	11-May-26																								F/R/P Backwa
CN22ASAB3100	F/R/P Approach Slab - West - Settlers Landing Road Bridge - EB - RT - Phase 2	5	08-May-26	14-May-26																								F/R/P Approa
CN22ASAAB120	Cure Backwall - Abutment B - Settlers Landing Road Bridge - EB - RT - Phase 2	3	12-May-26	14-May-26																								Cure Backwal
CN22ASAB3110	Cure Approach Slab - West - Settlers Landing Road Bridge - EB - RT - Phase 2	3	15-May-26	17-May-26																								Cure Approac
CN22ASAB1000	F/R/P Deck Extension - East - Settlers Landing Road Bridge - EB - RT - Phase 2	5	18-May-26	22-May-26																								F/R/P Deck E
CN22ASAB1010	Cure Deck Extension - East - Settlers Landing Road Bridge - EB - RT - Phase 2	3	23-May-26	25-May-26																								Cure Deck Ex











Activity ID	Activity Name	Original Duration	Start	Finish	2022				2023				2024				2025				2026										
					J	A	S	O	N	D	J	F	A		J	J	A	S	O	N	D	J	F	A		J	J	A	S	O	N
CN31ASAABN10	F/R/PPile Cap - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A	4	16-Nov-23	22-Nov-23																										I	F/R/PPile Cap - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA45	Cure Wing Wall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A	3	17-Nov-23	19-Nov-23																										I	Cure Wing Wall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA45	Cure Wing Wall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A	3	17-Nov-23	19-Nov-23																										I	Cure Wing Wall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAS15	Cure Pile Cap - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A	3	17-Nov-23	19-Nov-23																										I	Cure Pile Cap - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA50	F/R/PBackwall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A	7	20-Nov-23	30-Nov-23																										I	F/R/PBackwall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA50	F/R/PBackwall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A	5	20-Nov-23	28-Nov-23																										I	F/R/PBackwall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAD20	F/R/PColumn - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A	4	20-Nov-23	27-Nov-23																										I	F/R/PColumn - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABP20	F/R/PColumn - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A	4	20-Nov-23	27-Nov-23																										I	F/R/PColumn - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAQ05	Drive Test/Production Piles / Restrike - Bent 13 - Hampton River Bridge - WB - LT - Phase 1A	5	20-Nov-23	28-Nov-23																										I	Drive Test/Production Piles / Restrike - Bent 13 - Hampton River Bridge
CN31ASAAAAR10	F/R/PPile Cap - Bent 14 - Hampton River Bridge - WB - LT - Phase 1A	5	20-Nov-23	28-Nov-23																										I	F/R/PPile Cap - Bent 14 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA90	F/R/PPedestals - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A	2	20-Nov-23	21-Nov-23																										I	F/R/PPedestals - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAC25	Cure Column - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A	3	21-Nov-23	23-Nov-23																										I	Cure Column - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAABQ25	Cure Column - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A	3	21-Nov-23	23-Nov-23																										I	Cure Column - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA95	Cure Pedestals - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A	3	22-Nov-23	24-Nov-23																										I	Cure Pedestals - Bent 15 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA15	Cure Pile Cap - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A	3	23-Nov-23	25-Nov-23																										I	Cure Pile Cap - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABN15	Cure Pile Cap - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A	3	23-Nov-23	25-Nov-23																										I	Cure Pile Cap - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAC30	F/R/PCap - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	F/R/PCap - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABQ30	F/R/PCap - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	F/R/PCap - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA10	F/R/PPile Cap - Bent 4 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	F/R/PPile Cap - Bent 4 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAG05	Drive Test/Production Piles / Restrike - Bent 5 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	Drive Test/Production Piles / Restrike - Bent 5 - Hampton River Bridge
CN31ASAABA45	Perform Surface Repairs - Bent 23 - Hampton River Bridge - WB - LT - Phase 1A	5	27-Nov-23	04-Dec-23																										I	Perform Surface Repairs - Bent 23 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABL05	Drive Test/Production Piles / Restrike - Bent 33 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	Drive Test/Production Piles / Restrike - Bent 33 - Hampton River Bridge
CN31ASAABM1	F/R/PPile Cap - Bent 34 - Hampton River Bridge - WB - LT - Phase 1A	4	27-Nov-23	30-Nov-23																										I	F/R/PPile Cap - Bent 34 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA90	F/R/PPedestals - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A	2	27-Nov-23	28-Nov-23																										I	F/R/PPedestals - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABN90	F/R/PPedestals - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A	2	27-Nov-23	28-Nov-23																										I	F/R/PPedestals - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAD25	Cure Column - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A	3	28-Nov-23	30-Nov-23																										I	Cure Column - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABP25	Cure Column - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A	3	28-Nov-23	30-Nov-23																										I	Cure Column - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA55	Cure Backwall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A	3	29-Nov-23	01-Dec-23																										I	Cure Backwall - Abutment B - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAP05	Drive Test/Production Piles / Restrike - Bent 12 - Hampton River Bridge - WB - LT - Phase 1A	5	29-Nov-23	06-Dec-23																										I	Drive Test/Production Piles / Restrike - Bent 12 - Hampton River Bridge
CN31ASAAAQ10	F/R/PPile Cap - Bent 13 - Hampton River Bridge - WB - LT - Phase 1A	5	29-Nov-23	06-Dec-23																										I	F/R/PPile Cap - Bent 13 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA15	Cure Pile Cap - Bent 14 - Hampton River Bridge - WB - LT - Phase 1A	3	29-Nov-23	01-Dec-23																										I	Cure Pile Cap - Bent 14 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA95	Cure Pedestals - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A	3	29-Nov-23	01-Dec-23																										I	Cure Pedestals - Bent 3 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABN95	Cure Pedestals - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A	3	29-Nov-23	01-Dec-23																										I	Cure Pedestals - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA55	Cure Backwall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A	3	01-Dec-23	03-Dec-23																										I	Cure Backwall - Abutment A - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAC35	Cure Cap - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A	3	01-Dec-23	03-Dec-23																										I	Cure Cap - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABQ35	Cure Cap - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A	3	01-Dec-23	03-Dec-23																										I	Cure Cap - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA15	Cure Pile Cap - Bent 4 - Hampton River Bridge - WB - LT - Phase 1A	3	01-Dec-23	03-Dec-23																										I	Cure Pile Cap - Bent 4 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABM1	Cure Pile Cap - Bent 34 - Hampton River Bridge - WB - LT - Phase 1A	3	01-Dec-23	03-Dec-23																										I	Cure Pile Cap - Bent 34 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA60	Backfill Stem / Drainage - Abutment A - Hampton River Bridge - WB - LT - Phase 1A	1	04-Dec-23	04-Dec-23																										I	Backfill Stem / Drainage - Abutment A - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAB60	Backfill Stem / Drainage - Abutment B - Hampton River Bridge - WB - LT - Phase 1A	2	04-Dec-23	05-Dec-23																										I	Backfill Stem / Drainage - Abutment B - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAAD30	F/R/PCap - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A	4	04-Dec-23	07-Dec-23																										I	F/R/PCap - Pier 2 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAABP30	F/R/PCap - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A	4	04-Dec-23	07-Dec-23																										I	F/R/PCap - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A
CN31ASAAA40	Jack/Repair Bearing Seat/Replace Bearings - Bent 5 - Hampton River Bridge - WB - LT - Phase 1A	15	04-Dec-23	04-Jan-24																										I	Jack/Repair Bearing Seat/Replace Bearings - Bent 5 - Hampton River
CN31ASAAA10	F/R/PPile Cap - Bent 5 - Hampton River Bridge - WB - LT - Phase 1A	4	04-Dec-23	07-Dec-23																										I	F/R/PPile Cap - Bent 5 - Hampton River Bridge - WB - LT - Phase 1A











Activity ID	Activity Name	Original Duration	Start	Finish	2022					2023					2024					2025					2026																					
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J
CN31ASAAAX90	F/R/P Pedestals - Bent 20 - Hampton River Bridge - WB - LT - Phase 1A	2	25-Mar-24	26-Mar-24																																										
CN31AZTW2010	Install ITS Conduit - Unit 2 - WB I64 over Hampton River Bridge - Phase 1A	5	25-Mar-24	29-Mar-24																																										
CN31ASAB2130	Cure Diaphragms - Unit 2 - Hampton River Bridge - WB - LT - Phase 1A	3	27-Mar-24	29-Mar-24																																										
CN31ASAB2140	Install SIPs - Unit 2 - Hampton River Bridge - WB - LT - Phase 1A	3	27-Mar-24	29-Mar-24																																										
CN31ASAB6130	Cure Diaphragms - Unit 6 - Hampton River Bridge - WB - LT - Phase 1A	3	27-Mar-24	29-Mar-24																																										
CN31ASAB6140	Install SIPs - Unit 6 - Hampton River Bridge - WB - LT - Phase 1A	5	27-Mar-24	02-Apr-24																																										
CN31ASAAAX95	Cure Pedestals - Bent 20 - Hampton River Bridge - WB - LT - Phase 1A	3	27-Mar-24	29-Mar-24																																										
CN31ASAAAC40	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Hampton River Bridge - WB - LT - Phase 1A	15	28-Mar-24	22-Apr-24																																										
CN31ASAAAR40	Jack/Repair Bearing Seat/Replace Bearings - Bent 14 - Hampton River Bridge - WB - LT - Phase 1A	15	28-Mar-24	22-Apr-24																																										
CN31ASAAAV10	F/R/P Pile Cap - Bent 18 - Hampton River Bridge - WB - LT - Phase 1A	4	28-Mar-24	02-Apr-24																																										
CN31ASAAAW1	Cure Pile Cap - Bent 19 - Hampton River Bridge - WB - LT - Phase 1A	3	28-Mar-24	30-Mar-24																																										
CN31ASAABE40	Jack/Repair Bearing Seat/Replace Bearings - Bent 27 - Hampton River Bridge - WB - LT - Phase 1A	15	28-Mar-24	22-Apr-24																																										
CN31ASAB1150	Install Overhangs - Unit 1 - Hampton River Bridge - WB - LT - Phase 1A	6	28-Mar-24	04-Apr-24																																										
CN31ASAB5130	Cure Diaphragms - Unit 5 - Hampton River Bridge - WB - LT - Phase 1A	3	28-Mar-24	30-Mar-24																																										
CN31ASAB5140	Install SIPs - Unit 5 - Hampton River Bridge - WB - LT - Phase 1A	5	28-Mar-24	03-Apr-24																																										
CN31ASAAAM4	Perform Surface Repairs - Bent 10 - Hampton River Bridge - WB - LT - Phase 1A	5	29-Mar-24	04-Apr-24																																										
CN31ASAB7120	Install SIPs - Unit 7 - Hampton River Bridge - WB - LT - Phase 1A	3	29-Mar-24	02-Apr-24																																										
CN31ASAB3130	Cure Diaphragms - Unit 3 - Hampton River Bridge - WB - LT - Phase 1A	3	30-Mar-24	01-Apr-24																																										
CN31ASAB2150	Install Overhangs - Unit 2 - Hampton River Bridge - WB - LT - Phase 1A	8	01-Apr-24	11-Apr-24																																										
CN31ASAB3140	Install SIPs - Unit 3 - Hampton River Bridge - WB - LT - Phase 1A	6	01-Apr-24	09-Apr-24																																										
CN31ASAAAW5	F/R/P Pedestals - Bent 19 - Hampton River Bridge - WB - LT - Phase 1A	2	01-Apr-24	02-Apr-24																																										
CN31AZTW2040	Install ITS Conduit - Unit 5 - WB I64 over Hampton River Bridge - Phase 1A	5	01-Apr-24	08-Apr-24																																										
CN31ASAAAV15	Cure Pile Cap - Bent 18 - Hampton River Bridge - WB - LT - Phase 1A	3	03-Apr-24	05-Apr-24																																										
CN31ASAB6150	Install Overhangs - Unit 6 - Hampton River Bridge - WB - LT - Phase 1A	7	03-Apr-24	15-Apr-24																																										
CN31ASAB7130	Install Overhangs - Unit 7 - Hampton River Bridge - WB - LT - Phase 1A	6	03-Apr-24	11-Apr-24																																										
CN31ASAAAW5	Cure Pedestals - Bent 19 - Hampton River Bridge - WB - LT - Phase 1A	3	03-Apr-24	05-Apr-24																																										
CN31ASAB5150	Install Overhangs - Unit 5 - Hampton River Bridge - WB - LT - Phase 1A	7	04-Apr-24	16-Apr-24																																										
CN31ASAAAL45	Perform Surface Repairs - Pier 9 - Hampton River Bridge - WB - LT - Phase 1A	5	08-Apr-24	15-Apr-24																																										
CN31ASAB1170	Set Rebar - Unit 1 - Hampton River Bridge - WB - LT - Phase 1A	4	08-Apr-24	11-Apr-24																																										
CN31ASAB1160	Form Deck - Unit 1 - Hampton River Bridge - WB - LT - Phase 1A	2	08-Apr-24	09-Apr-24																																										
CN31ASAAAV90	F/R/P Pedestals - Bent 18 - Hampton River Bridge - WB - LT - Phase 1A	2	08-Apr-24	09-Apr-24																																										
CN31AZTW2020	Install ITS Conduit - Unit 3 - WB I64 over Hampton River Bridge - Phase 1A	5	09-Apr-24	16-Apr-24																																										
CN31ASAB3150	Install Overhangs - Unit 3 - Hampton River Bridge - WB - LT - Phase 1A	9	10-Apr-24	24-Apr-24																																										
CN31ASAAAV95	Cure Pedestals - Bent 18 - Hampton River Bridge - WB - LT - Phase 1A	3	10-Apr-24	12-Apr-24																																										
CN31ASAB1180	Setup / Dry-Run Bidwell - Unit 1 - Hampton River Bridge - WB - LT - Phase 1A	2	15-Apr-24	16-Apr-24																																										
CN31ASAB2170	Set Rebar - Unit 2 - Hampton River Bridge - WB - LT - Phase 1A	4	15-Apr-24	18-Apr-24																																										
CN31ASAB2160	Form Deck - Unit 2 - Hampton River Bridge - WB - LT - Phase 1A	3	15-Apr-24	17-Apr-24																																										
CN31ASAB4110	Set Beams/Erect Diaphragms - Unit 4 - Hampton River Bridge - WB - LT - Phase 1A	4	15-Apr-24	18-Apr-24																																										
CN31ASAB7150	Set Rebar - Unit 7 - Hampton River Bridge - WB - LT - Phase 1A	4	15-Apr-24	18-Apr-24																																										
CN31ASAAAK45	Perform Surface Repairs - Pier 8 - Hampton River Bridge - WB - LT - Phase 1A	5	16-Apr-24	23-Apr-24																																										
CN31ASAB6170	Set Rebar - Unit 6 - Hampton River Bridge - WB - LT - Phase 1A	6	16-Apr-24	24-Apr-24																																										
CN31ASAB1190	Pour Deck - Unit 1 - Hampton River Bridge - WB - LT - Phase 1A	2	17-Apr-24	18-Apr-24																																										
CN31ASAB5170	Set Rebar - Unit 5 - Hampton River Bridge - WB - LT - Phase 1A	6	17-Apr-24	25-Apr-24																																										
CN31ASAB5160	Form Deck - Unit 5 - Hampton River Bridge - WB - LT - Phase 1A	5	17-Apr-24	24-Apr-24																																										





























Activity ID	Activity Name	Original Duration	Start	Finish	2022				2023				2024				2025				2026																				
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D
CN32ASJ01010	Set Panels - Sound Barrier DJKL - Sta. 739+91 to 746 -I64 EB RT - Phase 2	6	29-Sep-26	06-Oct-26																																					
<b>ITS / Electrical / Signage</b>		23	18-Jun-26	23-Jul-26																																					
CN32AZTS1000	Construct Foundation RT - Sta. 738+25 EB - OH Structure #10 - Phase 2	3	18-Jun-26	23-Jun-26																																		Construct			
CN32AZTE9000	F/R/PCabinet Pads - Segment 3 - EB - Phase 2	5	18-Jun-26	25-Jun-26																																		F/R/PCabi			
CN32AZTE1000	Construct CCTV Camera/MVDS Foundation - Sta. 740+25 EB - Phase 2	1	18-Jun-26	18-Jun-26																																		Construct C			
CN32AZTE1010	Install CCTV Camera/MVDS Pole - Sta. 740+25 EB - Phase 2	1	22-Jun-26	22-Jun-26																																		Install CCT			
CN32AZTE1020	Install CCTV Camera/MVDS/Flashers - Sta. 740+25 EB - Phase 2	1	23-Jun-26	23-Jun-26																																		Install CCT			
CN32AZTS1010	Construct Foundation LT - Sta. 738+25 EB - OH Structure #10 - Phase 2	3	24-Jun-26	26-Jun-26																																		Construct			
CN32AZTE9010	Install ITS Cabinets - Segment 3 - EB - Phase 2	5	26-Jun-26	02-Jul-26																																		Install ITS			
CN32AZTS1020	Assemble & Erect Sign Structure - Sta. 738+25 EB - OH Structure #10 - Phase 2	3	29-Jun-26	01-Jul-26																																		Assemble			
CN32AZTS1030	Erect Signs - Sta. 738+25 EB - OH Structure #10 - Phase 2	3	02-Jul-26	07-Jul-26																																		Erect Sign			
CN32AZTS2020	Assemble & Erect Sign Structure - Sta. 730+25 EB - OH Structure #9 - Phase 2	3	08-Jul-26	10-Jul-26																																		Assemble			
CN32AZTS2030	Erect Signs - Sta. 730+25 EB - OH Structure #9 - Phase 2	3	13-Jul-26	15-Jul-26																																		Erect Sign			
CN32AZTX1000	Electrical Testing - Segment 3 - Phase 2	5	16-Jul-26	23-Jul-26																																		Electrical			
<b>Segment 4 - Sta. 702+50 to Sta. 721+00</b>		731	06-Jun-23	24-Nov-26																																					
<b>Pre-Construction</b>		7	06-Jun-23	14-Jun-23																																					
<b>Roadway</b>		7	06-Jun-23	14-Jun-23																																					
CN40R0001000	Perform Shoulder Strengthening - Segment 4 EB	1	06-Jun-23	06-Jun-23																																		Perform Shoulder Strengthening - Segment 4 EB			
CN40R0002000	Perform Shoulder Strengthening - Segment 4 WB	1	14-Jun-23	14-Jun-23																																		Perform Shoulder Strengthening - Segment 4 WB			
<b>Phase 1</b>		361	19-Jun-23	13-Mar-25																																					
<b>Phase 1A</b>		361	19-Jun-23	13-Mar-25																																					
CN41AT001000	Install Traffic Control Measures - Segment 4 - Phase 1A	5	19-Jun-23	23-Jun-23																																		Install Traffic Control Measures - Segment 4 - Phase 1A			
CN41AE001000	Clear & Grub / Install Erosion Control Measures - Segment 4 - Phase 1A	5	19-Jul-23	25-Jul-23																																		Clear & Grub / Install Erosion Control Measures - Segment 4 - Phase 1A			
CN41AZTE0000	Install ITS Conduit - Segment 4 - EB - Phase 1A	7	13-Sep-23	25-Sep-23																																		Install ITS Conduit - Segment 4 - EB - Phase 1A			
CN41AZTE1000	Construct MVDS Foundation - Sta. 707+25 EB - Phase 1A	1	26-Sep-23	26-Sep-23																																		Construct MVDS Foundation - Sta. 707+25 EB - Phase 1A			
CN41AZTE1010	Install MVDS Pole - Sta. 707+25 EB - Phase 1A	1	27-Sep-23	27-Sep-23																																		Install MVDS Pole - Sta. 707+25 EB - Phase 1A			
CN41AZTE1020	Install MVDS - Sta. 707+25 EB - Phase 1A	1	28-Sep-23	28-Sep-23																																		Install MVDS - Sta. 707+25 EB - Phase 1A			
CN41AZTE9000	F/R/PCabinet Pads - Segment 4 - EB - Phase 1A	5	02-Oct-23	09-Oct-23																																		F/R/PCabinet Pads - Segment 4 - EB - Phase 1A			
CN41AZTE9010	Install ITS Cabinets - Segment 4 - EB - Phase 1A	5	10-Oct-23	17-Oct-23																																		Install ITS Cabinets - Segment 4 - EB - Phase 1A			
CN41AZTE0010	Pull ITS Wire - Segment 4 - EB - Phase 1A	6	18-Oct-23	26-Oct-23																																		Pull ITS Wire - Segment 4 - EB - Phase 1A			
CN41ARW01000	Sawcut - WB Widening - Segment 4 - Phase 1A	1	25-Oct-23	25-Oct-23																																		Sawcut - WB Widening - Segment 4 - Phase 1A			
CN41ARW01010	Remove Existing Pavement - WB Widening - Segment 4 - Phase 1A	2	26-Oct-23	30-Oct-23																																		Remove Existing Pavement - WB Widening - Segment 4 - Phase 1A			
CN41ARW01020	Cut/Fill - WB Widening - Segment 4 - Phase 1A	7	31-Oct-23	13-Nov-23																																		Cut/Fill - WB Widening - Segment 4 - Phase 1A			
CN41ARW01030	Install Drainage - WB Widening - Segment 4 - Phase 1A	10	14-Nov-23	04-Dec-23																																		Install Drainage - WB Widening - Segment 4 - Phase 1A			
CN41AZE0000	Install Electrical Conduit - Segment 4 - WB - Phase 1A	4	14-Nov-23	21-Nov-23																																		Install Electrical Conduit - Segment 4 - WB - Phase 1A			
CN41AZTW0000	Install ITS Conduit - Segment 4 - WB - Phase 1A	4	14-Nov-23	21-Nov-23																																		Install ITS Conduit - Segment 4 - WB - Phase 1A			
CN41AZE0010	Pull Electrical Wire - Segment 4 - WB - Phase 1A	5	22-Nov-23	30-Nov-23																																		Pull Electrical Wire - Segment 4 - WB - Phase 1A			
CN41AZE01000	Install Light Foundations - Segment 4 - WB - Phase 1A	1	22-Nov-23	22-Nov-23																																		Install Light Foundations - Segment 4 - WB - Phase 1A			
CN41ASB01000	Excavate / Grade - Combination Wall ABCD - Sta. 1718+95 to 1719+90 - I64 WB LT - Phase 1A	1	05-Dec-23	05-Dec-23																																		Excavate / Grade - Combination Wall ABCD - Sta. 1718+95 to 1719+90 - I64 WB LT - Phase 1A			
CN41ASA01000	Grade - Sound Barrier ABCD - Sta. 1710+50 to 1718+95 - I64 WB LT - Phase 1A	1	05-Dec-23	05-Dec-23																																		Grade - Sound Barrier ABCD - Sta. 1710+50 to 1718+95 - I64 WB LT - Phase 1A			
CN41ASD01000	Excavate - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2	1	05-Dec-23	05-Dec-23																																		Excavate - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2			
CN41ASB01010	Install Drilled Shafts - Combination Wall ABCD - Sta. 1718+95 to 1719+90 - I64 WB LT - Phase 1A	6	06-Dec-23	14-Dec-23																																		Install Drilled Shafts - Combination Wall ABCD - Sta. 1718+95 to 171			
CN41ASD01010	F/R/PLeveling Pad - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2	1	06-Dec-23	06-Dec-23																																		F/R/PLeveling Pad - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2			
CN41ASD01020	Cure Leveling Pad - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2	3	07-Dec-23	09-Dec-23																																		Cure Leveling Pad - Wall #3 - Sta. 1719+90 to 1720+40 - I64 WB LT - Phase 2			









Table with columns: Activity ID, Activity Name, Original Duration, Start, Finish, and monthly activity status for years 2022 through 2026. Rows list various construction activities like 'Place Base Asphalt', 'Install Drilled Shafts', etc.



Activity ID	Activity Name	Original Duration	Start	Finish	2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D	J	F	A	J	J	A	S	O	N	D													
<b>Phase 1</b>		286	19-Jun-23	17-Oct-24	▼ 17-Oct-24, Phase 1																																																											
<b>Phase 1A</b>		231	19-Jun-23	19-Jul-24	▼ 19-Jul-24, Phase 1A																																																											
CN51AT001000	Install Traffic Control Measures - Segment 5 - Phase 1A	5	19-Jun-23	23-Jun-23	■ Install Traffic Control Measures - Segment 5 - Phase 1A																																																											
CN51ASDAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - King Street Bridge - Median - Phase 1A	10	03-Jul-23	18-Jul-23	■ Jack/Repair Bearing Seat/Replace Bearings - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAA900	Perform Surface Repairs - Abutment A - King Street Bridge - Median - Phase 1A	5	03-Jul-23	10-Jul-23	■ Perform Surface Repairs - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAC900	Perform Surface Repairs - Pier 1 - King Street Bridge - Median - Phase 1A	5	11-Jul-23	18-Jul-23	■ Perform Surface Repairs - Pier 1 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - King Street Bridge - Median - Phase 1A	10	19-Jul-23	02-Aug-23	■ Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAD900	Perform Surface Repairs - Pier 2 - King Street Bridge - Median - Phase 1A	5	19-Jul-23	25-Jul-23	■ Perform Surface Repairs - Pier 2 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAB900	Perform Surface Repairs - Abutment B - King Street Bridge - Median - Phase 1A	5	26-Jul-23	02-Aug-23	■ Perform Surface Repairs - Abutment B - King Street Bridge - Median - Phase 1A																																																											
CN51AE001000	Install Erosion Control Measures - Segment 5 - Phase 1A	5	26-Jul-23	02-Aug-23	■ Install Erosion Control Measures - Segment 5 - Phase 1A																																																											
CN51ASEAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - Rip Rap Road Bridge - Median - Phase 1A	10	03-Aug-23	17-Aug-23	■ Jack/Repair Bearing Seat/Replace Bearings - Abutment A - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASEAA900	Perform Surface Repairs - Abutment A - Rip Rap Road Bridge - Median - Phase 1A	5	03-Aug-23	09-Aug-23	■ Perform Surface Repairs - Abutment A - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASDAD800	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - King Street Bridge - Median - Phase 1A	10	03-Aug-23	17-Aug-23	■ Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDB0000	Demo Portion Existing - King Street Bridge - Median - Phase 1A	10	03-Aug-23	17-Aug-23	■ Demo Portion Existing - King Street Bridge - Median - Phase 1A																																																											
CN51ASEAC900	Perform Surface Repairs - Pier 1 - Rip Rap Road Bridge - Median - Phase 1A	5	10-Aug-23	17-Aug-23	■ Perform Surface Repairs - Pier 1 - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASDAA000	Install Temporary Sheet Piles - Abutment A - King Street Bridge - Median - Phase 1A	3	18-Aug-23	22-Aug-23	■ Install Temporary Sheet Piles - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAB800	Jack/Repair Bearing Seat/Replace Bearings - Abutment B - King Street Bridge - Median - Phase 1A	10	18-Aug-23	01-Sep-23	■ Jack/Repair Bearing Seat/Replace Bearings - Abutment B - King Street Bridge - Median - Phase 1A																																																											
CN51ASEAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Rip Rap Road Bridge - Median - Phase 1A	10	18-Aug-23	01-Sep-23	■ Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASEAD900	Perform Surface Repairs - Pier 2 - Rip Rap Road Bridge - Median - Phase 1A	5	18-Aug-23	24-Aug-23	■ Perform Surface Repairs - Pier 2 - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASDB2200	F/R/PClosure Pour - Pier 1 - King Street Bridge - Median - Phase 1A	7	18-Aug-23	29-Aug-23	■ F/R/PClosure Pour - Pier 1 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAA100	Demo Portion Existing - Abutment A - King Street Bridge - Median - Phase 1A	5	23-Aug-23	30-Aug-23	■ Demo Portion Existing - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51AZTE0000	Install ITS Conduit - Segment 5 - EB - Phase 1A	13	23-Aug-23	12-Sep-23	■ Install ITS Conduit - Segment 5 - EB - Phase 1A																																																											
CN51ASEAB300	Perform Surface Repairs - Abutment B - Rip Rap Road Bridge - Median - Phase 1A	5	28-Aug-23	01-Sep-23	■ Perform Surface Repairs - Abutment B - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASDB2210	Cure Closure Pour - Pier 1 - King Street Bridge - Median - Phase 1A	3	30-Aug-23	01-Sep-23	■ Cure Closure Pour - Pier 1 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDB2220	F/R/PClosure Pour - Pier 2 - King Street Bridge - Median - Phase 1A	7	30-Aug-23	08-Sep-23	■ F/R/PClosure Pour - Pier 2 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDAA110	F/R/PBackwall - Abutment A - King Street Bridge - Median - Phase 1A	5	31-Aug-23	07-Sep-23	■ F/R/PBackwall - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51ASEAD800	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - Rip Rap Road Bridge - Median - Phase 1A	10	05-Sep-23	19-Sep-23	■ Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51ASDAA120	Cure Backwall - Abutment A - King Street Bridge - Median - Phase 1A	3	08-Sep-23	10-Sep-23	■ Cure Backwall - Abutment A - King Street Bridge - Median - Phase 1A																																																											
CN51ASDB2230	Cure Closure Pour - Pier 2 - King Street Bridge - Median - Phase 1A	3	09-Sep-23	11-Sep-23	■ Cure Closure Pour - Pier 2 - King Street Bridge - Median - Phase 1A																																																											
CN51ASDB4000	Mill Deck - King Street Bridge - Median - Phase 1A	4	12-Sep-23	18-Sep-23	■ Mill Deck - King Street Bridge - Median - Phase 1A																																																											
CN51AZTE1000	Construct MVDS Foundation - Sta. 697+78 EB - Phase 1A	1	13-Sep-23	13-Sep-23	■ Construct MVDS Foundation - Sta. 697+78 EB - Phase 1A																																																											
CN51AZTE1010	Install MVDS Pole - Sta. 697+78 EB - Phase 1A	1	14-Sep-23	14-Sep-23	■ Install MVDS Pole - Sta. 697+78 EB - Phase 1A																																																											
CN51AZTE1020	Install MVDS - Sta. 697+78 EB - Phase 1A	1	18-Sep-23	18-Sep-23	■ Install MVDS - Sta. 697+78 EB - Phase 1A																																																											
CN51ASDB4010	Patch / Repair Deck - King Street Bridge - Median - Phase 1A	5	19-Sep-23	26-Sep-23	■ Patch / Repair Deck - King Street Bridge - Median - Phase 1A																																																											
CN51AZTE2000	Construct MVDS Foundation - Sta. 679+81 EB - Phase 1A	1	19-Sep-23	19-Sep-23	■ Construct MVDS Foundation - Sta. 679+81 EB - Phase 1A																																																											
CN51ASEAB200	Jack/Repair Bearing Seat/Replace Bearings - Abutment B - Rip Rap Road Bridge - Median - Phase 1A	10	20-Sep-23	05-Oct-23	■ Jack/Repair Bearing Seat/Replace Bearings - Abutment B - Rip Rap Road Bridge - Median - Phase 1A																																																											
CN51AZTE2010	Install MVDS Pole - Sta. 679+81 EB - Phase 1A	1	20-Sep-23	20-Sep-23	■ Install MVDS Pole - Sta. 679+81 EB - Phase 1A																																																											
CN51AZTE2020	Install MVDS - Sta. 679+81 EB - Phase 1A	1	21-Sep-23	21-Sep-23	■ Install MVDS - Sta. 679+81 EB - Phase 1A																																																											
CN51AZTE3000	Construct MVDS Foundation - Sta. 676+20 EB - Phase 1A	1	25-Sep-23	25-Sep-23	■ Construct MVDS Foundation - Sta. 676+20 EB - Phase 1A																																																											
CN51AZTE3010	Install MVDS Pole - Sta. 676+20 EB - Phase 1A	1	26-Sep-23	26-Sep-23	■ Install MVDS Pole - Sta. 676+20 EB - Phase 1A																																																											
CN51AZTE3020	Install MVDS/Flashers - Sta. 676+20 EB - Phase 1A	1	27-Sep-23	27-Sep-23	■ Install MVDS/Flashers - Sta. 676+20 EB - Phase 1A																																																											
CN51AZTE4000	F/R/PGate Foundations - Sta. 24+40 - EB Off-Ramp to Rip Rap Road - Phase 1A	5	28-Sep-23	05-Oct-23	■ F/R/PGate Foundations - Sta. 24+40 - EB Off-Ramp to Rip Rap Road - Phase 1A																																																											
CN51AZTE4010	Install Gates - Sta. 24+40 - EB Off-Ramp to Rip Rap Road - Phase 1A	5	09-Oct-23	16-Oct-23	■ Install Gates - Sta. 24+40 - EB Off-Ramp to Rip Rap Road - Phase 1A																																																											
CN51AZTE9000	F/R/PCabinet Pads - Segment 5 - EB - Phase 1A	5	17-Oct-23	24-Oct-23	■ F/R/PCabinet Pads - Segment 5 - EB - Phase 1A																																																											





C00117841DB11BD01: I-64 Hampton Roads Express Lanes (HREL) Segment 4C Design-						Proposal Layout												09-May-22 14:02											
Activity ID	Activity Name	Original Duration	Start	Finish	2022			2023			2024			2025			2026												
					J	J	A	J	J	A	J	J	A	J	J	A	J	J	A										
					S	O	N	S	O	N	S	O	N	S	O	N	S	O	N										
CN52ARW01090	Construct Barrier - WB Widening - Segment 5 - Phase 2	6	30-Jun-25	08-Jul-25																									
CN52ARE01070	Place Drainage Material (OGDL) - EB Widening - Segment 5 - Phase 2	2	01-Jul-25	02-Jul-25																									
CN52ARE01080	Finegrade Subbase - EB Widening - Segment 5 - Phase 2	2	03-Jul-25	07-Jul-25																									
CN52ARE01090	Construct Barrier - EB Widening - Segment 5 - Phase 2	6	08-Jul-25	16-Jul-25																									
CN52ARW01100	Place Base Asphalt - WB Widening - Segment 5 - Phase 2	1	09-Jul-25	09-Jul-25																									
CN52ARW01110	Place Intermediate Asphalt - WB Widening - Segment 5 - Phase 2	1	10-Jul-25	10-Jul-25																									
CN52ARW01120	Apply Temporary Pavement Markings - WB Widening - Segment 5 - Phase 2	1	14-Jul-25	14-Jul-25																									
CN52ARE01100	Place Base Asphalt - EB Widening - Segment 5 - Phase 2	1	17-Jul-25	17-Jul-25																									
CN52ARE01110	Place Intermediate Asphalt - EB Widening - Segment 5 - Phase 2	1	18-Jul-25	18-Jul-25																									
CN52ARE01120	Apply Temporary Pavement Markings - EB Widening - Segment 5 - Phase 2	1	21-Jul-25	21-Jul-25																									
CN52ARE01130	Place Topsoil / Grade Slopes - EB Widening - Segment 5 - Phase 2	1	05-Aug-25	05-Aug-25																									
CN52ARE01140	Finegrade Swales - EB Widening - Segment 5 - Phase 2	1	06-Aug-25	06-Aug-25																									
CN52ARE01150	Seed & Mulch / Landscaping - EB Widening - Segment 5 - Phase 2	12	07-Aug-25	25-Aug-25																									
CN52ARW01130	Place Topsoil / Grade Slopes - WB Widening - Segment 5 - Phase 2	1	05-Sep-25	05-Sep-25																									
CN52ARW01140	Finegrade Swales - WB Widening - Segment 5 - Phase 2	1	08-Sep-25	08-Sep-25																									
CN52ARW01150	Seed & Mulch / Landscaping - WB Widening - Segment 5 - Phase 2	12	09-Sep-25	29-Sep-25																									
<b>Structures</b>		276	18-Dec-24	23-Apr-26																									
CN52ASBAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - King Street Bridge - WB - Phase 2	5	18-Dec-24	02-Jan-25																									
CN52ASBAA900	Perform Surface Repairs - Abutment A - King Street Bridge - WB - Phase 2	5	18-Dec-24	02-Jan-25																									
CN52ASCAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - Rip Rap Road Bridge - EB - Phase 2	5	18-Dec-24	02-Jan-25																									
CN52ASCAA900	Perform Surface Repairs - Abutment A - Rip Rap Road Bridge - EB - Phase 2	5	18-Dec-24	02-Jan-25																									
CN52ASCB0000	Demo Portion Existing - Rip Rap Road Bridge - EB - Phase 2	10	18-Dec-24	13-Jan-25																									
CN52ASBAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - King Street Bridge - WB - Phase 2	5	06-Jan-25	13-Jan-25																									
CN52ASBAC900	Perform Surface Repairs - Pier 1 - King Street Bridge - WB - Phase 2	5	06-Jan-25	13-Jan-25																									
CN52ASCAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - Rip Rap Road Bridge - EB - Phase 2	1	06-Jan-25	06-Jan-25																									
CN52ASCAC900	Perform Surface Repairs - Pier 1 - Rip Rap Road Bridge - EB - Phase 2	2	06-Jan-25	07-Jan-25																									
CN52ASCAD800	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - Rip Rap Road Bridge - EB - Phase 2	1	07-Jan-25	07-Jan-25																									
CN52ASCAB800	Jack/Repair Bearing Seat/Replace Bearings - Abutment B - Rip Rap Road Bridge - EB - Phase 2	5	08-Jan-25	16-Jan-25																									
CN52ASCAD900	Perform Surface Repairs - Pier 2 - Rip Rap Road Bridge - EB - Phase 2	2	08-Jan-25	09-Jan-25																									
CN52ASCAB900	Perform Surface Repairs - Abutment B - Rip Rap Road Bridge - EB - Phase 2	5	13-Jan-25	21-Jan-25																									
CN52ASCAA100	Demo Portion Existing - Abutment A - Rip Rap Road Bridge - EB - Phase 2	5	14-Jan-25	22-Jan-25																									
CN52ASCAB100	Demo Portion Existing - Abutment B - Rip Rap Road Bridge - EB - Phase 2	5	14-Jan-25	22-Jan-25																									
CN52ASBAD800	Jack/Repair Bearing Seat/Replace Bearings - Pier 2 - King Street Bridge - WB - Phase 2	5	14-Jan-25	22-Jan-25																									
CN52ASBAD900	Perform Surface Repairs - Pier 2 - King Street Bridge - WB - Phase 2	5	14-Jan-25	22-Jan-25																									
CN52ASCB2200	F/R/PClosure Pour - Pier 1 - Rip Rap Road Bridge - EB - Phase 2	5	14-Jan-25	22-Jan-25																									
CN52ASAAA800	Jack/Repair Bearing Seat/Replace Bearings - Abutment A - King Street Bridge - EB - Phase 2	5	20-Jan-25	27-Jan-25																									
CN52ASAAA900	Perform Surface Repairs - Abutment A - King Street Bridge - EB - Phase 2	5	22-Jan-25	29-Jan-25																									
CN52ASBAB800	Jack/Repair Bearing Seat/Replace Bearings - Abutment B - King Street Bridge - WB - Phase 2	5	23-Jan-25	30-Jan-25																									
CN52ASBAB900	Perform Surface Repairs - Abutment B - King Street Bridge - WB - Phase 2	5	23-Jan-25	30-Jan-25																									
CN52ASCAA110	F/R/PBackwall - Abutment A - Rip Rap Road Bridge - EB - Phase 2	5	23-Jan-25	30-Jan-25																									
CN52ASCAB110	F/R/PBackwall - Abutment B - Rip Rap Road Bridge - EB - Phase 2	5	23-Jan-25	30-Jan-25																									
CN52ASCB2210	Cure Closure Pour - Pier 1 - Rip Rap Road Bridge - EB - Phase 2	3	23-Jan-25	25-Jan-25																									
CN52ASCB2220	F/R/PClosure Pour - Pier 2 - Rip Rap Road Bridge - EB - Phase 2	5	23-Jan-25	30-Jan-25																									
CN52ASAAC800	Jack/Repair Bearing Seat/Replace Bearings - Pier 1 - King Street Bridge - EB - Phase 2	5	28-Jan-25	04-Feb-25																									

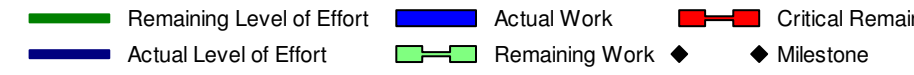
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Table with columns: Activity ID, Activity Name, Original Duration, Start, Finish, and monthly progress bars for years 2022-2026. The table lists various construction activities such as 'Cure Cap - Pier 1 - King Street Bridge', 'F/R/P Cap - Pier 2 - King Street Bridge', etc., with their respective durations and scheduled dates.





Activity ID	Activity Name	Original Duration	Start	Finish	2022				2023				2024				2025				2026							
					J	J	A	S	O	N	D	J	F	A		J	J	A	S	O	N	D	J	F		A		J
CN52ASBB1040	Install Overhangs - King Street Bridge - WB - Phase 2	2	18-Nov-25	20-Nov-25																							Install Overhangs - King	
CN52ASBB1050	Set Rebar - King Street Bridge - WB - Phase 2	3	24-Nov-25	26-Nov-25																							Set Rebar - King Street B	
CN52ASBB1060	Setup / Dry-Run Bidwell - King Street Bridge - WB - Phase 2	2	01-Dec-25	02-Dec-25																							Setup / Dry-Run Bidwel	
CN52ASBB1070	Pour Deck - King Street Bridge - WB - Phase 2	2	03-Dec-25	04-Dec-25																							Pour Deck - King Street	
CN52ASBB1080	Cure Deck - King Street Bridge - WB - Phase 2	14	05-Dec-25	18-Dec-25																							Cure Deck - King Street	
CN52ASBB1500	F/R/P Parapet - LT - King Street Bridge - WB - Phase 2	5	22-Dec-25	06-Jan-26																							F/R/P Parapet - LT - K	
CN52ASBB1510	Cure Parapet - LT - King Street Bridge - WB - Phase 2	3	07-Jan-26	09-Jan-26																							Cure Parapet - LT - Ki	
CN52ASBB1520	F/R/P Terminal Wall - LT - King Street Bridge - WB - Phase 2	4	07-Jan-26	13-Jan-26																							F/R/P Terminal Wall -	
CN52ASH01000	Set Posts - Sound Barrier ABCD - Sta. 1698+14 to 1699+84 - I64 WB LT - Phase 2	3	12-Jan-26	15-Jan-26																							Set Posts - Sound Bar	
CN52ASBB1530	Cure Terminal Wall - LT - King Street Bridge - WB - Phase 2	3	14-Jan-26	16-Jan-26																							Cure Terminal Wall -	
CN52ASH01010	Set Panels - Sound Barrier ABCD - Sta. 1698+14 to 1699+84 - I64 WB LT - Phase 2	2	19-Jan-26	20-Jan-26																							Set Panels - Sound B	
CN52ASBB4030	Groove Deck - King Street Bridge - WB - Phase 2	2	19-Jan-26	20-Jan-26																							Groove Deck - King S	
CN52ASH01020	Apply Architectural Treatment - Sound Barrier ABCD - Sta. 1698+14 to 1699+84 - I64 WB LT - Phase 2	1	21-Jan-26	21-Jan-26																							Apply Architectural T	
CN52ASDB0000	Demo Portion Existing - Rip Rap Road Bridge - WB - Phase 2	10	21-Jan-26	05-Feb-26																							Demo Portion Existi	
CN52ASDAA000	Install Temporary Sheet Piles - Abutment A - Rip Rap Road Bridge - WB - Phase 2	5	09-Feb-26	16-Feb-26																							Install Temporary S	
CN52ASDB2200	F/R/P Closure Pour - Pier 1 - Rip Rap Road Bridge - WB - Phase 2	5	09-Feb-26	16-Feb-26																							F/R/P Closure Pour	
CN52ASDAA100	Demo Portion Existing - Abutment A - Rip Rap Road Bridge - WB - Phase 2	5	17-Feb-26	24-Feb-26																							Demo Portion Exis	
CN52ASDAB000	Install Temporary Sheet Piles - Abutment B - Rip Rap Road Bridge - WB - Phase 2	5	17-Feb-26	24-Feb-26																							Install Temporary S	
CN52ASDB2210	Cure Closure Pour - Pier 1 - Rip Rap Road Bridge - WB - Phase 2	3	17-Feb-26	19-Feb-26																							Cure Closure Pour	
CN52ASDB2220	F/R/P Closure Pour - Pier 2 - Rip Rap Road Bridge - WB - Phase 2	5	17-Feb-26	24-Feb-26																							F/R/P Closure Pour	
CN52ASDAA110	F/R/P Backwall - Abutment A - Rip Rap Road Bridge - WB - Phase 2	5	25-Feb-26	04-Mar-26																							F/R/P Backwall - A	
CN52ASDAB100	Demo Portion Existing - Abutment B - Rip Rap Road Bridge - WB - Phase 2	5	25-Feb-26	04-Mar-26																							Demo Portion Exis	
CN52ASDB2230	Cure Closure Pour - Pier 2 - Rip Rap Road Bridge - WB - Phase 2	3	25-Feb-26	27-Feb-26																							Cure Closure Pour	
CN52ASDB4000	Mill Deck - Rip Rap Road Bridge - WB - Phase 2	2	02-Mar-26	03-Mar-26																							Mill Deck - Rip Ra	
CN52ASDB4010	Patch / Repair Deck - Rip Rap Road Bridge - WB - Phase 2	5	04-Mar-26	11-Mar-26																							Patch / Repair Dec	
CN52ASDB2000	Type B Hydro-Demo over Existing Box Beams - Rip Rap Road Bridge - WB - Phase 2	5	04-Mar-26	11-Mar-26																							Type B Hydro-Der	
CN52ASDAA120	Cure Backwall - Abutment A - Rip Rap Road Bridge - WB - Phase 2	3	05-Mar-26	07-Mar-26																							Cure Backwall - A	
CN52ASDAB110	F/R/P Backwall - Abutment B - Rip Rap Road Bridge - WB - Phase 2	5	05-Mar-26	12-Mar-26																							F/R/P Backwall -	
CN52ASDB2150	F/R/P Deck Extension - West - Rip Rap Road Bridge - WB - Phase 2	5	09-Mar-26	16-Mar-26																							F/R/P Deck Exten	
CN52ASDB2050	F/R/P Deck over Existing Box Beams - Rip Rap Road Bridge - WB - Phase 2	6	12-Mar-26	23-Mar-26																							F/R/P Deck over	
CN52ASDAB120	Cure Backwall - Abutment B - Rip Rap Road Bridge - WB - Phase 2	3	13-Mar-26	15-Mar-26																							Cure Backwall - A	
CN52ASDB2100	F/R/P Deck Extension - East - Rip Rap Road Bridge - WB - Phase 2	5	16-Mar-26	23-Mar-26																							F/R/P Deck Exter	
CN52ASDB2160	Cure Deck Extension - West - Rip Rap Road Bridge - WB - Phase 2	3	17-Mar-26	19-Mar-26																							Cure Deck Extens	
CN52ASDB3100	F/R/P Approach Slab - West - Rip Rap Road Bridge - WB - Phase 2	5	23-Mar-26	30-Mar-26																							F/R/P Approach	
CN52ASDB2110	Cure Deck Extension - East - Rip Rap Road Bridge - WB - Phase 2	3	24-Mar-26	26-Mar-26																							Cure Deck Extens	
CN52ASDB2060	Cure Deck over Existing Box Beams - Rip Rap Road Bridge - WB - Phase 2	7	24-Mar-26	30-Mar-26																							Cure Deck over E	
CN52ASDB3000	F/R/P Approach Slab - East - Rip Rap Road Bridge - WB - Phase 2	5	30-Mar-26	06-Apr-26																							F/R/P Approach	
CN52ASDB3110	Cure Approach Slab - West - Rip Rap Road Bridge - WB - Phase 2	3	31-Mar-26	02-Apr-26																							Cure Approach S	
CN52ASDB3010	Cure Approach Slab - East - Rip Rap Road Bridge - WB - Phase 2	3	07-Apr-26	09-Apr-26																							Cure Approach S	
CN52ASDB4020	Hydro-Demo & Place Latex Concrete Overlay - Rip Rap Road Bridge - WB - Phase 2	6	13-Apr-26	21-Apr-26																							Hydro-Demo &	
CN52ASDB4030	Groove Deck - Rip Rap Road Bridge - WB - Phase 2	2	22-Apr-26	23-Apr-26																							Groove Deck - I	
<b>ITS / Electrical / Signage</b>		66	27-Jan-25	15-May-25																							15-May-25, ITS / Electrical / Signage	
CN52AZTS1010	Construct Foundation WB - Sta. 690+90 - OH Structure #6 - Phase 2	3	27-Jan-25	29-Jan-25																							Construct Foundation WB - Sta. 690+90 - O	
CN52AZTS2010	Construct Foundation WB - Sta. 683+89 - OH Structure #5 - Phase 2	3	30-Jan-25	04-Feb-25																							Construct Foundation WB - Sta. 683+89 - C	







Table with columns: Activity ID, Activity Name, Original Duration, Start, Finish, and a Gantt chart grid for years 2022 through 2026. Activities include: Finegrade Subbase, Construct Barrier, Place Base Asphalt, Place Intermediate Asphalt, Apply Temporary Pavement Markings, Place Topsoil / Grade Slopes, Finegrade Swales, Seed & Mulch / Landscaping, Structures (Grade, Install Drilled Shafts, Set Posts, Excavate / Grade, F/R/P Wall, Cure Wall, F/R/P Barrier, Cure Barrier, Backfill, Set Panels), and ITS / Electrical / Signage (Install Electrical Conduit).



Activity ID	Activity Name	Original Duration	Start	Finish	2022 2023 2024 2025 2026																																																											
					2022												2023												2024												2025												2026											
					J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
<b>I-64 Hampton Roads Express Lanes (HREL) Segment 4C Design-Build</b>					943	24-Jun-22	30-Dec-26																																																									
MS000001000	Notice of Intent to Award (24-June-2022)	0	24-Jun-22		◆ Notice of Intent to Award (24-June-2022)																																																											
DSGHB0001000	Compile Geotechnical Information Basemap - Bridge River Borings	5	24-Jun-22	30-Jun-22	■ Compile Geotechnical Information Basemap - Bridge River Borings																																																											
DSGHB0001010	Prepare Geotechnical Investigation Plan - Bridge River Borings	5	01-Jul-22	08-Jul-22	■ Prepare Geotechnical Investigation Plan - Bridge River Borings																																																											
ENB000001010	Develop Permit Application - River Borings	10	11-Jul-22	22-Jul-22	■ Develop Permit Application - River Borings																																																											
ENB000001020	SFR (DBJV) Permit Application - River Borings	3	25-Jul-22	27-Jul-22	■ SFR (DBJV) Permit Application - River Borings																																																											
ENB000001030	A/C Permit Application - River Borings	3	28-Jul-22	01-Aug-22	■ A/C Permit Application - River Borings																																																											
ENB000001040	SFA (Agencies) Permit Application - River Borings	2	02-Aug-22	03-Aug-22	■ SFA (Agencies) Permit Application - River Borings																																																											
ENB000001050	Agencies Review Permit Application for Completeness - River Borings	15	04-Aug-22	18-Aug-22	■ Agencies Review Permit Application for Completeness - River Borings																																																											
ENB000001060	Agencies Determine Permit Application is Complete - River Borings	5	19-Aug-22	23-Aug-22	■ Agencies Determine Permit Application is Complete - River Borings																																																											
ENB000001070	Agencies Process Permit Application - River Borings	60	24-Aug-22	22-Oct-22	■ Agencies Process Permit Application - River Borings																																																											
ENB000001080	Agencies Issue Permit - River Borings	5	23-Oct-22	27-Oct-22	■ Agencies Issue Permit - River Borings																																																											
MS000001055	VDOT Issues - Notice to Proceed with River Borings	0	31-Oct-22		◆ VDOT Issues - Notice to Proceed with River Borings																																																											
DSGHS0001000	Locate/Conduct Geotechnical Borings - Bridge River Borings	20	31-Oct-22	29-Nov-22	■ Locate/Conduct Geotechnical Borings - Bridge River Borings																																																											
DSGHS0001010	Compile Boring Logs - Bridge River Borings	10	30-Nov-22	15-Dec-22	■ Compile Boring Logs - Bridge River Borings																																																											
DSGHS0001020	Conduct Boring Laboratory Analysis - Bridge River Borings	30	19-Dec-22	20-Feb-23	■ Conduct Boring Laboratory Analysis - Bridge River Borings																																																											
DSGHS0001030	Compile Boring Laboratory Analysis - Bridge River Borings	5	21-Feb-23	28-Feb-23	■ Compile Boring Laboratory Analysis - Bridge River Borings																																																											
DSGHR0001030	Conduct Geotechnical Analyses and Design - Hampton River Bridges	20	01-Mar-23	28-Mar-23	■ Conduct Geotechnical Analyses and Design - Hampton River Bridges																																																											
DSGHR0001040	Prepare Preliminary Geotechnical Engineering Recommendations - Hampton River Bridge	10	29-Mar-23	11-Apr-23	■ Prepare Preliminary Geotechnical Engineering Recommendations - Hampton River Bridges																																																											
DSGHR0001050	Compile Geotechnical Engineering Report (GER) - Hampton River Bridges	10	12-Apr-23	25-Apr-23	■ Compile Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001060	SFC (DBJV) Geotechnical Engineering Report (GER) - Hampton River Bridges	3	26-Apr-23	28-Apr-23	■ SFC (DBJV) Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001070	DBJV R/C Geotechnical Engineering Report (GER) - Hampton River Bridges	5	01-May-23	05-May-23	■ DBJV R/C Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001080	A/C Geotechnical Engineering Report (GER) - Hampton River Bridges	5	08-May-23	12-May-23	■ A/C Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001090	SFC (VDOT) Geotechnical Engineering Report (GER) - Hampton River Bridges	3	15-May-23	17-May-23	■ SFC (VDOT) Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001100	VDOT R/C Geotechnical Engineering Report (GER) - Hampton River Bridges	21	18-May-23	07-Jun-23	■ VDOT R/C Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001110	A/C Advance to Final Geotechnical Engineering Report (GER) - Hampton River Bridges	10	08-Jun-23	21-Jun-23	■ A/C Advance to Final Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001120	SFA (VDOT) Final Geotechnical Engineering Report (GER) - Hampton River Bridges	3	22-Jun-23	26-Jun-23	■ SFA (VDOT) Final Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001130	VDOT R/A Final Geotechnical Engineering Report (GER) - Hampton River Bridges	21	27-Jun-23	17-Jul-23	■ VDOT R/A Final Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSGHR0001140	VDOT Approves Final Geotechnical Engineering Report (GER) - Hampton River Bridges	3	18-Jul-23	20-Jul-23	■ VDOT Approves Final Geotechnical Engineering Report (GER) - Hampton River Bridges																																																											
DSBBE0001040	DBJV SFA - WB Hampton River Bridge - Stage II Final Bridge Plans	3	21-Jul-23	25-Jul-23	■ DBJV SFA - WB Hampton River Bridge - Stage II Final Bridge Plans																																																											
PCVP00001080	Procure WB Hampton River Bridge Package Vendor	0	26-Jul-23	26-Jul-23	■ Procure WB Hampton River Bridge Package Vendor																																																											
PCCS00007200	Prepare - Foundation Material Shop Drawings - Hampton River Bridge WB	20	26-Jul-23	22-Aug-23	■ Prepare - Foundation Material Shop Drawings - Hampton River Bridge WB																																																											
PCCS00007210	SFA - Foundation Material Shop Drawings - Hampton River Bridge WB	1	23-Aug-23	23-Aug-23	■ SFA - Foundation Material Shop Drawings - Hampton River Bridge WB																																																											
PCCS00007220	VDOT R/A - Foundation Material Shop Drawings - Hampton River Bridge WB	21	24-Aug-23	13-Sep-23	■ VDOT R/A - Foundation Material Shop Drawings - Hampton River Bridge WB																																																											
PCFB00007200	Fab & Deliver - Foundation Materials - Hampton River Bridge WB	30	14-Sep-23	13-Oct-23	■ Fab & Deliver - Foundation Materials - Hampton River Bridge WB																																																											
PAQPM0001040	S/C/D - Preparatory Meeting - Piles (HOLD POINT)	1	13-Oct-23	13-Oct-23	■ S/C/D - Preparatory Meeting - Piles (HOLD POINT)																																																											
CN31ASAAAB15	Drive Test/Production Piles / Restrike - Abutment B - Hampton River Bridge - WB - LT -	5	16-Oct-23	23-Oct-23	■ Drive Test/Production Piles / Restrike - Abutment B - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABQ05	Drive Test/Production Piles / Restrike - Pier 37 - Hampton River Bridge - WB - LT - Phas	4	24-Oct-23	30-Oct-23	■ Drive Test/Production Piles / Restrike - Pier 37 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABP05	Drive Test/Production Piles / Restrike - Pier 36 - Hampton River Bridge - WB - LT - Phas	4	31-Oct-23	07-Nov-23	■ Drive Test/Production Piles / Restrike - Pier 36 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABN05	Drive Test/Production Piles / Restrike - Bent 35 - Hampton River Bridge - WB - LT - Pha	4	08-Nov-23	14-Nov-23	■ Drive Test/Production Piles / Restrike - Bent 35 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABM05	Drive Test/Production Piles / Restrike - Bent 34 - Hampton River Bridge - WB - LT - Pha	4	16-Nov-23	22-Nov-23	■ Drive Test/Production Piles / Restrike - Bent 34 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABL05	Drive Test/Production Piles / Restrike - Bent 33 - Hampton River Bridge - WB - LT - Pha	4	27-Nov-23	30-Nov-23	■ Drive Test/Production Piles / Restrike - Bent 33 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABK05	Drive Test/Production Piles / Restrike - Bent 32 - Hampton River Bridge - WB - LT - Pha	4	04-Dec-23	07-Dec-23	■ Drive Test/Production Piles / Restrike - Bent 32 - Hampton River Bridge - WB - LT - Phase 1A																																																											
CN31ASAABJ05	Drive Test/Production Piles / Restrike - Bent 31 - Hampton River Bridge - WB - LT - Pha	4	11-Dec-23	14-Dec-23	■ Drive Test/Production Piles / Restrike - Bent 31 - Hampton River Bridge - WB - LT - Phase 1A																																																											









301 Concourse Blvd, Suite 300  
Glen Allen, VA 23059  
804.290.8500



9030 Stony Point Parkway, Suite 220  
Richmond, VA 23235  
804.272.8700



317 Office Square Lane  
Suite 101A  
Virginia Beach, VA 23462