



Hampton Roads Bridge-Tunnel



Hampton Roads Transportation Accountability Commission

**August 2019 Project Report**

## **I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION**

Proj. No. 0064-M06-032  
Report #5



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Issue date: September 16, 2019

# 1. Executive Summary

## 1.1 Reporting Period

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This report, prepared by the Virginia Department of Transportation (the Department), provides an overview of accomplishments and activities for the Hampton Roads Bridge-Tunnel Expansion project (the Project) from July 21, 2019 – August 24, 2019. The Design-Builder for the Project is Hampton Roads Connector Partners (HRCP), a consortium that includes Dragados, Vinci, Flatiron, and Dodin Campenon Bernard.

The current reporting period is aligned with HRCP's fiscal-month structure, on which the Project's design-build schedule updates and invoiced construction progress are based. Reporting periods close on the Saturday on or preceding the 24th of each month.

## 1.2 Project Accomplishments

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- HRCP continued to address Requests for Information for the Nationwide Permit (NWP6). Currently, HRCP is waiting for Section 408 approval from U.S. Army Corps of Engineers (USACE). VMRC has issued a Submerged Bottoms permit for the supplemental geotechnical work.
- HRCP conducted a monthly environmental agency status meeting on July 25, 2019.
- HRCP provided initial drafts of Joint Permit Application (JPA) components/appendices to the Department for over-the-shoulder review. Documents reviewed and returned to HRCP for revision.
- HRCP provided an updated Bird Hazing Plan and an Emancipation Oak Draft Assessment Plan.
- HRCP submitted the Virginia Pollutant Discharge Elimination System (VPDES) permit application to the Department for formal review.
- HRCP conducted a VPDES Industrial Discharge permit pre-application meeting with agency reviewers on August 6, 2019 at DEQ's Tidewater Regional Office.
- HRCP conducted a Section 408 planning session on August 7, 2019 with the Department.
- HRCP conducted a webinar with regulatory agencies on August 8, 2019, covering the Habitat Condition Assessment (HCA) and proposed mitigation elements for the project.
- HRCP submitted their anticipated schedule for CGP modifications on August 23, 2019.

## 1.3 Priorities

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The Department's priorities for the Project are to achieve the following objectives:

- To provide mobility enhancements and travel-time reliability along the Project corridor
- To minimize project impacts on adjacent communities
- To improve transportation operations and safety throughout the Project corridor
- To develop public infrastructure in a financially responsible manner

## 1.4 Schedule

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- Completion of the first Limited Notice to Proceed (LNTP1) milestone is currently scheduled for mid-September.
- The second Limited Notice to Proceed (LNTP2) requires public notice to be issued on the JPA by USACE, following submittal of the project's Corps of Engineers, Virginia Department of Environmental Equality (DEQ) and Virginia Marine Resources Commission (VMRC) Permits Applications.
- Full Notice to Proceed (NTP) can be provided following receipt of the project's Corps of Engineers, Virginia DEQ and VMRC permits.
- Final completion remains as scheduled for November 1, 2025.
- 5.95% of the contract time has progressed to date.

## 1.5 Budget and Cost

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- Project budget overview (through August 2019 payment application):

Total project budget:	\$3,861,997,227
Total charges for efforts to date:	\$108,952,683
Remaining project budget:	\$3,753,044,544

- Design-build contract overview (through August 2019 payment application):

Total contract amount:	\$3,299,997,227
Total charges for efforts to date:	\$98,142,163
Total work orders:	\$0

- Design-build progress to date (through August 2019 payment application):

Overall:	2.97%
Mobilization:	10.81%
General Requirements (incl. Project Management):	2.20%
Design:	19.74%
Physical Progress:	0%

## 1.6 Environmental Management

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During this reporting period HRCP took the following steps towards obtaining environmental clearances covering the supplemental geotechnical work and roadway, bridge, and tunnel construction:

- HRCP provided several JPA components to the Department for review on July 24, 2019, including: Appendix H Permit List, Appendix S Avian Assessment, Appendix F Alternatives Analysis, Appendix C Chesapeake Bay Preservation Act, Appendix E Project Description, and the HCA Methodology.
- The Department provided comments on the HRCP draft VPDES permit application.
- HRCP held a VPDES pre-application meeting with the regulatory agencies on August 6, 2019.
- HRCP held a Section 408 planning session on August 7, 2019 with the Department.
- HRCP conducted a webinar with regulatory agencies on August 8, 2019, covering the Habitat Condition Assessment (HCA) and proposed mitigation elements for the project.
- HRCP provided drafts of JPA components/appendices on August 16, 2019 for the Department's over-the-shoulder review. Documents reviewed, and comments were returned to HRCP.

## 1.7 Quality

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- HRCP's Design Quality Management Plan is approved as noted. Other quality plans are being revised for resubmission.
- The Quality Auditing Program is being established for VDOT to audit HRCP. Audits of design submissions are scheduled to begin in September.

## 1.8 Operations

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- Shoulder closures and lane closures were conducted for geotechnical exploration, survey, and utility locating efforts.
- Corridor-wide field work was performed for assessments of existing structures.
- The first phase of the installation of instrumentation on existing structures was completed this period to provide a baseline for monitoring normal tunnel movement prior to the commencement of construction activities.

## 1.9 Safety

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- Daily safety meetings are held on site with all staff working on site present.
- All personnel are urged to use caution entering/exiting the islands in live traffic.
- A backing incident between two personnel from subcontractors occurred during the night shift on August 13, 2019. No injuries were reported, but some damage to the front end of one vehicle occurred.

## 1.10 DBE & SWAM Business Activities

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- Secretary Valentine recognized the HRBT project during her remarks during the Women in Transportation Seminar's Annual Meeting held on July 21, 2019 in Norfolk.
- VDOT's Civil Rights personnel and HRCP's DBE/SWaM Manager met on August 13, 2019 to discuss compliance activities on the project.
- VDOT and HRCP met with several small businesses to discuss business opportunities and to assist firms in navigating the DBE/SWaM certification process and prequalification requirements.

## 1.11 Public Outreach

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- Members of VDOT's HRBT Expansion Team have participated in more than 50 outreach events to date.
- Of specific note in this period, the following project updates were provided:
  - Ocean View Civic League
  - Virginia Association of Surveyors
  - Downtown Hampton Development Partnership

## 2. Project Accomplishments

### 2.1 Overview and Look Ahead

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#### Milestones

The next major project milestone will be the completion of LNTP1 which is currently on track for mid to late September 2019.

#### Project Management Plans

HRCP is currently developing Project Management Plans to support a timely, quality project delivery. The Risk Management Plan is in development by HRCP.

#### Geotechnical Investigation

The Department granted an extension of the Scope Validation Period for geotechnical investigations in Norfolk until November 5, 2019. The extension was based on receipt of the Determination of No Hazard from the Federal Aviation Agency on August 7, 2019. Landside drilling and laboratory testing for soil classification in Hampton and Norfolk is ongoing.

#### Environmental Permitting

Environmental permit coordination continues as discussions with the agencies are occurring at monthly meetings. HRCP conducted the VPDES preapplication meeting on August 6, 2019, the HCA webinar on August 8, 2019, and the JPA page-turn meeting on August 20, 2019 (which served as the monthly agency status meeting for August). These meetings included representatives from USACE, VDOT, VDEQ, VMRC, the Virginia Institute of Marine Science (VIMS), NOAA and NMFS. HRCP completed drafts of the JPA components/appendices for which the Department will provide review and comments, by August 26, 2019, or earlier.

Revisions of those documents will be completed by HRCP, and revised JPA components will be submitted to the Department for final review prior to submission. JPA submittal to the agencies is anticipated for August 30, 2019. The next planned monthly meeting is scheduled for October 1, 2019 and is intended to allow discussion of initial agency comments and observations on the JPA.

#### Third Party Coordination

Post-award coordination with the U.S. Navy and the Federal Highway Administration (FHWA) started in April and is ongoing. FHWA participates in weekly coordination meetings with VDOT and HRCP.

## 3. Project Schedule

### 3.1 Schedule Status

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#### Baseline Schedule

The Baseline Schedule has been received from HRCP and expected to be approved by the end of August. The current longest path for the project remains through the boring of the two new tunnels beginning with the design, permitting, and construction of the South Island Portal.

#### Permitting Schedule

The Project's USACE, Virginia Department of Environmental Quality (DEQ) and Virginia Marine Resources Commission (VMRC) permits include multiple administrative documents, including the Coastal Zone Management (CZM) consistency determination, the USACE Section 404/10 permit, USACE Section 408 Permission Letter, the VDEQ water protection permit, and the VMRC subaqueous land permit.

HRCP provided a comprehensive permitting schedule detailing the preparation, quality review, submission, and permitting processes for the above-referenced actions. A Page-Turn Meeting with all the concerned agencies was conducted on August 20, 2019. All components of the JPA have been submitted to the Department for initial review, and comments will be provided on August 26, 2019, or earlier. Prior to submission, the revised JPA documents will be provided to the Department for final review. The full Project's Corps of Engineers, Virginia DEQ, and VMRC permits package is scheduled to be submitted on August 30, 2019.

HRCP's goal is to obtain the Project's USACE, DEQ, and VMRC permits in Spring 2020. As part of this process, the project is projected to be ready for USACE Public Notice in September 2019.

## Key Dates

The following table depicts key milestone dates outlined in the contract requirements. HRCP's submitted Baseline Schedule reflects the early stages of HRCP's planning sequence and will be substantially refined and further detailed as the design advances. This table will be updated to reflect these dates and used as a benchmark to track milestone achievements.

Key Dates	Contract Requirement	Anticipated Schedule of Record Dates	August 2019 Update	Actual
<b>LNTP1</b>		April 12, 2019	April 12, 2019	April 12, 2019
<b>LNTP2</b>		September 29, 2019	September 18, 2019	
<b>LNTP3</b>		October 9, 2019	October 1, 2019	
<b>NTP</b>		October 10, 2020	September 29, 2020	
<b>Substantial Completion</b>	September 1, 2025	July 18, 2025	July 18, 2025	
<b>Final Completion</b>	November 1, 2025	November 1, 2025	November 1, 2025	

### 3.2 Longest Path

The longest-path activities for the Project schedule include:

- LNTP1 Completion Milestone
- Design of South Portal
- Construction of the South Island launching pit for the Tunnel Boring Machine (TBM)
- Assembly of the TBM
- TBM mining of the new tunnel
- Finishes in the tunnels
- Commissioning and integration tests for the tunnel

### 3.3 Impact Analysis

Several elements of work are near-critical and could affect Project progress if they are not addressed diligently. The Department and HRCP are closely monitoring these activities. The following work elements have been identified as near critical with less than one month of float:

- JPA Process

- Design and construction of permit-dependent structures at Oastes Creek and Bay Avenue
- Space proofing report for the TBM
- Manufacturing tunnel segments

Achieving the public-notice milestone for the project's joint permit application will allow LNTP2 and LNTP3 to be issued. LNTP2 enables procurement of the TBM, while LNTP3 allows commencement of construction work for the launching pit and ground improvement on South Island. Receipt of the project's Corps of Engineers, Virginia DEQ and VMRC permits will allow full NTP for the Project.



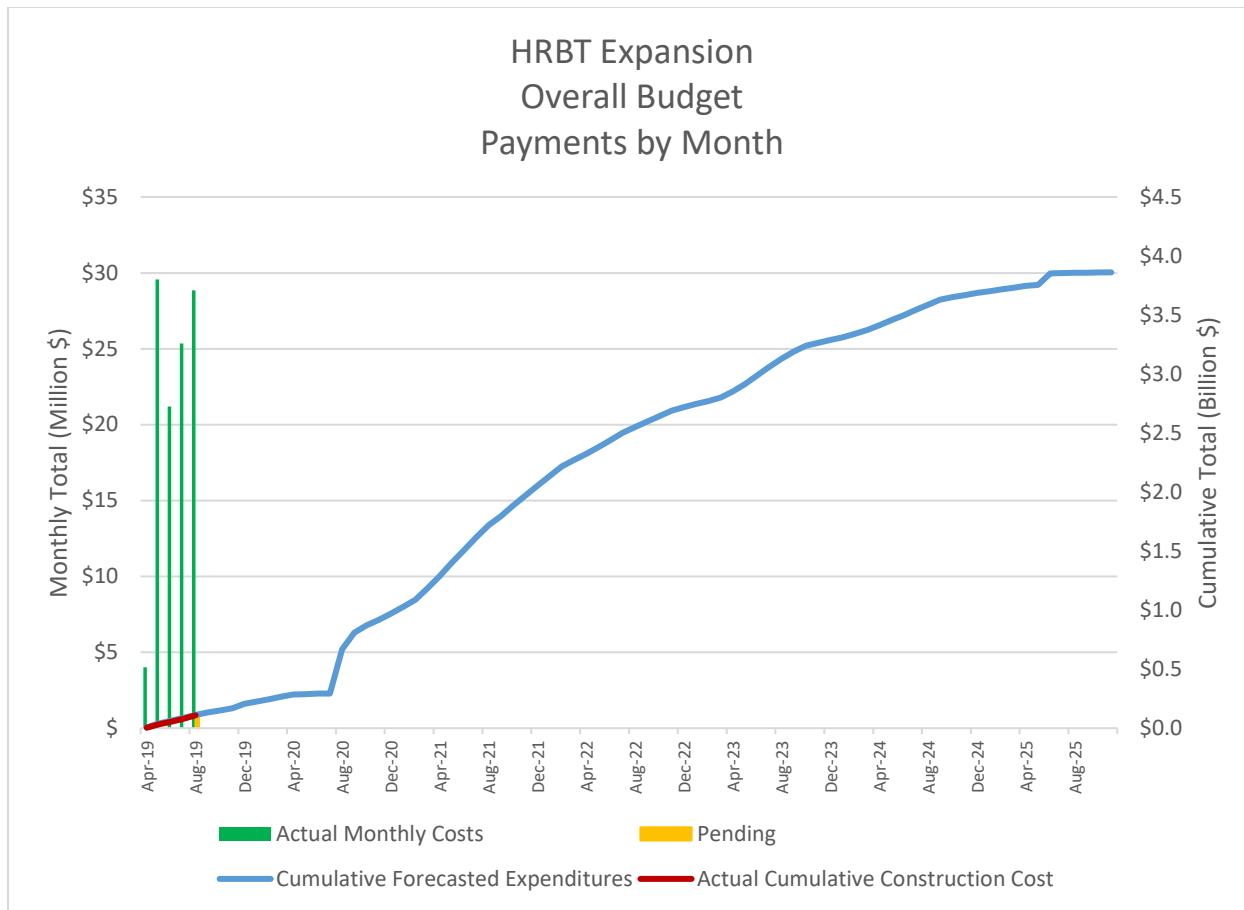
## 4. Budget and Cost

### 4.1 Overall Budget

The overall budget outlined in this report is based on the terms and conditions of Article 3 (Project Funding) in the Project Agreement for Funding and Administration (PAFA). The cost curve is based on Exhibit 6 of the CA (monthly maximum cumulative compensation amount).

Amount this period reflects payouts for Construction, Engineering Administration, Right of Way, and Contingency between July 21, 2019 – August 24, 2019. Payment Application #4 for the amount of \$21,192,586.84 and Payment Application #5 for the amount of \$22,192,586.66 were both paid during this period.

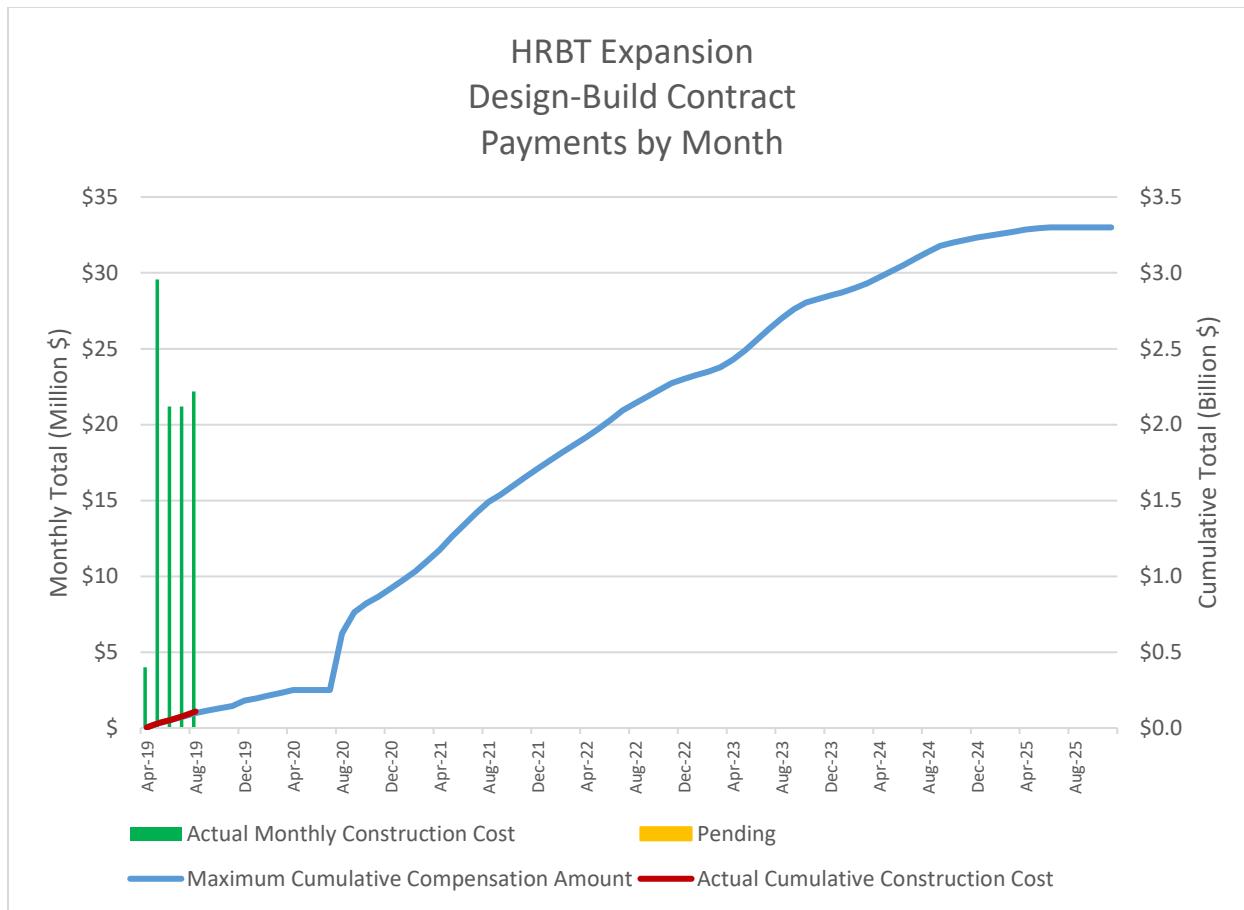
	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<b><u>Comprehensive Agreement</u></b>					
<b>Construction Owner Costs</b>	\$43,385,173.50	\$98,142,162.50	\$3,299,997,227.19	\$3,201,855,064.69	2.97%
<b>Administration</b>	\$360,093.95	\$509,766.00	\$122,000,000.00	\$121,490,234.00	0.42%
<b>Right of Way</b>	\$6,300,754.61	\$6,300,754.61	\$15,000,000.00	\$8,699,245.39	42.01%
<b>No-Excuses Incentive</b>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<b>Contingency</b>	\$0.00	\$4,000,000.00	\$335,000,000.00	\$331,000,000.00	1.19%
<b>Total</b>	<b>\$50,046,022.06</b>	<b>\$108,952,683.11</b>	<b>\$3,861,997,227.19</b>	<b>\$3,753,044,544.08</b>	<b>2.82%</b>



## 4.2 Design-Build Cost Status

The construction budget and planned cost have been established based on the maximum cumulative compensation amount. For this period, the following tasks are associated with the invoiced expenditures (actual construction cost):

- Project management
- Design surveys
- Environmental permitting
- Geotechnical investigation
- Design work for permitting



## 4.3 Budget by Funding Source

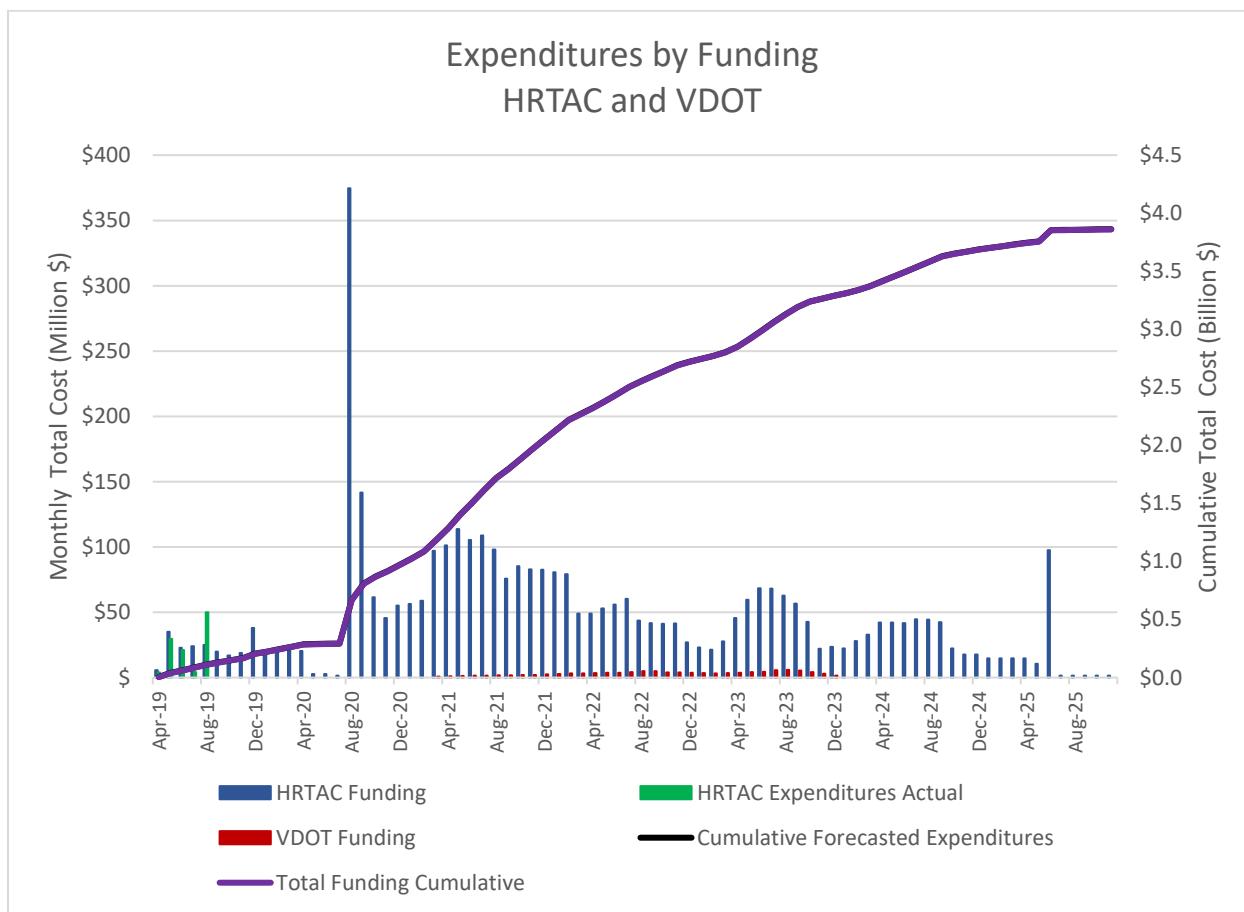
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures by both HRTAC and VDOT. The cost curve has been developed based on the monthly maximum cumulative compensation amount in the CA and will be updated as HRCP refines its design, construction means-and-methods, activity sequences, and project resourcing.

### 4.3.1 HRTAC and Smart Scale

	Amount this period:	Total to Date:	Total Budget Including Smart Scale:	Total Remaining Budget:	Percent Spent To-date:
<b><u>Comprehensive Agreement</u></b>					
<b>Construction Owner Costs</b>	\$43,385,173.50	\$98,142,162.50	\$3,204,569,251.14	\$3,106,427,088.64	3.06%
<b>Administration</b>	\$360,093.95	\$509,766.00	\$118,472,054.00	\$117,962,288.00	0.43%
<b>Right of Way</b>	\$6,300,754.61	\$6,300,754.61	\$15,000,000.00	\$8,699,245.39	42.01%
<b>No-Excuses Incentive</b>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<b>Contingency</b>	\$0.00	\$4,000,000.00	\$325,428,276.00	\$321,428,276.00	1.23%
<b>Total</b>	<b>\$50,046,022.06</b>	<b>\$108,952,683.11</b>	<b>\$3,753,469,581.14</b>	<b>\$3,644,516,898.03</b>	<b>2.90%</b>

### 4.3.2 VDOT

	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<b>Comprehensive Agreement</b>					
<b>Construction</b>	\$0.00	\$0.00	\$95,427,976.00	\$95,427,976.00	0.00%
<b>Owner Costs</b>					
<b>Administration</b>	\$0.00	\$0.00	\$3,527,946.00	\$3,527,946.00	0.00%
<b>Right of Way</b>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<b>No-Excuses Incentive</b>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<b>Contingency</b>	\$0.00	\$0.00	\$9,571,724.00	\$9,571,724.00	0.00%
<b>Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$108,527,646.00</b>	<b>\$108,527,646.00</b>	<b>0.00%</b>



### 4.4 Contingency

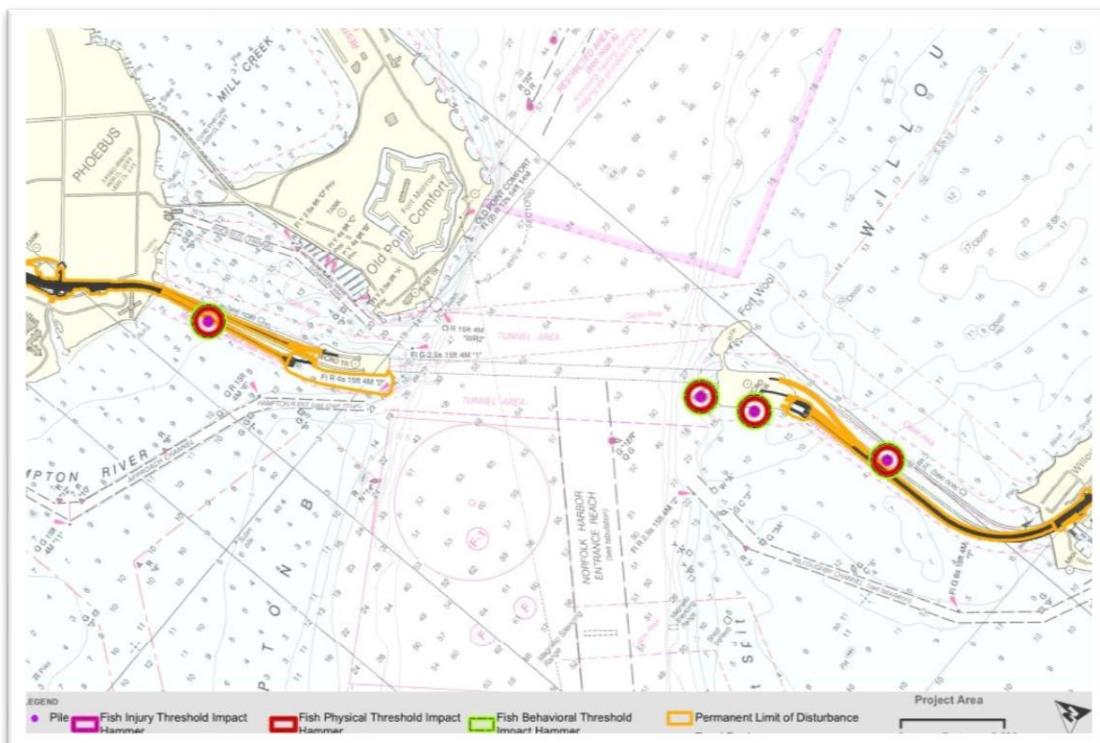
- 0 work orders to date
- \$0 material price adjustments (asphalt, steel, & fuel) to date

## 5. Environmental Management

HRCP submitted an application for the Project's USACE, DEQ and VMRC permits on May 28, 2019 for the supplemental geotechnical exploration program. The Corps of Engineers is conducting reviews of this application with the intent to provide Section 408 approval and authorization of the exploratory work under Nationwide Permit 6 (Survey Activities). The VMRC Subaqueous Lands permit has been issued, and currently HRCP is waiting for the Section 408 approval.

Other accomplishments included holding a regulatory agency page-turn meeting on August 20, 2019, to review preliminary JPA components. The page-turn meeting served as the monthly agency meeting for August. The goal of this meeting was to ensure the initial JPA application contained all the necessary information and to obtain initial agency feedback. HRCP continues to complete components of the JPA for the Department's review in anticipation of an August 30th submission of the complete JPA to the regulatory agencies.

HRCP held an VPDES pre-application meeting August 6, 2019. As support to the Avoidance, Minimization, and Mitigation document, HRCP held a webinar on August 8, 2019, to review the Habitat Condition Assessment used to determine the mitigation required for subaqueous impacts and the proposed mitigation elements for the project.



Graphic Depicting Pile Driving Impact Zones for Marine Threatened and Endangered Species.

## 6. Operations

Field activities continued this period to support scope validation efforts. Shoulder closures and lane closures were conducted for geotechnical exploration, survey, and utility locating work. Corridor-wide field work was also performed for lead and asbestos assessments of existing structures, as well as an assessment for the presence of northern long-eared bats.

FAA approval was obtained by HRCP that allowed geotechnical drilling to commence on the Norfolk side of the project. Coordination with Hampton University was initiated under the terms of the MOU in order to request access several boring locations on Hampton University property.

The first phase of the installation of instrumentation on existing structures was completed this period to provide a baseline for monitoring normal tunnel movement prior to the commencement of construction activities. The existing EB tunnel and buildings on the islands are being monitored as part of the initial baseline. The system was commissioned, and data gathering has begun.

The HRCP design team performed field inspections of the existing tunnel power distribution and traffic management systems at the existing HRBT facilities.

VDOT led field visits of existing tunnel flood gates with HRCP staff to discuss existing tunnel operations and to facilitate the design efforts. Visits were made to the recently constructed Midtown Tunnel, as well as the flood gates on the North Island of HRBT.

A weekly coordination call with the Hampton Roads Harbor Tunnels (HRHT) Facility Manager, who is responsible for operations at the HRBT, continues in order to communicate ongoing project work as well as coordinate upcoming planned work at the facility.

The weekly coordination meeting between VDOT and HRCP continues in order to provide a lookahead of upcoming field activities and ensure concurrent activities are properly coordinated. All field work and traffic impacts are being reported through VDOT's Lane Closure Advisory Management System (LCAMS), which provides a method to coordinate traffic operations across the region.



## 7. DBE & SWaM Business Activities

During this reporting period, VDOT's Civil Rights personnel and HRCP's DBE/SWaM Manager met on August 13, 2019 to discuss compliance activities on the project. Discussion also included the Design-Builder's workforce development strategies, which addressed reporting requirements, steps for ensuring equal employment opportunities for employees and its subcontractors and plans for community engagement. HRCP has an unprecedented goal of 80 trainees to enroll in the On-the Job Training program, which helps to enhance employment opportunities of minorities and women on the project.

VDOT and HRCP met with several small businesses to discuss business opportunities and to assist firms in navigating the DBE/SWaM certification process and prequalification requirements. Inquiries have also come from larger contractors and firms from outside the region with interest in the project.

VDOT and HRCP continued to make plans for the DBE/SWaM Outreach Event scheduled for September 11, 2019 at the Hampton Convention Center. Special guest speakers will include Governor Ralph Northam, Secretary of Transportation Shannon Valentine, and VDOT Commissioner Stephen Brich. Secretary Valentine recognized the HRBT project during her remarks during the Women in Transportation Seminar's Annual Meeting held on July 21, 2019 in Norfolk, and invited businesses to attend the September event.

The advertisement features three logos at the top: VDOT (Virginia Department of Transportation), HRBT Expansion, and Hampton Roads Connector Partners. Below the logos is a photograph of three people wearing hard hats and safety vests. The text "BE A PART OF VIRGINIA'S LARGEST TRANSPORTATION PROJECT" is displayed, followed by "A DBE/SWaM Opportunity Event • Wednesday, September 11, 2019 • 8:00 AM – 12:00 PM" and the location "Hampton Roads Convention Center - 1610 Coliseum Drive, Hampton, VA 23666". A section titled "Learn About the Governor's Commitment to DBE/SWaM Inclusion" includes a portrait of Governor Ralph Northam and brief bios for Governor Northam, Secretary Shannon Valentine, and Commissioner Stephen Brich. The "WHAT YOU WILL LEARN" section lists several bullet points, and the "REGISTER HERE" section provides contact information. The "WHO SHOULD ATTEND" section lists various professional categories. At the bottom, it states "Hampton Roads Connector Partners is an Equal Opportunity Employer".

## 8. Public Outreach

Frank Fabian, VDOT Engineering Manager for the HRBT Expansion Project was the invited guest speaker for the Virginia Association of Surveyors local chapter membership meeting in Virginia Beach on August 14, 2019.

Derrick Barnhill, the chapter's secretary/treasurer says Fabian's presentation covering the scope of the project, benefits and timeline was "very informative and well received."

The HRBT Expansion Project also drew interest from the Downtown Hampton Development Partnership which invited Martha Gross, the project's Commercial Director, to speak at its August membership meeting. The same day, Gross also addressed the Poquoson Exchange Club, whose community-based membership included several engineers.

Both groups expressed support for the expansion and were especially curious about operation of the Tunnel Boring Machine (TBM).



Members of the Poquoson Exchange Club listen, with interest, as Martha Gross presents plans for HRBT Expansion

Martha Gross speaking before for the Downtown Hampton Development Partnership

Paula Miller, VDOT's Communications Manager for the project made a similar project presentation to the Ocean View Civic League at its August meeting in Norfolk. Six project outreach presentations are already scheduled for the month of September.

## 9. Project Media

Virginia Public Radio featured the Hampton Roads Bridge-Tunnel Expansion Project in radio reports that aired in June and August 2019. Included in the report was discussion of bird mitigation efforts being prepared for the South Island of the existing HRBT.

Mitigation efforts are being coordinated with the office of the Virginia Secretary of Natural Resources and the Department of Game and Island Fisheries.

In early August 2019, the Communications Office was also contacted by a reporter from *Construction Equipment Guide*. The Guide is a national publication for construction industry news and is preparing an article about HRBT Expansion for publication in September 2019.