



August 2022
Monthly Project Report
**I-64 HAMPTON ROADS
BRIDGE-TUNNEL
EXPANSION**

Report No. 41

Project No. 0064-M06-032



Table of Contents

1. Executive Summary	1
1.1 Overview	1
1.2 Priorities	1
1.3 Key Updates	2
2. Project Schedule	6
2.1 Schedule Status	6
2.2 Longest Path	6
2.3 Impact Analysis	6
3. Project Budget	8
3.1 Overall Budget	8
3.2 Design-Build Contract Cost Status	10
3.3 Budget by Funding Source	11
3.4 Contingency	12
4. Environmental	15
5. Construction	16
5.1 Construction Area 1: Landside Roadways	17
5.2 Construction Area 2: Marine Trestle Work	18
5.3 Construction Area 3: Tunnels and Islands	19
5.4 Construction Area 4: Landside Bridges	20
6. Operations	22
7. Quality	23
8. Safety	24
9. Civil Rights & DBE/SWaM Business Opportunities	25
10. Public Outreach & Media	26

Issue Date: September 8, 2022

Prepared by:

Virginia Department of Transportation

www.hrbtextension.org

1. Executive Summary

1.1 Overview

This report provides an overview of accomplishments and activities for the Hampton Roads Bridge-Tunnel Expansion Project from July 24, 2022 – August 20, 2022. The Design-Builder for the project is Hampton Roads Connector Partners (HRCP), a consortium that includes lead contractors Dragados, Vinci, Flatiron, and Dodin Campenon Bernard, with lead designers HDR and Mott MacDonald.

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 typically close on the Saturday on or preceding the 24th of each month.

During this reporting period, project accomplishments included the following:

- South Island Progress:
 - Base slab in TBM launch pit to 32%.
 - Jet grouting at tunnel approach plug to 45%.
 - Headwall installation at Cell 1 launch pit to 37%.
- Tunnel Progress:
 - Began assembly of TBM gantry in Cell 3 of launch pit.
- North Island Progress:
 - Installation of slurry walls to 74%.
- Landside Progress:
 - Began first auger cast piles for sound walls in Norfolk along I-64 eastbound.
 - Completed temporary paving and restriping for traffic shift along I-64 eastbound at 4th View on-ramp.
 - Completed pile driving for Mason Creek Road Bridge westbound widening.
- Marine Progress:
 - North Trestle eastbound caps to 58%.
 - North Trestle westbound piles to 12%.
 - North Trestle eastbound beams to 38%.
 - Completed first North Trestle eastbound concrete deck placement.
 - South MOT eastbound beams to 53%.
 - Permanent South Trestle caps to 5%.

1.2 Priorities

VDOT'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.

1.3 Key Updates

Project Schedule

The last approved schedule for the project is Update 36 (data date: July 24, 2022), and the schedule information in this report reflects this update.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 36 is reporting Substantial Completion date of August 18, 2026.
- HRCP's Schedule Update 36 is reporting Final Completion date of October 17, 2026.

Project Budget

The project budget summary below now includes all incurred to date costs through August 20, 2022 and does not include forecasted cost outside of the reporting period.

- Project budget overview:

Current total project budget:	\$	3,935,451,641
Total costs to date:	\$	1,472,397,105
Remaining project budget:	\$	2,463,054,536

- Design-build contract overview:

Design-build contract original amount:	\$	3,299,997,227
Net change orders:	\$	4,994,492
Exercised Options:	\$	73,454,414
Design-build contract sum to date:	\$	3,378,446,133
Expenditures to date:	\$	1,403,109,844
Remaining design-build contract amount:	\$	1,975,336,289

- Design-build progress to date:

Project Management:	47.1%
Design:	89.0%
Physical Construction Progress:	24.7%
Overall:	41.5 %

Environmental

During this reporting period, HRCP took the following steps in support of environmental management:

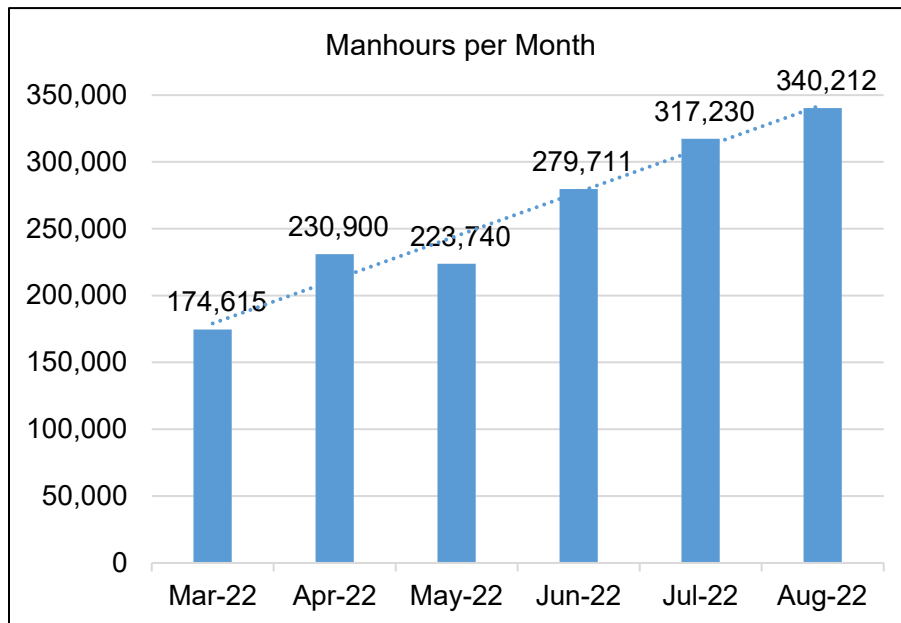
- HRCP's subcontractor, Pacchiosi, received a DEQ air permit for their jet-grout plant on the North Island.
- HRCP submitted air permit applications for the North Island generator and South Island generator, slurry treatment plant, bi-component grout plant, and concrete plant. These applications are currently under review with DEQ.

Construction

Progress updates for this reporting period include:

- Landside Roadways
 - Began first auger cast piles for sound walls in Norfolk along I-64 eastbound.
 - Completed temporary paving and restriping for traffic shift along I-64 eastbound at 4th View on-ramp.
- Marine Works
 - Beams placed at the North eastbound permanent trestle (29 installed this period).
 - Caps placed at the North westbound permanent trestle (1.5 installed this period).
 - Caps placed at the South eastbound MOT trestle (2 installed this period).
 - Beams placed at the South eastbound MOT trestle (12 installed this period).
 - Caps placed at the South permanent trestle (1 installed this period).
- Tunnels and Islands
 - Continued TBM cutter head assembly.
 - Began assembly of TBM gantry in Cell 3.
 - Began work for first capping beam concrete placement at North Island receiving pit.
- Landside Bridges
 - Completed concrete placement for Mallory St Bridge Phase 1 median pier cap.
 - Began lead abatement work platform installation at Evans St.
 - Completed ramp pile driving at Bay Avenue Bridge.
 - Completed pile driving for Mason Creek Road Bridge westbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of August 31, 2022:



Project Manhours to Date:
5,119,525

Operations

The following operations activities took place during this reporting period:

- New short-term lane closures at Willoughby inspection station, South Trestle eastbound, and 4th View St.
- Lane shift at eastbound Willoughby Bay Bridge for next widening phase.
- New nightly detours of eastbound on-ramp and westbound off-ramp at Mallory St for ITS fiber relocation.
- Relocation of over-height detectors at the Willoughby inspection station.
- Relocation of power lines for Bayview Blvd. widening.
- Installation of relocated fiber and power in advance of traffic camera relocation near 1st View St.

Quality

Quality updates for this reporting period include:

- VDOT reviewed Construction Quality Management Plan (CQMP) updates for one Notice of Design Change (NDC) package this period.
- HRCP previously submitted quarterly updates of Quality Management System Plan, Construction Quality Management Plan, and the Design Quality Management Plan for the third quarter of 2022. VDOT completed review of these submitted plans and returned them to HRCP as revise and resubmit.

- VDOT continues to monitor HRCP's QA and QC material testing. VDOT also performed Independent Testing and Verification Testing on materials in accordance with VDOT requirements and coordinated with VDOT Materials Division for shop inspections as required.
- VDOT continues to engage HRCP in discussions on HRCP's implementation of their Quality Management System Plan (QMSP) and the effectiveness of the plan.

Safety

Safety procedures and activities during this reporting period include:

- VDOT and HRCP continue to follow latest CDC guidelines regarding COVID-19.
- VDOT and HRCP continue collaboration on emergency response planning.

The following safety performance indicator information is provided by HRCP and is current as of August 31, 2022:

- Total Recordable Incidence Rate: 1.60 (National Average: 2.5)
- Lost Time Incidence Rate: 0.20 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **314** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$468 million** to certified DBE/SWaM firms.

- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 19 participants have graduated with 15 currently active in the program.
- VDOT/HRCP Civil Rights Work Group met on August 16, 2022 for the monthly project and compliance update, which provided an opportunity to discuss equal employment opportunity, compliance, and business development matters.
- VDOT and HRCP participated in several business outreach events during the reporting period, which included the City of Virginia Beach Industry Day, Virginia Asian Chamber of Commerce Business Roundtable, and Tidewater Gardens Redevelopment MWBE Fair.

Public Outreach & Media

Public outreach and project media updates provided by VDOT and HRCP for this reporting period include:

- Project team presented at Horizons Summer Enrichment Camp.
- Project team conducted outreach at Fort Monroe.
- Project team provided a project tour to Federal Highway Administration (FHWA).
- Communications Director met with 13News Now newsroom for a meet & greet.
- Project team was interviewed by WTKR-TV 3.

2. Project Schedule

2.1 Schedule Status

The following table depicts key milestone dates for the project. This table will be used as a benchmark to track milestone achievements and has been updated as of the current approved schedule. The last approved schedule for the project is Update 36 (data date: July 24, 2022), and the schedule information in this report reflects this update. Contractual Substantial and Final Completion dates remain unchanged.

	Contract Requirement	July 2022 Schedule	Actual
NTP		Sep 11, 2020	Sep 11, 2020
Substantial Completion	Sep 1, 2025	Aug 18, 2026	
Final Completion	Nov 1, 2025	Oct 17, 2026	

2.2 Longest Path

The longest path in Project Schedule Update 36 is driven by the following activities:

- South Portal Launch Pit Headwall Construction
- Assembly of the Tunnel Boring Machine (TBM) in launching pit
- TBM Commissioning
- TBM drive in High Occupancy Toll (HOT) Tunnel
- TBM U-Turn on North Island
- TBM drive in General Purpose (GP) Tunnel
- TBM Disassembly in south pit
- South Portal Cut & Cover Structures Phase 4 Cell 1
- South Island Ventilation Building & Gate House – Phase 2
- South Ventilation Building Commissioning
- South Island Buildings Integrated Functional Testing
- Tunnel Systems Integration-ITS
- Commissioning – HT & GP Operational Testing
- Commissioning – Tunnel + Buildings + Roadways + Trestles Integration Testing
- ITT Reversal
- Substantial Completion

2.3 Impact Analysis

Several elements of work are near-critical and could affect schedule performance if they are not addressed diligently. VDOT and HRCP are closely monitoring these activities. The following work elements have been identified as critical or near critical, meaning there is less than one month of float in Schedule Update 36:

South Portal

- Slurry Treatment Plant Slabs
- South Portal Tri-Cell Base Slabs
- South Portal Cut & Cover Structures – Phase 2
- South Portal Cut & Cover Structures – Phase 5
- South Portal Cut & Cover Structures – Phase 6

Tunneling

- Tunnel Boring Machine – Cell 2 – HT Track Assembly
- Tunnel Boring Machine – Cell 3 Gantry 2 and 4 Assembly
- GP Tunnel Civil Works – Sta 598+44 to 677+85

Roadway

- Segment 3b Phase 3A – Willoughby Spit Roadway and Storm Drainage
- Segment 3b Phase 4 – Willoughby Spit Roadway and Storm Drainage
- Segment 3d Phase 3 – Willoughby Bridge to Mason Creek Roadway and Storm Drainage
- Segment 3d Phase 3 – Willoughby Bridge to Mason Creek ITS Overhead Sign Structures & Supports

Commissioning and Integration

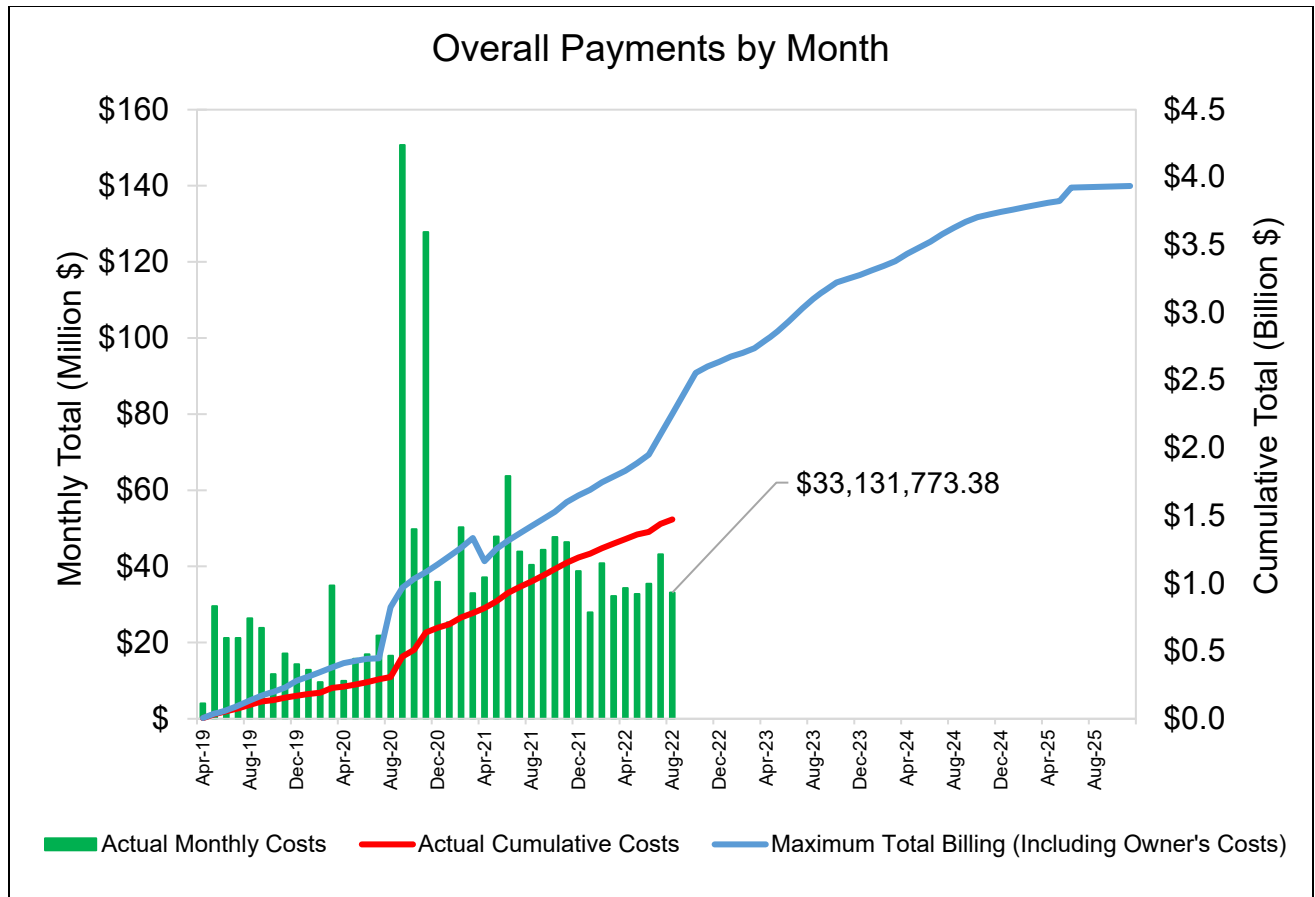
- GP Egress Corridor – Fire Fighting Piping & Deluge Valve Cabinet
- GP Egress Corridor – Low Voltage Cables
- GP Tunnel – LPPS Drainage
- GP Tunnel – Fire Suppression & Detection
- South Island Buildings – Electrical Functional Testing
- Commissioning – Operational Testing – GP Fire System
- Commissioning – Operational Testing – GP Medium Voltage/Low Voltage
- Commissioning – Operational Testing – GP Drainage System

3. Project Budget

3.1 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 Comprehensive Agreement (monthly maximum cumulative compensation amount).

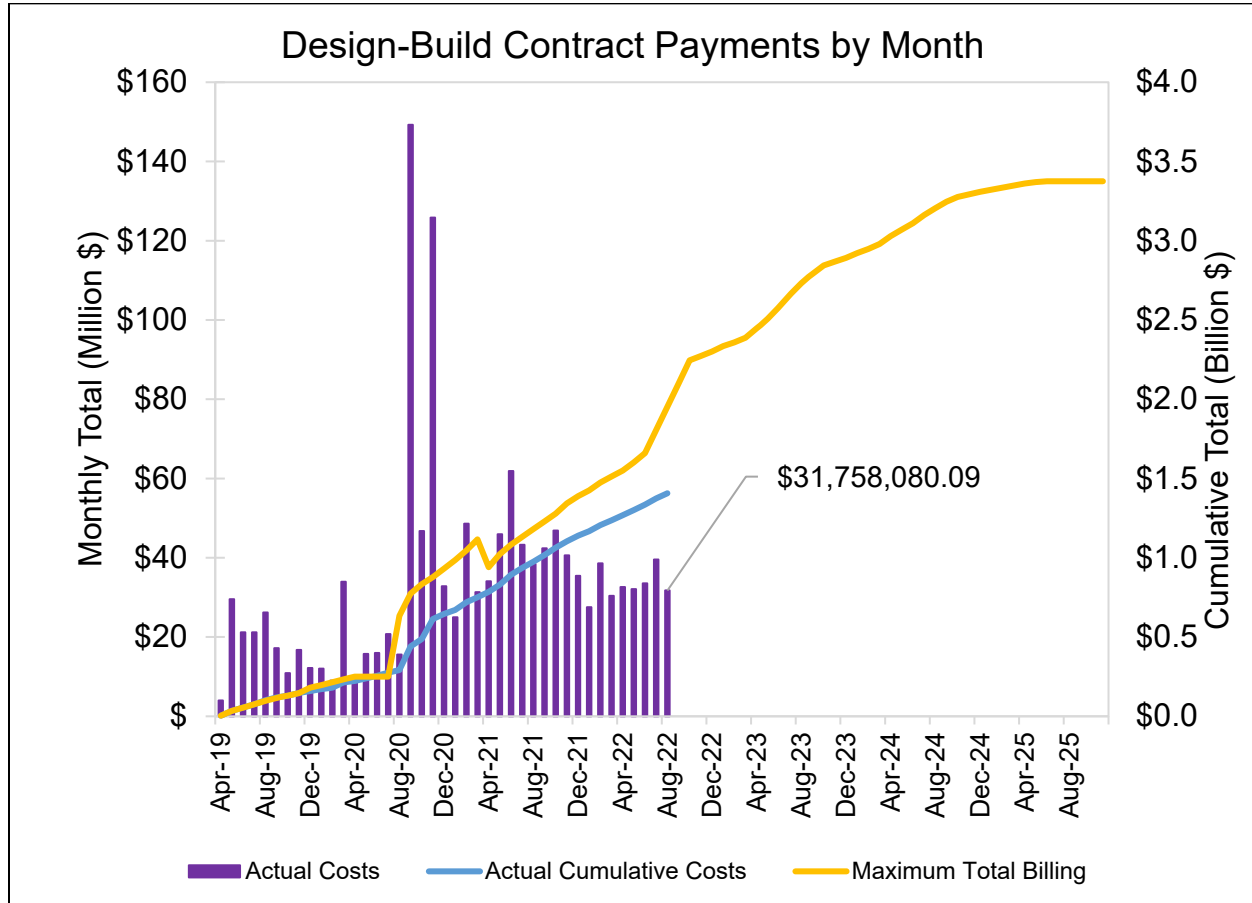
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$31,758,080.09	\$1,385,266,622.85	\$3,299,997,227.00	\$1,914,730,604.15	41.98%
<u>Owner Costs</u>					
<i>Administration</i>	\$380,591.19	\$56,660,056.61	\$122,000,000.00	\$65,339,943.39	46.44%
<i>Right of Way</i>	\$31,462.76	\$8,627,203.73	\$15,000,000.00	\$6,372,796.27	57.51%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$513,458.50	\$20,125,729.33	\$335,000,000.00	\$314,874,270.67	6.01%
<i>Bridge Repair Work Option</i>	\$448,180.84	\$1,717,492.28	\$73,454,413.96	\$71,736,921.68	2.34%
<u>Total</u>	\$33,131,773.38	\$1,472,397,104.80	\$3,935,451,640.96	\$2,463,054,536.16	37.41%



**The Maximum Total Billing is now showing an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve*

3.2 Design-Build Contract Cost Status

The budget and planned cost have been established based on the maximum cumulative compensation amount. For this period, the invoiced expenditures cover the activities noted in this report.



**The Maximum Total Billing is now showing an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve*

3.3 Budget by Funding Source

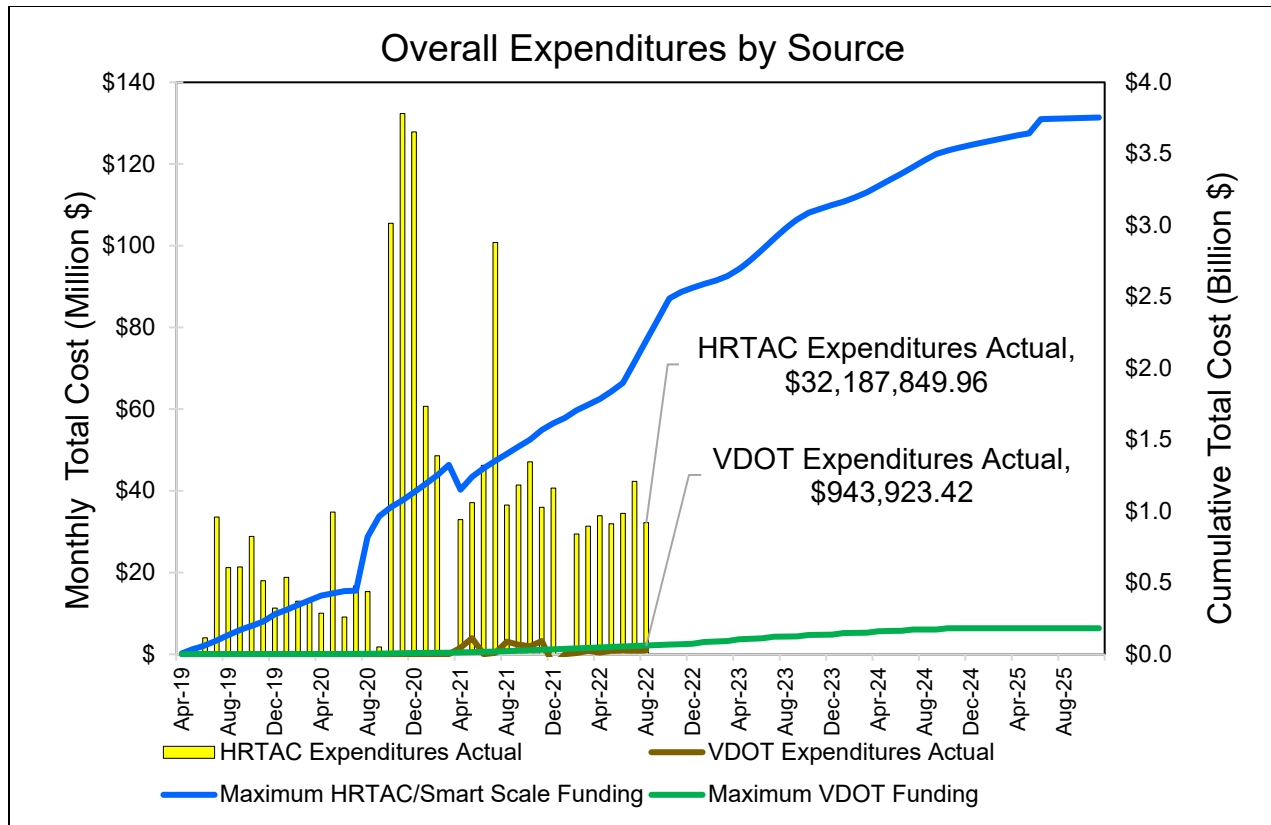
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation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

3.3.1 HRTAC and Smart Scale

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$31,270,274.09	\$1,371,606,263.09	\$3,204,569,251.00	\$1,832,962,987.91	42.80%
<u>Owner Costs</u>					
<i>Administration</i>	\$372,654.61	\$55,380,754.03	\$118,472,054.00	\$63,091,299.97	46.75%
<i>Right of Way</i>	\$31,462.76	\$8,627,203.73	\$15,000,000.00	\$6,372,796.27	57.51%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$513,458.50	\$19,140,763.20	\$325,428,276.00	\$306,287,512.80	5.88%
<u>Total</u>	\$32,187,849.96	\$1,454,754,984.05	\$3,753,469,581.00	\$2,298,714,596.95	38.76%

3.3.2 VDOT

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$487,806.00	\$13,660,359.76	\$95,427,976.00	\$81,767,616.24	14.31%
<u>Owner Costs</u>					
<i>Administration</i>	\$7,936.58	\$1,279,302.58	\$3,527,946.00	\$2,248,643.42	36.26%
<i>Right of Way</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>Contingency</i>	\$0.00	\$984,966.13	\$9,571,724.00	\$8,586,757.87	10.29%
<i>Bridge Repair Work Option</i>	\$448,180.84	\$1,717,492.28	\$73,454,413.96	\$71,736,921.68	2.34%
<u>Total</u>	\$943,923.42	\$17,642,120.75	\$181,982,059.96	\$164,339,939.21	9.69%



3.4 Contingency

3.4.1 Contract Changes

	Description	Date	Value	Time
CO-1	VDOT's Acquisition of Willoughby Staging Area	2/11/2020	\$ (3,000,000.00)	0 days
CO-2	Minor Revisions to Technical Requirements	3/18/2020	\$ -	0 days
CO-3	Tunnel Approach Structure Support of Excavation Requirements Refinement	4/28/2020	\$ -	0 days
CO-4	Dispute Resolution Board (DRB) Allowance	5/12/2020	\$ 200,000.00	0 days
CO-5	North Island Armor Stone Value Engineering Change Proposal (VECP)	4/28/2020	\$ (2,011,117.50)	0 days
CO-6	Exit Ramp at Bayville Avenue	5/29/2020	\$ 46,906.29	0 days
CO-7	Minor revisions to the Technical Requirements	7/16/2020	\$ -	0 days
CO-8	Zero Spread Drainage	9/16/2020	\$ 3,239,212.24	0 days
CO-9	Roadway and Bridge Scope Validation Issues	9/4/2020	\$ 15,516,248.00	0 days
CO-10	Slurry Walls as Permanent Structures	8/28/2020	\$ -	0 days
CO-12	Road and Bridge Lighting Requirements	8/27/2020	\$ 2,495,000.00	0 days
CO-13	Bridge Repair Work-Exercise Option	10/9/2020	\$ 73,454,413.96	0 days
CO-14	Trestle Barrier Form Liner elimination	7/29/2020	\$ (99,571.80)	0 days
CO-15	South Island Ground Improvement Value Engineering Change Proposal (VECP)	9/17/2020	\$ (5,338,000.00)	0 days
CO-16	Navy Security Fencing Design	7/15/2021	\$ 150,000.00	0 days

CO-17	Westbound ITT Reduced Instrumentation	10/30/2020	\$ (184,277.50)	0 days
CO-18	Willoughby Bay Bridge Barriers	9/10/2020	\$ -	0 days
CO-19	GeoPak Version Software Updates	8/3/2020	\$ -	0 days
CO-21	Material Price Adjustment for Asphalt Materials	2/26/2021	\$ -	0 days
CO-22	South Island Asbestos Conduits	9/16/2020	\$ 81,973.93	0 days
CO-23	Island & Tunnel Baseline Monitoring Requirements	7/22/2020	\$ -	0 days
CO-24	Construction Water Supply	9/10/2020	\$ (609,157.27)	0 days
CO-25	Solids Handling Pumps Requirements	11/12/2020	\$ -	0 days
CO-26	Mass Notification Independent System Requirements	11/12/2020	\$ -	0 days
CO-27	Fixed Fire Fighting System Requirements	11/16/2020	\$ -	0 days
CO-28	HOT Lane Shoulder Width	3/29/2021	\$ 2,950,000.00	0 days
CO-30	Willoughby Bay Bridges Fender & Lighting Replacement	2/12/2021	\$ 1,495,000.00	0 days
CO-31	Builder's Risk Insurance	10/21/2021	\$ 1,500,000.00	0 days
CO-32	VCU Fisheries and SAV Mitigation Plan	4/16/2021	\$ (1,042,144.00)	0 days
CO-33	Tunnel Finishes Height	12/18/2020	\$ -	0 days
CO-38	H-Piles in Aggressive Soils	12/18/2020	\$ (47,541.00)	0 days
CO-39	Re-use of existing drainage pipes	4/20/2021	\$ (100,984.25)	0 days
CO-40	Update Maximum Cumulative Cost Curve	7/15/2021	\$ -	0 days
CO-41	Wetland Mitigation Costs	4/26/2021	\$ 3,503,400.00	0 days
CO-42	Navy Gate 22 Drainage Design and Construction	8/19/2022	\$ 1,524,940.16	0 days
CO-43	Hybrid Trestle Beam Design	7/2/2021	\$ -	0 days
CO-44	SCADA Control of Deluge Valves	7/27/2021	\$ -	0 days
CO-45	HRCP Project Executive/Representative Change	5/24/2021	\$ -	0 days
CO-46	Tunnel Sprinkler Heads Material Change	7/28/2021	\$ -	0 days
CO-47	Evans Street Approach Slab Settlement Repair	6/22/2022	\$ 34,082.83	0 days
CO-49	HRCP Senior Representative Change	7/2/2021	\$ -	0 days
CO-50	Change in Precast Form Tolerance & Change in Curing Methods	1/10/2022	\$ -	0 days
CO-53	Sound Wall Quantity Reconciliation	12/6/2021	\$ (16,561,217.63)	0 days
CO-54	4th View Interchange Design and Construction Drainage	8/17/2022	\$ 984,598.45	0 days
CO-55	HREL Overlap Scope Change in Norfolk-Proposal Costs	8/12/2022	\$ 157,237.34	0 days
CO-57	Design-Builder's Senior and Representative Changes	1/11/2022	\$ -	0 days
CO-59	Fisheries and SAV Mitigation Plan - VCU	6/16/2022	\$ (70,238.22)	0 days
CO-60	Navy Fence (remaining design costs)	8/17/2022	\$ 180,142.36	0 days
CO-62	SIP Forms for Marine Bridges	6/28/2022	\$ -	0 days
TOTAL			\$ 78,448,906.39	0 days

3.4.2 Material Price Adjustments

This progress period included the following material price adjustments:

Material	Current Amount	Total to Date	Material Price Adjustment Through
Asphalt	\$ 1,208.86	\$ 17,969.55	June 2022
Fuel	\$ 8,856.40	\$ 91,442.83	June 2022
Steel	\$ 97,053.49	\$ 773,920.36	February 2022

4. Environmental

HRCP has completed or is performing several compliance tasks included in permit conditions:

Permits:

- Draft Virginia Pollutant Discharge Elimination System (VPDES) modification request received from DEQ and under review.
- Pacchiosi, HRCP's subcontractor, received a DEQ air permit for their jet-grout plant on the North Island.
- HRCP submitted air permit applications for the North Island generator and South Island generator, slurry treatment plant, bi-component grout plant, and concrete plant. All are under review with DEQ.
- Multiple spills occurred during the period, including a concrete spill, an off-site sediment discharge, and a fuel spill. The appropriate agencies were notified.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- HRCP continued use of patrol dogs and handlers on the North Island, South Island, and Willoughby Spit to deter birds from nesting within the project.

Programmatic Agreement:

- No new activities.

Archeological Discoveries:

- No new discoveries.

5. Construction

The figure below illustrates a map of the project corridor. The project is further categorized into four construction areas.

- Construction Area 1 is composed of landside road work.
- Construction Area 2 is composed of marine work, including the North Trestle, South Trestle, and island expansions.
- Construction Area 3 is composed of tunnel and island site work.
- Construction Area 4 is composed of landside bridge work.



5.1 Construction Area 1: Landside Roadways

I-64 (Segment 1):

- Completed installation of sidewalk, curb, and gutter work at northwest corner of Mallory St and Ramp E intersection.
- Continued drainage installation along I-64 median north of Mallory St.
- Continued drainage installation along southeast quadrant of Mallory St interchange

I-64 (Segment 3):

- Completed temporary paving and restriping for traffic shift along I-64 eastbound at 4th view on-ramp.
- Completed removing surcharge and wire wall along I-64 eastbound at retaining wall near Willoughby shoreline.
- Completed placing surcharge for retaining wall near Bayville St eastbound at abutment A.
- Continued grading work for permanent pavement along I-64 median between Willoughby Bay and 4th View St for westbound widening.
- Continued drainage installation along eastbound on and off ramps at 4th View St.
- Began installation of leveling pad for MSE retaining wall between 4th View St and Mason Creek Rd for eastbound widening.

I-64 (Segment 4):

- Continued embankment placement for eastbound widening between 1st View St and Bay Avenue.
- Began installing auger-cast piles and posts for sound wall between Bay Avenue and Evans St.



◀ I-64 EB (Norfolk)
First auger-cast pile
placed for sound wall

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound Trestle**
 - Continued removal of temporary construction trestle.
 - 1.5 caps placed during this period (21.5 out of 37 total caps/footers placed).
 - 29 beams placed during this period (82 out of 296 total beams placed).
 - 0.5 decks placed during this period (0.5 out of 36 total decks placed).
- **Westbound Trestle**
 - 5 piles driven during this period (32 out of 261 total piles driven)

South Trestle:

- **Eastbound MOT Trestle**
 - Completed S3 temporary construction trestle turning spans.
 - 2 caps placed during this period (14 out of 28 total caps/footers placed).
 - 12 beams placed during this period (52 out of 98 total beams placed).
- **Permanent Trestle**
 - 1 cap placed during this period (3.5 out of 70 total caps/footers placed).



◀ **South Trestle**
Setting of precast cap segment
near Willoughby shoreline

5.3 Construction Area 3: Tunnels and Islands

South Island:

- 45% complete for jet grouting operations at tunnel approach plug.
- 66% complete for surface slab placement at slurry treatment plant.
- 32% complete for launching pit base slab.
- 37% complete for headwall installation at Cell 1 of launching pit.
- Began waterproofing installation in Cell 1 of launching pit.

North Island:

- 74% complete for overall slurry wall installation.
- Began work for first capping beam concrete placement in Cell 1 of receiving pit.

Tunnel:

- 25% complete for precast tunnel segment liner production.
- 81% complete for TBM cutterhead assembly and welding on surface TBM slab.
- 60% complete for TBM shield preassembly on surface TBM slab.
- Began assembly of TBM gantry in Cell 3 of launching pit.
- Began installation of thrust frame in Cell 1 of launching pit.



◀ **South Island**
Assembly of TBM gantry #1,
including operator's cabin



◀ **South Island**
Concrete placement for headwall pour

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	5,375	25.0%

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge

- Completed median pier cap installation for Phase 1 of bridge replacement.

Oastes Creek Bridge:

- Continued demolition work for eastbound bridge widening.

Bayview Boulevard Bridge:

- Continued repair/rehabilitation of existing eastbound and westbound bridges.

Evans Street Bridge:

- Began mobilizing for lead abatement and painting of existing eastbound and westbound bridges.

Bay Avenue Bridge:

- Completed setting girders at Span 39 for eastbound widening (12 out of 42 total girder spans installed).
- Completed setting precast caps at Bent 38 for eastbound widening (11.5 out of 34 total caps installed).
- Began installation of stay-in-place deck forms and end diaphragm forms at Spans 24-28 for eastbound widening.
- Completed installation of temporary trestle at eastbound north side.

Mason Creek Road Bridge:

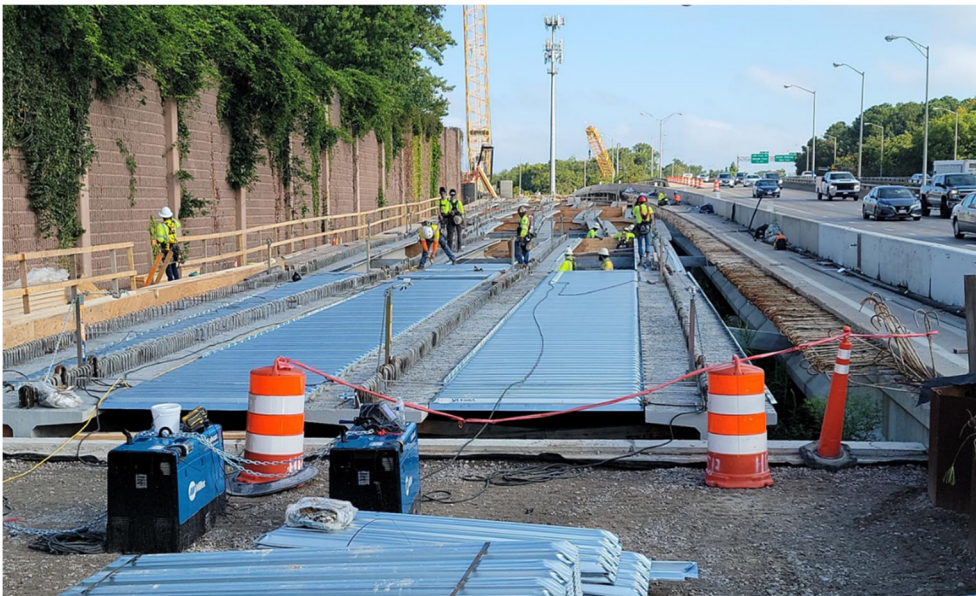
- Completed Abutment B backwall and wingwall for eastbound widening (1 out of 2 total abutments installed).
- Completed pile driving for westbound widening (40 out of 40 total piles driven).

Willoughby Bay Bridge:

- Completed setting girders for Spans 50-54 and 69-70 for eastbound widening (22 out of 80 total girder spans installed).
- Completed setting precast caps at Bents 8 and 9 for eastbound widening (74 out of 79 total caps installed)
- Continued repair/rehabilitation of existing eastbound bridge.
- Began installing support of excavation at Abutment A for eastbound widening.



◀ **Willoughby Bay Bridge**
Setting Span 52 girders for eastbound bridge widening



◀ **Bay Avenue Bridge**
Stay-in-place deck forms at Span 28 eastbound

6. Operations

Operations activities include shoulder and lane closures, creation and maintenance of Intelligent Transportation System (ITS) architecture, other maintenance within the corridor, coordination with existing VDOT Operations, and communication with the Hampton Roads Harbor Tunnels (HRHT) facility staff. The following operations activities occurred during this reporting period:

Short-Term Lane Closures:

- Willoughby Bay Bridge, North Trestle, and South Trestle eastbound to facilitate ongoing concrete placement for piles and caps, and girder installation.
- Willoughby Bay Bridge and South Trestle for temporary lighting installation.
- Striping maintenance throughout the project corridor.
- Westbound near Willoughby inspection station for temporary lighting installation and ITS relocation.
- Temporary barrier wall installation on eastbound South Trestle.
- Slow roll of I-64 eastbound in Hampton to support Electrical Power Distribution (EPD) conduit directional drill.
- Eastbound and westbound lane closures for paving of the emergency crossover near 4th View.

Long-Term Lane Closures:

- Bay Avenue in Norfolk to facilitate access to a staging area for widening of Oastes Creek Bridge.
- Bayview Blvd. in Norfolk and Mallory St. in Hampton to facilitate bridge widening.
- West Ocean Avenue in Norfolk traffic shift to facilitate bridge widening.

Hampton Lane Shifts:

- No new activities this period.

Norfolk Lane Shifts:

- Next phase of eastbound Willoughby Bridge lane shift implemented.

Detours:

- Long-term detour at West Evans St. to facilitate bridge widening.
- Nightly detours on West Bay Avenue eastbound on-ramps for bridge widening work.
- Long-term detour at Mason Creek Rd. in Norfolk to facilitate bridge widening.
- Nightly detours of the eastbound on ramp and the westbound off ramp at Mallory St. for ITS fiber relocation.

Intelligent Transportation System (ITS):

- Relocation of overheight detectors at the Willoughby inspection station.
- Relocation of power in conflict with Bayview Blvd. widening.
- Installation of relocated fiber and power in advance of relocation of the traffic cameras near First View.

Routine Maintenance:

- HRCP performed routine incident management and maintenance operations within the corridor.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- VDOT reviews these updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. There was 1 NDC update reviewed this period. These updates included specific testing and inspection plans for the work shown in the corresponding RFC plans and a staffing matrix showing quality assurance and quality control staffing for the work.

Independent Assurance (IA) Testing Activities:

- VDOT continues to monitor HRCP’s QA and QC material testing. VDOT also performed Independent Testing and Verification Testing on materials in accordance with VDOT requirements and coordinates with VDOT Materials Department for shop inspections as required. This testing includes oversight of the HRCP Precast Yard in Chesapeake and Technopref’s Precast Yard in Cape Charles producing the tunnel lining segments.

Quality Management System Plan (QMSP):

- VDOT continues to engage HRCP in discussions on HRCP’s implementation of their QMSP and the effectiveness of the plan, which is updated quarterly.

Quarterly Updates of Quality Plans:

- HRCP previously submitted the quarterly updates of the Quality Management System Plan, Construction Quality Management Plan, and the Design Quality Management Plan for the third quarter of 2022. VDOT completed the review of these submitted plans and returned them to HRCP as revise and resubmit.

Tunnel Quality Plan (TQP):

- HRCP continues to update its Tunnel Quality Plan and address VDOT’s comments. VDOT previously reviewed Revision 3 and returned the plan to HRCP with comments.

Material Book Records:

- VDOT conducted a monthly review of the current records, and HRCP is responding to audit comments provided by VDOT. Review of the Material Book records includes confirming that HRCP is completing the proper documentation for Buy America compliance.

Routine Quality Activities:

- VDOT’s quality team conducted reviews of written deficiency notices (WDNs), nonconformance reports (NCRs), root cause analyses and dispositions of deficiencies, VDOT conducted reviews of QA and QC records for accuracy and quality issues and coordinated documentation reviews through VDOT’s Material Department. VDOT also continues a review of current construction quality by performing inspections based on VDOT’s Construction Quality Improvement Program (CQIP).

8. Safety

Safety procedures and activities during this reporting period include:

COVID-19 Update:

- VDOT and HRCP continue to follow latest CDC guidelines regarding COVID-19.

Safety Site Visits:

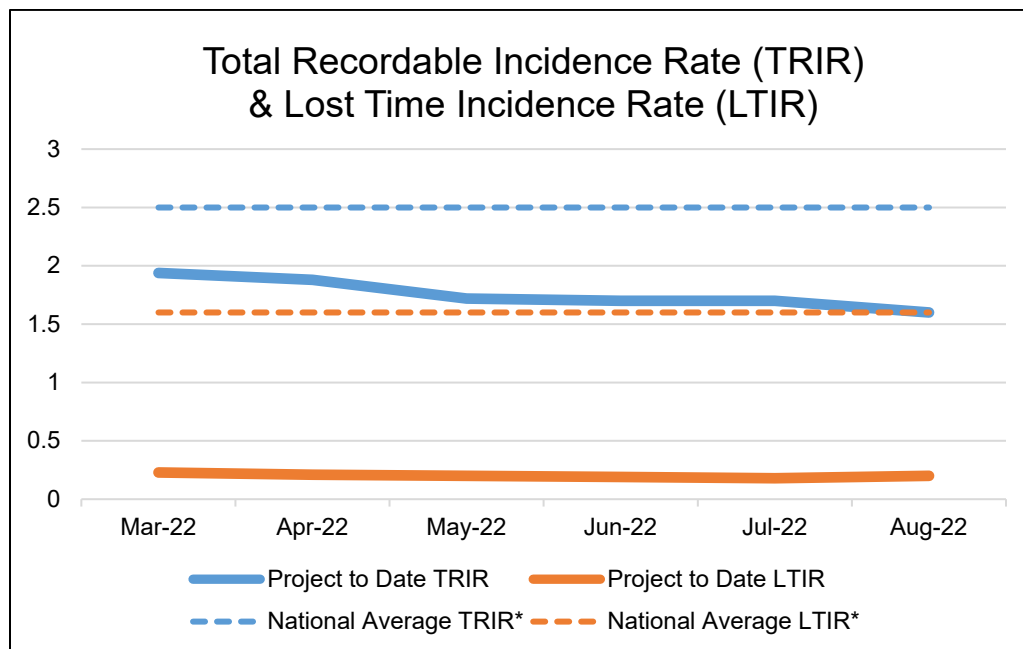
- VDOT continued to conduct routine visits to promote safe work practices throughout the project.

Emergency Response Planning (Rescue Drill):

- VDOT and HRCP continue collaboration on emergency response planning.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of August 31, 2022.



**National averages are from the Bureau of Labor Statistics, US Department of Labor – 2020 Data for Construction Industry, Published November 3, 2021.*

9. Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP awarded **314** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. Contract awards total **\$468 million** for active DBE/SWaM firms on the project.

Compliance Activities:

- HRCP and VDOT Civil Rights Work Group met on August 16, 2022 for the monthly project and compliance update, which provided an opportunity to discuss equal employment opportunity, compliance, and business development matters.
- During the reporting period, HRCP and VDOT had on-going discussions regarding the following:
 - Prompt payment to subcontractors and preparation for potential staffing shortages during the upcoming holidays
 - FHWA annual C-57 workforce reporting
 - On-Site subcontractor/subconsultant monthly listing
 - Upcoming EEO Contractor Compliance Review scheduled for the Fall of 2022
 - Global supply chain concerns impacting subcontractors

Workforce Development Activities:

- HRCP continued to progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 19 participants have graduated with 15 currently active in the program.
- For the construction work, HRCP's affirmative action contract achievement exceeds established percentage goals of 27.1% for minority participation (57% actual) and 6.9% for female participation (14% actual).
- VDOT and HRCP participated in the following recruiting events:
 - Aug 19, 2022 – STOP Organization & HRCP Job Presentation

Business Development Activities:

- During this reporting period, other business development and outreach activities included:
 - July 26, 2022 – Virginia Asian Chamber of Commerce Business Roundtable with George Mason University
 - July 29, 2022 – SBSB Doing Business with Metropolitan Washington Airports Authority
 - August 8, 2022 – City of Virginia Beach Industry Day
 - August 9, 2022 – Tidewater Gardens Redevelopment MWBE Fair
 - August 10, 2022 – SBSB Doing Business with the City of Virginia Beach
 - August 11, 2022 – NC Institute of Minority Economic Development's Executive Networking Conference
 - HRCP participated in an interview about the project hosted by WNCU 90.7 FM Radio during the networking event.

10. Public Outreach & Media

The following public outreach and project media activities occurred in this period:

Public Outreach

- July 27, 2022 – HRBT Project Team presented at Horizons Summer Enrichment Camp
- July 28, 2022 – HRBT Project Team conducted outreach at Fort Monroe
- July 28, 2022 – Marine Advisory regarding Marine Construction Activities Underway near the Hampton Roads Bridge Tunnel
- July 29, 2022 – Traffic Advisory regarding Overnight Work on Mallory Street to Impact I-64 Travel
- August 3, 2022 – HRBT Project Team provided a project tour to Federal Highway Administration (FHWA)
- August 10, 2022 – HRBT Expansion Project Newsletter published
- August 15, 2022 – Traffic Advisory for Weeknight Closure and Detour of S. Mallory Street (Exit 268) Off-Ramp
- August 17, 2022 – Traffic Advisory for Weeknight Closure and Detour of S. Mallory Street (Exit 268) Off-Ramp

Media

- July 26, 2022 – HRBT Expansion Team interviewed by WTKR-TV 3
- August 19, 2022 – HRBT Expansion Communications Director met with 13News Now newsroom (Meet & Greet)

Visit our website to view more information:
www.hrbtexpansion.org