



August 2023
Monthly Project Report
I-64 HAMPTON ROADS
BRIDGE-TUNNEL
EXPANSION

Report No. 53
Project No. 0064-M06-032



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Prepared by:

Virginia Department of Transportation

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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 23, 2023 – August 19, 2023. 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:
 - Completed installation of concrete batch plant and pugmill.
 - First exterior wall concrete placement complete.
- Tunnel Progress:
 - Excavated 323.5 ft this period (1040 ft total excavation) for High Occupancy Toll (HT) tunnel.
- North Island Progress:
 - Waterproofing of Cell 1 base slab at 81% complete.
 - Jet grout approach plug at 53% complete.
 - Installation of concrete for first lift of headwall.
- Landside Progress:
 - Completed concrete placement for deck spans 58 – 63 and 63A at Willoughby Bay EB Bridge.
- Marine Progress:
 - North Trestle eastbound piles 80% complete.
 - North Trestle westbound caps 13% complete.
 - South Trestle eastbound beams 57% complete.
 - South Trestle westbound MOT beams 54% complete.

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 48 (data date: July 23, 2023), and the schedule information in this report reflects this update. Schedule 48 was returned Approved as Noted on August 22, 2023.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 48 is reporting Substantial Completion on September 18, 2026.
- HRCP's Schedule Update 48 is reporting Final Completion on November 17, 2026.

Project Budget

The project budget summary below now includes all incurred to date costs through August 19, 2023 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:	\$ 1,962,880,478
Remaining project budget:	\$ 1,972,571,163

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ (13,516,147)
Exercised Options:	\$ 73,454,414
Material Price Adjustments to Date:	\$ 3,017,397
Assessed Liquidated Damages (LD):	\$ (939,000)
Design-build contract sum to date:	\$ 3,362,013,891
Expenditures to date:	\$ 1,867,762,761
Remaining design-build contract amount:	\$ 1,494,251,130

- Design-build progress to date:

Project Management:	66.3%
Design:	91.2%
Physical Construction Progress:	37.8%
Overall:	55.6%

Environmental

Environmental updates for this reporting period include:

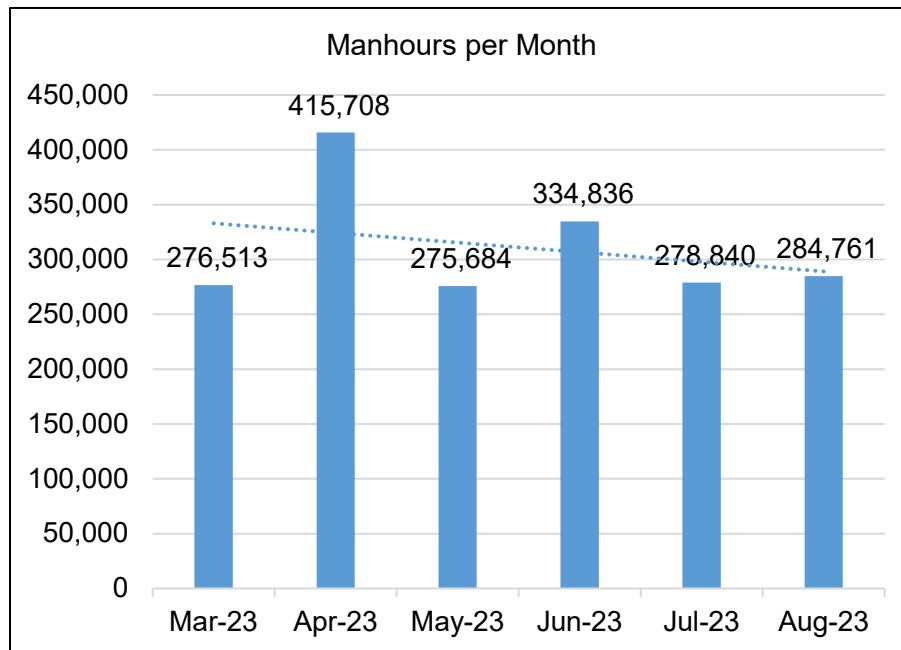
- HRCP received a Notice of Violation (NOV) from Virginia Department of Environmental Quality (DEQ) on July 31, 2023, for a wastewater treatment plant overflow that occurred on South Island on July 9, 2023. HRCP met with DEQ on August 17, 2023 to discuss the corrective action plan related to this NOV. HRCP has hired additional environmental staff for compliance training and auditing environmental commitments.
- VDOT and HRCP implemented joint C-107 inspections for Construction Runoff Control to ensure accurate identification and management of compliance issues.

Construction

Summary progress updates for this reporting period include:

- Landside Roadways
 - Began panel installation for wingwall of retaining wall 103 near Mallory St. Bridge Abutment A.
 - Began panel installation for retaining wall 407 between Bayview Blvd. Bridge Abutment B and Oastes Creek Bridge Abutment A.
- Marine Works
 - Drove piles at North eastbound permanent trestle (10 installed this period).
 - Placed cap at North westbound permanent trestle (1 partial installed this period).
 - Placed beams at South eastbound permanent trestle (60 installed this period).
 - Placed beams at South westbound MOT trestle (16 installed this period).
- Tunnels and Islands
 - Excavated 323.5 ft this period (1040 ft total excavation) for High Occupancy Toll (HT) tunnel.
 - Began removal of thrust frame and temporary rings in South Island launching pit.
 - Installed concrete for exterior wall for South Portal (5% complete).
 - Installed concrete for first lift of headwall at North Island.
- Landside Bridges
 - Completed concrete placements for beam seats at Abutment A and footings at Abutment B at Mallory Street Bridge for Phase 1 bridge replacement.
 - Completed driving piles at Bent 13, 14, 15, and 16 at Willoughby Bay Bridge for westbound widening.
 - Completed concrete placements for footing and columns for Pier 1 at Patrol Road Bridge for eastbound widening.
 - Completed driving piles at Abutment B at Patrol Road Bridge for westbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of August 31, 2023:



Project Manhours to Date:
8,524,909

Operations

The following operations activities took place during this reporting period:

- New short-term lane closure at Willoughby eastbound and westbound for paving.
- New short-term daily detours at 4th View on-ramp eastbound to facilitate sound wall construction.

Quality

Quality updates for this reporting period include:

- 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

The following safety performance indicator information is provided by HRCP and is current as of August 31, 2023:

- Total Recordable Incidence Rate: 1.64 (National Average: 2.5)
- Lost Time Incidence Rate: 0.26 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **344** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$540.7 million** to certified DBE/SWaM firms.

Public Outreach & Media

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

- Project leadership presented in collaboration with Chesapeake Bay Bridge-Tunnel leadership to Women's Transportation Seminar and Design-Build Institute of America.
- July/August HRBT Project Newsletter was published.

2. Project Schedule

2.1 Schedule Status

The following table depicts key milestone dates for the project and has been updated as of the current approved schedule. The last approved schedule for the project is Update 48 (data date: July 23, 2023), and the schedule information in this report reflects this update. Contractual Substantial and Final Completion dates remain unchanged.

	Contract Requirement	July 2023 Schedule	Actual
NTP		Sep 11, 2020	Sep 11, 2020
Substantial Completion	Sep 1, 2025	Sep 18, 2026	
Final Completion	Nov 1, 2025	Nov 17, 2026	

2.2 Longest Path

The longest path/critical path in Project Schedule Update 48 is driven by the following activities:

- TBM drive in High Occupancy Toll Tunnel
- TBM U-Turn on North Island
- TBM drive in General Purpose Tunnel
- TBM disassembly in south pit
- General Purpose Tunnel Interior Fit Out – Section 8
- General Purpose Egress Corridor – Fire Life Safety System
- Commissioning – General Purpose Tunnel – Functional Testing
- Commissioning – High Occupancy Toll and General Purpose Operational Testing
- Commissioning – Tunnel, Buildings, Roadways, and Trestles Integration Testing
- ITT Reversal
- Substantial Completion

2.3 Impact Analysis

The following work elements have been identified as near critical, meaning there is less than one month of float in Schedule Update 48. VDOT and HRCP are closely monitoring these elements of work as they could affect schedule performance if they are not addressed diligently.

South Portal

- South Portal – Rectilinear Approach Capping Beams – Phase 3
- South Portal – Rectilinear Approach Permanent Structures
- South Portal Cell 1 & 2 Permanent Structures – Exterior Walls, Interior Walls & Slabs, Roof Slabs

South Island

- South Island – Slurry Treatment Plant – Spoil Walls
- South Island – Additional Conveyor and Quay Mooring Piles and Fenders
- South Island – Temporary Private Utilities (Verizon & VDOT/Cox)
- South Island Buildings – Ventilation Building, Inspection Booths, Generator Building, and Fuel & Water Tanks

Tunneling

- Tunneling – Final – Gantry 4 Assembly
- General Purpose Tunnel – Interior Structures Construction

North Portal

- North Portal – Cell 2 Excavation
- North Portal Cell 1 & 2 Permanent Structures – Exterior Walls, Interior Walls & Slabs
- North Portal – Rectilinear Approach Permanent Structures

North Island

- North Island Buildings – Generator, Fuel & Water Tanks, Inspection Booth, Garage Building, Ventilation Building, and Flood Gate House Building
- North Island Restoration – Utilities, Paving, Civil Finishes, Signage and Pavement Markings

Roadway and Land Bridges

- Segment 1 Phase 1 – I-64 North Shore Roadway, Waterline Relocation, Drainage, and RW108
- Segment 1 – Shore Feeder Medium Voltage Cable Relocation
- Segment 1, 3, 3b, 3d, & 4 – ITS – Lane Use Signals, Overhead Sign Structure, Dynamic Messaging Sign, and Overheight Detector
- Segment 3b Phase 1, 2, 2A, 3A, 4 – I-64 Willoughby Spit PV Drains/Ground Improvement, Retaining Walls, Drainage, Roadway, and Temporary Lighting
- Segment 3b – Rockfish Substation
- Segment 3b Phase 4 – 13th Avenue Ramp C & F Construction
- Segment 3d Phase 1, 2, 2A, 3 & 4 – Willoughby Bridge to Mason Creek – Median Widening, Retaining Walls, Storm Drainage and Roadway

- Segment 3d 4th View Ramp H & I – Surcharge and Ramp Construction
- Segment 4 Phase 2, 2A, 3, 4, 4A – Norfolk to Navy – Median Widening, Retaining Walls, Storm Drainage, and Roadway
- Mallory Bridge – Phase 1 & 2
- 13th Avenue Bridge – EB Abutment A
- Willoughby Bay Bridge – Eastbound/Westbound Superstructure Construction, Westbound Rehabilitation

Trestles

- North Trestle Utilities – Eastbound Temporary MV/ITS Utility and Permanent ITS/SCADA/Fire Alarm, Westbound Conduits & Hangers and Permanent Wet Utilities
- North Trestle Eastbound – Zone 1 – Abutment A, Superstructure Construction
- North Trestle Westbound – Zone 7, 8, 9, and 10 – Substructure/Superstructure Construction
- North Trestle – Eastbound and Westbound Demolition
- South Island Expansion – Marine Works, Land Works, and Island Expansion
- South Trestle Utilities – Eastbound Private Utility Relocation and Westbound Private Utilities and ITS/SCADA/Fire Alarm System
- South Trestle – Eastbound Zone 1, 2, and 5 Superstructure Construction
- South Trestle – Westbound Zone 7, 8, and 9 – Abutment D, Substructure and Superstructure Construction
- South Trestle – Existing Trestle Demolition

Commissioning and Integration

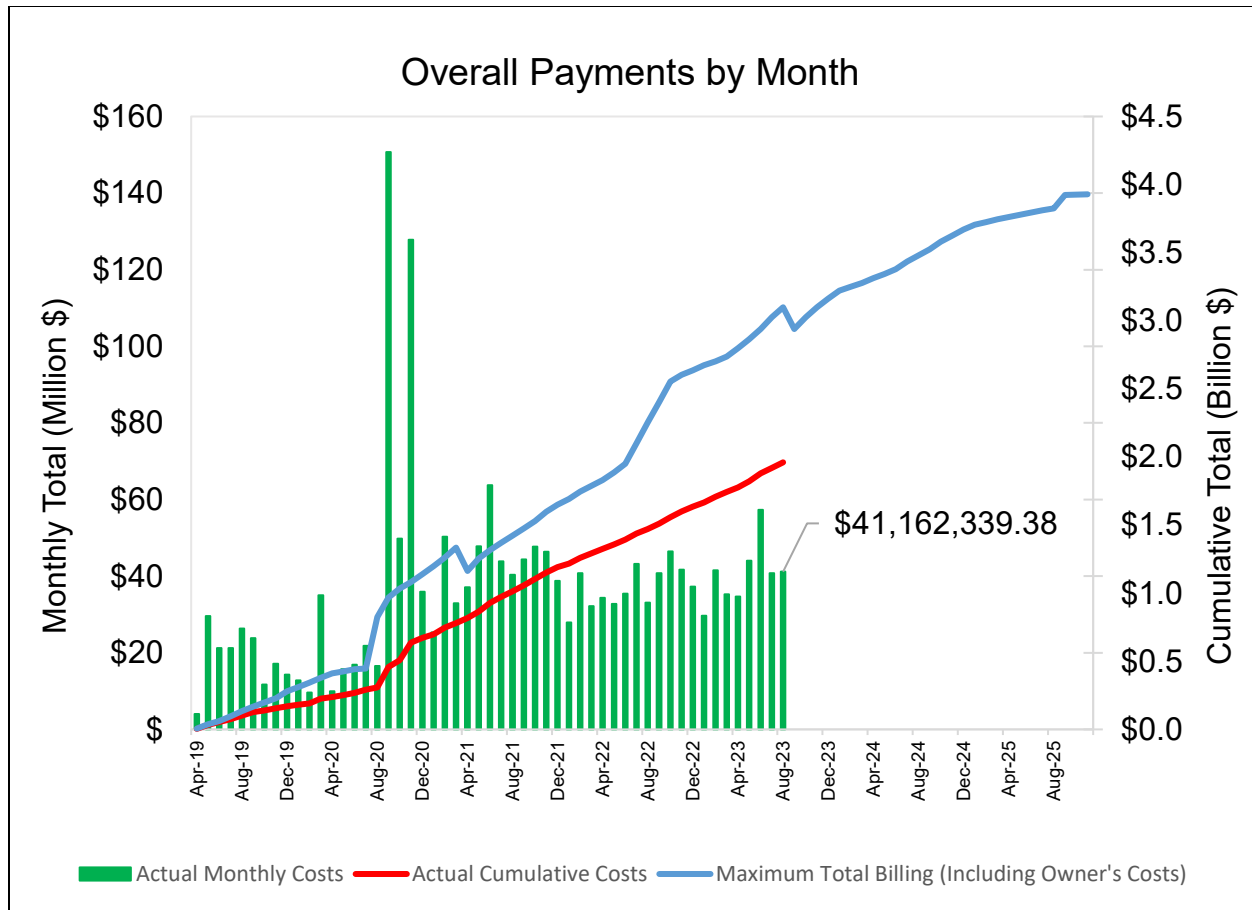
- General Purpose Tunnel – Functional Testing – Low Point Pump Station Drainage, Fire Suppression and Detection, Booster Fans, Lighting
- North Island Buildings – Functional Testing – Mechanical Pressurization
- South Island Buildings – Functional Testing – Electrical Medium Voltage/Low Voltage
- Commissioning – Operational Testing – General Purpose Fire System, General Purpose Medium Voltage/Low Voltage, General Purpose 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).

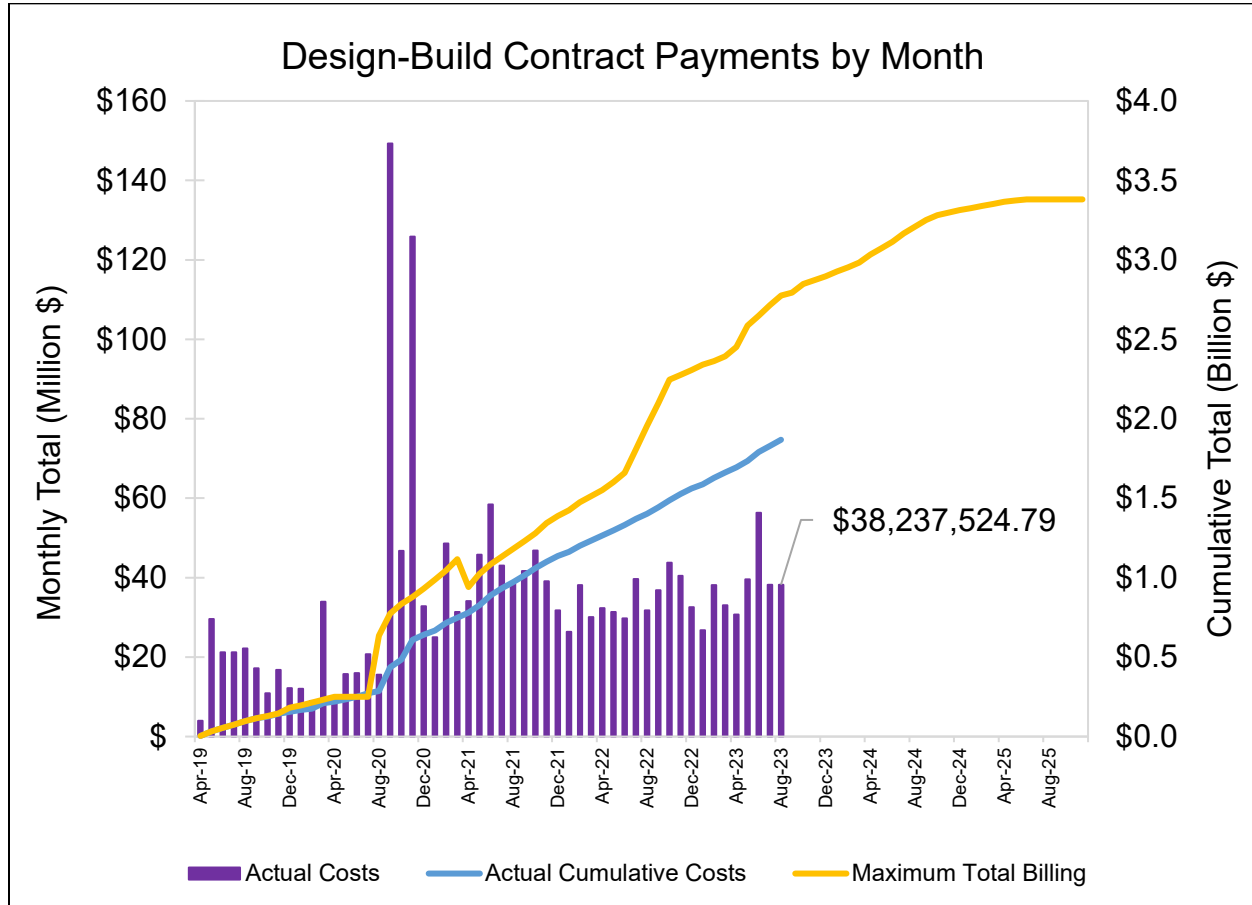
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$38,237,524.79	\$1,839,791,687.32	\$3,299,997,227.00	\$1,460,205,539.68	55.75%
<u>Owner Costs</u>					
<i>Administration</i>	\$2,181,103.24	\$82,279,971.04	\$122,000,000.00	\$39,720,028.96	67.44%
<i>Right of Way</i>	\$24,265.29	\$8,837,745.01	\$15,000,000.00	\$6,162,254.99	58.92%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$578,552.62	\$27,269,481.03	\$335,000,000.00	\$307,730,518.97	8.14%
<i>Bridge Repair Work Option</i>	\$140,893.44	\$4,701,593.10	\$73,454,413.96	\$68,752,820.86	6.40%
<u>Total</u>	\$41,162,339.38	\$1,962,880,477.50	\$3,935,451,640.96	\$1,972,571,163.46	49.88%



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

3.3 Budget by Funding Source

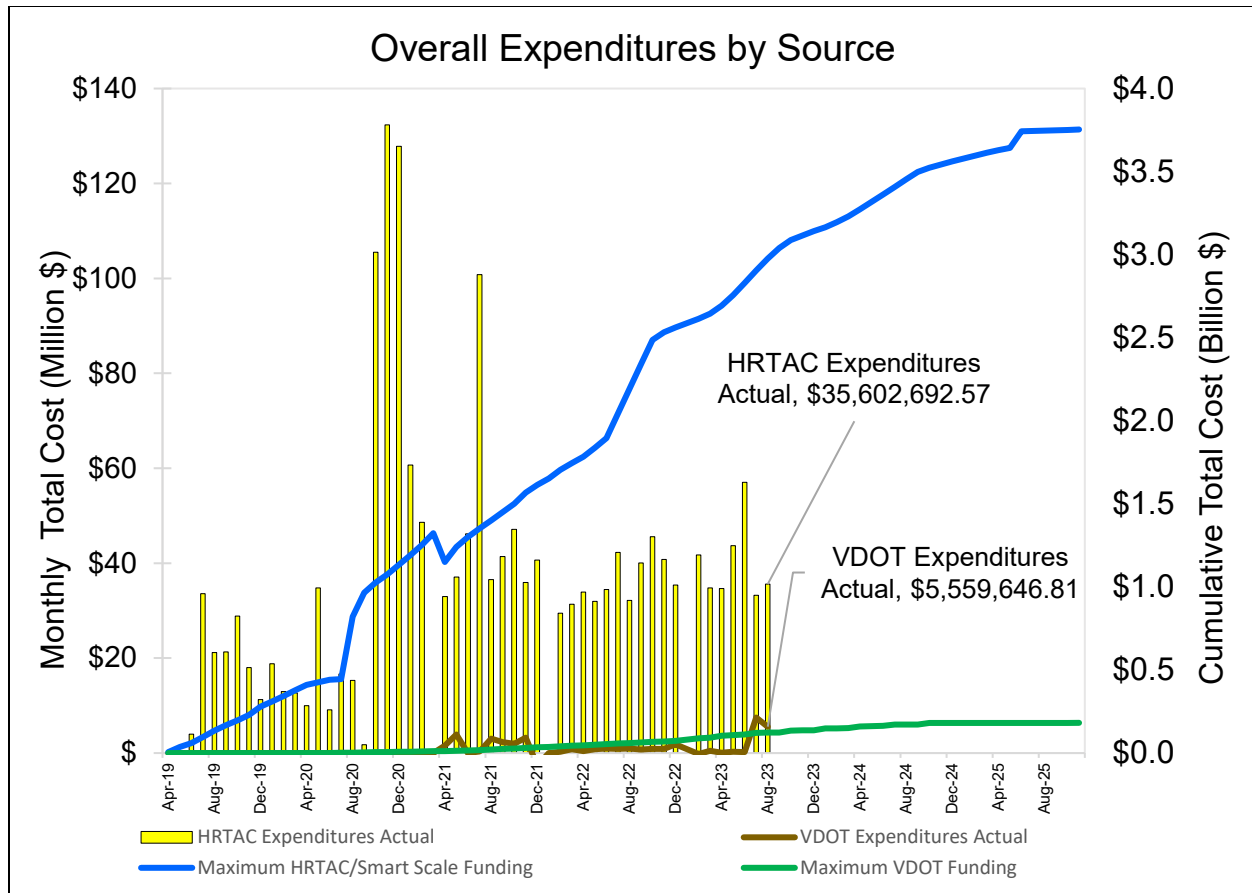
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation 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>	\$33,049,764.82	\$1,811,117,772.47	\$3,204,569,251.00	\$1,393,451,478.53	56.52%
<u>Owner Costs</u>					
<i>Administration</i>	\$2,076,739.71	\$79,764,898.04	\$118,472,054.00	\$38,707,155.96	67.33%
<i>Right of Way</i>	\$24,265.29	\$8,837,745.01	\$15,000,000.00	\$6,162,254.99	58.92%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$451,922.75	\$26,016,682.25	\$325,428,276.00	\$299,411,593.75	7.99%
<u>Total</u>	\$35,602,692.57	\$1,925,737,097.77	\$3,753,469,581.00	\$1,827,732,483.23	51.31%

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>	\$5,187,759.97	\$28,673,914.85	\$95,427,976.00	\$66,754,061.15	30.05%
<u>Owner Costs</u>					
<i>Administration</i>	\$104,363.53	\$2,515,073.00	\$3,527,946.00	\$1,012,873.00	71.29%
<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>	\$126,629.87	\$1,252,798.78	\$9,571,724.00	\$8,318,925.22	13.09%
<i>Bridge Repair Work Option</i>	\$140,893.44	\$4,701,593.10	\$73,454,413.96	\$68,752,820.86	6.40%
<u>Total</u>	\$5,559,646.81	\$37,143,379.73	\$181,982,059.96	\$144,838,680.23	20.41%



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-48	Scope Reduction – City of Hampton	8/24/2022	\$ (6,072,941.31)	0 days
CO-49	HRCP Senior Representative Change	7/2/2021	\$ -	0 days
CO-50	Change in Precast Form Tolerance & 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-56	Building Code Changes - Design	10/21/2022	\$ 2,186,150.00	0 days
CO-57	Design-Builder's Senior and Representative Changes	1/11/2022	\$ -	0 days
CO-58	Scope Reduction – City of Norfolk	5/16/2023	\$ (18,739,670.82)	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-61	HRELN Tie-In Zero Drainage Spread	11/29/2022	\$ 2,965,469.69	0 days
CO-62	SIP Forms for Marine Bridges	6/28/2022	\$ -	0 days
CO-64	Tolling Infrastructure Proposal Costs	10/21/2022	\$ 645,242.40	0 days
CO-65	Snowplowable Raised Pavement Markers (SRPMs)	3/3/2023	\$ 256,174.09	0 days
CO-68	Buoyancy Calculations	3/3/2023	\$ -	0 days
CO-69	Change of Department's Senior Representative	4/6/2023	\$ -	0 days

CO-70	Reuse of Existing Pipe 29-26 to 29-31	7/26/2023	\$ (117,734.20)	0 days
CO-71	Addendum to WO-24 Water Supply Line	4/25/2023	\$ -	0 days
CO-72	Bay Avenue Approach Ramp	6/29/2023	\$ 120,053.43	0 days
CO-74	South Island – Asbestos Pipes	7/7/2023	\$ 128,883.51	0 days
TOTAL			\$ 59,820,533.18	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	\$ 0.00	\$ 79,733.71	June 2023
Fuel	\$ 7,034.75	\$ 339,160.94	June 2023
Steel	\$ 263,832.29	\$ 2,598,502.15	February 2023
Total	\$ 270,867.04	\$ 3,017,396.80	

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- HRCP received a Notice of Violation (NOV) from Virginia Department of Environmental Quality (DEQ) on July 31, 2023 for a wastewater treatment plant overflow that occurred on South Island on July 9, 2023. HRCP met with DEQ on August 17, 2023 to discuss the corrective action plan related to this NOV.
- HRCP received a warning letter from DEQ on July 31, 2023 for emissions observed during DEQ's July 26, 2023 inspection of the Slurry Treatment Plant.
- DEQ posted a Public Notice (through August 31, 2023) for a Consent Order addressing a discharge from HRCP's wastewater treatment plant in April 2023.
- HRCP initiated an update of the Wastewater Treatment Plant Operations & Maintenance Manual, as requested by DEQ, and will forward the revised manual to DEQ.
- HRCP conducted additional in-house environmental compliance training with work crews from landside, islands, and trestle construction areas.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- HRCP continued patrolling with dogs on South Island, North Island, and Willoughby Spit.

Programmatic Agreement:

- No new activities.

Archeological Discoveries:

- No new activities.

Protected Species:

- No new activities.

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 road and bridge work.



5.1 Construction Area 1: Landside Roadways

I-64 (Segment 1):

- Drainage work in I-64 median in Hampton.
- Phased installation of retaining wall 105 at Mallory Street Bridge Abutment B.
- Began panel installation of retaining wall 103 wingwall at Mallory St. Bridge Abutment A.

I-64 (Segment 3):

- Completed placement of open-drainage and base asphalt layers in median between 15th View St. and 13th View St.
- Installed drainage adjacent to Bayville/13th View St Bridge for eastbound widening.
- Completed installation of surcharge for retaining wall 308 adjacent to Willoughby Bay Bridge Abutment B.
- Installed sound wall 3-3 along I-64 eastbound between 4th View St. and Mason Creek Rd.
- Completed remediation work at retaining wall 311 between 4th View St. and Mason Creek Rd.
- Graded for permanent ditches between 4th View St. and Mason Creek Rd. for eastbound widening.

I-64 (Segment 4):

- Installed drainage adjacent to 1st View St. Bridge for eastbound widening.
- Began panel installation for retaining wall 407 between Bayview Blvd. Abutment B and Oastes Creek Abutment A.
- Began drainage work within the retaining wall 407 area between Bayview Blvd. Abutment B and Oastes Creek Abutment A.



◀ **Sound Wall 3-3**
Panel installation on
I-64 between 4th
View St. and Mason
Creek Rd.

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound Trestle**
 - 10 piles driven during this period (204 out of 256 piles driven).
- **Westbound Trestle**
 - Partial cap placed during this period (6 out of 46 total caps placed).

South Trestle:

- **Eastbound Trestle**
 - 60 beams placed during this period (395 out of 698 total beams placed).
 - 3.5 decks placed during this period (5.5 out of 53 total decks placed).
 - 3 piles driven during this period (318 out of 465 total piles driven).
- **Westbound Trestle MOT**
 - 4 caps placed during this period (20 out of 24 total caps placed).
 - 16 beams placed during this period (44 out of 81 total beams placed).



◀ **North Trestle
Westbound**
Placement of partial
precast cap onto
foundation piles

5.3 Construction Area 3: Tunnels and Islands

South Island:

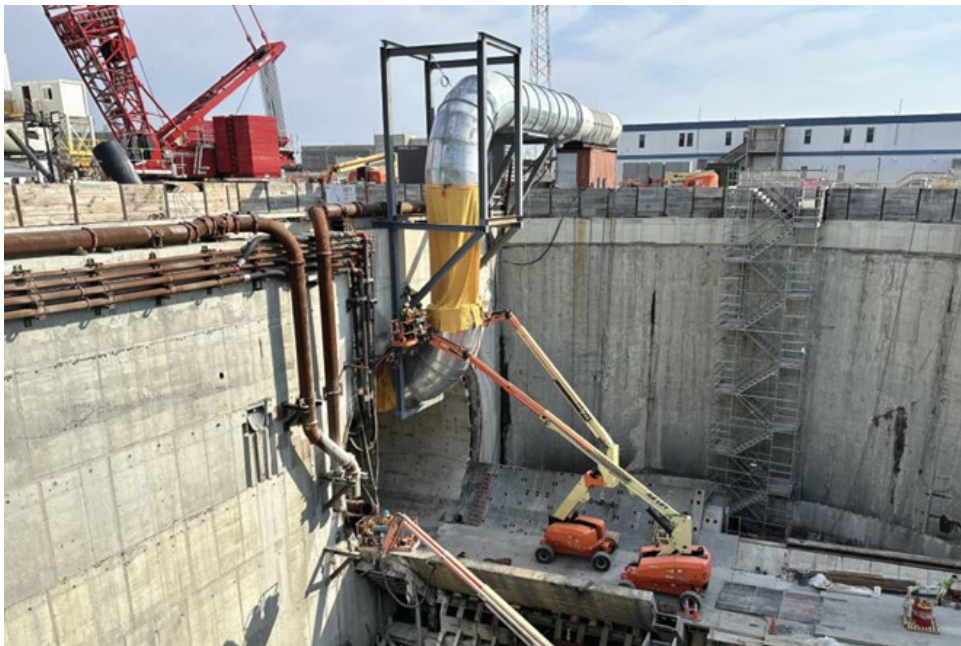
- 5% complete for South Portal exterior walls.
- Completed installation of concrete batch plant and pugmill.

North Island:

- 53% complete for jet grout plug at approach section (655 of 1240 total columns).
- 81% complete for waterproofing at Cell 1 base slab of receiving shaft.
- 26% complete for headwall concrete placement at Cell 1 of receiving shaft.
- 12% complete for waterproofing Cell 1 walls.
- 7% complete for Cell 2 excavation.

Tunnel:

- Began removal of thrust frame and temporary rings in South Island shaft as part of scheduled pause in tunneling for shaft reconfiguration.
- 77% complete for precast tunnel segment liner production.
- 13.1% complete for High Occupancy Toll (HT) tunnel excavation (1,040 ft out of 7940 total ft excavated).
- 49 concrete tunnel rings installed this period (150 out of 1194 total rings installed).



◀ **HT Tunnel**
Steel rings and thrust frame removed during shaft reconfiguration

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	16,549	77%

5.4 Construction Area 4: Landside Bridges

Mallory St Bridge:

- Completed concrete placements for Abutment A beam seats and Abutment B footing for Phase 1 bridge replacement.

Bayville/13th View Bridge:

- Completed partial backwall reconstruction and deck slab extensions at Abutments A and B of existing eastbound bridge.
- Completed interior approach slab widenings at Abutments A and B of existing eastbound bridge.

Willoughby Bay Bridge:

- Continued installation of deck forms and overhangs for eastbound widening.
- Continued installation of diaphragm rebar and formwork for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.
- Completed placement of deck spans 58 - 63 and 63A for eastbound widening.
- Completed pile driving at Bents 13, 14, 15, and 16 for westbound widening.

Mason Creek Bridge:

- Continued repair/rehabilitation of existing eastbound and westbound bridges.
- Continued installation of forms and rebar for backwall of Abutment A for eastbound widening.

1st View Street Bridge:

- Began grading for slope protection for eastbound widening.

Bay Avenue Bridge:

- Completed phase 2A demolition of existing ramp/gore area for eastbound widening.
- Completed temporary trestle installation at existing ramp/gore for eastbound widening.
- Completed concrete installation for Abutment A for eastbound widening.
- Completed reconstruction of beam seat at Bents 22 and 35 for eastbound widening.
- Completed installation of Span 23 girders for eastbound widening.
- Began demolition of mainline parapet and deck overhang for eastbound widening.

Evans St Bridge:

- Continued repair/rehabilitation of existing eastbound bridge.

Bayview Boulevard Bridge:

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

Oastes Creek Bridge:

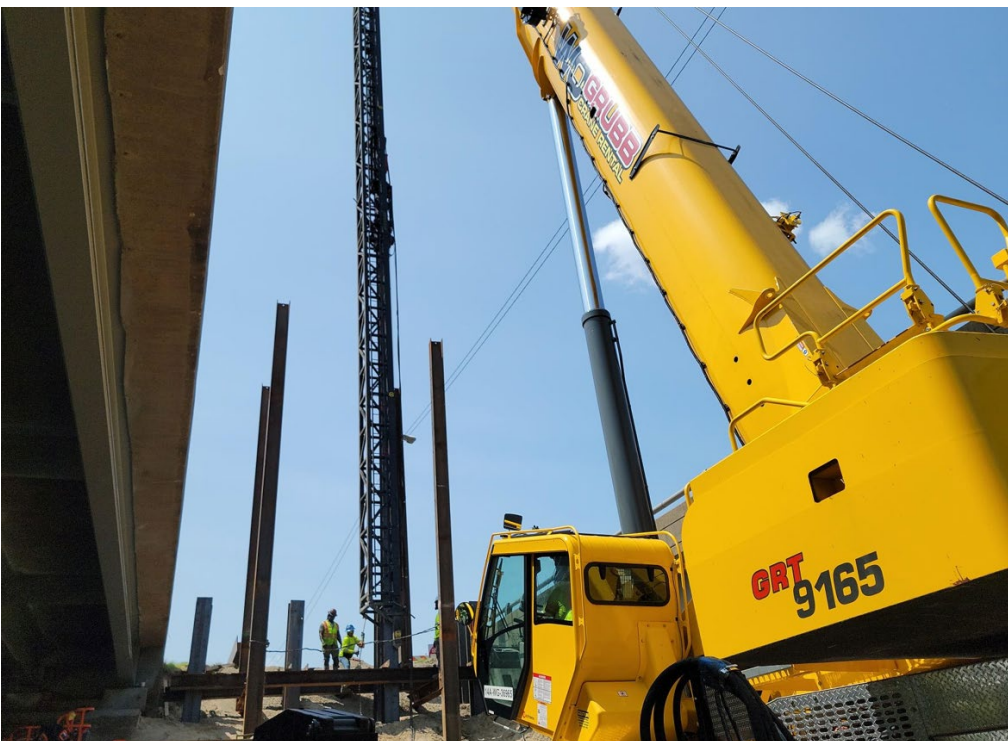
- Continued forming, reinforcing, and placing concrete for diaphragms and bridge deck link slabs for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.

Patrol Road Bridge:

- Completed driving piles at Abutment B for westbound widening.
- Completed concrete placements for footing and columns for Pier 1 for eastbound widening.



◀ **Willoughby Bay Bridge**
Westbound
Pile driving at Bent 16



◀ **Patrol Rd Bridge**
Westbound
Pile driving at Abutment B

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 beam placement as well as concrete placement for piles, caps, and decks.
- North Trestle and South Trestle westbound for concrete pours.
- South Trestle for temporary conduit installation.
- Willoughby eastbound and westbound for paving.
- Striping maintenance and pavement marker removal throughout project corridor.
- South Trestle for ITS power and communication relocation.

Long-Term Lane Closures:

- Bay Ave. in Norfolk to facilitate staging-area access for widening Oastes Creek Bridge.
- Bayview Blvd. in Norfolk and Mallory St. in Hampton to facilitate bridge widening.
- West Ocean Ave. in Norfolk traffic shift to facilitate bridge widening.
- 4th View St. in Norfolk traffic shift to facilitate bridge widening.
- Patrol Rd. in Norfolk traffic shift to facilitate bridge rehabilitation and widening.
- 13th View St. underpass beneath I-64 reduced to one lane to facilitate utility work. Traffic will be controlled by temporary automatic one-lane, two-way traffic control signal.

Hampton Lane Shifts:

- No new activities.

Norfolk Lane Shifts:

- No new activities.

Detours:

- Short-term daily detours at 4th View onramp eastbound to facilitate sound wall construction.
- Long-term detour at West Evans St. to facilitate bridge widening.
- Long-term detour on 1st View St. to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Relocation of ITS and power at South Island.
- Installation of ITS and private utility conduit on the North Trestle.
- Quarterly Concept of Operations meeting held on August 2, 2023.

Routine Maintenance:

- HRCP performed routine incident management / maintenance operations within corridor.
- HRCP continued removing raised pavement markers throughout corridor.

Power Systems:

- No new activities.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- VDOT reviews CQMP 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. This update 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 coordinated with VDOT Materials Department for shop inspections as required. This testing included 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 resubmitted the quarterly updates of the Quality Management System Plan (QMSP), Construction Quality Management Plan (CQMP), and the Design Quality Management Plan (DQMP) for the second quarter of 2023. VDOT completed the reviews of these quarterly updates and returned them Approved as Noted.

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. VDOT has completed the full audit of fourteen volumes of Material Book records and is currently completing the audit of four volumes of the Material Book records.

Routine Quality Activities:

- VDOT’s quality team conducted reviews of written deficiency notices (WDNs), non-conformance reports (NCRs), root cause analyses and dispositions of deficiencies, with 45 NCRs reviewed for concurrence during this period. 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

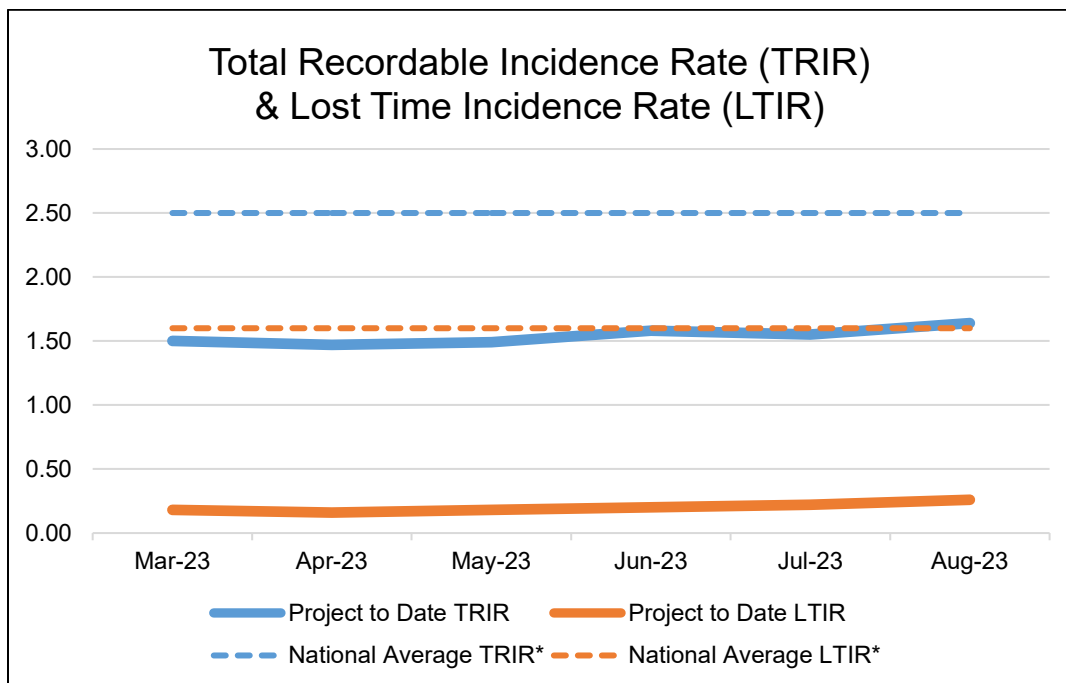
Safety procedures and activities during this reporting period include:

Safety Activities:

- VDOT continued to monitor HRCP's safety program implementation and promote safe work practices throughout the project.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of August 31, 2023:



**National averages are from the Bureau of Labor Statistics, US Department of Labor – 2021 Data for Construction Industry, Published November 9, 2022.*

9. Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP has awarded **344** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was an increase in contract awards for a total of **\$540.7 million** due to newly issued agreements and change orders issued to active DBE/SWaM firms on the project. A total of **\$324 million** has been paid for work completed by DBE/SWaM firms.

Compliance Activities:

- HRCP and VDOT Civil Rights Work Group met on August 15, 2023 for the monthly project and compliance update. Discussion focused on Federal compliance reports due, Title VI evaluations, subcontractor payment delays, a proposed hiring event, and upcoming procurement opportunities.

Workforce Development Activities:

- For this reporting period, HRCP remained at 32 graduates toward a goal of 80 candidates for VDOT/VTCA's On-the-Job Training (OJT) program. There are currently 12 candidates enrolled with 2 pending VDOT's approval.
- Planning continues for the first joint VDOT/HRCP hiring event to promote current and upcoming employment opportunities.

Business Development Activities:

- During this reporting period, business development and outreach activities included:
 - July 27, 2023 – Metropolitan Business League, RVA Linkup Expo & Job Fair
 - August 7, 2023 – North Carolina Institute of Minority Economic Development, Executive Networking Conference 2023
 - August 9, 2023 – Hampton Roads Black Brand, B-Force Capital Acceleration Program Celebration

10. Public Outreach & Media

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

Public Outreach

- July 26, 2023 – Project leadership presented to the Exchange Club of Poquoson.
- August 3, 2023 – Project leadership hosted a project site tour for HRTAC members.
- August 4, 2023 – Project leadership hosted a project site tour for HRTAC members.
- August 8, 2023 – Project leadership presented in collaboration with Chesapeake Bay Bridge–Tunnel leadership to Women’s Transportation Seminar and Design-Build Institute of America.
- August 10, 2023 – Project leadership provided an onsite tour to HRTAC members.
- August 10, 2023 – Project team presented to the Exchange Club of Wythe in Hampton.
- August 15, 2023 – Project team presented to The Chamberlin at Fort Monroe in Hampton.
- August 16, 2023 – Project leadership hosted a project site tour to HRTAC members.
- August 17, 2023 – Project leadership attended an outreach event at Music by the Bay at Fort Monroe in Hampton.

Public Materials

- August 10, 2023 – July/August HRBT Project Newsletter

Lane Closures/Advisories

- July 28, 2023 – Weekly Lane Closure Report
- August 4, 2023 – Weekly Lane Closure Report
- August 10, 2023 – July/August Project Newsletter
- August 11, 2023 – Weekly Lane Closure Report
- August 18, 2023 – Traffic Advisory – Closure of W. Bay Ave. On-Ramp
- August 18, 2023 – Weekly Lane Closure Report

Media

- July 24, 2023 – (13 News Now) Examining the state of major bridges in Hampton Roads <https://www.13newsnow.com/article/news/local/examining-state-of-major-bridges-in-hampton-roads-virginia>
- July 27, 2023 – (13 News Now) To drive on the future HRBT Express Lanes, you’ll need a new EZ Pass <https://www.13newsnow.com/article/traffic/vdot-hrbt-expansion-updates-newport-news-city-council>
- July 28, 2023 – (tunnelingonline.com) Tunnel Updates – June 2023 <https://tunnelingonline.com/tunnel-updates-june-2023>
- August 12, 2023 – (WTKR-3) Drone footage shows progress of HRBT Expansion Project <https://www.wtkr.com/news/drone-footage-shows-progress-of-hrbt-expansion-project>

- August 14, 2023 – (ARTBA) Tunnel to the 21st Century
<https://www.artba.org/2023/08/16/virginia-hampton-roads-bridge-tunnel-expansion>

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