



**January 2024  
Monthly Project Report  
I-64 HAMPTON ROADS  
BRIDGE-TUNNEL  
EXPANSION**

**Report No. 58**  
Project No. 0064-M06-032



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**Issue Date: February 7, 2024**

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 December 10, 2023 – January 20, 2024. 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 24<sup>th</sup> of each month.

During this reporting period, project accomplishments included the following:

- South Island Progress:
  - Installation of temporary struts at rectilinear approach structure 57% complete.
- Tunnel Progress:
  - Excavated 1,203 ft this period (4,896 ft total excavation) for High Occupancy Toll (HT) tunnel.
  - Installation of stage 1 CTB stone ballast material 4% complete.
- North Island Progress:
  - Installation of concrete for headwall 88% complete.
  - Completed excavation to Level 3 in Cell 2 of the receiving shaft.
- Landside Progress:
  - Began installation of permanent median barrier wall between Mallory St. and North Trestle.
  - Completed installation of center span steel girders at Evans St. Bridge for eastbound widening.
- Marine Progress:
  - North Trestle eastbound decks 83% complete.
  - South Trestle MOT westbound piles 88% 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 52 (data date: November 19, 2023), and the schedule information in this report reflects this update. Schedule 52 was returned Approved as Noted on December 13, 2023.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 52 is reporting Substantial Completion on September 24, 2026.
- HRCP's Schedule Update 52 is reporting Final Completion on November 23, 2026.

### Project Budget

The project budget summary below now includes all incurred to date costs through January 20, 2024 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:	\$ 2,190,710,434
<b>Remaining project budget:</b>	<b>\$ 1,744,741,207</b>

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ (9,989,436)
Exercised Options:	\$ 73,454,414
Material Price Adjustments to Date:	\$ 3,513,771
Assessed Liquidated Damages (LD):	\$ (939,000)
Design-build contract sum to date:	\$ 3,366,036,975
Expenditures to date:	\$ 2,080,883,885
<b>Remaining design-build contract amount:</b>	<b>\$ 1,285,153,090</b>

- Design-build progress to date:

Project Management:	74.7%
Design:	93.1%
Physical Construction Progress:	44.1%
<b>Overall:</b>	<b>61.8%</b>

## Environmental

Environmental updates for this reporting period include:

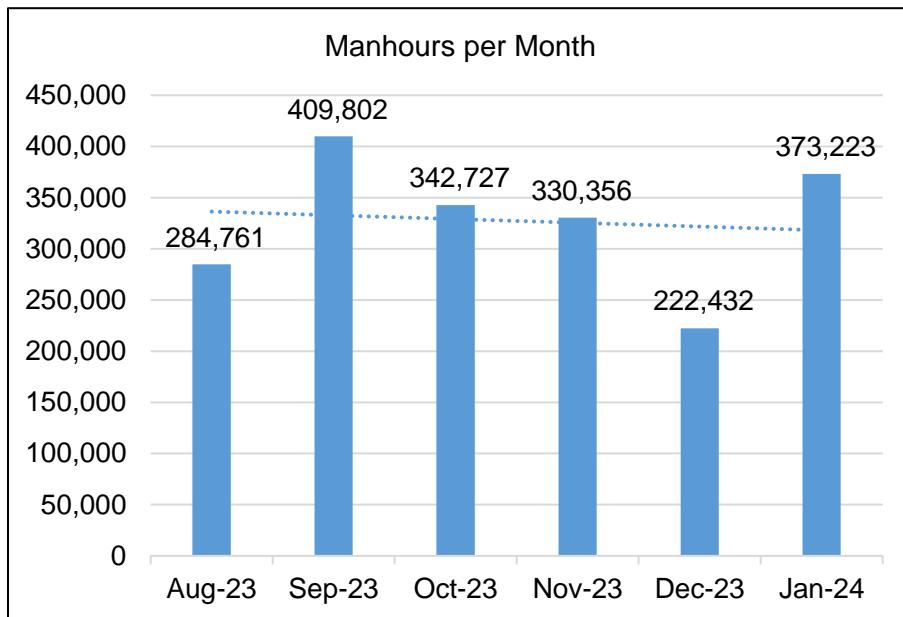
- HRCP received a Termination of Consent Order from Department of Environmental Quality on January 8, 2024.
- Environmental compliance training was conducted by HRCP for work crews from Landside, Islands, and Trestle construction areas.

## Construction

Summary progress updates for this reporting period include:

- Landside Roadways
  - Completed installation of wick drains between 15<sup>th</sup> View St. and 13<sup>th</sup> View St. for eastbound widening.
  - Began and completed drainage headwall 36-31 at the Patrol Rd. and Granby St. intersection.
  - Began excavation for retaining wall 409 between Oastes Creek and Patrol Rd. for eastbound widening.
- Marine Works
  - Placed decks at South eastbound permanent trestle (2 installed this period).
  - Drove pile at South westbound permanent trestle (1 installed this period).
  - Drove piles at South trestle Ramp B (3 installed this period).
- Tunnels and Islands
  - Excavated 1,203 ft this period (4,896 ft total excavation) for High Occupancy Toll (HT) tunnel.
- Landside Bridges
  - Began installation of deck reinforcement at Mallory St. Bridge for eastbound widening.
  - Completed pile driving at Bents 32-38 at Willoughby Bay Bridge for westbound widening.
  - Completed installation of precast caps at Bents 13 and 14 at Willoughby Bay Bridge for westbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of January 31, 2024:



**Project Manhours to Date:**  
10,203,449

## Operations

The following operations activities took place during this reporting period:

- Short-term lane closures on Willoughby Bay Bridge, North Trestle, and South Trestle eastbound and westbound to facilitate ongoing beam placement as well as concrete placement for piles, caps, and decks.
- Slow rolls and lane closures on I-64 at Willoughby for temporary lighting installation.
- All stops on I-64 at Mallory for ITS installation.
- Temporary closure of westbound access to South Island for utility trenching.

## 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 (QMS) and the effectiveness of the plan.



## Safety

The following safety performance indicator information is provided by HRCP and is current as of January 31, 2024:

- Total Recordable Incidence Rate: 1.61 (National Average: 2.5)
- Lost Time Incidence Rate: 0.25 (National Average 1.6)

## Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **347** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$545.4 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 Team hosted a site visit for Congressman Rob Wittman and Delegate Anne Ferrel Tata.
- Project Team published the article “Major Milestone for HRBT Expansion – Mary the Machine Digs Halfway from Norfolk to Hampton” online in the Virginia Pilot.

## 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 52 (data date: November 19, 2023), and the schedule information in this report reflects this update. Contractual Substantial and Final Completion dates remain unchanged.

	Contract Requirement	November 2023 Schedule	Actual
<b>NTP</b>		Sep 11, 2020	Sep 11, 2020
<b>Substantial Completion</b>	Sep 1, 2025	Sep 24, 2026	
<b>Final Completion</b>	Nov 1, 2025	Nov 23, 2026	

### 2.2 Longest Path

The longest path/critical path in Project Schedule Update 52 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

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 near critical, meaning there is less than one month of float in Schedule Update 52.

## South Portal

- South Island Expansion – Rectilinear Approach Construction – Temporary & Permeant Struts, Excavation, Mud Slabs, Base Slab, East & West Exterior Walls
- South Portal – Rectilinear Approach Permanent Structures
- South Portal Cell 1, 2 & 3 Permanent Structures – Exterior Walls, Interior Walls & Slabs, Roof Slabs

## South Island

- South Island – Temporary Private Utilities (Verizon & VDOT/Cox)
- Slurry Treatment Plant Disassembly & Demobilization
- South Island Buildings – Ventilation Building, Flood Gate House Building, Inspection Booths, Fuel & Water Tanks

## Tunneling

- Tunneling U-Turn – Preparation, Gantry 3 & 4
- General Purpose Tunnel – Interior Structures Construction

## North Portal

- North Portal – Temporary TBM Slab
- North Portal – Cell 2 Excavation & Strut Installation
- North Portal Cell 1 & 2 Permanent Structures – Cell 2 Mud Slab & Base Slab, Cell 1 & 2 Exterior Walls, Interior Walls & Slabs
- North Portal – Rectilinear Approach Permanent Structures

## North Island

- North Island – Temporary Structures – TBM Slab
- 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 – 13<sup>th</sup> 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 4<sup>th</sup> 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
- 13<sup>th</sup> View Bridge – Eastbound Substructure & Superstructure
- 13<sup>th</sup> View Bridge – Westbound Median Pier 1 & 2, West Bound Rehabilitation – Expansion Joints & Decks
- Willoughby Bay Bridge – Eastbound Superstructure Construction & Rehabilitation, Westbound Substructure, Superstructure Construction & Rehabilitation
- 4<sup>th</sup> View Bridge – Westbound Rehabilitation
- Mason Creek – Eastbound Substructure Construction, Westbound Rehabilitation
- 1<sup>st</sup> View Bridge – Eastbound Substructure Construction, Westbound Rehabilitation
- Bay Avenue Bridge – Westbound Rehabilitation
- Evans Street Bridge – Eastbound Substructure Construction & Rehabilitation, Westbound Rehabilitation
- Bay View Bridge – Eastbound Substructure & Superstructure Construction, Westbound Rehabilitation
- Oastes Creek Bridge – Westbound Substructure, Superstructure Construction & 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 – Finishes
- North Trestle Westbound – Zone 7, 8, 9, and 10 – Substructure/Superstructure Construction
- North Trestle – Eastbound and Westbound Demolition
- South Island Expansion – Marine Trestle Works, Land Ramp 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

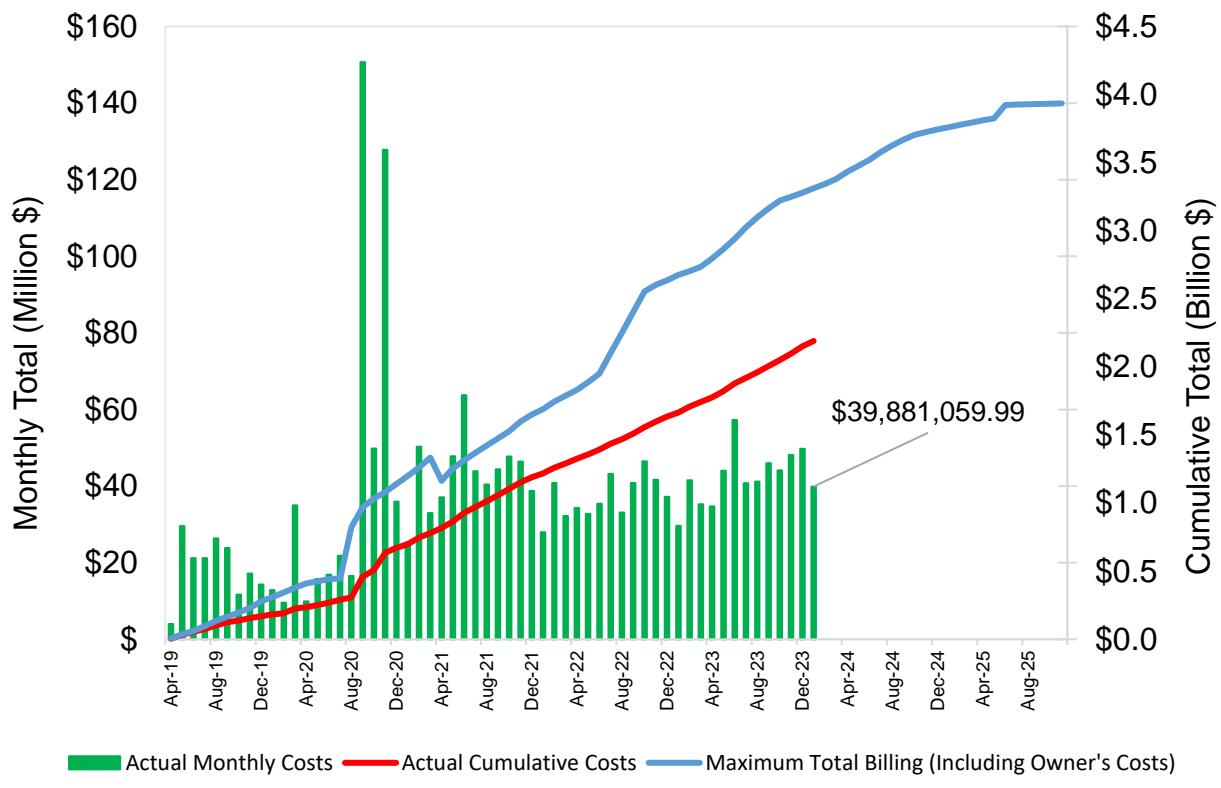
### 3. Project Budget

#### 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:
<b><u>Comprehensive Agreement</u></b>					
<i>Construction</i>	\$34,286,011.71	\$2,047,531,009.00	\$3,299,997,227.00	\$1,252,466,218.00	62.05%
<b><u>Owner Costs</u></b>					
<i>Administration</i>	\$4,230,215.11	\$96,382,852.18	\$122,000,000.00	\$25,617,147.82	79.00%
<i>Right of Way</i>	\$30,795.07	\$9,443,697.23	\$15,000,000.00	\$5,556,302.77	62.96%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$1,239,278.37	\$31,997,790.06	\$335,000,000.00	\$303,002,209.94	9.55%
<i>Bridge Repair Work Option</i>	\$94,759.73	\$5,355,085.99	\$73,454,413.96	\$68,099,327.97	7.29%
<b><u>Total</u></b>	<b>\$39,881,059.99</b>	<b>\$2,190,710,434.46</b>	<b>\$3,935,451,640.96</b>	<b>\$1,744,741,206.50</b>	<b>55.67%</b>

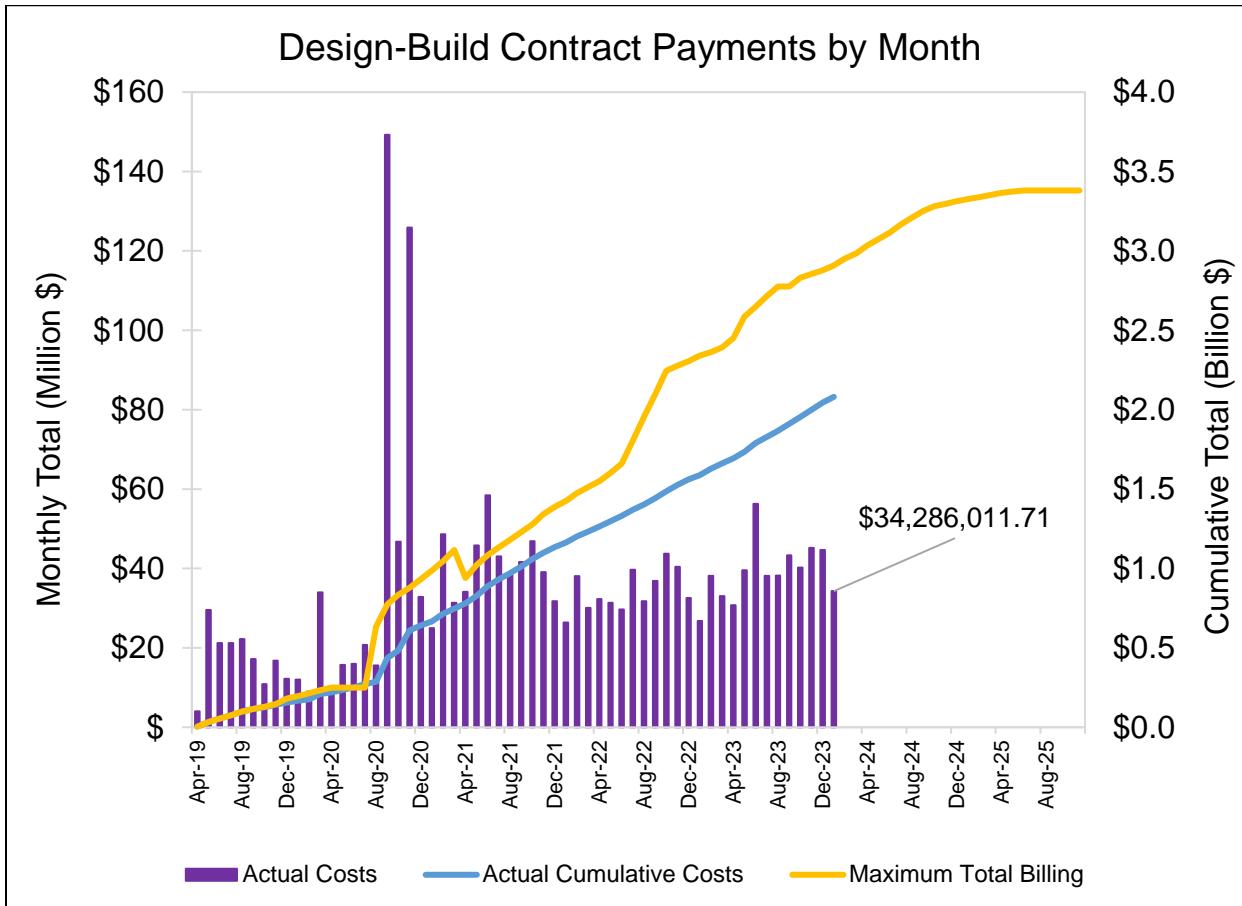
## Overall Payments by Month



\*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

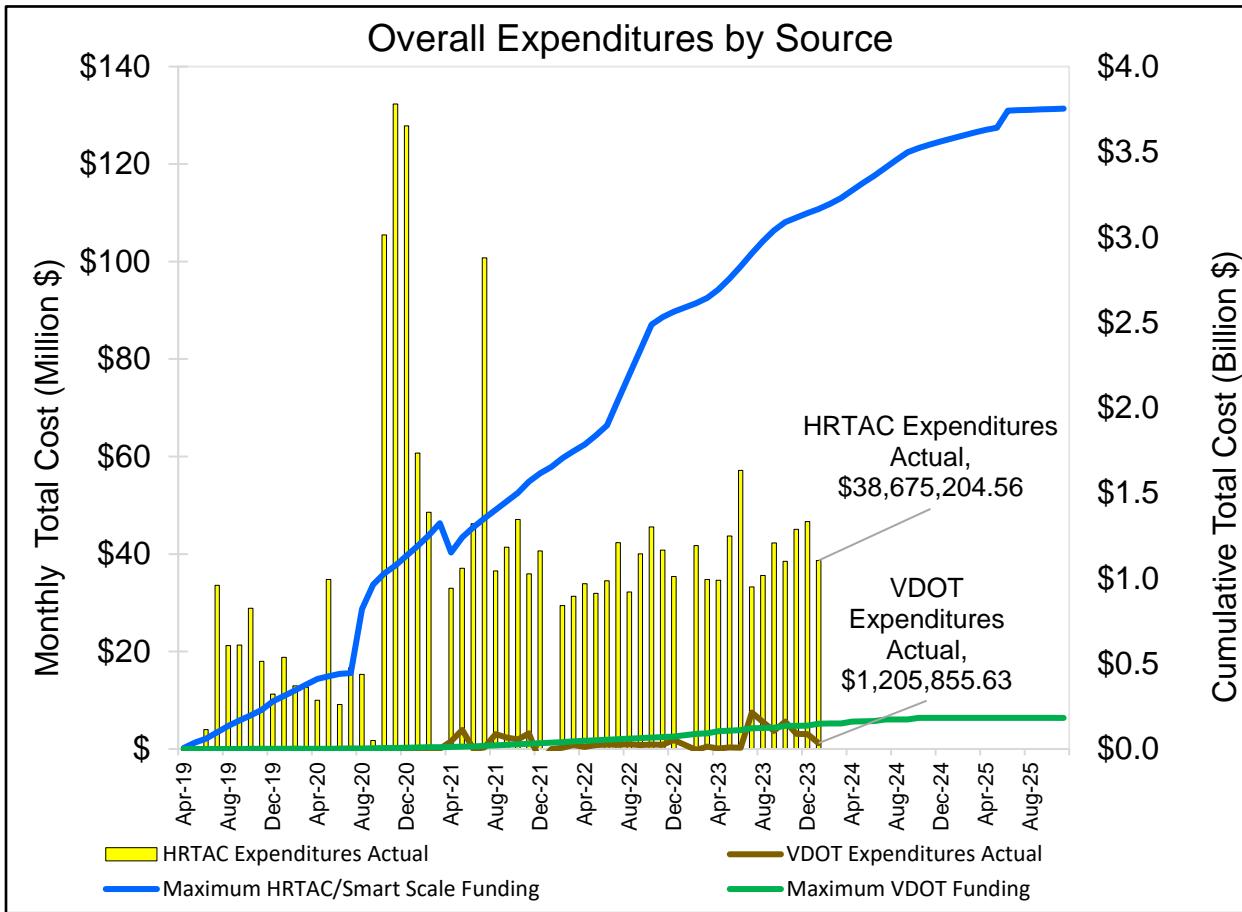
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation amount in the Comprehensive Agreement and will be updated as HRCP 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:
<b>Comprehensive Agreement</b>					
<i>Construction</i>	\$33,450,580.06	\$2,006,933,573.01	\$3,204,569,251.00	\$1,197,635,677.99	62.63%
<b>Owner Costs</b>					
<i>Administration</i>	\$3,954,551.06	\$92,590,053.13	\$118,472,054.00	\$25,882,000.87	78.15%
<i>Right of Way</i>	\$30,795.07	\$9,443,697.23	\$15,000,000.00	\$5,556,302.77	62.96%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$1,239,278.37	\$27,909,152.28	\$325,428,276.00	\$297,519,123.72	8.58%
<b>Total</b>	<b>\$38,675,204.56</b>	<b>\$2,136,876,475.65</b>	<b>\$3,753,469,581.00</b>	<b>\$1,616,593,105.35</b>	<b>56.93%</b>

#### 3.3.2 VDOT

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<b>Comprehensive Agreement</b>					
<i>Construction</i>	\$835,431.65	\$40,597,435.99	\$95,427,976.00	\$54,830,540.01	42.54%
<b>Owner Costs</b>					
<i>Administration</i>	\$275,664.05	\$3,792,799.05	\$3,527,946.00	(\$264,853.05)	107.51%
<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	\$4,088,637.78	\$9,571,724.00	\$5,483,086.22	42.72%
<i>Bridge Repair Work Option</i>	\$94,759.93	\$5,355,085.99	\$73,454,413.96	\$68,099,327.97	7.29%
<b>Total</b>	<b>\$1,205,855.63</b>	<b>\$53,833,958.81</b>	<b>\$181,982,059.96</b>	<b>\$128,148,101.15</b>	<b>29.58%</b>



### 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-63	Bridge Repair Item – Insert Plates - New Unit Prices	8/30/2023	\$ -	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-73	Pile Jackets – Additional Chloride Sampling/Testing	1/10/2024	\$ 118,665.12	0 days
CO-74	South Island – Asbestos Pipes	7/7/2023	\$ 128,883.51	0 days
CO-77	Scope Reduction – Segment 5 ITS Trunk Line	11/12/2023	\$ (153,079.38)	0 days
CO-78	Steel Escalation Price Adjustments	9/19/2023	\$ 2,835,839.00	0 days
CO-79	WB Willoughby Bay Bridge Obstructions	1/10/2024	\$ 50,682.44	0 days
CO-80	Hurricane Ian – Marine Fleet Safe Harbor	1/10/2024	\$ 452,075.00	0 days
CO-81	3-Coat Paint System for Existing Steel on Applicable Bridges	1/10/2024	\$ 140,000.00	0 days
CO-83	Marine Fleet Safe Harbor – Tropical Storm Idalia and Ophelia	1/11/2024	\$ 200,262.16	0 days
		<b>TOTAL</b>	<b>\$ 63,464,977.52</b>	<b>0 days</b>

### 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	\$ 9,057.45	\$ 157,914.33	November 2023
Fuel	\$ 30,090.61	\$ 442,391.91	November 2023
Steel	\$ 46,328.78	\$ 2,913,464.45	July 2023
<b>Total</b>	<b>\$ 85,476.84</b>	<b>\$ 3,513,770.69</b>	

\* The finalization of the steel index takes the Federal government about 4 months to complete.

## 4. Environmental

The following environmental management activities occurred during this reporting period:

### Permits:

- On January 8, 2024, HRCP received a Termination of Consent Order from Department of Environmental Quality for completing all requirements of the November 21, 2023 Consent Order.
- HRCP provided weekly inspection report summaries to the U.S. Army Corps of Engineers on January 9, 2024 and January 16, 2024.
- HRCP met with DEQ staff on December 13, 2023 to discuss draft emissions data for the North Island and South Island generators as they develop a path forward with DEQ air permit staff.
- 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:

- No new activities.

### 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):

- Began construction of permanent median barrier wall between Mallory St. and N. Trestle.
- Began settlement period for retaining wall 108 adjacent to North Trestle Abutment A.

### I-64 (Segment 3):

- Continued installation of precast coping and moment slab for retaining wall 301 adjacent to South Trestle Abutment D.
- Completed installation of wick drains between 15<sup>th</sup> View St. and 13<sup>th</sup> View St. for eastbound widening.
- Began installation of wick drains between 13<sup>th</sup> View St. and Willoughby Bridge for eastbound widening.
- Continued drainage work for sound wall 3-3 along I-64 eastbound between 4<sup>th</sup> View St. and Mason Creek Rd. for eastbound widening.

### I-64 (Segment 4):

- Continued grading for embankment between Mason Creek and 1<sup>st</sup> View bridges for eastbound widening.
- Continued grading for embankment adjacent to Evans St. Abutment A for eastbound widening.
- Began and completed drainage headwall 36-31 at the Patrol Rd. and Granby St. intersection.
- Completed installation of drainage jack and bore at 36-12 to 36-11 near Patrol Rd.
- Began excavation for retaining wall 409 between Oastes Creek and Patrol Rd. for eastbound widening.



#### ► Patrol Road

Carrier pipe installation for drainage jack and bore from 36-12 to 36-11

## 5.2 Construction Area 2: Marine Trestle Work

### North Trestle:

- **Eastbound Trestle**
  - 2.5 deck placed during this period (30 out of 36 total decks placed).

### South Trestle:

- **Eastbound Trestle**
  - 2 decks placed during this period (20 out of 53 total decks placed).
- **Westbound Trestle**
  - 1 pile driven during this period (17 out of 92 total piles driven).
- **Westbound Trestle MOT**
  - 5 piles driven during this period (94 out of 107 total piles driven).
- **HOT Lanes Trestle**
  - 3 piles driven during this period (22 out of 66 total piles driven).
  - 1 cap placed during this period (5 out of 16 total caps placed).
- **Ramp A**
  - 3 piles driven during this period (22 out of 33 total piles driven).
- **Ramp B**
  - 3 piles driven during this period (9 out of 28 total piles driven).
  - 2 caps placed during this period (2 out of 7 caps placed).



◀ **South Trestle Westbound**  
HT Bent 3 pile driving

## 5.3 Construction Area 3: Tunnels and Islands

### South Island:

- 57% complete for installation of temporary struts at rectilinear approach section leading into Cell 3 of launch shaft.
- 16% complete for installation of south portal external walls.
- 4% complete for installation of south portal internal walls.

### North Island:

- 88% complete for headwall concrete placement at Cell 1 of receiving shaft.
- 24% complete for third level of strut installation in Cell 2.
- Completed excavation to Level 3 in Cell 2 of the receiving shaft.

### Tunnel:

- 61.7% complete for High Occupancy Toll (HT) tunnel excavation (4,896 ft out of 7940 total ft excavated).
- 181 concrete tunnel rings installed this period (728 out of 1,194 total rings installed).
- Cutter head maintenance performed, with 4 rippers and 2 disc cutters replaced from inside the accessible cutterhead.
- 99% complete for precast tunnel segment liner production.
- 4% complete for stage 1 installation of cement-treated base (CTB) ballast for tunnel roadway.



#### ◀ TBM Tunnel Progress

Existing ripper 43/44 removed and replaced with new ripper.

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	21,277	99%

## 5.4 Construction Area 4: Landside Bridges

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### **Mallory Street Bridge:**

- Began installation of deck reinforcement for eastbound widening.

### **Willoughby Bay Bridge:**

- Continued repair/rehabilitation of existing westbound bridge.
- Completed pile driving at Bents 32-38 for westbound widening.
- Completed installation of precast caps at Bents 13 and 14 for westbound widening.
- Continued hydro-demolition of the existing bridge deck for eastbound widening.
- Began parapet/overhang demolition in Spans 2-19 for eastbound widening.

### **4<sup>th</sup> View Street Bridge:**

- Continued demolition of parapet/overhang to facilitate bridge widening.

### **Mason Creek Bridge:**

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

### **1<sup>st</sup> View Street Bridge:**

- Continued installation of deck overhangs and formwork for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.

### **Bay Avenue Bridge:**

- Completed slope protection at Abutment A for eastbound widening.
- Continued installation of mainline stay-in-place (SIP) deck forms and overhangs for eastbound widening.
- Completed bridge deck concrete placements in Spans 3-7 for eastbound widening.
- Continued demolition of mainline parapet and deck overhang for eastbound widening.
- Completed installation of Span 1 girders for eastbound widening.

### **Evans Street Bridge:**

- Completed installation of center span steel girders for eastbound widening.

### **Bayview Boulevard Bridge:**

- Completed slope protection at Abutment B for eastbound widening.

### **Oastes Creek Bridge:**

- Began preparation of slope protection at Abutment A for eastbound widening.

### **Patrol Road Bridge:**

- Completed Abutment B backwall and wingwall for eastbound widening.



◀ **Evans St. Bridge  
Eastbound**  
View of Span 2 steel  
girders installed



◀ **Mallory St. Bridge  
Eastbound**  
Installation of bridge  
deck reinforcing steel  
and formwork

## 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 and westbound to facilitate ongoing beam placement as well as concrete placement for piles, caps, and decks.
- Striping maintenance and pavement marker removal throughout project corridor.
- Slow rolls and lane closures on I-64 at Willoughby for temporary lighting installation.
- All stops on I-64 at Willoughby for office trailer deliveries.
- All stops on I-64 at Mallory for ITS installation.
- Temporary closure of westbound access to South Island for utility trenching.

### **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.
- 4<sup>th</sup> View St. in Norfolk traffic shift to facilitate bridge widening.
- Patrol Rd. in Norfolk traffic shift to facilitate bridge rehabilitation and widening.
- 13<sup>th</sup> View St. underpass beneath I-64 reduced to one lane to facilitate utility work. Traffic is controlled by temporary automatic one-lane, two-way traffic control signal.

### **Norfolk Lane Shifts:**

- None this period.

### **Detours:**

- Short-term daily detours at W. Bay Ave. on-ramp eastbound to facilitate bridge widening.
- Long-term detour at W. Evans St. was removed during this period, roadway back open to traffic.
- Long-term detour on 1<sup>st</sup> View St. to facilitate bridge widening was lifted and the roadway was reopened to traffic.
- Long-term detour on Mason Creek Road was established to facilitate bridge widening.

### **Intelligent Transportation System (ITS):**

- Relocation of RCU #10 at North Island complete.
- Relocation of CCTV 783 at 13<sup>th</sup> View St. complete.
- Installation of ITS and private utility conduit on North Trestle.

### **Overhead Sign Structures:**

- Installation of overhead sign structure foundations at various locations through corridor.
- Overhead sign structure #14 and #15 erection on the new North Trestle.

**Roadway Lighting:**

- Continued temporary lighting installation.
- Installation of permanent lighting conduit and junction chambers at Willoughby Bridge and North Trestle.

**Routine Maintenance:**

- HRCP performed routine incident management / maintenance operations within corridor.
- Removal of raised pavement markers throughout the corridor remains incomplete.

## 7. Quality

Quality updates for this reporting period include:

### **Construction Quality Management Plan (CQMP) Updates:**

- HRCP has submitted quarterly update V16 of the CQMP this period, which is currently under review.
- VDOT reviews CQMP updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. HRCP submitted two packages this period, and both are currently under VDOT review. Two packages from last period were returned to HRCP; one as Approved and one as Approved as Noted.

### **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. Technopref’s precast yard in Cape Charles is currently not producing 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. HRCP has submitted quarterly update V23 of the QMSP this period, which is currently under review.

### **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 twenty volumes of Material Book records and is currently auditing two 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 37 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

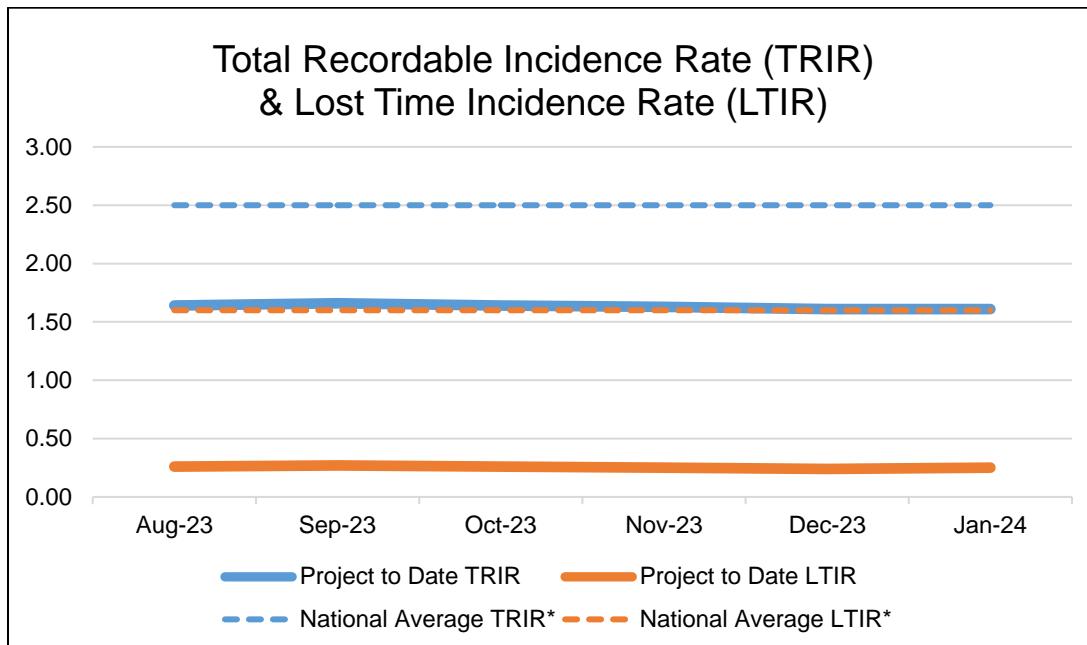
Safety procedures and activities during this reporting period include:

### Safety Activities:

- HRCP continued refresher safety training for project personnel. Training is 85% complete.

### Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of January 31, 2024:



*\*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 **347** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$545.4 million** due to new change orders issued to active DBE/SWaM firms on the project. A total of **\$373.3 million** has been paid for work completed by DBE/SWaM firms.

### Compliance Activities:

- For this reporting period, HRCP and VDOT discussions focused on the submission of certified payrolls by applicable subcontractors to ensure compliance with the U.S. Department of Labor's compliance requirements.
- HRCP's 4<sup>th</sup> Quarter DBE/SWaM Good Faith Efforts Report/C-111, DBE/SWaM Utilization Plan, and Workforce Participation Plan were submitted. The submissions are currently under review by VDOT.

### Workforce Development Activities:

- There was a slight increase in graduates in the On-the-Job Training Program (OJT) from 32 to 37 of the goal of 80. Seven (7) remain enrolled in the program. HRCP continues to seek ways to increase participation by ensuring project leads are vested in the program and subcontractors have an opportunity to allow their employees to benefit from the training program.

### Business Development Activities:

- USDOT Small Business Transportation Resource Center (SBTRC) hosted a virtual debriefing meeting with select stakeholders on January 9, 2024, for the Bonding Education Program (BEP) to include VDOT and HRCP. The planning group looked at ways to increase small business interest in the program. Participants were complementary of the level of meaningful content provided by prime contractors, financial/bonding institutions, and VDOT; along with their ability to network with additional local highway contractors invited to the Closing and Graduation Ceremony.

## 10. Public Outreach & Media

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

### Public Outreach

- December 15, 2023 – Project Team hosted a site visit for Congressman Rob Wittman and Delegate Anne Ferrel Tata.
- January 11, 2024 – Project Team hosted a site visit for VDOT Cost Estimation Office.

### Lane Closures/Advisories

- December 15, 2023 – Weekly Lane Closure Report
- December 22, 2023 – Weekly Lane Closure Report
- December 29, 2023 – Weekly Lane Closure Report
- January 5, 2024 – Weekly Lane Closure Report
- January 12, 2024 – Weekly Lane Closure Report

### Media

- December 22, 2023 – (HRBT social media) Project update celebrating the milestone of Mary reaching the halfway point on the new tunnel.
- December 26, 2023 – (Dos Media TV) “Episodio 39” featuring Alvaro Rumbos providing an overview of the HRBT Expansion Project and workforce opportunities to the Spanish community (<https://www.youtube.com/watch?v=bcaZeH1aC0Y>)
- January 6, 2024 – (Virginian Pilot) Major Milestone for HRBT Expansion – Mary the Machine Digs Halfway from Norfolk to Hampton (<https://www.pilotonline.com/2024/01/06/major-milestone-for-hrbt-expansion-mary-the-machine-digs-halfway-from-norfolk-to-hampton/>)
- January 9, 2024 – (HRBT podcast) “Mary is so Boring! Learn about progress on the new tunnel” podcast providing an overview on the tunneling process and update on construction to date (<https://tunneltalktoday.libsyn.com/tunneling-is-so-boring-learn-about-marys-progress-on-the-new-tunnel>)
- January 17, 2024 – (HRBT social media) Project update showing tunnel progress and size.
- January 20, 2024 – (WAVY.com) HRBT and VDOT to host career expo (<https://www.wavy.com/news/local-news/hrbt-and-vdot-to-host-career-expo/>)

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