



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

Report No. 46

Project No. 0064-M06-032



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Issue Date: February 9, 2023

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 December 11, 2022 – January 21, 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:
 - Headwall installation at Cell 1 launch pit to 95%.
 - Completed launching pit base slab.
 - South Island Expansion Cell 1 cofferdam pipe piles to 76%.
 - South Island Expansion Cell 1 cofferdam sheet piles to 62%.
- Tunnel Progress:
 - Precast tunnel segment liner production to 47%.
 - Completed TBM cutterhead installation.
- North Island Progress:
 - Began mobilization for the jet grout break-in/break-out block.
 - Completed capping beams for receiving pit.
- Landside Progress:
 - Completed site preparation for Dominion power substation near Mallory St.
 - Began installation of deck forms at Willoughby Bay Bridge.
 - Completed eastbound pile driving at 4th View St. Bridge abutment B and Pier 2.
- Marine Progress:
 - North Trestle eastbound beams to 58%.
 - North Trestle westbound piles to 20%.
 - South Trestle beams to 7%.

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 41 (data date: December 11, 2022), and the schedule information in this report reflects this update.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 41 is reporting Substantial Completion date of August 31, 2026.
- HRCP's Schedule Update 41 is reporting Final Completion date of October 30, 2026.

Project Budget

The project budget summary below now includes all incurred to date costs through January 21, 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: | \$ | 1,668,237,848 |
| Remaining project budget: | \$ | 2,267,213,793 |

- Design-build contract overview:

| | | |
|--|-----------|----------------------|
| Design-build contract original amount: | \$ | 3,299,997,227 |
| Net change orders: | \$ | 4,718,413 |
| Exercised Options: | \$ | 73,454,414 |
| Design-build contract sum to date: | \$ | 3,378,170,054 |
| Expenditures to date: | \$ | 1,588,437,045 |
| Remaining design-build contract amount: | \$ | 1,789,733,009 |

- Design-build progress to date:

| | |
|---------------------------------|--------------|
| Project Management: | 54.6% |
| Design: | 89.7% |
| Physical Construction Progress: | 29.1% |
| Overall: | 47.0% |

Environmental

Environmental updates for this reporting period include:

- DEQ and VMRC approved JPA permit modification request #9.
- HRCF began repairing passive bird measures in preparation for the coming bird season.

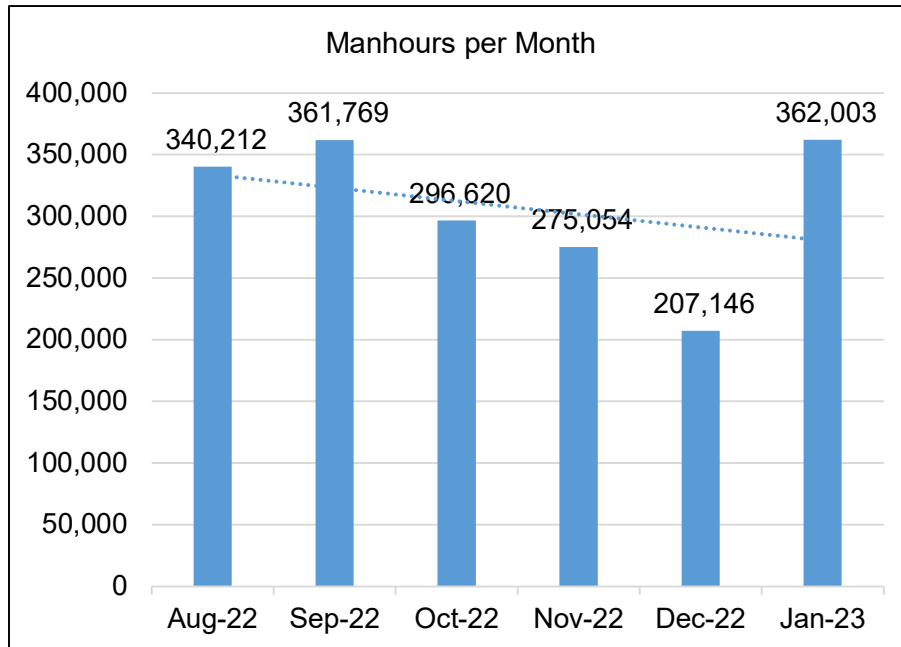
Construction

Progress updates for this reporting period include:

- Landside Roadways
 - Completed retaining wall installation BC-02 at future Dominion substation near Mallory St.
 - Completed sewer casing extension near Bayville off ramp for eastbound widening.
 - Began constructing retaining wall 308 near Willoughby Bay for eastbound widening.
 - Began subgrade preparation between Bay Ave. and Evans St. for eastbound widening.
 - Completed underdrain outlet pipe installations across I-64 EB from west Bay Ave. on ramp to Evans St.
- Marine Works
 - Placed caps at the North eastbound permanent trestle (1.5 installed this period).
 - Placed decks at the North eastbound permanent trestle (5 installed this period).
 - Drove piles at the South eastbound MOT trestle (2 installed this period).
 - Placed caps at the South eastbound MOT trestle (2 installed this period).
 - Set beams at the South eastbound MOT trestle (12 installed this period).
 - Placed decks at the South eastbound MOT trestle (5 installed this period).
 - Placed caps at the South eastbound permanent trestle (5 installed this period).
- Tunnels and Islands
 - Began South Island west side slurry wall demolition for rectilinear approach capping beams.
 - Completed capping beams for North Island receiving pit.
 - Began mobilization for the North Island jet grout break-in/break-out block.
 - Began temporary strut installation for North Island receiving pit.
 - Completed TBM cutterhead installation.
- Landside Bridges
 - Completed partial demolition of existing Mallory St. Bridge Abutment B for the Phase 1 bridge replacement.
 - Completed structure excavation at 4th View St. Bridge Abutment B and Pier 2 for eastbound widening.
 - Completed pile driving for Bay Ave. Bridge Abutment A for eastbound widening.
 - Completed Bay Ave. Bridge Spans 37, 38, and 39 deck concrete placements for eastbound widening.

- Completed Bay Ave. Bridge demolition of existing left parapet and deck overhang along ramp structure for eastbound widening.

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



Project Manhours to Date:
6,395,056

Operations

The following operations activities took place during this reporting period:

- New short-term lane closures on I-64 eastbound and westbound for aerial ITS conduit installation on existing sign structures.
- Quarterly Concept of Operations meeting held January 17, 2023.
- Installation of ITS conduit on the South Trestle.
- Removal of raised pavement markers throughout the corridor.

Quality

Quality updates for this reporting period include:

- VDOT reviewed Construction Quality Management Plan (CQMP) updates for three Notice of Design Change (NDC) packages this period.
- VDOT reviewed 26 Non-Conformance Reports (NCRs) for concurrence.
- 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.
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Safety

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

- Total Recordable Incidence Rate: 1.56 (National Average: 2.5)
- Lost Time Incidence Rate: 0.19 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **326** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$501.4 million** to certified DBE/SWaM firms.

- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 28 participants have completed all required training hours to graduate from the OJT program.
- VDOT and HRCP participated in business development and outreach events including the Dr. Martin Luther King, Jr. Community Health, Wellness, Career & Business Fair, Metropolitan Business League's Office Grand Opening and Networking Event, Virginia Small Business Development Center GovCon 101 procurement training, Conference of Minority Transportation Officials Hampton Roads monthly meeting, and USDOT Small Business Transportation Resource Center/Hampton Roads Bonding Education Program planning session.

Public Outreach & Media

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

- Project Team presented to Larchmont United Methodist Church Group and Beth Shalom Community Group.
- December 2022 newsletter released.
- Multiple ads released to announce the upcoming I-64 eastbound traffic shift.
- Channel 3 WTKR "Year in Review" story.

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 41 (data date: December 11, 2022), and the schedule information in this report reflects this update. Update 41 projects substantial completion on August 31, 2026, and final completion on October 30, 2026. Contractual Substantial and Final Completion dates remain unchanged.

| | Contract Requirement | December 2022 Schedule | Actual |
|-------------------------------|----------------------|------------------------|--------------|
| NTP | | Sep 11, 2020 | Sep 11, 2020 |
| Substantial Completion | Sep 1, 2025 | Aug 31, 2026 | |
| Final Completion | Nov 1, 2025 | Oct 30, 2026 | |

2.2 Longest Path

The longest path/critical path in Project Schedule Update 41 is driven by the following activities:

- Assembly of the Tunnel Boring Machine (TBM) in launching pit
- TBM Commissioning
- TBM drive in High Occupancy Toll Tunnel
- TBM U-Turn on North Island
- TBM drive in General Purpose Tunnel
- TBM Disassembly in south pit
- South Portal Cut and Cover Structures – Phase 4 Cell 1
- South Island Ventilation Building and Gate House – Phase 2
- South Ventilation Building Commissioning
- South Island Buildings Integrated Functional Testing
- Tunnel Systems Integration – ITS
- 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 41:

South Portal

- South Portal Cut and Cover Structures – Phase 2, 5, and 6
- General Purpose Tunnel – Interior Structures Construction

South Island

- South Island – Slurry Treatment Plant – Complete Filter Press Area, Bi-Component Plant, Utility Surface Piping and Building
- South Island – Slurry Treatment Plant Commissioning
- South Island – Additional Conveyor and Quay Mooring Piles and Fenders
- South Island – Northside Expansion – Clear Cluster 109
- South Island – Vent Building Construction – Phase 1
- South Island – Temporary Private Utilities (Verizon & VDOT/COX)

Tunneling

- Tunnel Boring Machine – Gantry 2 and 4 Final Assembly in Tri-Cell

North Island

- North Portal – Phase 3 and 4 – Tunnel Construction
- North Island – Ventilation Building – Phase 2 Cell 1 – Construction

Roadway and Land Bridges

- Segment 1 Phase 1 – I-64 North Shore Roadway, Drainage, RW103A, RW02, RW105A, and RW108
- Segment 1 – Shore Feeder Medium Voltage Cable Relocation
- Segment 3 Phase 1,2,4 – ITS – Lane Use Signals (LUS), Overhead Sign Structure (OHSS), Dynamic Messaging Sign, and Overheight Detector
- Segment 3b Phase 1,2,3A – I-64 Willoughby Spit PV Drains/Ground Improvement, Retaining Walls, Drainage, Roadway, Permeant Barrier Wall, and Temporary Lighting
- Segment 3b Phase 4 – 13th Avenue Ramp F Construction
- Segment 3d Phase 1,2A, 3 – Willoughby Bridge to Mason Creek - Median Widening, Retaining Walls, Storm Drainage, Roadway, and Temporary Lighting
- Segment 3d Phase 1 – ITS – Butterfly Structure Construction, Overheight Detector, OHSS
- Segment 3d 4th View Ramp H – Surcharge and Ramp Construction
- Segment 4 Phase 2, 3, 4 – Norfolk to Navy - Median Widening, Retaining Walls, Storm Drainage, and Roadway
- Bayville St. Bridge – Eastbound Abutment A, B, and Median Piers Construction
- Willoughby Bay Bridge – Eastbound Lighting and Abutment A Construction

- Willoughby Bay Bridge Stage 1 Phase 2, 3A – Eastbound/Westbound Superstructure Construction
- 4th View St. Bridge – Eastbound Abutment B and Median Piers
- Bay Ave. Bridge – Eastbound Ramp BA – Unit 10 Construction
- Bay Ave. Bridge – Westbound Substructure and Superstructure Construction
- Evans St. Bridge – Eastbound Abutment A Construction, Eastbound /Westbound Rehabilitation
- Bayview Blvd. Bridge – Eastbound/Westbound Rehabilitation
- Patrol Rd. Bridge – Eastbound Substructure and Superstructure Construction

Trestles

- North Trestle – Zone 1 Eastbound Abutment Construction
- North Trestle – Zone 8, 9, and 10 - Substructure and Superstructure Construction
- North Trestle – Eastbound Demolition
- South Island Expansion – Marine Works, Land Works, and Island Expansion
- South Trestle – Zone 1 Abutment D Construction
- South Trestle – Zone 3 Substructure and Superstructure Construction and Lighting
- South Trestle – Zone 5 Superstructure Construction
- South Trestle – Zone 7, 8, and 9 Substructure and Superstructure Construction
- South Trestle – Existing Trestle Demolition

Commissioning and Integration

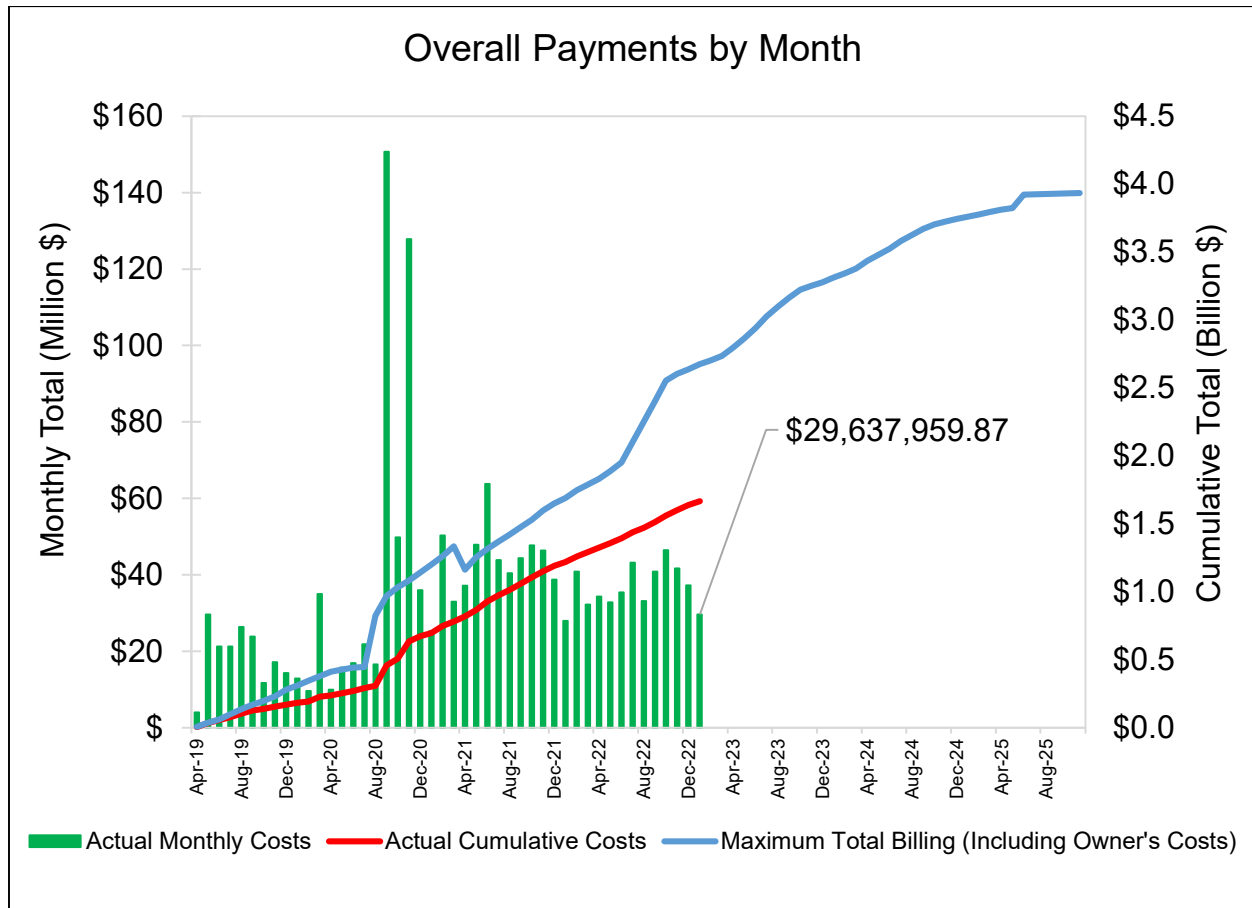
- General Purpose Tunnel – Functional Testing – Low Point Pump Station Drainage, Fire Suppression and Detection, Booster Fans, Lighting
- North Island Buildings – Functional Testing – Mechanical Pressurization
- South Island Buildings – Functional Testing – Electrical Medium Voltage/Low Voltage
- Commissioning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

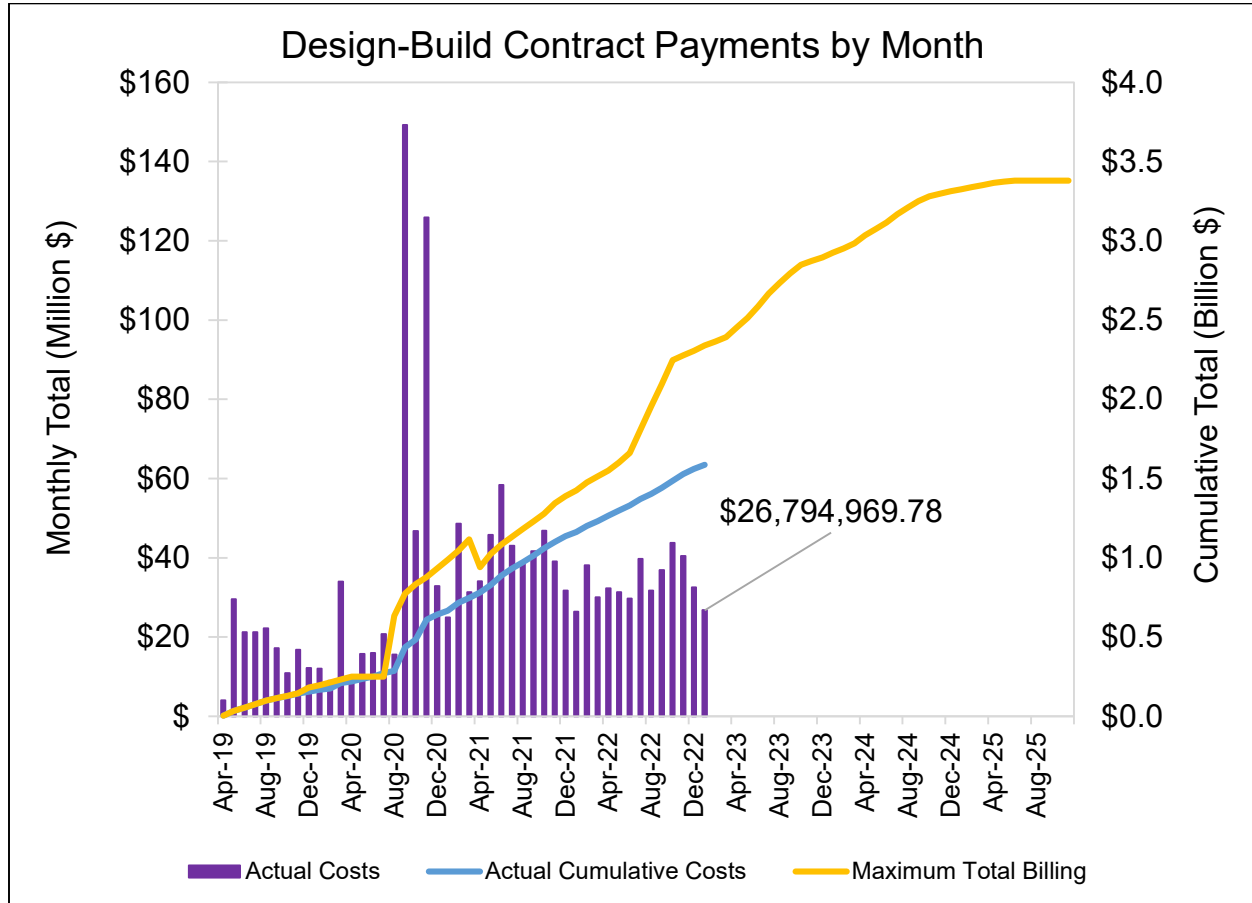
| | Amount Spent this Period: | Total Spent to Date: | Original Total Budget: | Total Remaining Budget: | Percent Spent To-date: |
|---------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|------------------------|
| <u>Comprehensive Agreement</u> | | | | | |
| <i>Construction</i> | \$26,794,969.78 | \$1,565,654,878.70 | \$3,299,997,227.00 | \$1,734,342,348.30 | 47.44% |
| <u>Owner Costs</u> | | | | | |
| <i>Administration</i> | \$2,299,293.84 | \$67,092,180.25 | \$122,000,000.00 | \$54,907,819.75 | 54.99% |
| <i>Right of Way</i> | \$13,703.06 | \$8,708,622.76 | \$15,000,000.00 | \$6,291,377.24 | 58.06% |
| <i>No-Excuses Incentive</i> | \$0.00 | \$0.00 | \$90,000,000.00 | \$90,000,000.00 | 0.00% |
| <i>Contingency</i> | \$190,361.14 | \$23,688,174.44 | \$335,000,000.00 | \$311,311,825.56 | 7.07% |
| <i>Bridge Repair Work Option</i> | \$339,632.05 | \$3,093,992.19 | \$73,454,413.96 | \$70,360,421.77 | 4.21% |
| <u>Total</u> | \$29,637,959.87 | \$1,668,237,848.34 | \$3,935,451,640.96 | \$2,267,213,792.62 | 42.39% |



**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

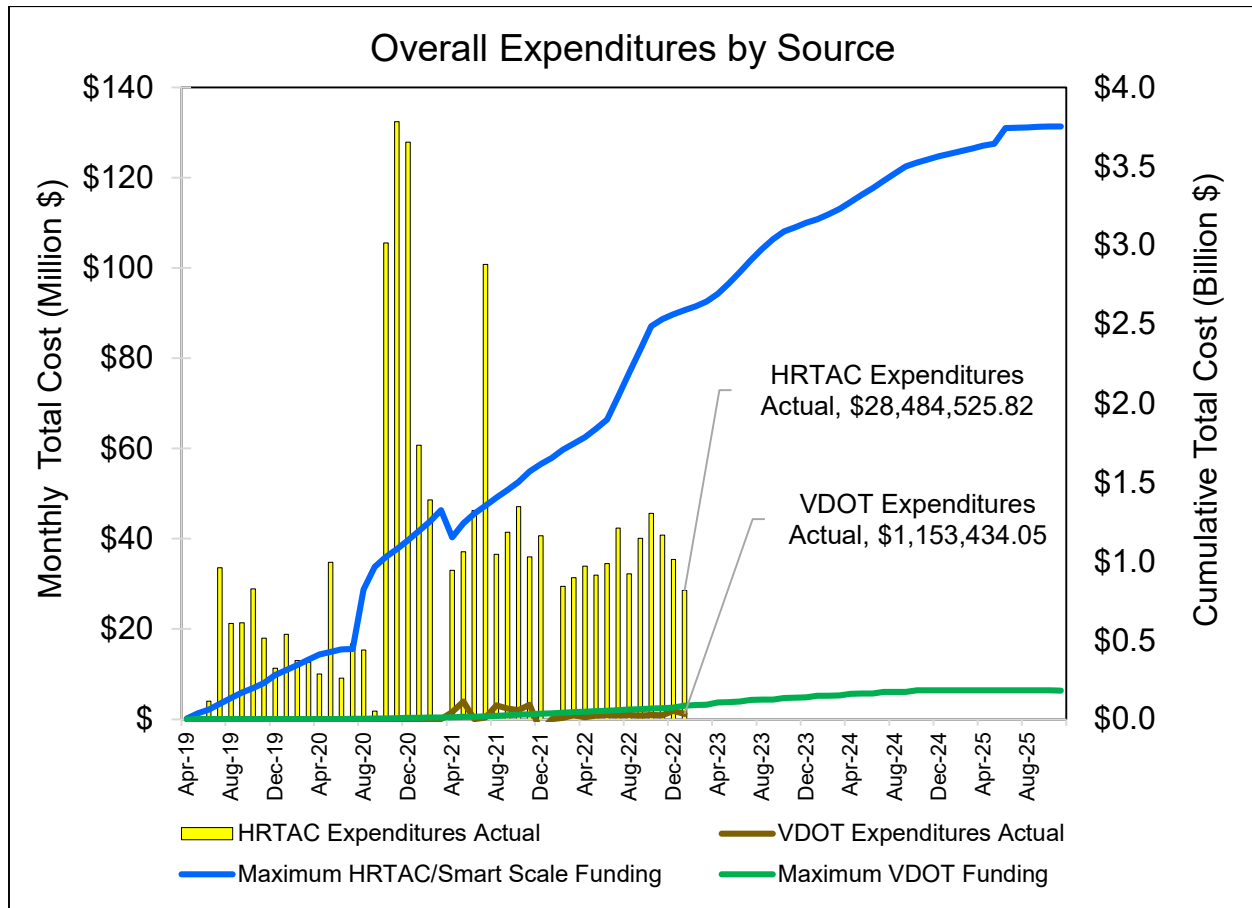
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation 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> | \$26,108,773.78 | \$1,548,326,127.94 | \$3,204,569,251.00 | \$1,656,243,123.06 | 48.32% |
| <u>Owner Costs</u> | | | | | |
| <i>Administration</i> | \$2,171,687.84 | \$65,298,110.25 | \$118,472,054.00 | \$53,173,943.75 | 55.12% |
| <i>Right of Way</i> | \$13,703.06 | \$8,708,622.76 | \$15,000,000.00 | \$6,291,377.24 | 58.06% |
| <i>No-Excuses Incentive</i> | \$0.00 | \$0.00 | \$90,000,000.00 | \$90,000,000.00 | 0.00% |
| <i>Contingency</i> | \$190,361.14 | \$22,703,208.31 | \$325,428,276.00 | \$302,725,067.69 | 6.98% |
| <u>Total</u> | \$28,484,525.82 | \$1,645,036,069.26 | \$3,753,469,581.00 | \$2,108,433,511.74 | 43.83% |

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> | \$686,196.00 | \$17,328,750.76 | \$95,427,976.00 | \$78,099,225.24 | 18.16% |
| <u>Owner Costs</u> | | | | | |
| <i>Administration</i> | \$127,606.00 | \$1,794,070.00 | \$3,527,946.00 | \$1,733,876.00 | 50.85% |
| <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> | \$339,632.05 | \$3,093,992.19 | \$73,454,413.96 | \$70,360,421.77 | 4.21% |
| <u>Total</u> | \$1,153,434.05 | \$23,201,779.08 | \$181,982,059.96 | \$158,780,280.88 | 12.75% |



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 & 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-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-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 |
| TOTAL | | | \$ 78,172,827.17 | 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 | \$ 8,180.77 | \$ 51,189.65 | November 2022 |
| Fuel | \$ 44,213.45 | \$ 216,307.32 | November 2022 |
| Steel | \$ 137,966.92 | \$ 1,932,185.58 | July 2022 |

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- DEQ and VMRC approved JPA permit modification request #9.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- HRCP began repairing passive bird measures in preparation for the coming bird season.

Programmatic Agreement:

- No new activities.

Archeological Discoveries:

- 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 installation along I-64 median on both sides of Mallory St.
- Completed panel installation for retaining wall BC-02 at future Blue Crab substation.
- Panel installation for retaining wall 103A at Mallory St. bridge Abutment A.
- Completed Blue Crab substation fill placement and grading operation.

I-64 (Segment 3):

- Drainage installation near Bayville on ramp for eastbound widening.
- Drainage installation near Willoughby bridge Abutment A for eastbound widening.
- Began constructing retaining wall 308 near Willoughby Bay for eastbound widening.
- Drainage installation along I-64 on and off ramps at 4th View St. for eastbound widening.
- Embankment installation between 4th View St. and Mason Creek Rd. for eastbound widening.
- Concrete ditch installation along retaining wall 311 near Mason Creek Rd. for eastbound widening.

I-64 (Segment 4):

- Began subgrade preparation between Bay Ave. and Evans St. for eastbound widening.
- Completed underdrain outlet pipe installations across I-64 EB from west Bay Ave. on ramp to Evans St.



◀ I-64 EB (Segment 3)
Drainage installation near
Willoughby Spit

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound Trestle**
 - 1.5 caps placed during this period (26.5 out of 37 total caps/footers placed).
 - 10 beams placed during this period (173 out of 296 total beams placed).
 - 5 decks placed during this period (14.5 out of 36 total decks placed).
- **Westbound Trestle**
 - 16 piles installed during this period (53 out of 261 total piles driven).

South Trestle:

- **Eastbound MOT Trestle**
 - Completed pile, cap, beam, and deck installations.
- **Eastbound Trestle**
 - No piles driven during this period (310 out of 531 total piles driven).
 - 5 caps placed during this period (19.5 out of 70 total caps placed).
 - 21 beams placed during this period (47 out of 698 total beams placed).
 - No decks placed during this period (0 out of 69 total decks placed).

South Island Expansion:

- **Cell 1 Cofferdam**
 - 17 pipe piles driven during this period (35 out of 46 total piles driven).
 - 16 sheet piles driven during this period (31 out of 50 total piles driven).



◀ **South Eastbound MOT Trestle**
Safety inspection in anticipation of upcoming traffic switch

*Visit <https://hrbtexpansion.org/trafficshift/> to learn more about this near future traffic switch

5.3 Construction Area 3: Tunnels and Islands

South Island:

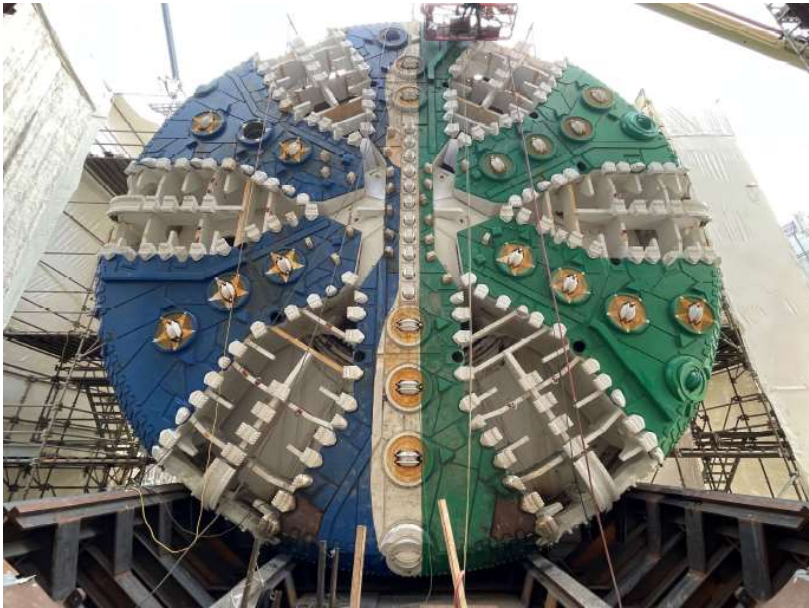
- Completed concrete placement at launching pit base slab.
- 91% complete for General Purpose headwall installation.
- Began west side slurry wall demolition for rectilinear approach capping beams.

North Island:

- 54% complete for capping beams overall (receiving pit and approach section).
- 90% complete for installing instrumentation and dewatering wells in preparation for receiving pit excavation.
- Began mobilization for the jet grout break-in/break-out block and treatment plant.
- Began temporary strut installation (level 1) for receiving pit.

Tunnel:

- 47% complete for precast tunnel segment liner production.
- Completed TBM cutterhead installation (56% complete for TBM assembly).



◀ **South Island**
TBM Cutterhead Installation

| Total Segments Required: | Conforming Segments Cast To-Date: | Percentage Complete: |
|--------------------------|-----------------------------------|----------------------|
| 21,492 | 10,103 | 47% |

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge:

- Completed partial demolition of existing Abutment B for the Phase 1 bridge replacement.

Willoughby Bay Bridge:

- Began installation of deck forms and overhangs for eastbound widening.
- Continued demolition of existing parapet and deck overhang for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.

4th View St Bridge:

- Completed structure excavation at Abutment B for eastbound widening.
- Completed pile driving for Abutment B and Pier 2 for eastbound widening.

Mason Creek Bridge:

- Placed concrete for Abutment A pedestals for eastbound widening.

1st View Street Bridge:

- Placed concrete for Pier 1 footing/columns and Pier 2 cap for eastbound widening.

Bay Avenue Bridge:

- Placed caps at Bents 1, 2, 4, and 6 for eastbound widening.
- Completed pile driving for Abutment A for eastbound widening.
- Completed Spans 37, 38, and 39 deck concrete placements for eastbound widening.
- Completed demolition of existing left parapet and deck overhang along ramp structure for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge (mainline and ramp).

Bayview Boulevard Bridge:

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

Oastes Creek Bridge:

- Continued installation of deck forms and overhangs for eastbound widening.
- Continued demolition of existing pile jackets for eastbound and westbound bridges.



◀ **Willoughby Bay Bridge**
Placing deck forms



◀ **Mason Creek Bridge**
Placing Abutment A
pedestal concrete

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, caps, and decks.
- Willoughby Bay Bridge, North Trestle, and South Trestle eastbound for beam placements.
- South Trestle for temporary trestle tie-in.
- Willoughby Bay Bridge and South Trestle for temporary lighting installation.
- Striping maintenance throughout the project corridor.
- I-64 eastbound and westbound for aerial ITS conduit installation on existing sign structures.

Long-Term Lane Closures:

- Bay Ave. in Norfolk to facilitate access to staging area 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.

Hampton Lane Shifts:

- No new activities.

Norfolk Lane Shifts:

- No new activities.

Detours:

- Long-term detour at West Evans St. to facilitate bridge widening.
- Long-term detour on West Bay Ave. eastbound on-ramps for bridge widening work.
- Long-term detour at Mason Creek Rd. to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Quarterly Concept of Operations meeting held January 17, 2023. Topics of discussion included fiber optic network, commissioning plan update, ATMS transition plan, and systems design package.
- Continued preparatory works for installation of temporary lane-use signal overhead truss structures at the Mallory and Willoughby inspection stations.
- Installation of ITS conduit on the South Trestle.

Routine Maintenance:

- HRCP performed routine incident management and maintenance operations within the corridor, including pavement repairs at several bridge approaches within the corridor.
- Removal of raised pavement markers throughout the corridor.

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 were 3 NDC updates 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 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 fourth quarter of 2022. VDOT is currently reviewing these submissions.

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 ten volumes of 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 26 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

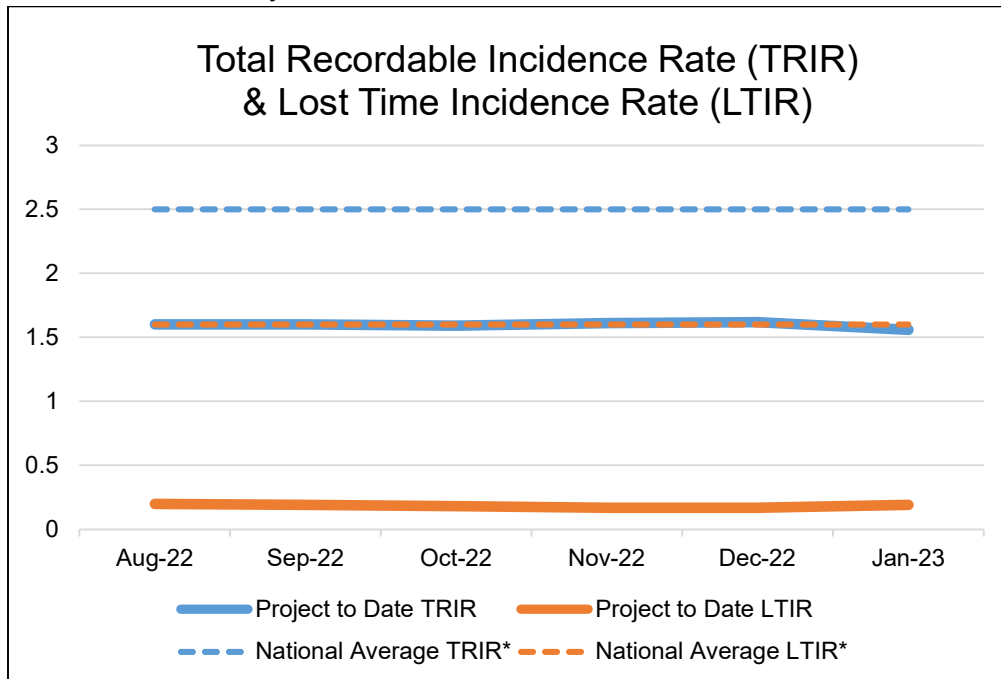
Safety procedures and activities during this reporting period include:

Safety Site Visits:

- VDOT continued to conduct routine visits to 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 January 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 awarded **326** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$501.4 million** due to a few newly issued subcontracts and change orders issued to active DBE/SWaM firms on the project.

Compliance Activities:

- HRCP and VDOT Civil Rights Work Group met on January 17, 2023 for the monthly project and compliance update. Emphasis was placed on compliance with prompt payments to subcontractors, on-going document submittals, and ensuring contractors maintain required certifications to perform on the project.
- During the reporting period, HRCP submitted all required quarterly reports to VDOT for review, which included the 4th Quarter Good Faith Effort Activities Report, DBE/SWaM Utilization Report, and the Workforce Development Plan.

Workforce Development Activities:

- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 28 participants have completed required training hours to graduate from the OJT program, with 11 actively enrolled. Trades include carpenters, welders, field supervisors, excavator operators, pile drivers, mechanics, and skilled laborers. Participants completing the program received certificates of completion endorsed by VDOT and HRCP. Of those graduating, 18% were women.

Business Development Activities:

- January 13, 2023 – Dr. Martin Luther King, Jr. Community Health, Wellness, Career & Business Fair
- January 18, 2023 – Metropolitan Business League's Office Grand Opening and Networking Event
- January 18, 2023 – Virginia Small Business Development Center, GovCon 101, Procurement Training
- January 20, 2023 – Conference of Minority Transportation Officials (COMTO) Hampton Roads Monthly Meeting
- January 20, 2023 – USDOT Small Business Transportation Resource Center, Hampton Roads Bonding Education Program Planning Session

10. Public Outreach & Media

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

Public Outreach

- January 12, 2023 – Project team presented to Larchmont United Methodist Church Group
- January 17, 2023 – Project team presented to Beth Shalom Community Group

Public Materials

- December 23, 2022 – Project team released December project newsletter
- January 20, 2023 – Multiple ads released to announce the upcoming I-64 eastbound traffic shift

Lane Closures/Advisories

- December 16, 2022 – Weekly Lane Closure Report
- December 22, 2022 – Weekly Lane Closure Report
- December 29, 2022 – Weekly Lane Closure Report
- January 6, 2023 – Weekly Lane Closure Report
- January 13, 2023 – Weekly Lane Closure Report
- January 19, 2023 – 1st View 24/7 Closure and Detour Traffic Advisory
 - Channel 13 (WVEC) [Traffic Alert: 1st View Street to close for HRBT expansion project | 13newsnow.com](#)
 - Channel 13 (WVEC) [Part of 1st View Street in Norfolk to close, making way for HRBT expansion project | 13newsnow.com](#)
- January 20, 2023 – New Traffic Pattern Press Release
 - Channel 13 (WVEC) <https://www.13newsnow.com/article/traffic/1st-view-street-closure-hrbt-expansion/291-6d696aac-f630-4ff6-93e7-6ba5cc84bcf5>
 - Channel 10 (WAVY) <https://www.wavy.com/news/local-news/norfolk/new-traffic-pattern-coming-to-hampton-roads-bridge-tunnel/>

Media

- December 2022 – Channel 3 (WTKR) Year in Review [Big Builds: Where Hampton Roads' major developments stand as 2023 begins \(wtkr.com\)](#)

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