



Hampton Roads Bridge-Tunnel Expansion Project

Virginia Beach Military Economic Development
Advisory Committee
Monday, May 20, 2024

Project Scope: More than Just a Tunnel



Increase Capacity | Ease Congestion | Enhance Travel Time Reliability

Project Overview



- Contract Award: April 2019
- Notice to Proceed: September 2020
- Cost: \$3.9 billion Design/Build Project
- Project Funding:
 - 92% - regional gas and sales tax
 - 8% - state and federal funds

Project Partners



PROJECT OWNER



PROJECT FUNDING



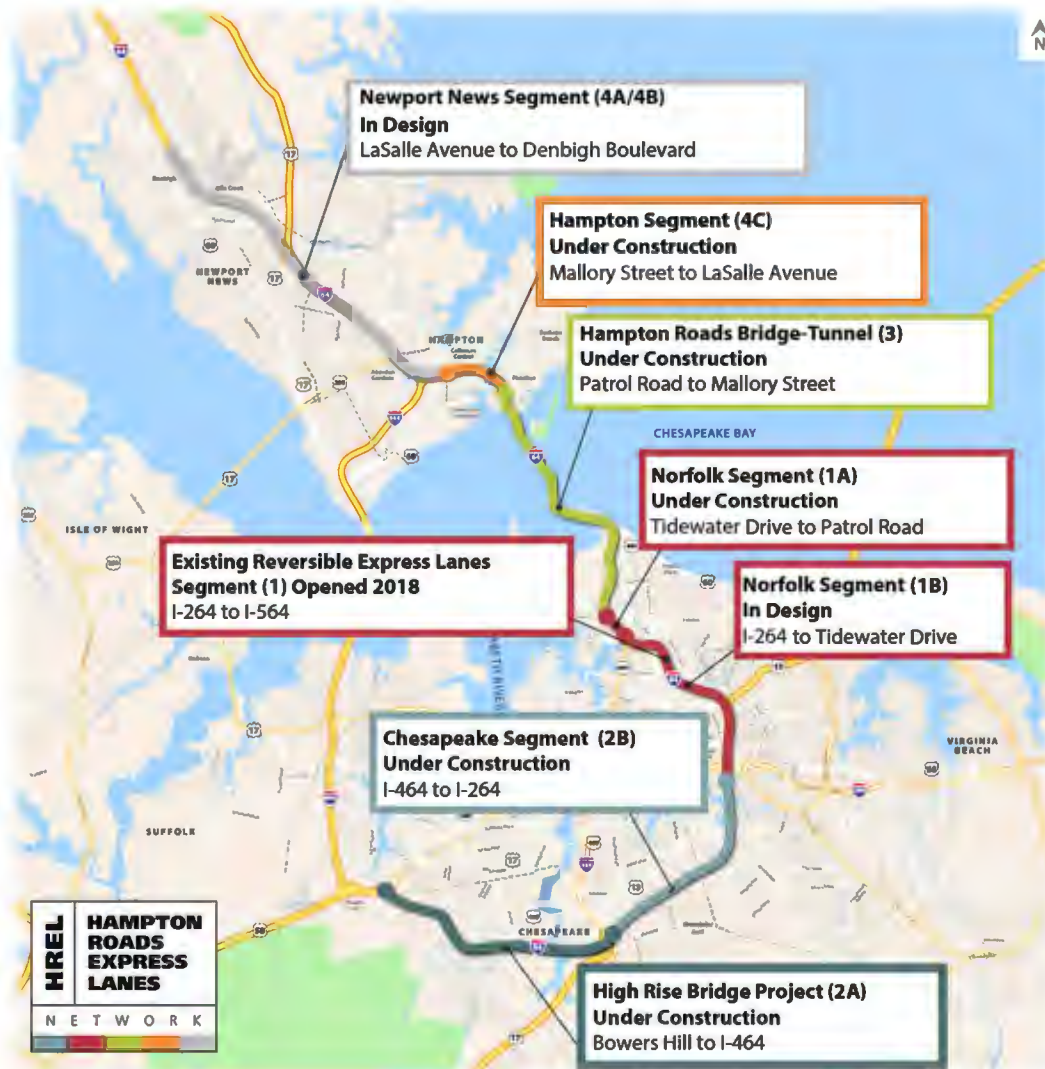
PROJECT DESIGN/BUILDER

Hampton Roads Regional Transportation Priority Projects

Funded and Under Construction through the Hampton Roads Transportation Accountability Commission (HRTAC): \$5.1 billion



Hampton Roads Express Lanes Network (HREL)



- 45-Mile Continuous Network
- I-64 from Denbigh Boulevard to I-664 (Bowers Hill)
- High Occupancy Toll (HOT-2)
- Dynamic Tolling System

Corridor Concept Video

Concept Video

HRBTExpansion.org

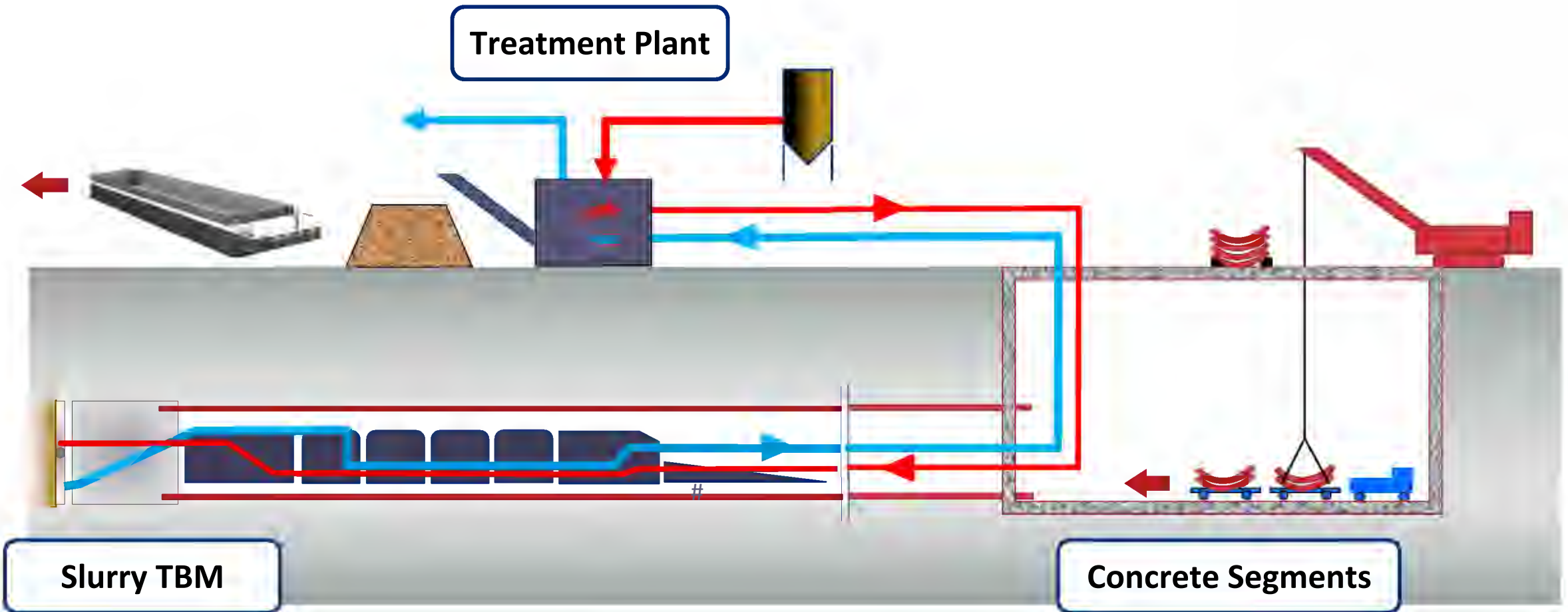
What Makes HRBT Unique

- First bored tunnel for VDOT
 - 2nd largest TBM in North America
 - 3rd bored vehicular tunnel in the US
- No impacts to Navigable Waterways
 - New tunnel will be 173 FT below water surface
- Minimal Impacts to Traveling Public
 - Segments shipped by barge
 - Spoils hauled by water
- Continuous Operation
 - Not subject to adverse weather
 - Able to continue 24/7 without interruption



Photo Credit: Herrenknecht

Tunnel Boring Machine & Slurry Treatment Plant



Slurry Treatment Plant

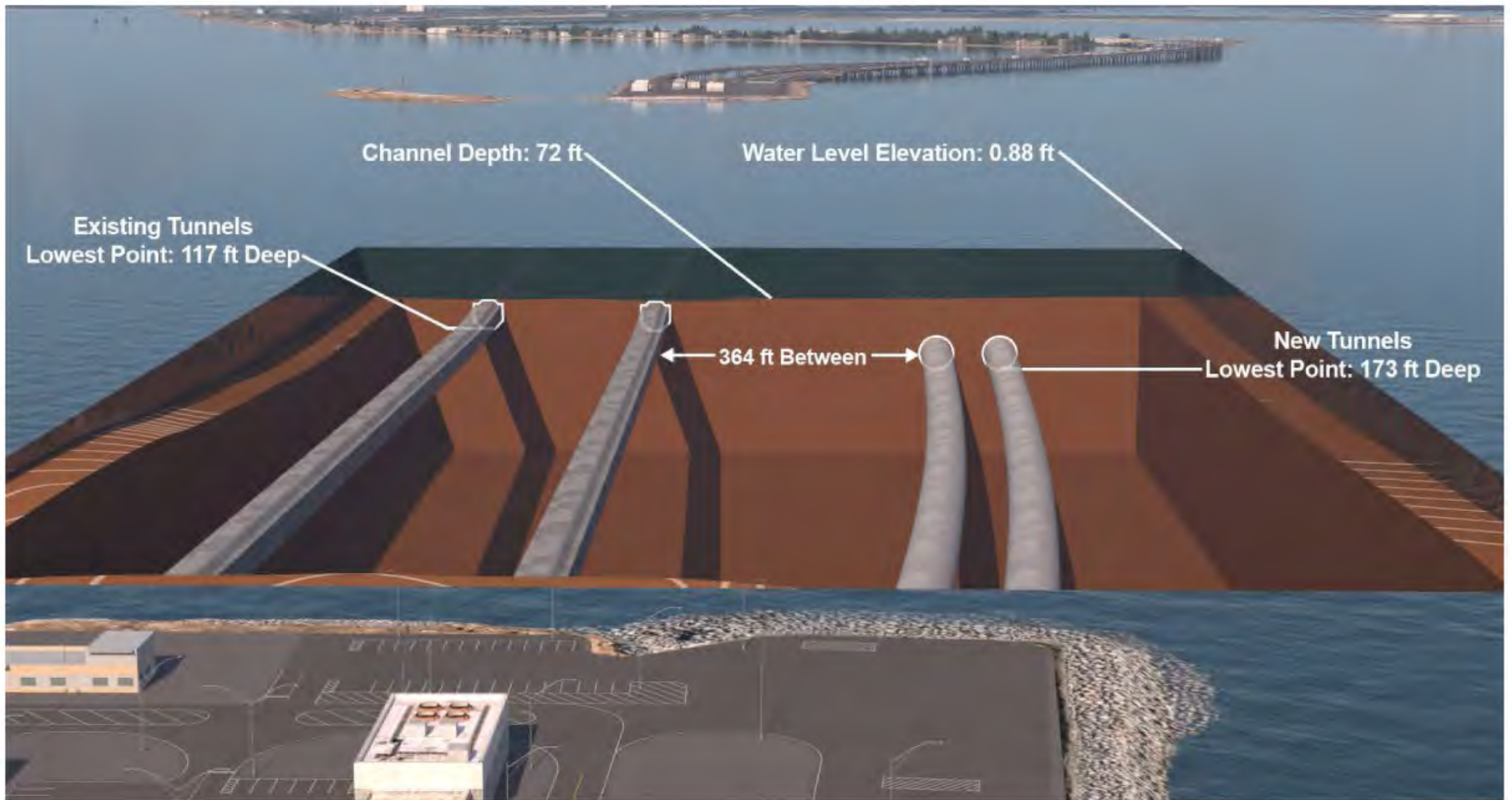


- Manufactured in France
- Stands 3 stories tall
- Separates soil from slurry
- Spoils pumped to surface through 22-inch steel pipe
- Operates 24 hours a day
- Largest STP in North America

Tunnel Segments

- Fabricated in Cape Charles, VA
- 9 segments = 1 ring
- Average Dimensions = 16' x 6'-6" x 18"
- Each segment weighs roughly 10 tons
- 2,388 rings will be needed to complete both tubes



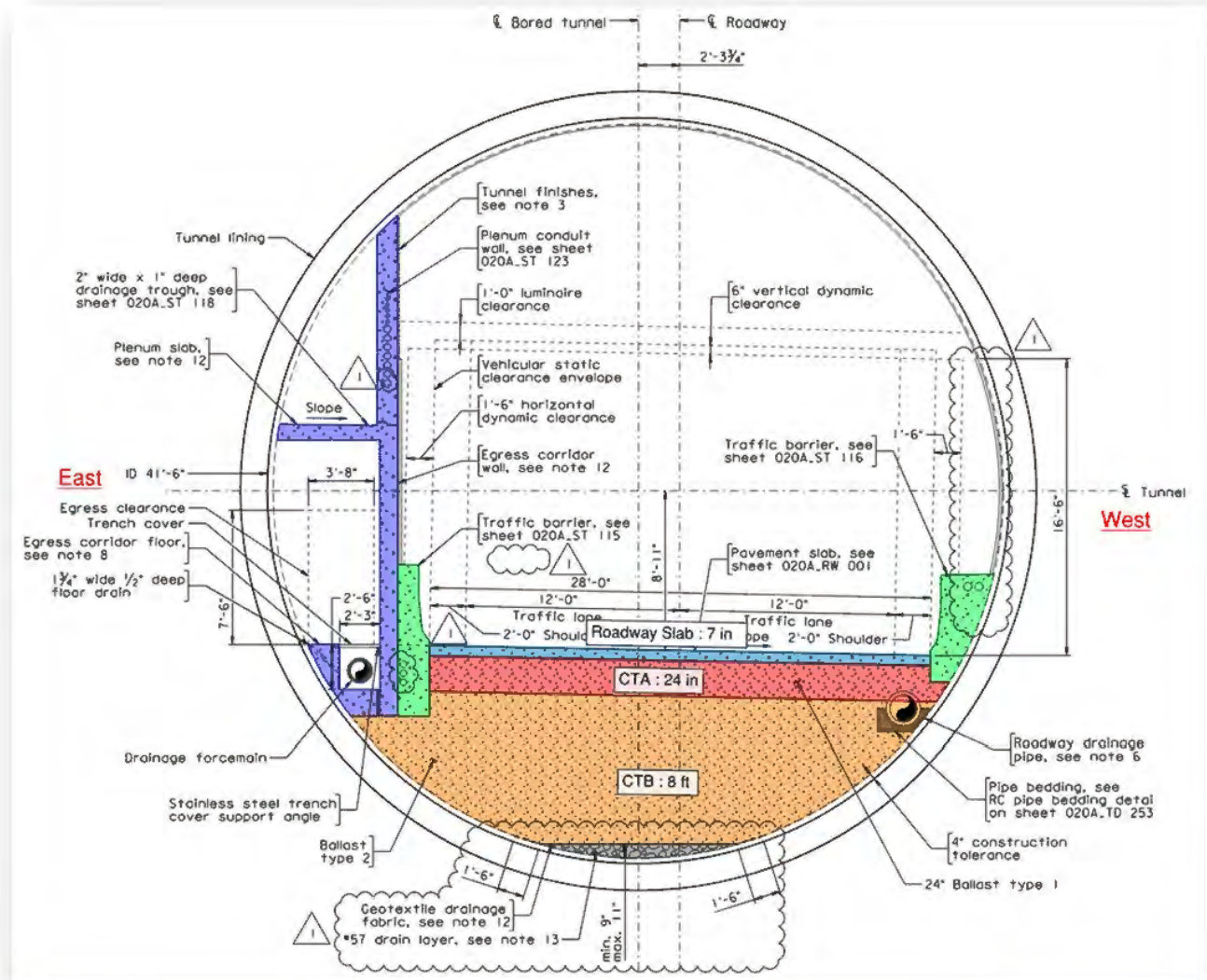


Features

- 16'-6" Clearance
- Egress corridor
- Jet fan ventilation
- 15,000 truckloads of base material
- More than 1 million square feet of tile

Tunnel Interior Structures

Typical Cross Section



Project Progress





North Marine Trestle Progress



- Construction began in 2021
- Installed to date:
 - 305 54" precast piles
 - 44 precast caps
 - 324 girders
 - 38 concrete deck pours
- Traffic shift to new eastbound trestle May 2024

North Marine Trestles



- Traffic shifted on to new eastbound trestle May 2, 2024
- **First new bridge at HRBT in nearly 50 years**



North Island Progress

- 15-acre island expansion completed
- Slurry walls installed
- Receiving pit excavated to depth of -65 FT
- Concrete base slab poured

South Island



South Island Progress



- Support of mining
- Permanent approach structure waterproofing, rebar, & concrete
- South Island expansion has started

South Trestle Progress



South Trestle Progress



- Construction began in 2021
- Installed to date:
 - 402 54" precast piles
 - 70 precast caps
 - 518 girders
 - 28 concrete deck pours



Willoughby Bay Bridge

Landside South Progress



- Interstate widening & bridge rehabilitation
- Stormwater control improvements
- Sound walls under construction

Mason Creek Road



- **Patrol Road**
- **West Evans Street**
- **1st View Street**
- **West Bay Ave**
- **Mason Creek Road**
- **13th View Overpass**
- **4th View**

Bridge and Surface Street Rehabilitation



Tunnel Work



- Mining started in April 2023
- 1-year evolution

Work Completed

- 7,941 feet mined
- 1,185 rings built

Virginia's First Bored Tunnel

➤ April 17, 2024



Tunnel Work



Best Day

➤ 17 Rings

➤ 113.2 FT

Best Week

➤ 50 rings

➤ 331.9 FT

HRBT EXPANSION INTERESTING FACTS





AS OF MAY 2024

**358 EXECUTED
DBE/SWaM AGREEMENTS**

TOTALING

**\$555
MILLION**

IN CONTRACT AWARDS



DBE/SWaM Goals

80% are Virginia-based firms

Minority Workforce – 58%

Minority Workforce Goal - 27.1%

Women in Workforce – 16%

Women Workforce Goal – 6.9%



Environmental Challenges

- Endangered/Protected Bird Species
 - ❖ *Migration and Nesting Season*
- Marine Noise Impacts
- Protected Species within Project Limits

Historic Artifacts



From the Battle of Hampton Roads between the USS Monitor and the CSS Virginia (formerly the USS Merrimack) in 1862.

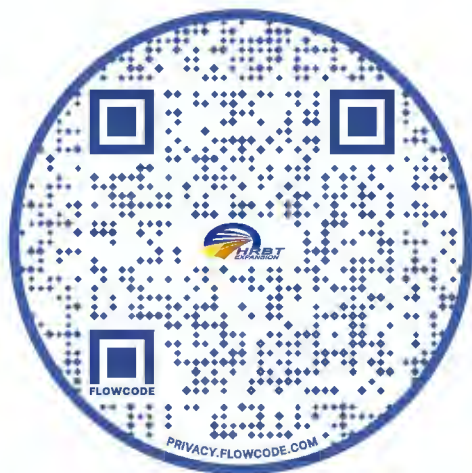


Recovered ship timbers at the VDOT storage facility.

Historic Artifacts

- Mastodon
 - ❖ Approximately 50,000 years old
 - ❖ Fossils include partial
 - Tooth
 - Rib
 - Limb
 - Vertebra





Ongoing Outreach

- Social Media
- Local Presentations
- Project Website
- HRBT Monthly Newsletter
- HRBT Tunnel Talk Podcast
- HRBT Magazine
- Community Engagement Events
- Weekly Lane Closure Report

Q&A





CONNECT

PROJECT PROGRESS, UPDATES, & MORE!



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HRBT Expansion Project



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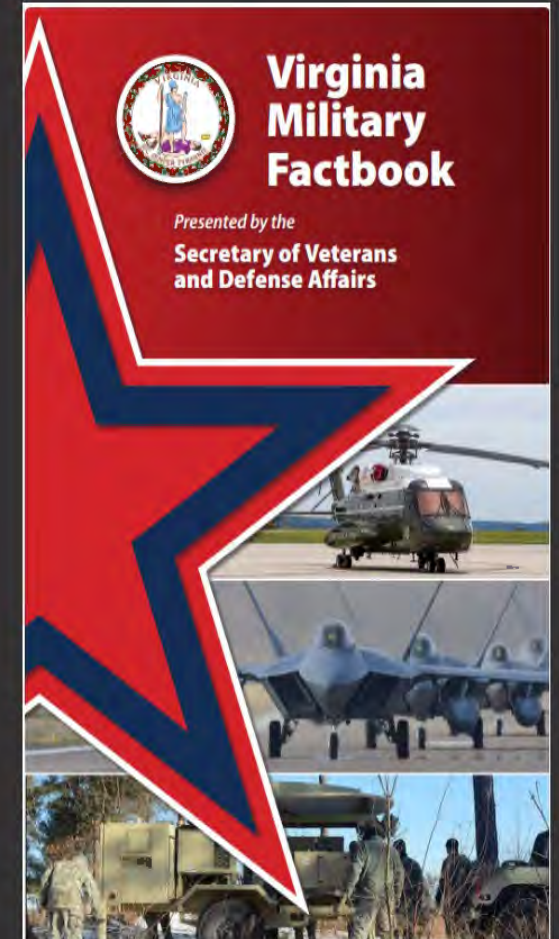
Virginia's Military Value





Military Investment *(FY21 Data)*

- 19% of Virginia's economy
 - Direct, Indirect, Induced
- \$105B+ annually
- #1 in the Nation



Impacts all 95 counties and 38 cities in the Commonwealth



Military Value

Compatibility

Shared space, resources, relationships, advocacy

Resilience

Shared Challenges, partnered solutions

Quality of Life

Child care, Spouse employment, Education, Housing, Health Care,
Transportation, Public Safety

**Meet mission
Keep talent**

Competing with every State



Networked to win

Locally Driven

Installations, Defense Communities, Regional Advocates

State Supported

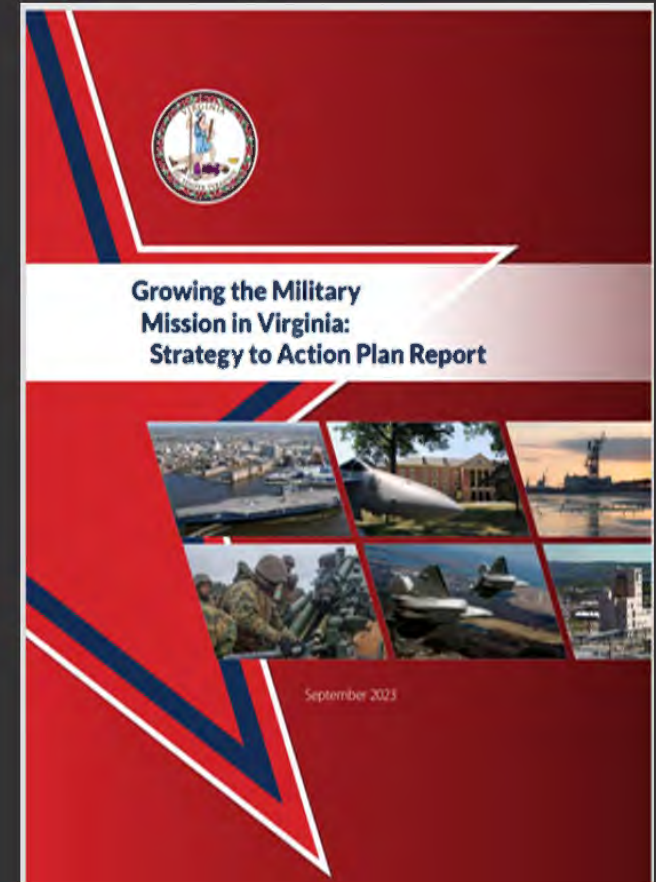
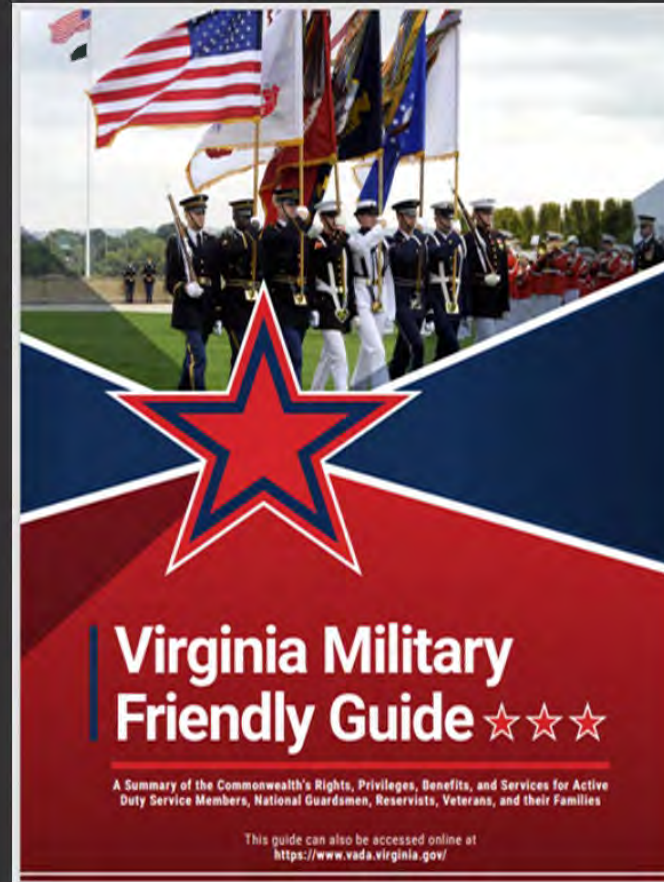
General Assembly, GAMVC, Cabinet, Agencies, VMAC, Programs

Federally \$hared

CODEL, DoD/DHS, INVE\$TMENT

Relevant & modern missions, equipment, and facilities

Resources



Google: Secretary Veterans and Defense Affairs



2024 Legislation that Increased Military Value

- ✓ Early Childhood Care and Education; Publicly Funded Providers; exemption from licensure
- ✓ Cosmetology interstate Licensure Compact
- ✓ Dentistry interstate Licensure Compact
- ✓ Physician Assistant interstate Licensure Compact
- ✓ Social Work interstate Licensure Compact

Massage Therapy interstate Licensure Compact

Teacher Mobility interstate Licensure Compact



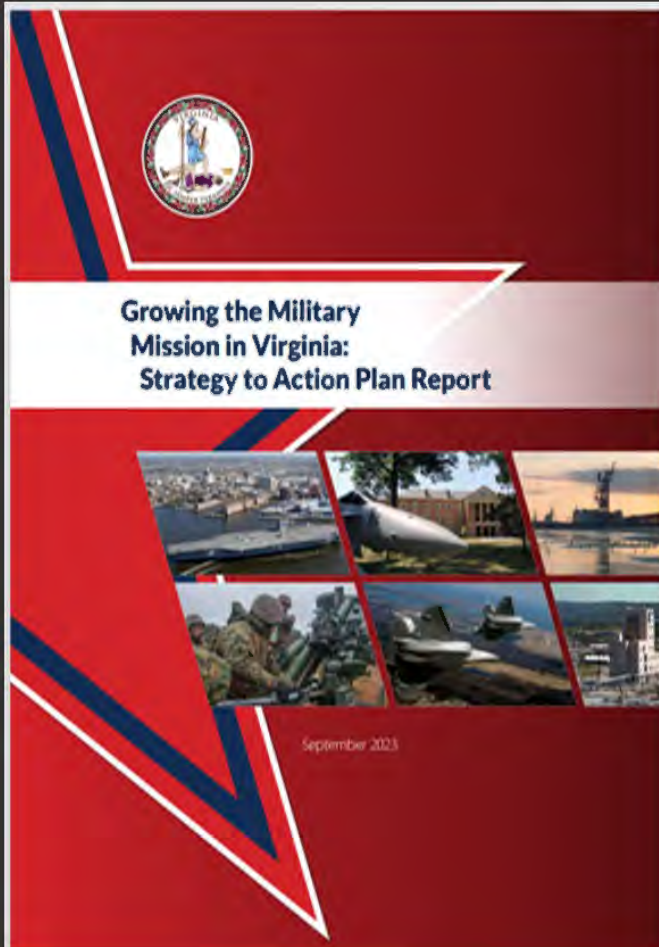
2024 Budget Amendments that Increased Military Value

Virginia Military Community Infrastructure Grant Program \$3M

Graded everyday

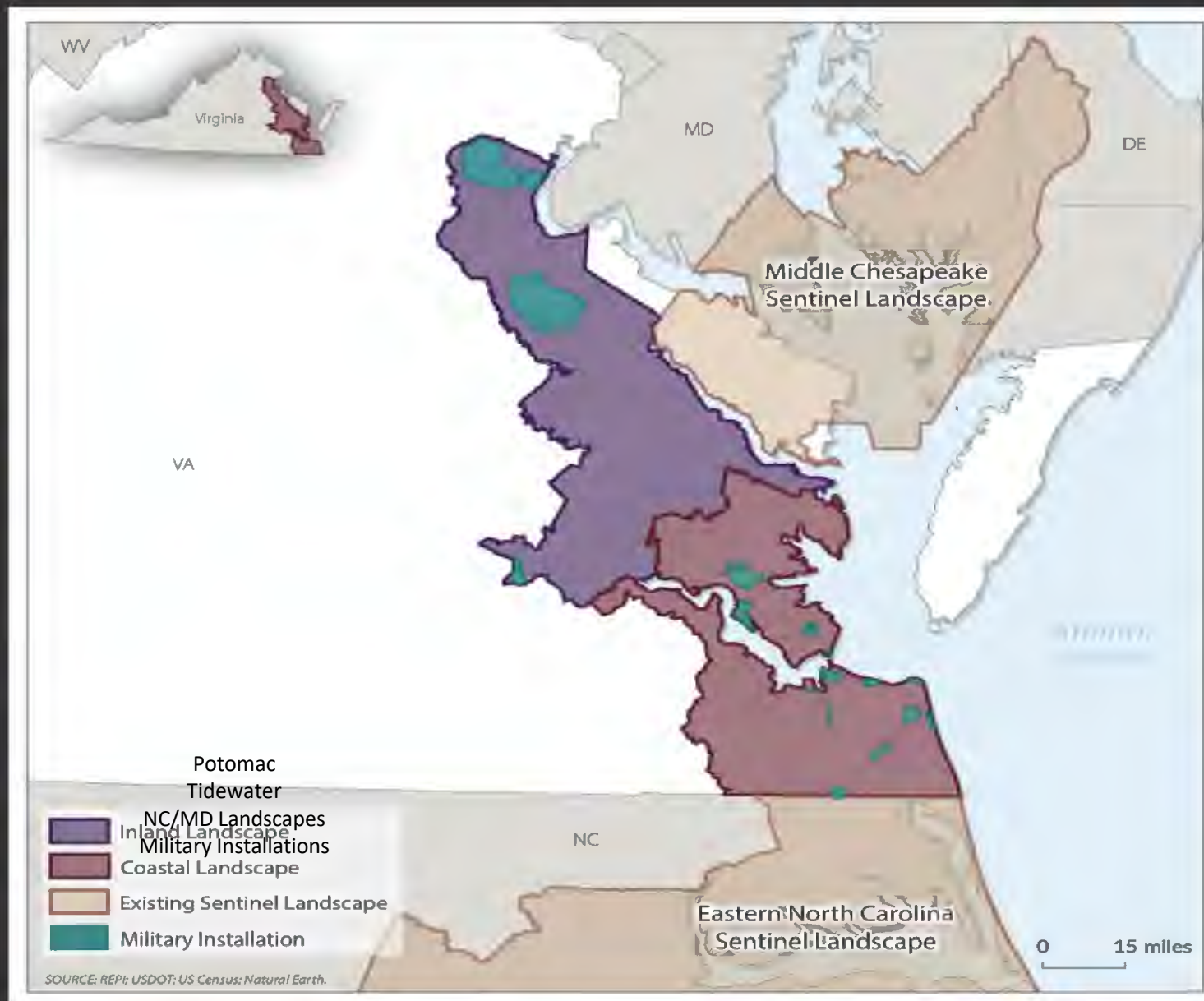


Strategy to Action



- Win basing of the Next Generation Air Dominance (NGAD) fighter.
 - Oceana
- Pursue additional JSOC/SOF and Fleet basing at Joint Expeditionary Base Little Creek/Fort Story (JEBLC-FS)
- Investigate opportunities for the future of Naval Mine Countermeasures (MCM) missions at Naval Station Norfolk
- Establish a Commonwealth-wide IGSA
- Build upon the success of compatibility programs (DCIP, REPI)
- Coordinate agreements with Dominion Energy to increase power capacity and create cost savings.
- Toll assistance or reimbursement for installations in the Hampton Roads area.
- Commonwealth-wide military childcare availability and affordability study

Sentinel Landscapes





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