HRBT EXPANSION Magazine

Fall 2024

IN THIS ISSUE

Project Director Message

Ryan Banas, PE

April 17, 2024 is a day that will forever be etched in the history of transportation in the Commonwealth.

April 17 marks the day Mary the Tunnel Boring Machine broke through the North Island headwall, officially writing herself into the history books as Virginia's first bored tunnel for roadway traffic and only the third of its kind in the United States!

Four years into construction of what will prove to be the region's most transformative construction project in decades, visible progress can be seen across every corner of our 10-mile project corridor. From Mary emerging seamlessly in all her glory, to the innovative nitrogen table technology used to turn our 2,500-ton cutterhead and shield around in a single day, to the game-changing delivery method for setting bridge beams using the beam launcher, the progress we are making each and every day can't be ignored.

In the last six months alone, VDOT and our design-builder, Hampton Roads Connector Partners (HRCP) have opened the first new bridge at the HRBT in more than 50 years, shifted traffic to the first half of a much-needed new Mallory Street bridge in Hampton, and continue making steady progress constructing and rehabilitating more than 20 other bridges in the project corridor. To think our existing bridges carried more than 800 million vehicles over their 50 years of service, it's humbling to imagine the billions of trips our new bridges will make possible with their designed 100-year service lives.

Looking ahead, we are poised to see Mary start her second bore across the harbor in addition to the continued use of the beam launcher to construct the North Trestle. The remainder of 2024 and first half of 2025 will bring significant improvements including traffic shifts onto newly constructed bridges across the harbor and improved roadways throughout Norfolk as we work to improve the safety and throughput of the network.

We thank you for your continued patience as we keep Hampton Roads moving forward with this transformational project. As you traverse the project, keep in mind the nearly 2,000 staff and craft employees who are working every day to bring this project to an expedited finish. Just like you our staff want to arrive home safely each night, and you can help. Please put down your phone, slow down, and stay alert in our work zones!

CONSTRUCTION UPDATE

In addition to Mary The TBM's monumental breakthrough accomplishment, continuous progress is occurring along the ten-mile corridor.

For the first time in fifty years, a new bridge span opened to motorists at the Hampton Roads Bridge-Tunnel on May 3 for the new eastbound North Trestle in Hampton. The seamless transition to the new crossing meant traffic flowed effortlessly into the existing eastbound tunnel.

The existing southbound trestle is in the process of being replaced. Pieces of the existing structures will be salvaged to place on artificial reefs currently in the Chesapeake Bay. Virginia Marine Resources Commission (VMRC) is working closely with VDOT to ensure proper care and placement of the structural pieces.

At the South Island, significant work is underway constructing an extension of the island as well as beginning the work inside the launching pit and completed tunnel to ultimately support the new roadway and the necessary tunnel infrastructure. On the North Island, crews have turned the TBM and continue to commission the equipment and controls to prepare for the return trip to South Island.

[ABOVE]: After the breakthrough, crews work inside the tunnel to make way for the new road.

[BELOW]: Crews work to build the new trestle bridge connecting the tunnel to the shoreline.

Virginia's FIRST BORED TUNNEL

Mary completes excavation of the first tunnel.

April 17, 2024 marked a new chapter in Virginia history, and a first of its kind milestone for the Virginia Department of Transportation.

After 51 weeks of tunneling, Mary the Tunnel Boring Machine (TBM) completed excavation of the first of two bored tunnels under the Hampton Roads channel. More importantly, the breakthrough marked VDOT's first-ever bored tunnel and only the third bored roadway in the United States.

The anticipation and excitement created a fever pitch as Mary could be heard hard at work underground on her final approach to the North Island receiving pit. Hundreds of staff and craft, many who have spent countless hours over many years, gathered around the perimeter of the receiving pit to catch a glimpse of Mary as she broke through the headwall. Workers cheered and hugged in celebration as the headwall came crashing down in grand style, exposing the cutterhead to daylight for the first time in nearly a year.

Mining began on April 23, 2023, following a small, intimate break in ceremony with the project team and local stakeholders in attendance. Mary excavated 7,941 feet, roughly 750,000 cubic yards of soil, and installed 1,191 rings to form the first new tunnel on the HRBT Expansion. At its deepest point, the new tunnel is 173 feet below the water's surface. Mary's best day of work produced a record 17 tunnel liner rings installed in one day – just a touch more than 113 feet. This length is recognized as the best production day of any roadway tunnel TBM in the country!

Workers wait in anticipation for Mary to show her strength after the breakthrough.

Mary's Next Step

While April 17, 2024 marked a momentous milestone in the project, Mary is only halfway through her job. With one more tunnel to build, crews have been hard at work since breakthrough. Only 12 feet away from where Mary saw daylight at the North Island receiving pit, crews have been working nearly 24 hours a day, 7 days a week to prepare for the launch of the second tunnel. Preparatory works include finalizing the shuttering pipe that seals Mary against the headwall, construction of the thrust frame she will use to propel herself at the start of her second tunnel, as well as assembling the launch cradle Mary will sit in as she's positioned to make the first few rotations of her cutterhead.

After completing the first tunnel, Mary's cutterhead, shield, and gantries have been rotated 180 degrees, and aligned for her second journey. Much like any piece of complex mechanical equipment, Mary has undergone a full top to bottom inspection and tune-up ensuring all her systems are properly working prior to her relaunch. Additionally, crews have taken advantage of full access to Mary's cutterhead, replacing the many cutting tools along her leading edge to ensure she has new cutting implements before starting her return trip. The project aims to have Mary fully ready to go and begin excavation of the second tunnel in the fall of 2024.

Stay updated on Mary's progress with our interactive tunneling progress map. **https://hrbtexpansion.org/hrbt/**

After 51 weeks, it only took Mary 5 minutes to break through the headwall with a massive ready, set, boom!

[RIGHT]:Bob Crum (HRPDC) and Kevin Page (HRTAC) celebrate with Mary after she successfully completed Phase 1 of her underground journey.

Scan the QR code to the left to see the video of Mary's breakthrough.

Mary's best day of work produced a record 17 tunnel rings installed in one day – just a touch more than 113 feet. This length is recognized as the best production day of any roadway tunnel TBM in the country!

Mary's BIG TURN


1


2


3

After 51 weeks of tunnel boring, Mary, The Tunnel Boring Machine, achieved the most critical and impressive accomplishment in the project's history with the breakthrough of the first of two bored tunnels. This is the first breakthrough of a TBM of its kind and size in Virginia and the engineering world watched with great interest as the TBM punched through the headwall and emerged in the HRBT's North Island, right on target.

So what comes next? Before Mary can start mining the twin tunnel, her cutterhead and shield, along with four trailing gantries had to be rotated 180 degrees to prepare for the next bore. Even though the next tunnel is just a few feet from where Mary successfully completed the first tube, turning this tremendous machine is no small task. There were limited options for turnaround as the entire TBM weighs 4,700 tons and is over 400ft long and 46ft in diameter. Coupled with the confined space of the North Island Receiving Pit and the task becomes even more herculean. Even partially disassembled, the shield of the TBM, which houses the motor and cutterhead, weighs over 2,500 tons, significantly more than any readily available crane could safely lift!

Design-builder, HRCP, chose to use a "nitrogen table technology" to rotate the shield and cutterhead. This technology is an innovative solution that employed the use of 16 nitrogen-infused jacks, coupled with a smooth steel plate foundation, to allow this very heavy object to be moved by reducing the overall friction. In this instance, the nitrogen table was able to reduce the friction by a magnitude of 100, which means that the 2,500-ton cutterhead had an effective weight of 25 tons and could be moved and turned with the equipment already on site. The entire process of turning the shield/cutterhead was expedited by the use of this technology. A team of about 35 crew members were able to turn the TBM shield and cutterhead 180 degrees in just 12 hours. The turn marked another historic milestone for the HRBT Expansion Project, as this was the largest TBM to be rotated in the world using nitrogen table technology.

Once the shield was repositioned, crews still had to realign the four trailing gantries. Weighing 400 tons each, gantries were lifted out of the receiving pit, set on the North Island and then rotated before being lowered back into the pit to be reconnected to the shield. To accomplish this feat, crews used two 825-ton cranes working in unison to lift each gantry onto a specialized remote-control trailer to facilitate placement in the receiving pit.

[ABOVE]: [1] Crews prepare the steel plate foundation that will be used with the nitrogen table for the turnaround. [2] The TBM shield has been turned 180 degrees and is being moved into place with nitrogen sled technology. [3] Two cranes work simultaneously to lift each gantry. [4] Once each gantry is turned around, it is lowered into position in the receiving pit. [5] The last gantry is moved out of the newly constructed tunnel.

[RIGHT]: [6] The TBM shield is positioned onto the nitrogen table.

Innovative Technology Enables TBM Turnaround

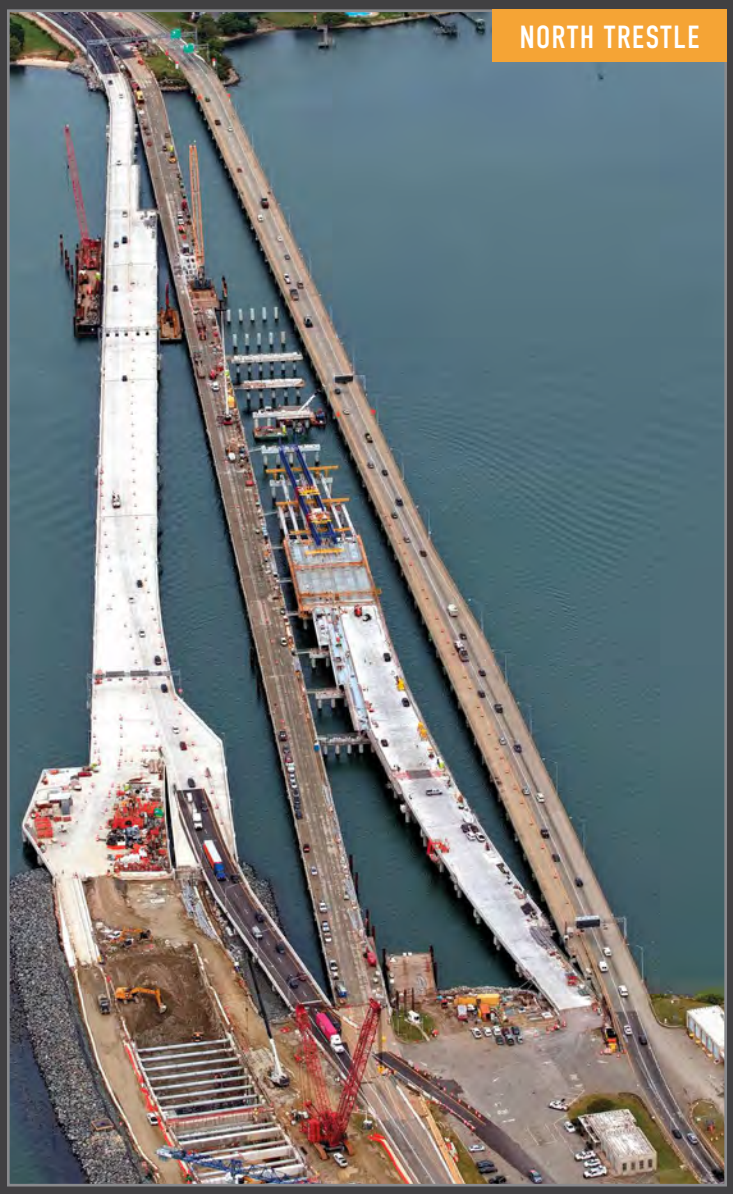
MEGA-SCALE MOVERS

Nitrogen table technology is extremely similar to what you may use in your home. The small plastic friction-reducing disks you put under the legs of furniture serve the same purpose as the nitrogen table used to rotate Mary. Instead of plastic disks, nitrogen-infused jacks were used to reduce the force needed to rotate the massive machine.

CONNECTING THE REGION

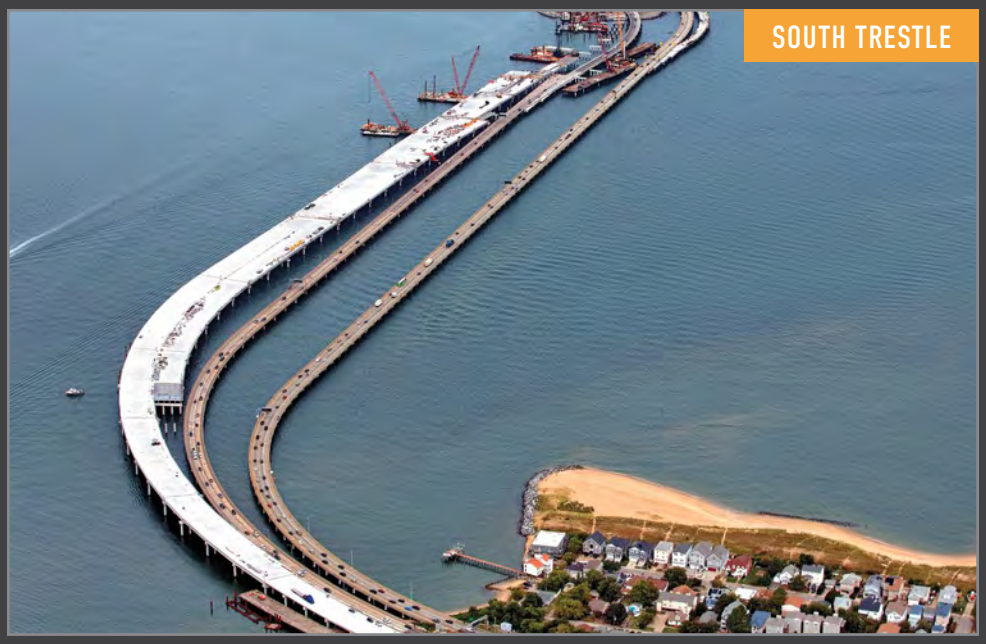
The construction of new twin tunnels across the Hampton Roads harbor is the centerpiece of the expansion project. However, a significant part of the expansion work across the 10-mile corridor involves the replacement, widening, or reconstruction of more than 20 bridges. Here's a look at a few of the more significant bridge works currently underway:

NORTH TRESTLE (HAMPTON): On May 3, 2024, a new wider two-lane trestle from Hampton to the current eastbound tunnel opened to traffic. The traffic transition from the old bridge was seamless, without incident, and provided a more resilient structure for the traveling public. For the first time in 50 years, motorists have a new drivable bridge span at the Hampton Roads Bridge-Tunnel.



NORTH TRESTLE

MALLORY STREET BRIDGE



MALLORY STREET BRIDGE (HAMPTON): In July 2024 traffic began using the first half of the new Mallory Street Bridge in Hampton, a critical link between Phoebus and the VA Medical Center and Hampton University. Construction crews are now demolishing the remainder of the old bridge and will replace it with a completely new structure. Upcoming construction activities include pile driving, new earthen retaining walls, signals, drainage, and pavement. Upon completion, the structure will not only be a critical link for motorists, users will have access to new pedestrian and bike lane facilities.

SOUTH TRESTLE (NORFOLK): Arguably the most visible of the new bridge work underway on the Expansion Project is the new trestle structure which will carry traffic from Norfolk to the South Island. The new bridge will accommodate, at full span, eight lanes of traffic. Four of the lanes will be dedicated to eastbound traffic and four of the lanes will handle westbound traffic, with a permanent concrete divider separating the traffic flows.

The new trestle includes key features that will help improve safety as well as the lifespan of this new structure. The bridge uses stainless steel reinforcement, low-permeability concrete, and carbon fiber reinforced piles to combat the harsh marine environment and improve durability. Up to 20 feet higher than the current span in some areas, it is also slightly banked to improve operational safety. The additional height also means less sea spray and less exposure to salt water which can be corrosive to a bridge.

SOUTH TRESTLE (MAINTENANCE OF TRAFFIC): A temporary westbound South Trestle is nearing completion and will open in 2025 while construction teams continue to prepare the new permanent structure and remove the older bridge.

WILLOUGHBY BAY BRIDGE: Concrete deck placement is underway eastbound at Willoughby Bay Bridge while substructure work and girder erection continues westbound. Once complete there will be up to four lanes of traffic in each direction.

MASON CREEK AND FIRST VIEW BRIDGES: New widened bridge decks were recently completed for both spans. This additional capacity provides continuity across the Hampton Roads Express Lanes Network.

SWaM Feature: Emerald Forest Inc.

"I love the outdoors and can't work in a cubicle."

Peter McClintock,
Owner of Emerald Forest, Inc.

Emerald Forest team inspecting temporarily impacted areas for restoration.

Peter McClintock, Owner of Emerald Forest, Inc., is a renowned expert in wetlands mitigation and ecosystem restoration. With decades of experience, McClintock protects fragile Mid-Atlantic ecosystems. A Pennsylvania native and Old Dominion University biology graduate, his career started at Greenbrier Farms and the Virginia Marine Resources Commission.

At the HRBT Expansion Project, McClintock's team tracks over 60 temporarily impacted areas using a comprehensive spreadsheet, coordinates with contractors to schedule planting and restoration efforts, and implements strategies to prevent invasive species and manage geese populations. They also create specialized maps for crane placement to protect sensitive habitats during construction. Upon completion of work in a particular area, the team then restores the affected area, reinforcing their commitment to environmental stewardship.

For McClintock, every day brings new challenges and opportunities. "I love the outdoors and can't work in a cubicle," he says. His team's dedication and expertise have earned him a reputation as a go-to expert for wetlands mitigation.

$571 Million Milestone; One Small Business at a Time

CERTIFIED SWaM Small, Women and Minority-Owned
Supplier Diversity Strengthens the Commonwealth
Virginia Department of Small Business and Supplier Diversity

DBE CERTIFIED

The largest roadway construction project also means the largest opportunity for small, women and minority-owned (SWaM) businesses in Virginia history. Through September 2024, the HRBT Expansion Project has awarded more than $571 million in contracts to SWaM businesses. We appreciate the contributions of the more than 350 SWaM businesses that are part of the project.

THE BEAM LAUNCHER:

A Game-Changer in Bridge Construction

It's big. It's blue. It's the beam launcher. As you drive across the HRBT between its North Island and Hampton, you can't help but notice the massive piece of equipment elegantly looming over the new North Trestle. Next to the project's TBM, Mary, and slurry treatment plant, Katherine, the beam launcher is one of the most talked about machines helping expand the HRBT.

Crews work in narrow spaces between the existing westbound and eastbound bridges to build the new North Trestle. These tight spaces create unique challenges for traditional delivery and placement of bridge beams. Much like other areas of the project, big challenges require monumental solutions and the beam launcher delivers what is needed.

Typically, cranes are used to lift and set beams into a precise location during bridge construction; however, cranes require a wide berth and a solid working surface to operate efficiently. Additionally, the low clearance of the existing bridges made it impossible for crews to transport the new beams by barge to site, let alone safely mobilize a crane beneath the structures. To address this challenge, the beam launcher was brought in to complete the task, using its unique configuration to overcome these challenges. The beam launcher is a specialized piece of equipment used to construct bridges in extremely tight quarters like those near the Hampton shoreline. Unlike cranes that sit on dedicated barges or temporary bridges, the beam launch uses the newly installed bridge foundations as its support. The overall length of the beam launcher is critical to its success.

The beam launcher sits above three spans of bridge deck; a complete newly constructed bridge deck, a bridge deck under construction, and finally over the water where a soon-to-be bridge deck is waiting to start construction. Beams are picked off trailers on the newly constructed bridge deck at its rear and the launcher uses a series of trolleys to maneuver the beams over the bridge deck under construction and eventually to the soon-to-be bridge deck with foundations that are ready to receive their beams. The beams are slowly set down into place with exact precision to ensure the beams are properly aligned on their bearings.

The beam launcher measures in at 7½ feet tall, 372 feet long, 41 feet wide and weighs 250 tons. When completed, it will have set an impressive 92 beams, playing a vital role in the HRBT Expansion Project's success. Once again the HRBT team overcame the challenges of building the new bridge in a very narrow work zone. With its ability to set beams for multiple spans, the beam launcher is a game-changer in bridge construction, enabling the HRBT Expansion Project to move consistently forward.

HRBT WELCOME CENTER:

Exploring the Expansion Project

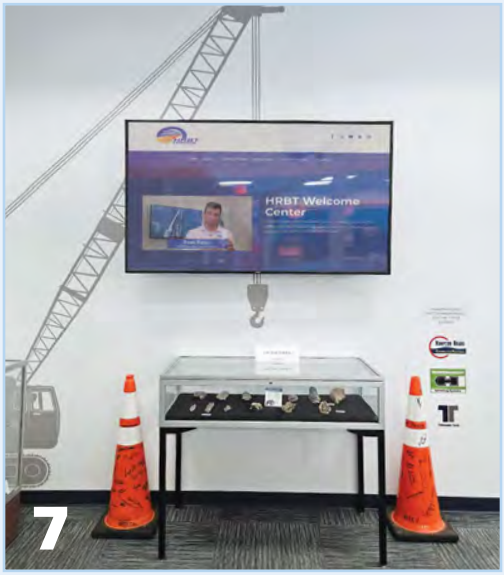
A consistent request from citizens and stakeholders for information about the history and progress of the HRBT Expansion Project set the wheels in motion for the creation of the newly completed HRBT Expansion Project Welcome Center. The center, located in the former Norfolk Visitors Center at 9401 4th View Street in Norfolk, underwent necessary exterior and interior renovations to showcase this most transformative infrastructure project in the Commonwealth's history. The Welcome Center's primary focus is to provide a dynamic space for community engagement, education and outreach, hosting events, workshops, and activities highlighting the project's benefits, the tunnel's rich history, and its ongoing impact to the region.

The center features a range of exhibits, including models of Mary the Tunnel Boring Machine (TBM) and Katherine the Slurry Treatment Plant, as well as ancient Mastodon bones estimated to be 12,000 to 50,000 years old. Visitors can explore other fascinating finds unearthed during construction, such as timbers and quarry stones from a historic shipwreck from 1823, Civil War-era cannonballs, and a World War II M1 combat helmet liner. The public can also enjoy project progress videos and don headsets to listen to HRBT podcasts.

On Friday, September 13, 2024, partners who helped make the Welcome Center possible were invited for a sneak peek. Representatives from the U.S. Navy, City of Norfolk, Hampton Roads Transportation Accountability Commission (HRTAC), VDOT, and Hampton Roads Connector Partners participated in the open house. Special guests included the grandchildren of Mary Winston Jackson, the namesake for the project's TBM.

As visitors arrive at the Welcome Center, they'll notice the "LOVE" that went into making what VDOT District Engineer Chris Hall calls a "civil works project for decades to come." VDOT and its project partners teamed up to design and construct a Virginia Tourism sanctioned LOVEworks sign with its four letters each depicting different elements of the project.

The Welcome Center is available for educational opportunities for students, as well as community meetings. For more information or to request an appointment, please reach out to **hrbtinfo@vdot.virginia.gov.**



[ABOVE]: [1] Welcome Center entryway and overview of the Hampton Roads District. [2] HRCP team members constructed and assembled the crane that makes the "V" for the LOVE sign. [3] Outdoor bulletin boards provide an overview of the HRBT Expansion Project. [4] Kashawnta and Bryan Jackson admire the wall honoring their grandmother Mary W. Jackson. [5] District Engineer Chris Hall and Project Director Ryan Banas welcome attendees at the opening of the Welcome Center. [6] Wall murals provide the history of the HRBT. [7] Displays showcase the artifacts discovered on the project, which include mastodon fossils, cannonballs and shipwreck timbers.

AROUND THE PROJECT:
Photo Highlights

One of our favorite jobs on the HRBT Expansion team is our community outreach efforts. People are naturally curious about the HRBT expansion – beyond what they can see every day as they drive by. In addition to being the largest roadway construction project in the history of the Virginia Department of Transportation and VDOT's first bored tunnel, the project is a once-in-a-generation opportunity to excite the next generation about STEM careers.

Through September 2024, the HRBT team has presented to more than 60 groups and interacted with thousands of people to provide an update and share engineering advancements and unique finds on the project. The Project Team provided updates to civic leagues, community and service clubs, professional associations and business organizations.

Cape Charles Mayor Adam Charney visits the project to see how the tunnel segments manufactured in Cape Charles are placed by the TBM.

Every year during Construction Safety Week, the project team takes a week to highlight the importance of safety on the construction site. While safety is paramount every single week, this week provides the team with additional training and recognition for their efforts throughout the year.

Oceana Air Show

STEM Takes Flight! We had an amazing time at the Annual NAS Oceana Air Show STEM Learning Lab Day Event! Over 8,000 curious fifth graders and 1,000 chaperones from Virginia Beach and Chesapeake attended.

Clean the Bay Day

The HRBT Expansion Project understands the importance of being good environmental stewards. Each year, the HRBT Project Team volunteers for Clean the Bay Day. This year, on June 3, 2024, dozens of volunteers participated in picking up trash from Ocean View beaches.

Friends of HRBT Golf Tournament

Friends of HRBT hosted a golf tournament fundraiser benefiting the Sherriff Joe Baron Foundation. In total, the team raised more than $5,000 to support Norfolk community outreach programs like Camp HOPE and Senior Fest.

USACE Tour

Colonels Hallberg and Avichal and other members of the U.S. Army Corps of Engineers visit the project.

LEAD 757

Project Director Ryan Banas engages with the LEAD 757 class.

STAFF SPOTLIGHT

LARISSA AMBROSE

Environmental Manager

Meet the HRBT Expansion Project's top environmental champion, Larissa Ambrose. As VDOT's Environmental Manager, Larissa's job is to protect the waterways and wildlife during the construction of Virginia's largest infrastructure project.

Larissa's responsibilities include oversight of all 22 environmental permits and commitments issued for the job. These permits cover a wide range of conditions, from sediment management to marine mammal monitoring and water quality protection. Her role ensures that necessary permits are in place before work begins and that permit conditions are strictly followed.

However, Larissa's vision goes beyond mere compliance. She strives to leave the environment in a better state than before. Through innovative programs like bird management and marine monitoring, she has protected wildlife and minimized disturbances to natural habitats.

Larissa has also pioneered initiatives to re-purpose project materials. She collaborated with the contractor to recycle debris into marine habitats through the Virginia Marine Resources Commission's Artificial Reef Program. Additionally, she facilitated the reuse of dredged sand for Norfolk's beach replenishment.

Larissa's dedication has earned her the 2024 Commissioner's Award for Environmental Stewardship.

Congratulations to the HRBT Expansion Project's Outstanding Environmental Hero!

PETE REILLY, PE, DBIA

Deputy Project Director

Behind every notable accomplishment achieved during the life of any construction project stands a team of dedicated individuals who pour countless hours, days – and in the case of some, years – into helping what was once a dream into becoming a reality. If you're ever lucky enough to be one of those individuals, you know those accomplishments and projects stick with you like a badge of honor for the rest of your career and become a small, but important piece, of your life. Within the multitudes of individuals who work at the HRBT Expansion Project, stands one individual whose contributions have gone far beyond the boundaries of the 10 miles of the project corridor.

VDOT Deputy Project Director Pete Reilly received a hard-earned and well-deserved recognition earlier this year when his distinguished 35-year career with the U.S. Army Corps of Engineers (USACE) Norfolk District earned him admission into the Corps' elite Gallery of Distinguished Employees. Since the early 1940s only 28 names have held a spot on the gallery wall in the Norfolk district office located on the banks of the Elizabeth River near downtown Norfolk.

@HRBTExpansion:

Your Source for Project News Updates

Are you looking for a reliable source to stay up-to-date on the latest news and insights on the HRBT Expansion Project? Our team is dedicated to bringing you the most recent developments and trends across the entire project corridor.

Hrbtexpansion.org

The HRBT Expansion Project website houses the latest updates on the project, from weekly traffic alerts to videos and podcasts that provide you with a behind-the-scenes look at the people, equipment and processes used on the project.

Follow Us on Social Media

Our social media accounts are another way we stay connected to those interested in hearing more about our progress. We have more than 27,000 followers, and counting, across all platforms. Follow us on any social media platform to see project photos and updates:

JOIN THE CONVERSATION:

LinkedIn HRBT Expansion Project

HRBT Expansion Project Group

@hrbtexpansion

@HrbtExpansion

Check out Project Updates in our Monthly Newsletters

Sign up for our monthly newsletter to get the latest updates delivered right to your inbox. Stay up-to-date on the cutting-edge technology and progress of the HRBT Expansion Project.

View Videos of Our Progress

From project tours to equipment highlights, the HRBT Expansion Project offers dozens of videos to provide the community with a glimpse at the progress of the project.

HERE ARE SOME OF THE LATEST VIDEOS:

- Welcome Center Opening
- Project Tour – From Mallory Street to Patrol Road
- TBM First Gantry Turnaround
- TBM Turnaround using Nitrogen Technology
- Mary's Breakthrough

Tune In to Our Podcasts

Dive deeper into industry topics and listen to our podcasts for in-depth interviews with experts, thought-provoking discussions, and actionable tips and advice that will inform, inspire, and drive meaningful impact.

RECENT TOPICS INCLUDE:

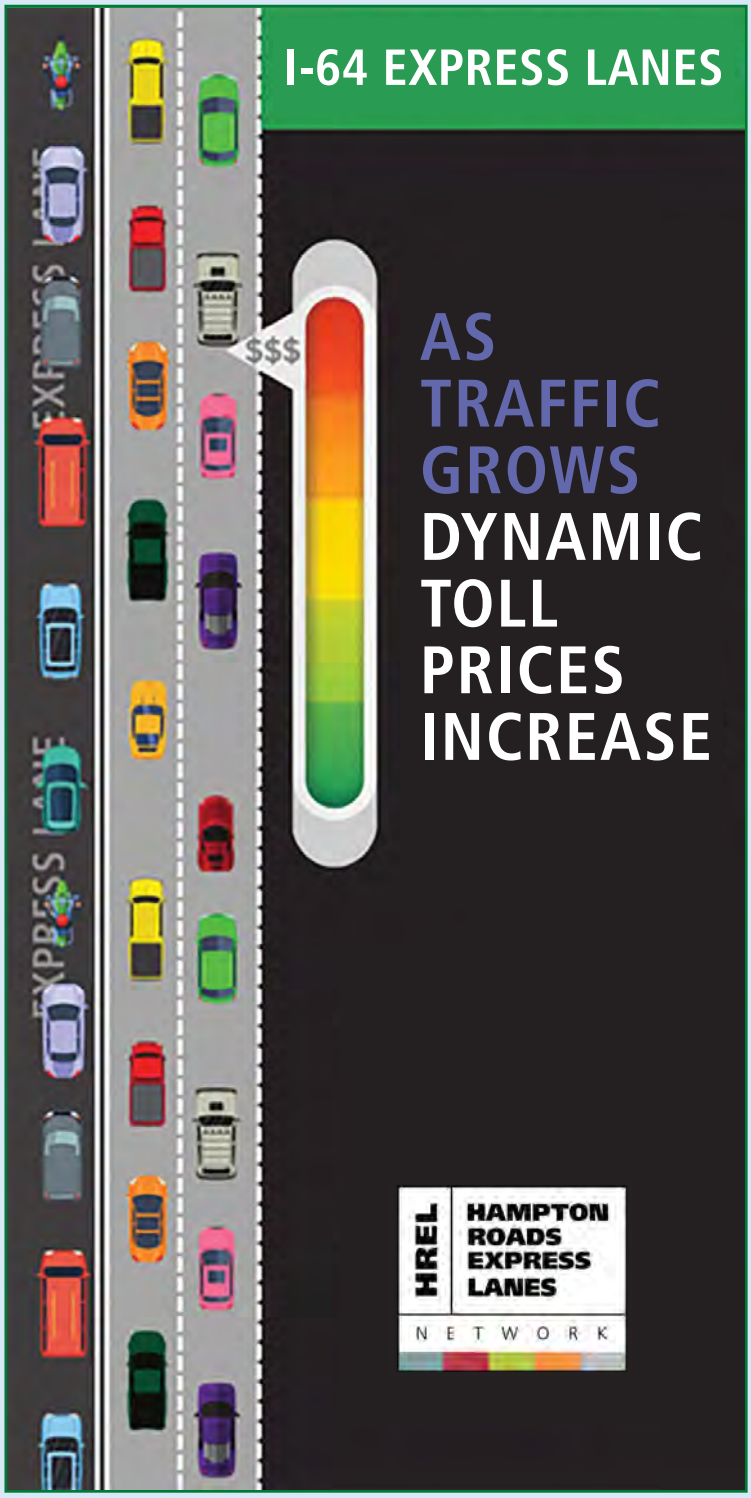
- Uncovering Archaeological Discoveries on the HRBT Expansion Project
- Hampton Roads Express Lanes Network (HREL)
- Women in Marine Construction
- HRBT Expansion and the Environment
- The Role of the STP

HRBT TUNNEL TALK PODCAST

By following us on social media and tuning in to our podcasts, you'll be the first to know about the latest developments and trends. Join the HRBT community today and stay informed!

HAMPTON ROADS EXPRESS LANES:

Dynamic Tolling Manages Traffic Flow in Real-Time



The Hampton Roads Bridge-Tunnel Expansion Project is one segment of the continuous 45-mile Hampton Roads Express Lanes (HREL) network which, when completed, will provide motorists with increased capacity, eased congestion, and enhanced travel time reliability. The express lanes are free to vehicles with 2 or more people and offer a choice to solo drivers who choose to pay a dynamic toll to use the express lanes.

What is Dynamic Tolling?

Dynamic tolling is a system that adjusts toll prices in real-time based on traffic conditions within the tolled lanes. The Hampton Roads Express Lanes use data analytics to determine toll rates, considering the number of vehicles on the toll road and the time of day. The ultimate goal of dynamic tolling is to maintain a minimum 45-mile-per-hour speed in the tolled lanes to help promote travel time reliability.

How Does it Work?

The dynamic tolling system leverages sensors, cameras, and video analytics to monitor traffic flow and adjust toll prices in real-time. Utilizing real-time traffic data and advanced algorithms, the system updates toll prices every few minutes, displaying them on electronic signs above the express lanes, enabling drivers to make informed decisions about their route.

Dynamic tolling is one effective solution for managing traffic congestion by optimizing traffic flow. With its ability to adjust toll prices in response to changing traffic conditions, dynamic tolling offers a flexible and responsive approach to traffic management, helping to keep Virginia moving.

FLYING HIGH:
Use of Drone Technology

The HRBT Expansion Project is a massive undertaking at $3.9 billion. Throughout the project corridor, there is visible progress with the new marine trestles, bridgework, sound walls and roadway widening. There's also a lot of work happening on the islands that is not visible to the traveling public. Every month, Hampton Roads Connector Partners takes aerial and drone photographs throughout the project corridor. These photographs show our progress month-to-month and provide a historic record of the project throughout the life of construction.

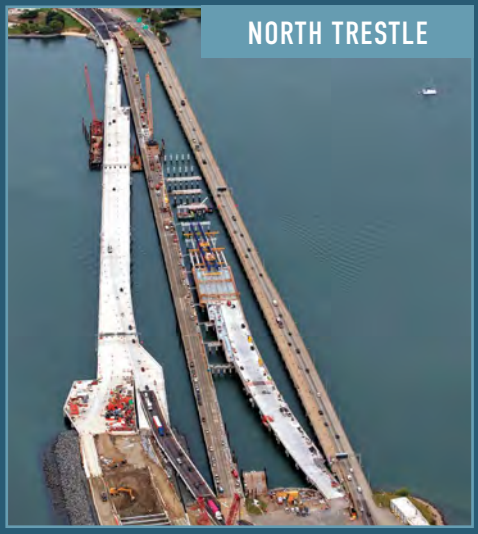
WILLOUGHBY AVE

4TH STREET

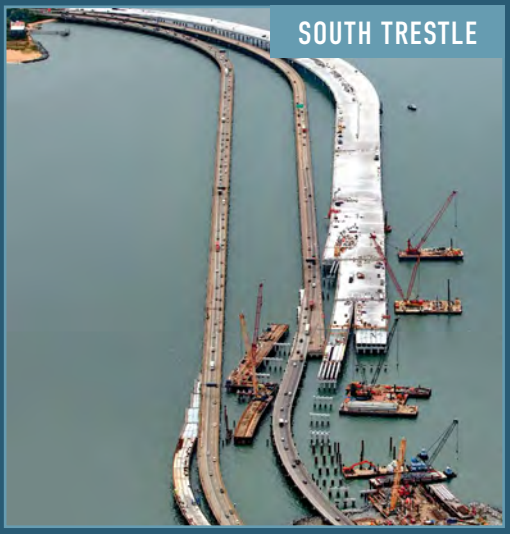
OASTES CREEK

NEW HRBT TUNNEL

NORTH TRESTLE



SOUTH TRESTLE



NORTH ISLAND

SOUTH ISLAND

HRBT EXPANSION

VDOT

HRTAC
Hampton Roads Transportation Accountability Commission

For more project details visit: HRBTEXPANSION.ORG | #HRBTEXPANSION | HRBTinfo@VDOT.Virginia.gov