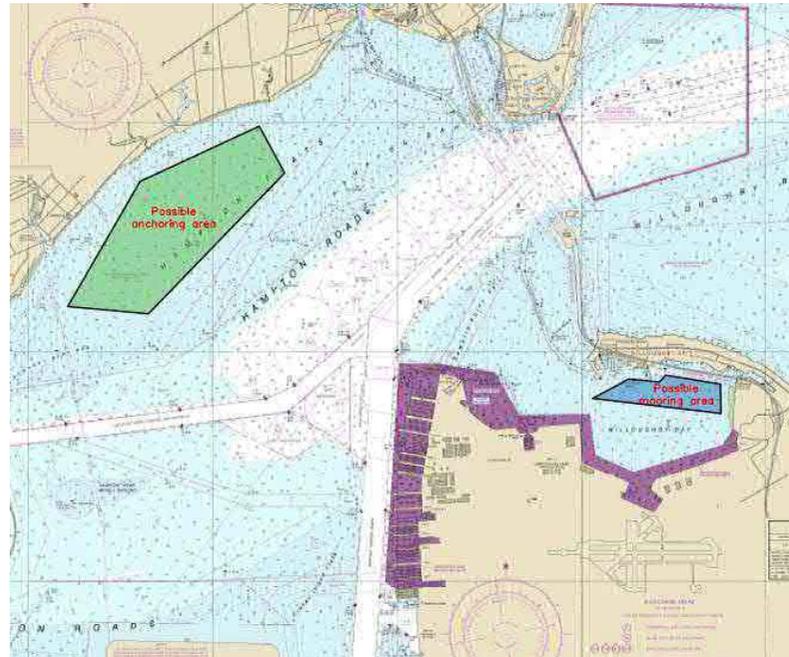
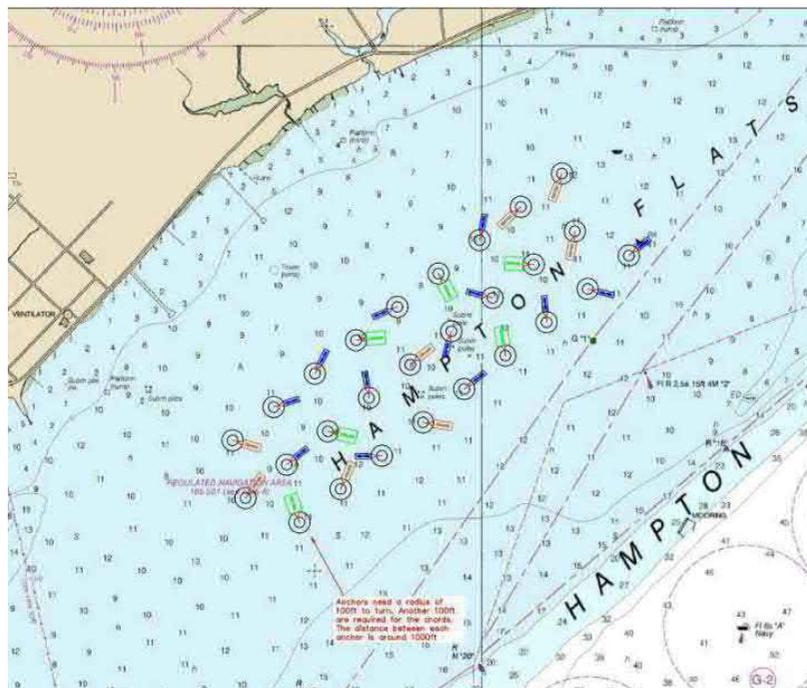
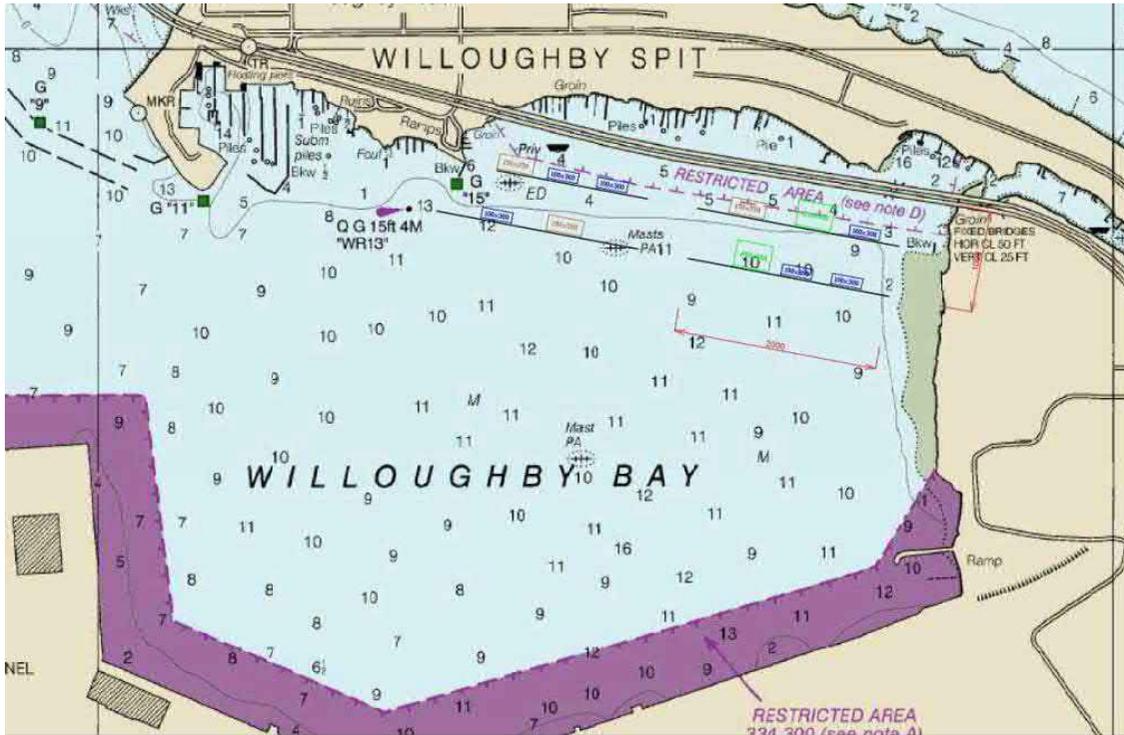


Mooring and anchorage areas



Anchorage area - Hampton Flats





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JPA Section 5

- Public Notification – HRCP will provide addressed labels
 - USACE: Adjacent to the project site
 - VADEQ: ¼ mile up/down Stream

	A	B	C	D	E	F	G	H	I	J
1	OWNER NAME	OWNER ADDRESS	OWNER CITY	OWNER STATE	OWNER ZIP	PARCEL ADDRESS	PARCEL CITY	PARCEL STATE	PARCEL ZIP	PARCEL ID
2	ADAMS OUTDOOR ADVERTISING	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	BATON ST	HAMPTON	VA	23069	P660
3	ADAMS OUTDOOR ADVERTISING	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	732 N WING ST	HAMPTON	VA	23069	P662
4	ADAMS OUTDOOR LTD PARTNERSHIP	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	1018 THOMAS ST	HAMPTON	VA	23069	P669
5	Alan Dale Phillips Et Al	9311 Phillip Ave	Norfolk	VA	23503-3327	9318 Atwood Av	Norfolk	VA	23003	P963
6	Alan Dale Phillips Et Al	9311 Phillip Ave	Norfolk	VA	23503-3327	6311 Phillip Av	Norfolk	VA	23003-3327	P967
7	Alan Gregory & Brandy Lynn Gennetta	8581 Granby St	Norfolk	VA	23503-4815	8581 Granby St	Norfolk	VA	23503-4815	P850
8	Albert N & Mary E Williams	1209 Little Bay Ave	Norfolk	VA	23503-1206	53 Willoughby Bay Av	Norfolk	VA	23003-0000	P743
9	Albert N Williams Et Als	1201 Little Bay Ave	Norfolk	VA	23503-1206	1201 Little Bay Av	Norfolk	VA	23003-1206	P967
10	Alexcoo Llc	255 W Ocean View Ave Apt 12	Norfolk	VA	23503-1549	1411 W Ocean View Av	Norfolk	VA	23503-1545	P1011
11	Alexander W Renard	148 Swanson Rd	Norfolk	VA	23503-4730	148 Swanson Rd	Norfolk	VA	23503-4729	P916
12	ALFRED C FINCH ET LIX	118 SEGAR ST	HAMPTON	VA	23063	118 SEGAR ST	HAMPTON	VA	23063	P233
13	ALPHONSO EPRIELLI ET UX ET AL	913 QUASH ST	HAMPTON	VA	23069	913 QUASH ST	HAMPTON	VA	23069	P454
14	Andrea L Hussien	6250 Hickory St	Norfolk	VA	23503-3354	6250 Hickory St	Norfolk	VA	23003-3354	P970
15	Andy L Cabanis	6290 Phillip Ave	Norfolk	VA	23503-3326	6290 Phillip Av	Norfolk	VA	23503-3326	P727
16	Anna M Braun	7141 Hunters Chase	Norfolk	VA	23016	211 Ridgewell Cir	Norfolk	VA	23503-4220	P987
17	Annmarie Hightobone	9223 Mason Creek Rd	Norfolk	VA	23503-2706	9223 Mason Creek Rd	Norfolk	VA	23503-2706	P706
18	ANNETTE M SEARS	801 LANGLEY AVE	HAMPTON	VA	23069	801 LANGLEY AVE	HAMPTON	VA	23069	P457
19	Anqiang Et Als	9459 Garnett Ave	Norfolk	VA	23503-3312	9459 Garnett Av	Norfolk	VA	23503-3312	P871
20	ANTHONY D GRUBER	328 BASSETT ST	HAMPTON	VA	23069	328 BASSETT ST	HAMPTON	VA	23069	P447
21	Anthony H & Sandra G English	1217 Little Bay Ave	Norfolk	VA	23503-1206	53 Willoughby Bay Av	Norfolk	VA	23003-0000	P622
22	ANTHONY J & GRETTA D MOER	421 COLBERT AVE	HAMPTON	VA	23069	421 COLBERT AVE	HAMPTON	VA	23069	P446
23	April L & Michael L Davis	620 Folin Ln Se	Vienna	VA	22180-4907	6239 Peachtree St	Norfolk	VA	23503-3335	P725
24	Arthur A & Jean F Martin	1237 Little Bay Ave	Norfolk	VA	23503-1206	53 Willoughby Bay Av	Norfolk	VA	23503-0000	P759
25	Arthur A & Jean F Martin	1237 Little Bay Ave	Norfolk	VA	23503-1206	53 Willoughby Bay Av	Norfolk	VA	23503-0000	P651
26	Ashley Wheeler	246 Ridgewell Ave	Norfolk	VA	23503-2748	246 Ridgewell Av	Norfolk	VA	23503-2748	P714
27	Aubrey G & Barbara E Heflin	1416 W Ocean View Ave	Norfolk	VA	23503-1016	6413 Atwood Av	Norfolk	VA	23503-3306	P903
28	AUDREY C CHARITY	1006 CARVER ST	HAMPTON	VA	23069	1006 CARVER ST	HAMPTON	VA	23069	P491
29	BARBARA A BROWN	8 CURLE RD	HAMPTON	VA	23069	314 COOPER ST	HAMPTON	VA	23069	P608
30	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETT ST	HAMPTON	VA	23069	P307
31	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETT ST	HAMPTON	VA	23069	P309
32	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	321 BASSETT ST	HAMPTON	VA	23069	P452
33	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETT ST	HAMPTON	VA	23069	P459
34	Barbara P Cobb	141 W Evans St	Norfolk	VA	23503-4791	141 W Evans St	Norfolk	VA	23503-4791	P683
35	Barry T & Kathy H Vlatas	152 Rodman Rd	Norfolk	VA	23503-3204	152 Rodman Rd	Norfolk	VA	23503-4726	P662
36	Bayville Llc	1455 Bayville St	Norfolk	VA	23503-1004	1455 Bayville St	Norfolk	VA	23503-1004	P710
37	Bayville Llc	1455 Bayville St	Norfolk	VA	23503-1004	1455 Bayville St	Norfolk	VA	23503-1004	P715

- Threatened and Endangered Species Information
- Appendix I: Federal Species
- NMFS Jurisdictional Species Determination
- Species with “No Effect” Determination
 - Hawksbill Sea Turtle
 - Shortnose Sturgeon
 - North Atlantic Right Whale
- Species with “May Affect, but Not Likely to Adversely Affect” Determination
 - Sea Turtles (Loggerhead, Kemp’s Ridley, Green, and Leatherback)
 - Atlantic Sturgeon
 - Fin Whale
- USFWS Jurisdictional Species
 - Piping Plover
 - Bald Eagle
 - Golden Eagle
- No TOYR

- Appendix J: State Species
- No Adverse Effects
- VAFWIS Search Report and VDCR Natural Heritage Report
 - Northern long-eared bat (*Myotis septentrionalis*) (State Threatened)
 - Tricolored bat (*Perimyotis subflavus*) (State Endangered)
 - Northeastern beach tiger beetle (*Cicindela dorsalis*) (State threatened)
 - Gull billed tern (*Sterna nilotica*) (State Threatened)
 - Piping plover (*Charadrius melodus*) (no critical habitat at HRBT, State threatened)
 - Red knot (*Calidris canutus rufa*) (State threatened)
 - Peregrine Falcon (*Falco peregrinus*) (state threatened)
 - Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) (endangered)
 - Shortnose sturgeon (*Acipenser brevirostrum*) (endangered)
 - Green sea turtle (*Chelonia mydas*) (State threatened)
 - Loggerhead sea turtle (*Caretta caretta*) (State threatened)
 - Kemp’s ridley sea turtle (*Lepidochelys kempii*) (State endangered)
 - Hawksbill sea turtle (*Eretmochelys imbricata*) (State endangered)
 - Leatherback sea turtle (*Dermochelys coriacea*) (State endangered)
 - Canebrake rattlesnake (*Crotalus horridus*) (State Endangered)
 - Mabee’s salamander (*Ambystoma mabeei*) (State Threatened)

- Appendix M: Essential Fish Habitat (EFH) Assessment
 - Atlantic Herring
 - Atlantic Butterfish
 - Black Sea Bass
 - Bluefish
 - Cobia
 - Summer Flounder and Windowpane Flounder
 - King Mackerel and Spanish Mackerel
 - Red Drum
 - Red Hake
 - Scup
 - Atlantic Sharpnose, Sandbar, Dusky, and Sand Tiger Shark
 - Winter, Little, and Clearnose Skate
- Anadromous Fish
 - River Herring (Alewife, blueback)
 - Shad (American shad, hickory)
 - Striped Bass
 - White Perch
- No TOYR
- Habitat Condition Assessment and Mitigation

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- Appendix R: Marine Mammals
 - Fin Whale (rare)
 - Common Minke Whale (rare)
 - Humpback Whale (regular)
 - North Atlantic Right Whale (rare)
 - Common Bottlenose Dolphin (regular)
 - Harbor Porpoise (regular)
 - Harbor Seal (regular)
 - Grey Seal (regular)
- Potential Effects on Marine Mammals
 - Noise (In-Air and Underwater)
 - Habitat Loss and Alteration
 - Prey Availability and Habitat
 - Sedimentation
- Incidental Harassment Authorization (IHA)
 - Level B
 - Level A
- Letters of Authorization (LOA)

■ Appendix K: Cultural and Historic Resources Information

- FHWA and VDOT have complied with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations at 36 CFR Part 800
- Programmatic Agreement (PA) requires VDOT to meet specific design commitments for avoidance of adverse effects within the Area of Potential Effect (APE)

■ Commitments in the Programmatic Agreement

- No permanent acquisition of property from Hampton University
- Memorandum of agreement outlining terms for temporary Hampton University property
- Emancipation Oak: No encroachment into the Tree Limit of Disturbance
 - Baseline Assessment & Monitoring Plan
- Noise Barriers
 - Hampton Institute Historic District & Hampton Institute National Historic Landmark
 - Pasture Point Historic District
 - Hampton National Cemetery
 - Phoebus–Mill Creek Terrace Neighborhood Historic District
 - Norfolk Naval Base Historic District

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■ Appendix G: Impacts

- WOUS Impact Tables
 - Summary of Impacts by Segment and Type
 - Fill Impacts
 - Shading Impacts
 - Pile Impacts
 - Dredging Impacts
 - Extended Temporary (>6 mo) Trestles
 - Temporary (< 6mo) Impacts
- Impact Drawings
 - Location and footprint of each numbered site
- Design Plans

- Appendix P: Avoidance Minimization and Mitigation Plan
 - Immersed Tube Tunnel vs. Bored Tunnel
 - Avoid substantial in-water impacts, and avoid direct navigation impacts to the federal channel.
 - Temporary Construction Trestles
 - Minimization by Impact Area
 - Supporting Documents
 - HCA
 - 2018 Benthic Survey
 - Mitigation Plan

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Proposed Compensatory Mitigation



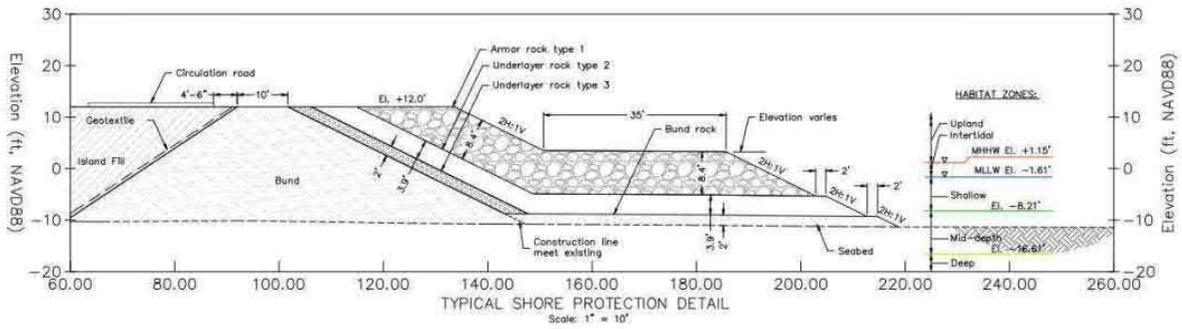
- Compensatory Mitigation Sources Proposed for Project
 - Subaqueous credits (LRRT)
 - Oyster reef credits (LRRT)
 - Tidal vegetated wetland credits (mitigation banks; LRRT, VARTF)
 - VMRC Clam Seeding
 - Non-tidal vegetated wetlands (pre-purchased credits)

Resource	Compensation Required (Credits)	Availability of Potential Compensation Source(s)		
		Source	Current	Future
Tidal Subaqueous and Non-vegetated Converted to Upland	14	subaqueous restoration/rehabilitation (LRRT)	10	TBD
Clam beds	TBD	VMRC clam seeding	To be negotiated with VMRC	---
SAV beds	0.6	oyster reef (LRRT)	2	TBD
Tidal Vegetated, mudflats, sandy shore	4.57	Tidal vegetated wetland credits (LRRT, banks, VARTF)	4	8
Jurisdictional Ditch	no compensation proposed			
Palustrine Emergent	1.38	non-tidal wetland credits pre-purchased		
Palustrine Forested				
Palustrine Scrub Shrub				
Palustrine Unconsolidated Bottom				
Lower Perennial, Riverine	None	N/A	>6,500	---

JPA Section 13

- Section 13: Free Standing Mooring Piles, Osprey Nesting Poles, Mooring Buoys, and Dolphins main points
- Appendix E: Project Description, Section 2 Marine Operations
 - 42" Mooring Piles
 - Mooring Dolphins – Three 24" Piles
 - Vessels:
 - Tug Boats
 - Barge/Transport Vessels
 - Workboats

- Shoreline stabilization structures
- Replacement bulkheads at the Willoughby Spit Property
- Rock perimeter protection around the North and South Islands



- Beach nourishment

Location	Cubic Yards	Square Feet	Acres
North Island	152,000	715,000	16.41
South Island	200,000	115,000	2.64
Dredge Area #1	40,000	204,290	4.75
Dredge Area #2		41,062	0.94
Dredge Area #3		49,643	1.14
Dredge Area #4		7,434	0.17
Shipwreck Debris removal	13,000	38,768	0.89
Total	405,000	1,171,197	26.89

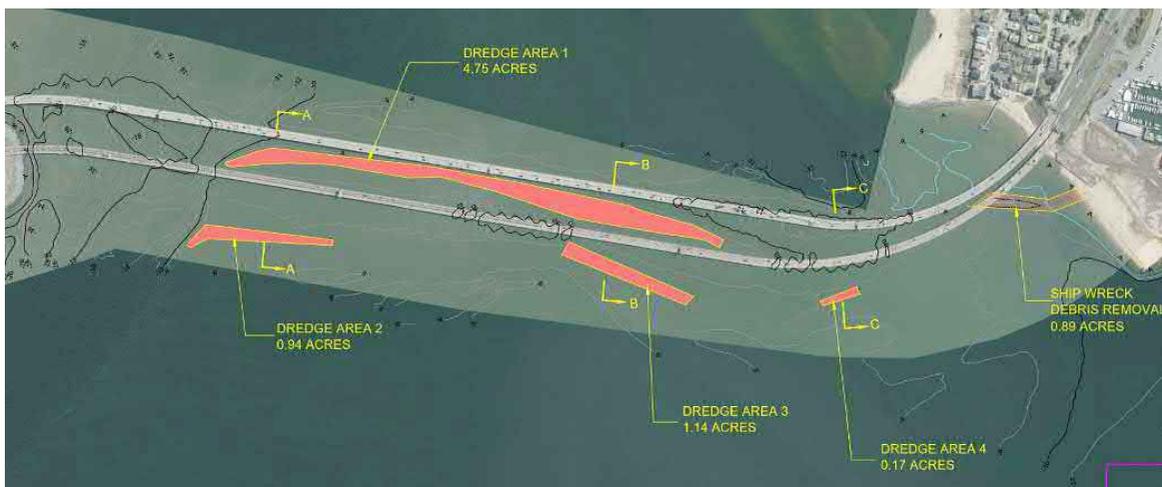


Table L-1
Source and Volume of Material to be Removed and Managed

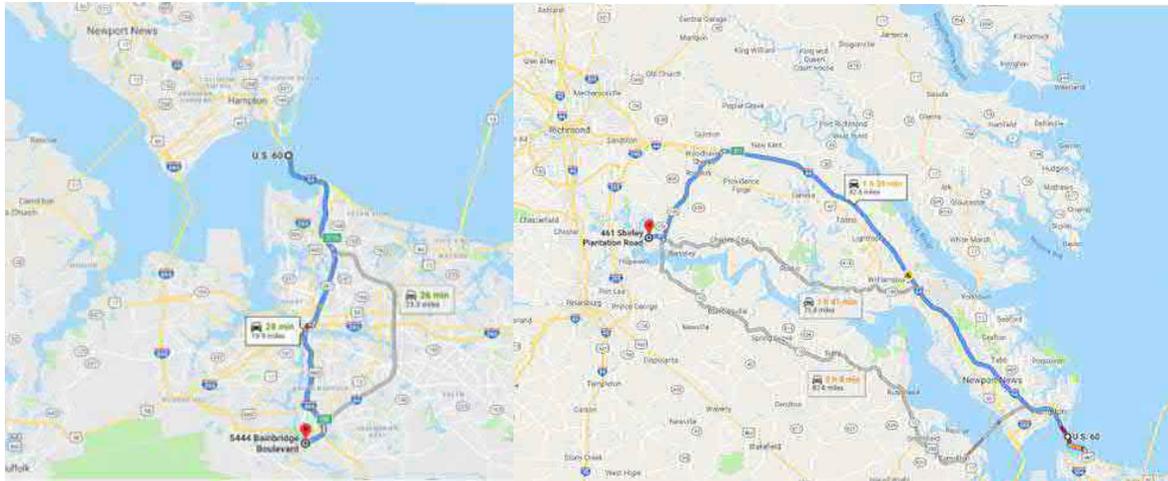
Source Material	Construction Activity	Category of Material							Total Volume cy (Bulked)	Reuseable Volume by Source Material cy (Bulked)	Disposal Volume by Source Material cy (Bulked)		
		Excavated Material cy (Bulked) ^a	Bored Material cy (Bulked) ^a	Dredged Material cy (Bulked) ^a	Armor and Quarry Stone cy ^b	Down the Hole Hammer Outings	Jet Grouted Residual Material cy (Bulked) ^a	Debris ^c					
On Island	Slurry Walls	84,000	-	-	-	-	-	-	-	-	84,000		
	North Island Tunnel Approach and Entry Portal	176,760	-	-	-	-	-	111,600	-	-	788,360		
	South Island Slurry Walls	132,000	-	-	-	-	-	-	-	-	132,000		
On Island	South Island Tunnel Approach and Entry Portal	206,760	-	-	-	-	-	145,800	-	-	206,000		
											146,560		
In Water	Tunnel Alignment	Tunnel Boring	-	316,800	-	-	-	-	-	-	-	316,800	
		Coarse Sand	-	316,800	-	-	-	-	-	-	-	316,800	
		Fines	-	739,200	-	-	-	-	-	-	-	739,200	
	North Island Dredged Material	Filter Cake	-	360,000	-	-	-	-	-	-	-	360,000	
		Island Expansion	-	-	132,000	40,000	-	-	-	-	-	192,000	
	South Island Dredged Material	Island Expansion	-	-	32,000 to 200,000	30,000	-	-	-	-	40,000	22,000 to 190,000	
	South Trestle Dredged Material	Dredging	-	-	40,000	-	-	-	-	-	-	40,000	
	Bridge Construction	Pile Installation	Extraction from Casing	-	-	32,000	-	1,900	-	-	-	-	33,900
				-	-	-	-	-	-	-	-	-	-
	Trestle Concrete Willoughby Spit Offshore	Bridge Demolition		-	-	-	-	-	-	80,500	-	80,500	
Debris Removal			-	-	-	-	-	-	13,000	-	-	13,000	
Upland	Various Roadway Improvements	27,500	-	-	-	-	-	-	-	-	27,500		
Totals by Category:		627,020	1,416,000	256,000 to 424,000	70,000	1,900	257,400	93,500	2,721,520 to 2,689,520	670,800	2,051,020 to 2,219,020		

Notes:
a) Bulking Factor = 1.2
b) Bulking Factor = 1.6
c) No Bulking Factor

JPA Section 17 – Barge Routes

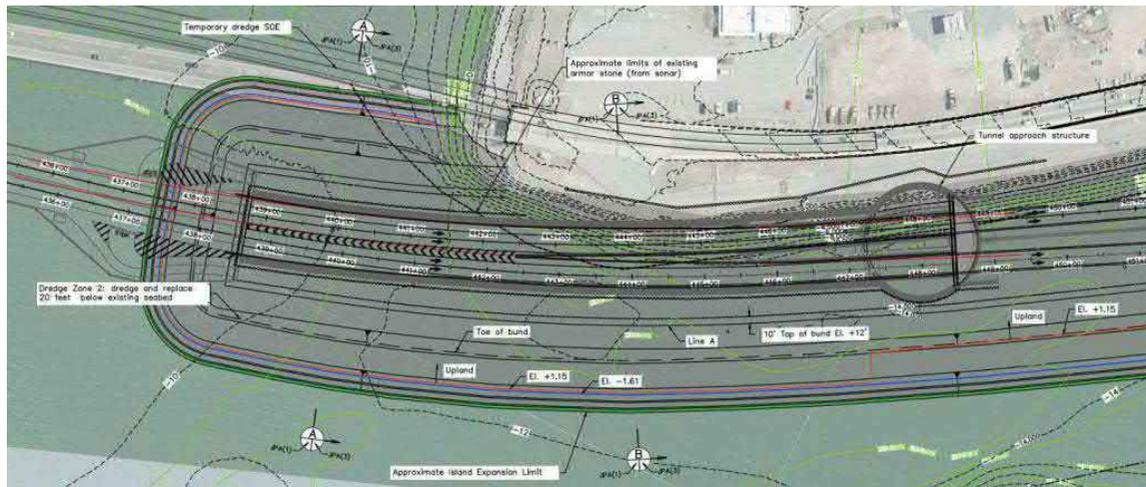


Truck Routes

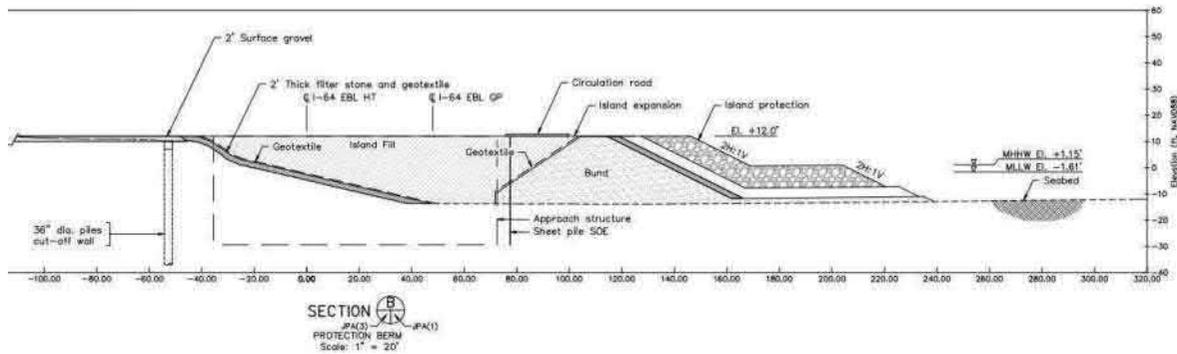


JPA Section 18

Fill – North Island Example – Cross Section B-B



■ Fill – North Island Example – Cross Section B-B

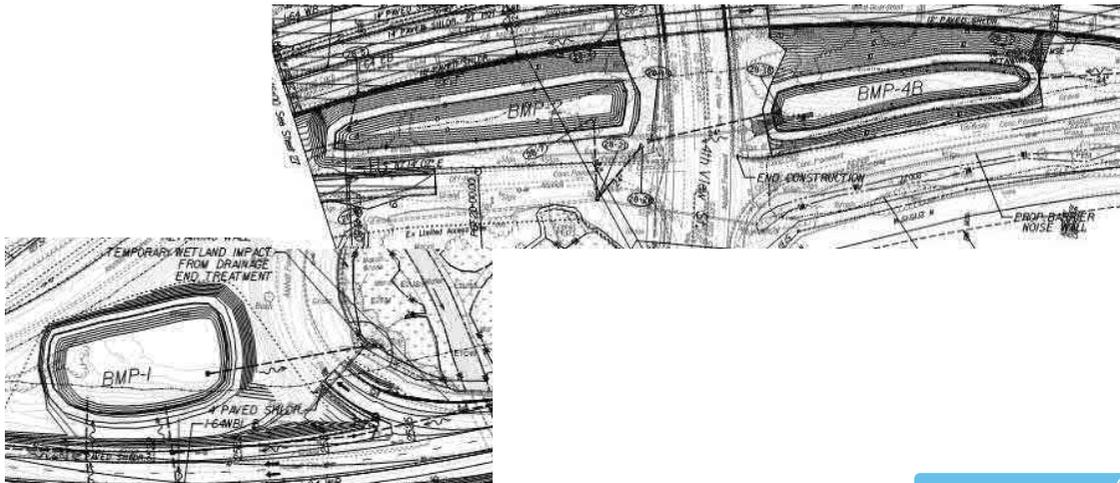


JPA Section 21

■ Road Crossings

- Culvert Extension at Bay Ave
- Appendix G, JPA Plan Set
 - Includes elevations showing the project bridges and clearances
 - North Trestle
 - South Trestle
 - Willoughby Bay
 - Bay Ave
 - Oastes Creek

- Upland Stormwater Management (SWM)
- For quantity control, three SWM Best Management Practices (BMPs) will be constructed throughout the project corridor.
 - BMP-1 is located at the Mallory Street Interchange in Hampton
 - BMP-2 and BMP-4B are located at the 4th View Interchange in Norfolk
- All SWM facilities for this project will discharge to existing outfall locations throughout the corridor and no new outfalls are proposed for upland SWM.



- Island SWM
 - Stormwater runoff from North Island, South Island and the connecting tunnels, are captured and discharged at five (5) outfalls

Island Outfall	Approximate Location
North Island (south side) existing outfall	36°59'56.00"N, 76°19'1.00"W
South Island (north side) existing outfall	36°59'8.00"N, 76°18'16.00"W
North Island (north side) new outfall	37° 0'11.30"N, 76°19'10.45"W
North Island TAS outfall	37° 0'5.11"N, 76°19'11.37"W
South Island TAS outfall	36°58'59.02"N, 76°18'16.47"W

Island Outfall	Required Design Discharge Rates
North Island (south side) existing outfall	25 CFS
South Island (north side) existing outfall	60 CFS
North Island (north side) new outfall	35 CFS
North Island TAS outfall*	7.9 MGD
South Island TAS outfall*	7.9 MGD

*This discharge rate for each tunnel outfall considers 1 pump running at full capacity for the design storm (100-yr) and assuming fire suppression is in operation concurrently.

- Point source discharge of construction process water
- Characterized as Industrial Minor
- Flow rate <0.5 MDG
- Two planned outfalls 001 and 002
 - 001 South Island
 - Water treatment from
 - Jet Grouting – construction
 - Slurry Wall - construction
 - Excavation water of tri-cell (Pit for TBM entry) north bore
 - TBM boring of tunnels
 - 002 North Island
 - Water treatment from
 - Jet Grouting – construction
 - Slurry Wall - construction
 - Excavation of water tri-cell for south bore of TBM

- Planned Outfall Locations

- JPA
 - JPA submission – August 30, 2019
 - Anticipated public notice date September 15, 2019
 - JPA Post-Submission Follow-up – September 26, 2019
 - Anticipated permit issuance – April 2020
- Section 408 Concurrence
 - Public Notice
 - Package Submittal November 2019
 - Approval before April 2020
- USCG Bridge Permit
 - Approval after Section 408
- VPDES
- Construction
 - Commence field construction activities – scheduled for April 2020
 - Project Substantial Completion – July 2025

Comments/Questions?

**Virginia Harbor Safety Committee Meeting
Tuesday September 17, 2019
10:30 – 12:30**

**Portsmouth Public Library – Churchland Branch
Coleman Meeting Room
4934 High Street West
Portsmouth, VA 23703**

Meeting Minutes

1. Welcome & Opening Remarks

The meeting was called to order by the Chair, Mr. David White. There were 28 people in attendance. Mr. White recognized the support of the Coast Guard and Virginia Department of Game and Inland Fisheries for the committee.

2. Review and Approval of Minutes

Minutes were sent electronically prior to the meeting. A motion was made and seconded to approve the minutes and it passed by all in attendance.

3. Public Comments

The Chair called for any public comments. There was none.

4. Subcommittee Reports

a. Recreational Vessel Subcommittee – Subcommittee Chair Bruce Dungan had no report

b. Strategic Planning

Strategic Planning Committee chairman Capt. Whiting Chisman made a presentation (included) on the committee's proposed strategic plan, including a new mission statement and objectives.

Mr. White notes that this plan is presented as strategic vision through 2021 providing the ability to update as necessary. It is the first part of evolution of harbor safety committee as it moves to a more robust committee.

Question – Are we sending this to the entire Harbor Safety Committee? Answer: Mr. White wants to bring it up to the group today.

Question – It sounds like this group could end up becoming a lobbying group. Is that really what the committee wants? Also, there are already a lot of videos out there put together by partner organizations, we don't need to recreate the wheel. Answer: Intent is not to become a lobbying group. It is important to have that ability in the strategic plan as a tool or option if something comes up that warrants such action.

Comment – for Facebook, Officer Chartier from the USCG has tools and expertise that can help.

Comment – Like the idea of an annual review

Comment – This is everyone’s port and it is great that everyone considers this “their port” and that we work together to use the VHSC as a sounding board for issues to help regulators handle issues. If you see a committee that is interested, jump in and help.

Motion – the Chair asked for a motion to approve the new strategic plan. Motion was made, seconded, and approved by the attendees.

Stacey Brown will send out the approved strategic plan to the full committee.

5. Presentations and Discussion Items

Chairman David White excused himself, with Will Fediw presiding as acting chairman.

a. Hampton Roads Bridge Tunnel – Section 408

The HRBT Project will be the largest Marine Project ever undertaken by VDOT, involving expansion of the existing trestle/tunnel system with over 10 miles of construction, and \$3.8 Billion Dollars. The agreement was signed April 2019, procurement contingent on permits December 2019 and with completion planned for November 2025.

Current construction partners include Dragados (Spanish), VINCI (French), and FlatIron, each with different, but important construction capabilities. Application for permits have been submitted with public notice expected in about a week. Input is being sought from any/all maritime and/or waterfront dependent users, who navigate/operate in the Norfolk Reach, Hampton Flats or Willoughby Bay or adjacent channels.

b. Hurricane Season

Jeff Orrock with the National Weather Service provided a presentation on Dorian Review and the Hurricane Season Outlook. This is forecasted to be an above average hurricane season for eastern US and the Atlantic. The forecast for Dorian from the National Hurricane Center was good. They now have a meteorologist embedded in Richmond in the Virginia Department of Emergency Management. There was a little confusion about water levels – the National Hurricane Center had different numbers than Wakefield – they use a different way to describe water levels.

Captain Stevens thanked NWS Wakefield for their continued coordination for hurricane preparedness. The Captain of the Port has a challenge in deciding when to close the port to balance caution for the waterway for the uses of the waterway. The coordination very early in the forecast provided plenty of time to react. Before reopening the port, ATONs have to be evaluated right after the storm so that the port can open as quickly as possible. Port Search and Rescue (SAR) is very limited during a hurricane event because assets have been moved to ride out the storm.

Question – When reopening a port, can we do it in stages? Allowing commercial first and then recreational? Captain of Port has to look at priority of vessels. We need to work on communication to rec boaters.

Question – How does a person know that the port is open or closed? Marine safety bulletins are a good source of information and the District 5 Media resources releases information about port closures.

6. Agency Briefs - USCG

Prevention/Waterways – Currently conducting a Waterways Analysis (WAMS) of the James River. They have received no feedback to date, but hoping to get more.

Will be working on a WAMS for the entrance to Chesapeake Bay. The study looks at ATONs along with other items. The USCG is looking for feedback. The comment period for the James River is November 16th. The comment period for the Chesapeake Bay Entrance ends December 16th.

Question – Is there an update on the Thimble Shoals dredging? Dredging starts in 2020.

Command Center – had 53 SAR notifications.

Navy – New players in Navy and appreciate interaction with port partners.

Army Corps of Engineers – nothing to report

DGIF – Legislation season will be upon us soon. Will let the group know of any legislation of importance. Our agency did update the life jacket regulation so it is now in concert with the Federal Code requirements for life jackets.

7. Unfinished Business (from previous meetings)

- a. James River Waterways and Management Assessment – already report on
- b. Changes to National Weather Service Alerts - nothing to report; no changes yet

8. Closing Remarks

- a. Next meeting date December 3, 10, 17?

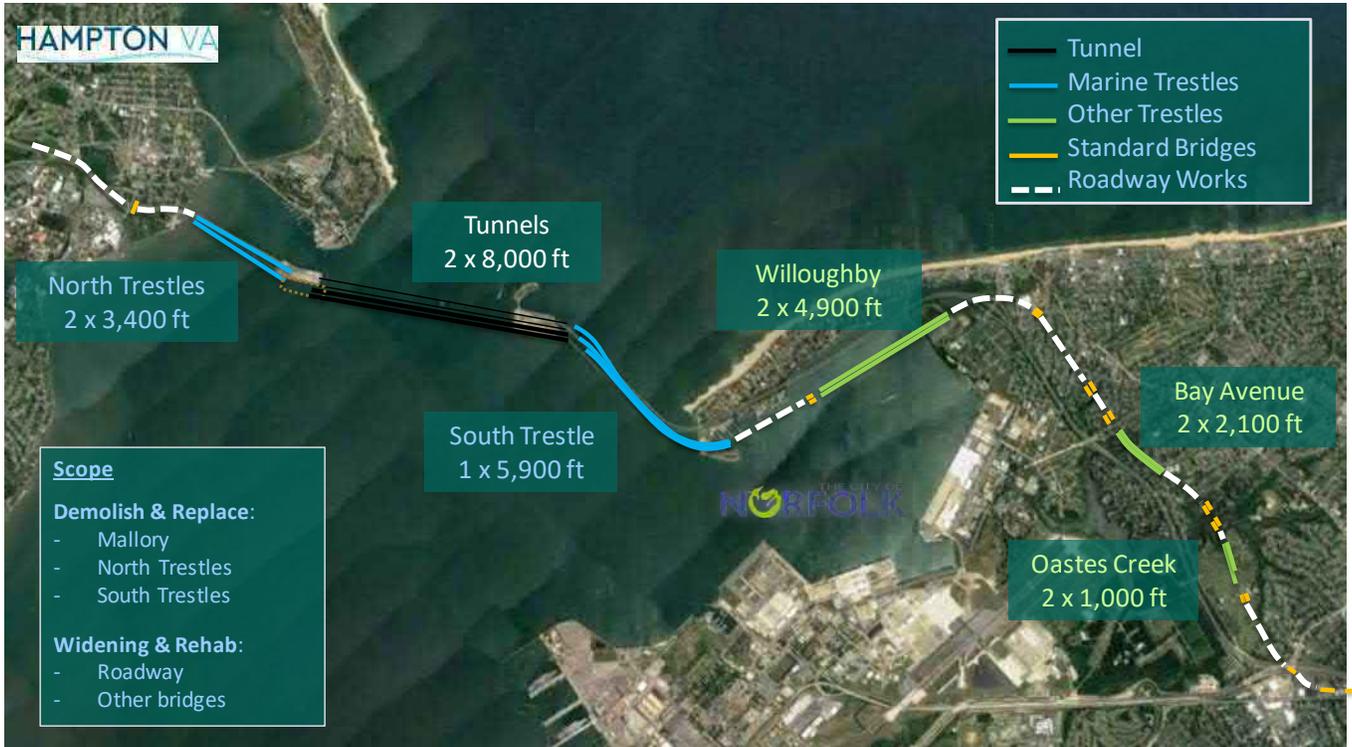


The Design-Build Project



- Comprehensive Agreement between Commonwealth of Virginia and Hampton Roads Connector Partners (HRCP) signed in April 2019
- HRCP CJV Partners: Dragados, VINCI Construction, Flatiron Constructors, Dodin Campenon Bernard
- HRBT Expansion project is a design-build project
- Designers: HDR and Mott MacDonald
- Project Cost: \$3.8 Billion
- Scheduled Completion Date: November 2025

Project Scope



Project Scope

By the numbers

Tunnels

- Length 8,000 ft
- Inner Diam. 41.5 ft
- Excavation 956,000 CY
- Segmental Lining 119,000 CY
- Ground Improv. 494,000 CY

Structures

- Bridges to Demo 5
- Bridges to Build 4
- Bridges to Widen 23
- Total Length 38,800 ft
- Total Surface 2,086,000 SF

Roadway

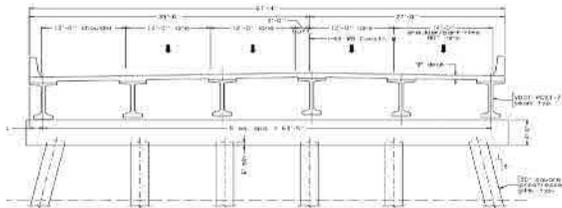
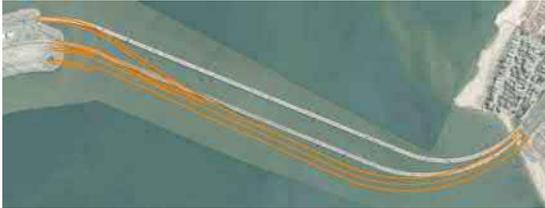
- Excavation 127,000 CY
- Embankment 91,000 CY
- Noise Walls 727,000 SF
- Retaining Walls 101,000 SF

Islands Expansion

- Footprint 860,000 SF
- Fill 169,000 CY
- Dike 188,000 CY
- Armor Stone 351,000 Tons
- Splash Wall 6,000 CY

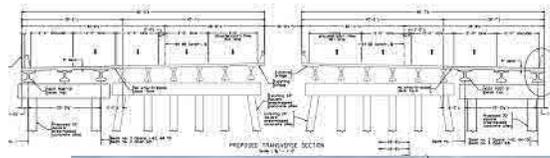
Design-Build: Structures

Demolish and Build North & South Trestles



Typical 4 lanes cross section
+ Mallory Bridge

Widen 6 Existing Concrete Structures (Over Water)

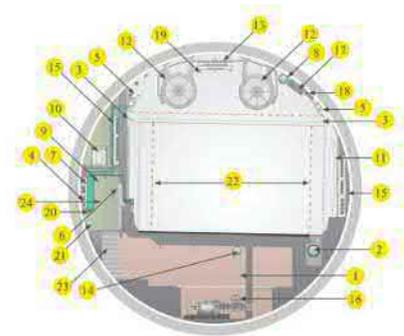
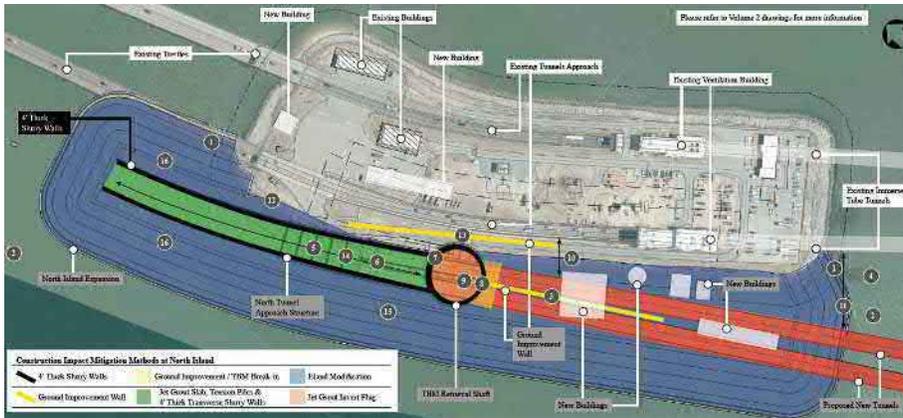


Widen 17 Existing Steel Structures (Over Land)

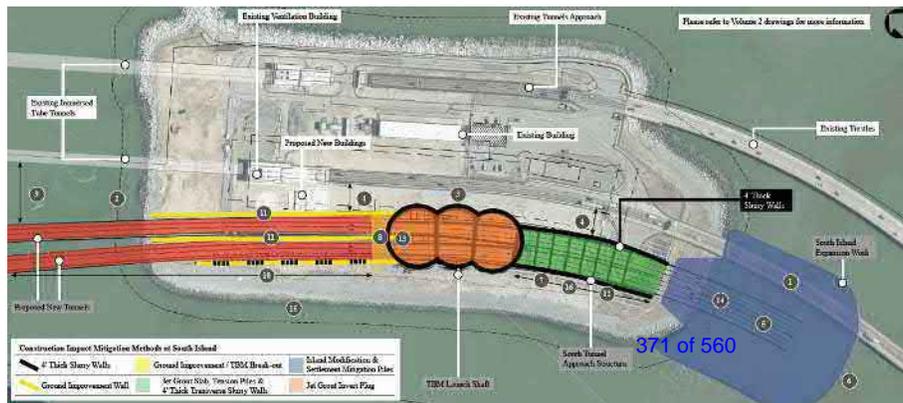


5

Design-Build: Tunnels



Internal Diameter: 41 ft-6 in
Structural Lining Thickness: 18 in

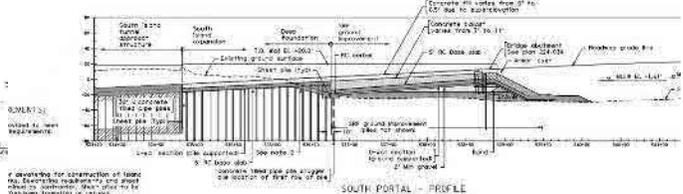
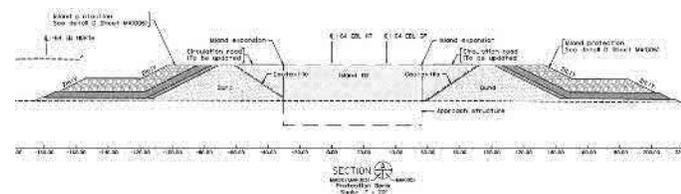
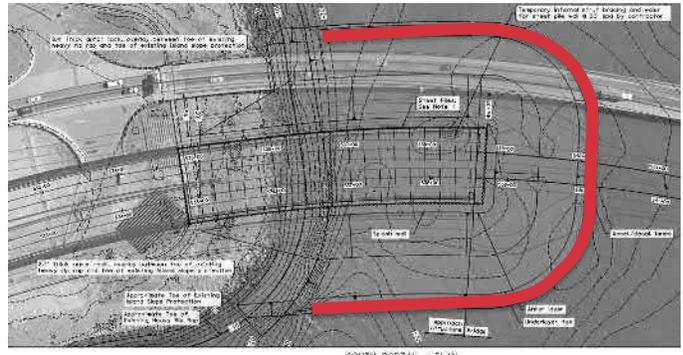
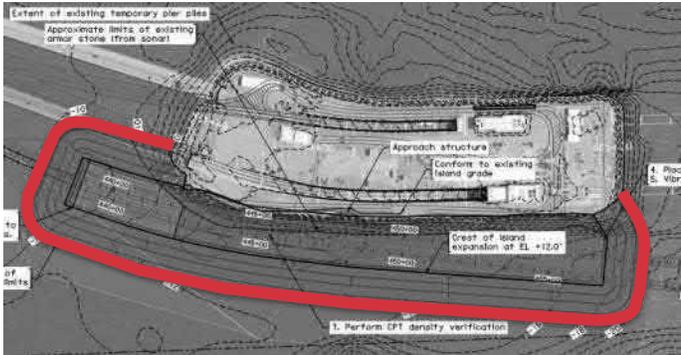


6

Design-Build: Island Expansion

North Island
 715,000 ft²

South Island
 145,000 ft²



- Red line shows toe of the slope of island expansion
- 100' minimum distance offset with Hampton Creek Approach Channel

7

Design-Build: Roadway

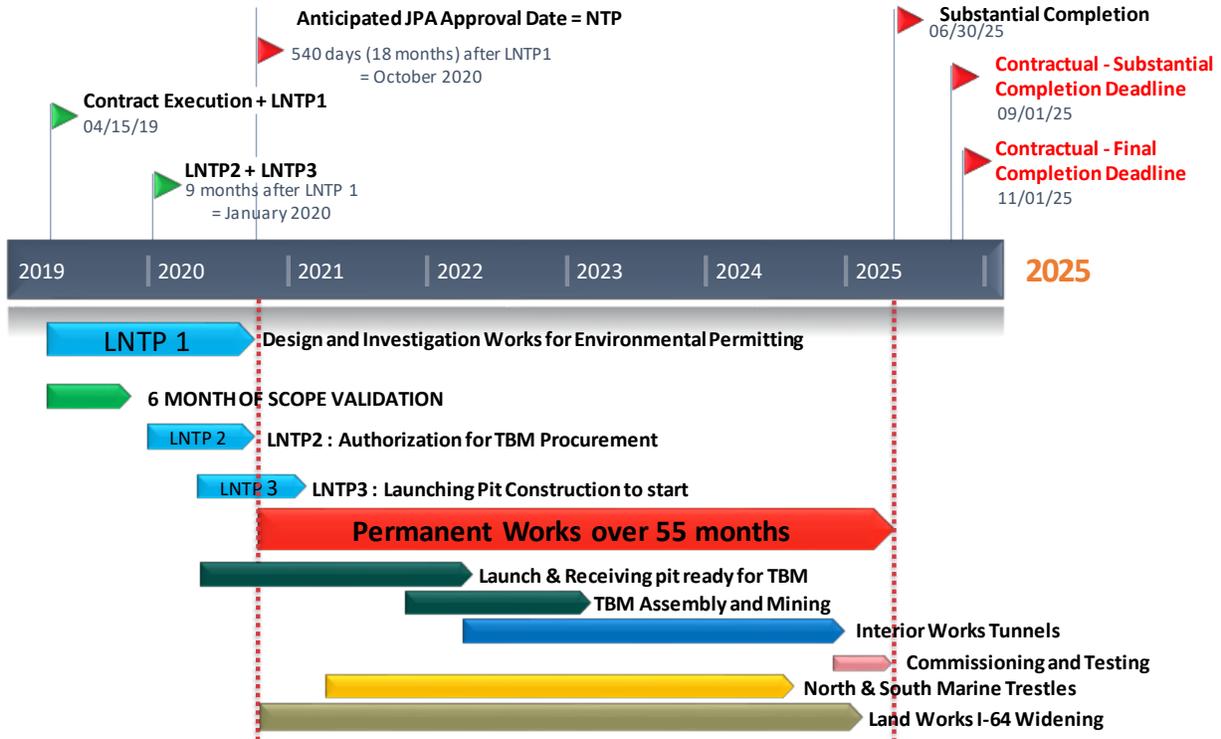


Widening of the first segment of I-64 (Hampton)

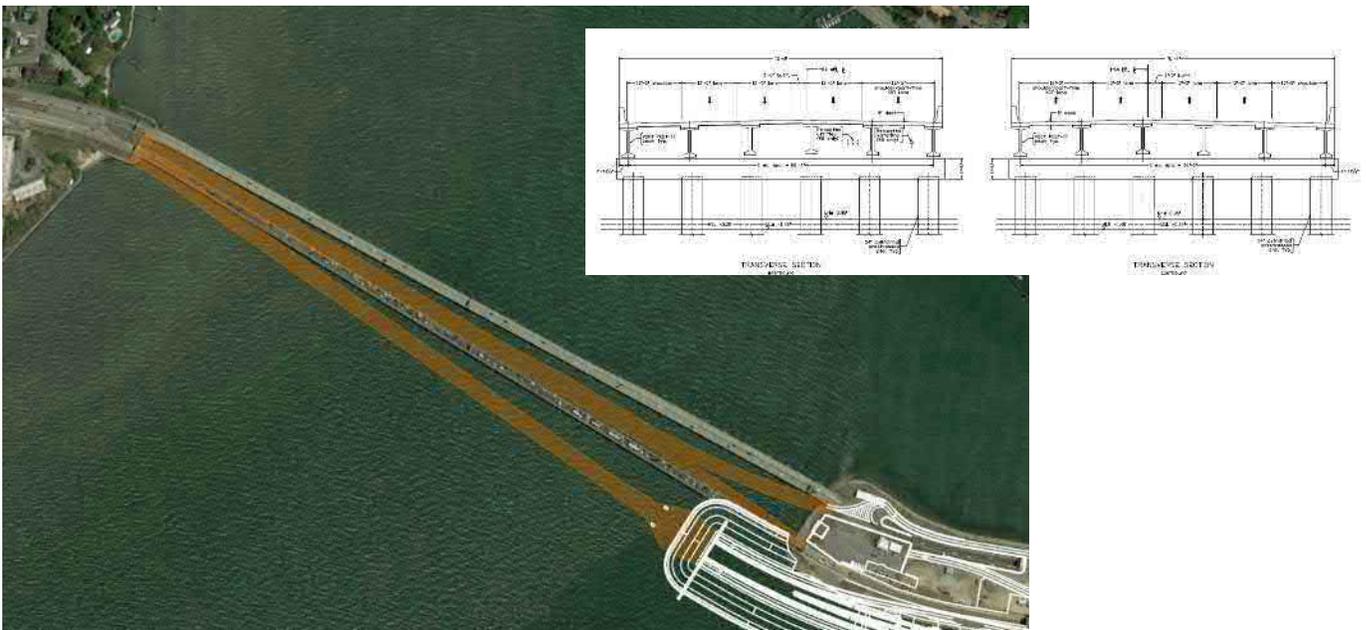
- Widening of 2 lanes each direction (*3rd lane + 4th High Occupancy Toll lane*)
- Addition of Retaining Walls
- Addition of Sound Walls
- High importance on MOT phasing (*Management of Traffic*)

8

Project Schedule



North Trestle & North Island



South Trestle & South Island



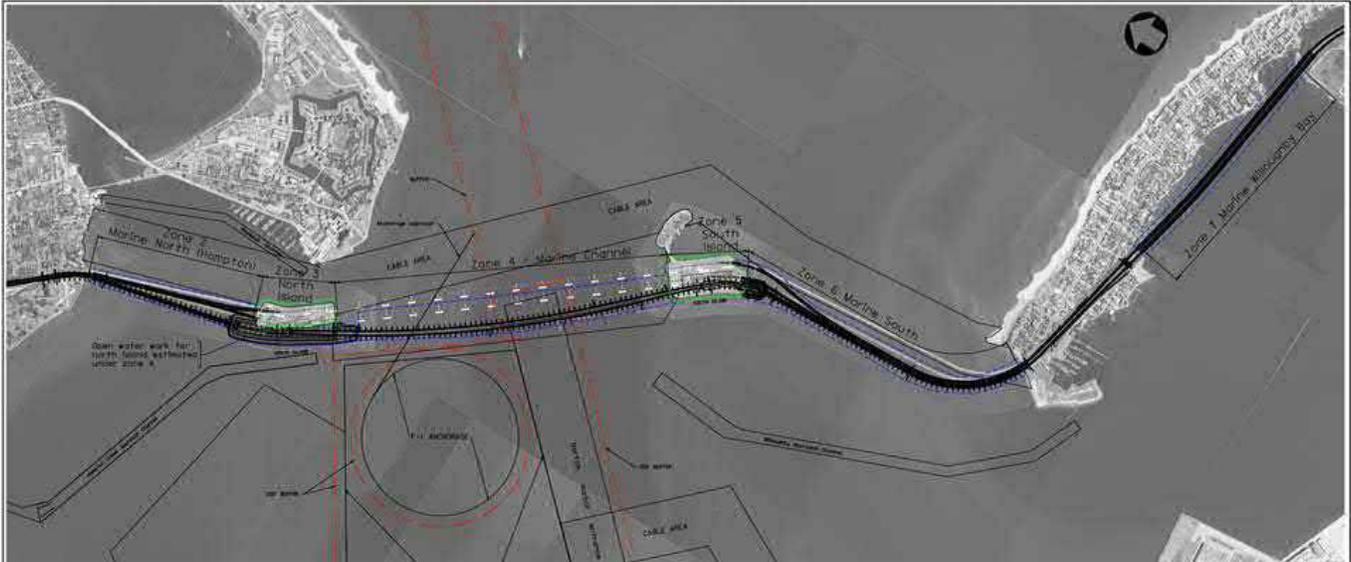
11

Willoughby Bay



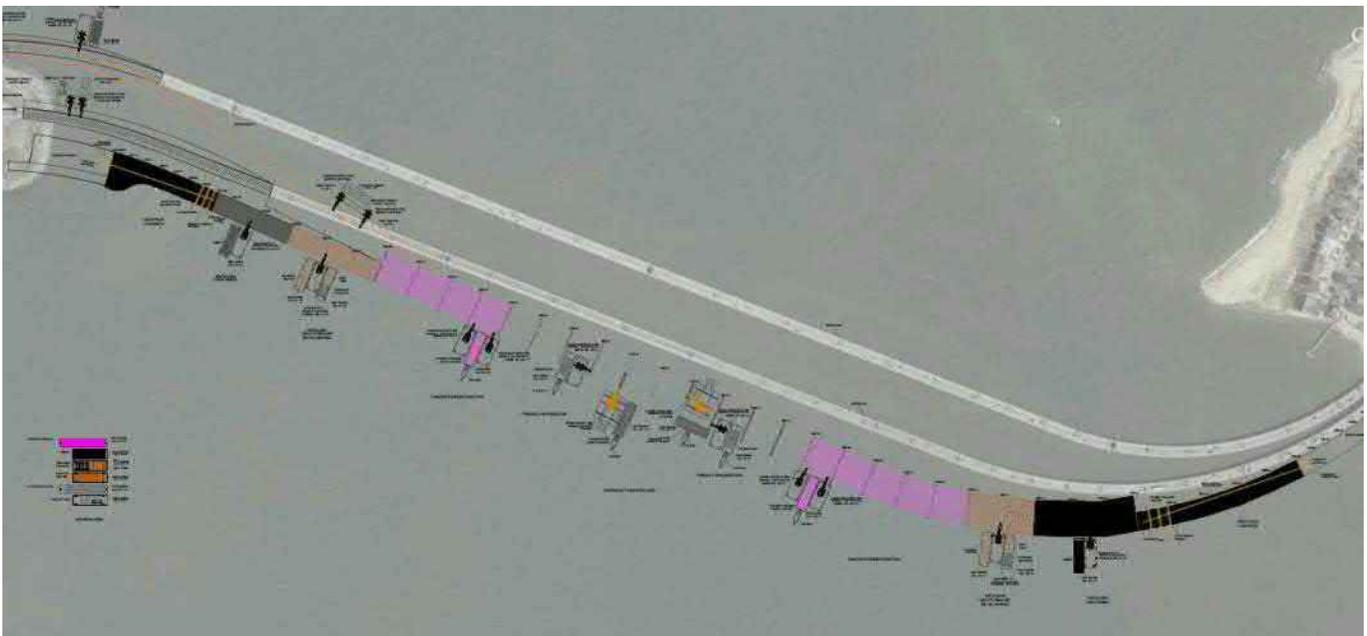
12

Construction Methods: Barge Traffic

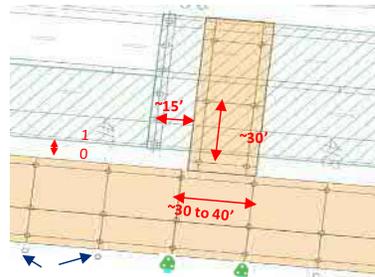
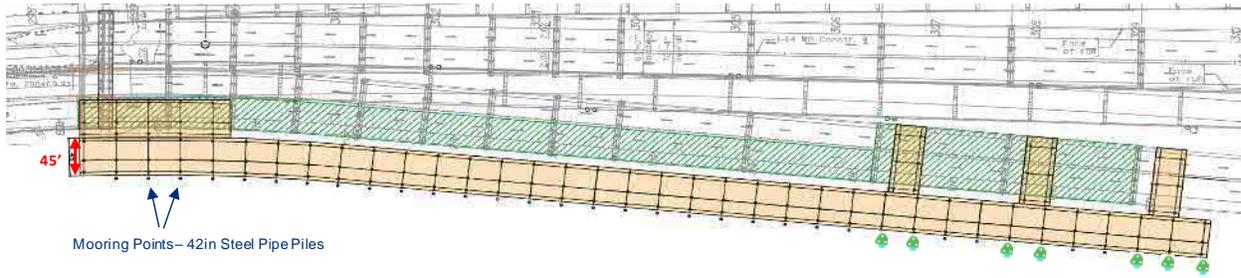


- Existing channels and anchorages
- The dashed red line denotes a buffer around the federal channel and anchorage
- 100' minimum distance offset with Hampton Creek Approach Channel

Construction Methods: Barge Traffic

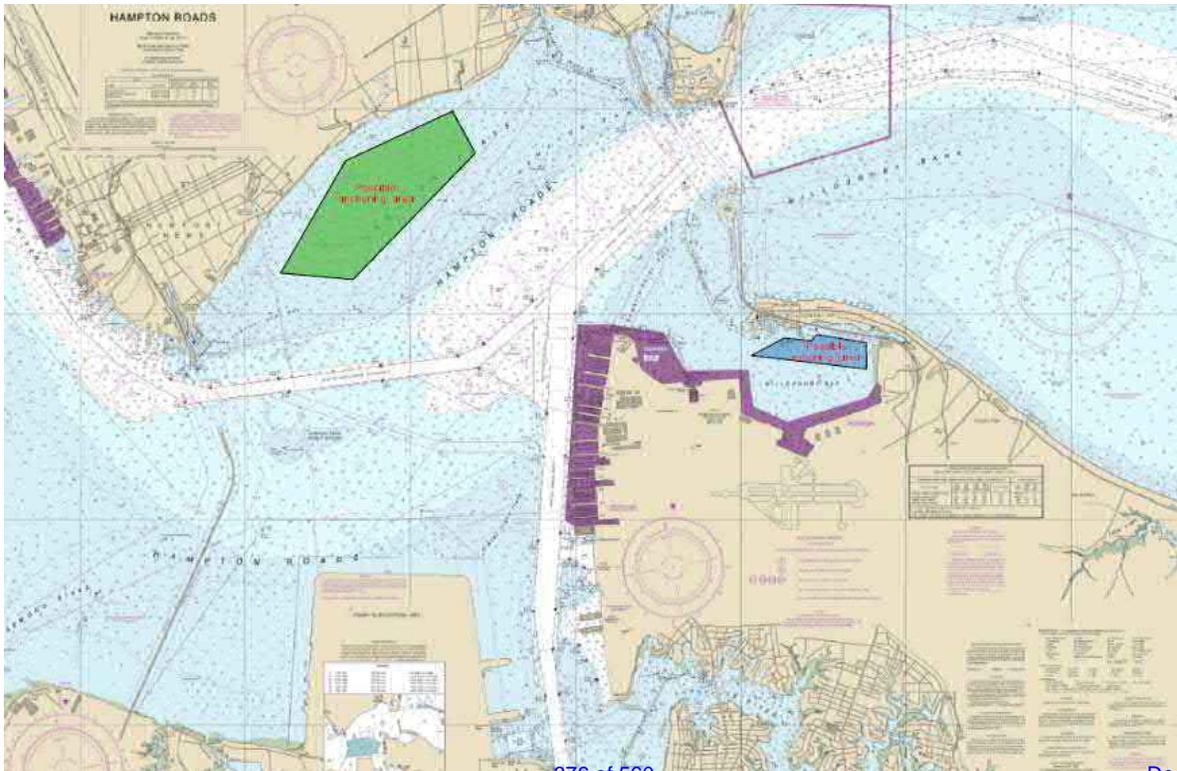


Construction Methods : Temporary Trestle

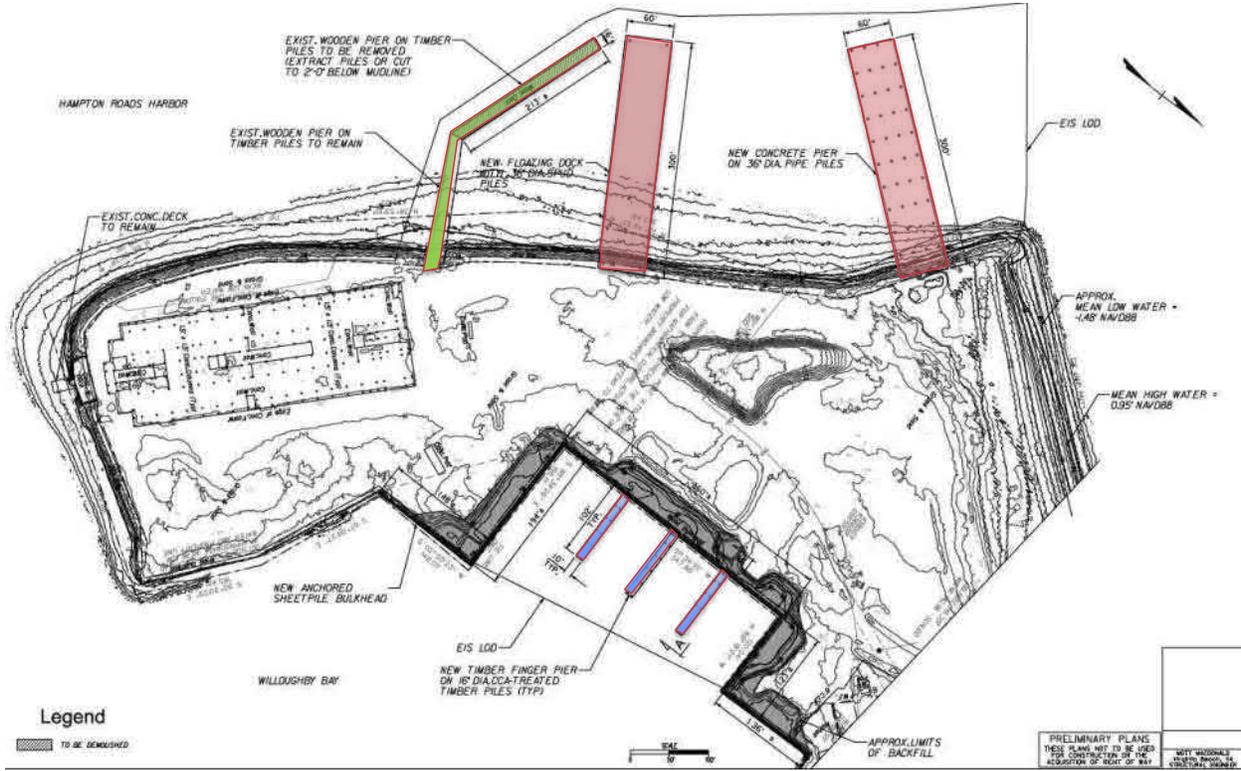


Mooring Points 4'

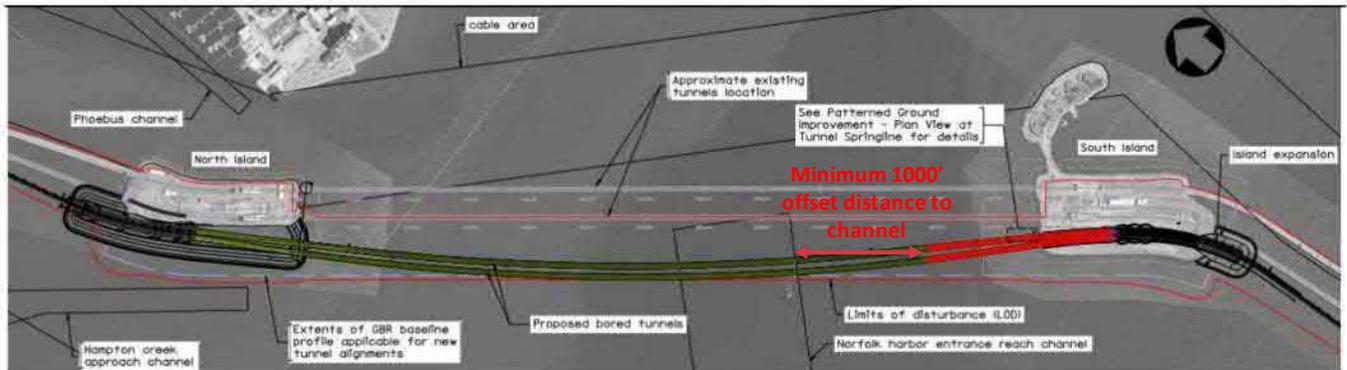
Construction Methods: Mooring Areas



Construction Methods : Willoughby Spit Area

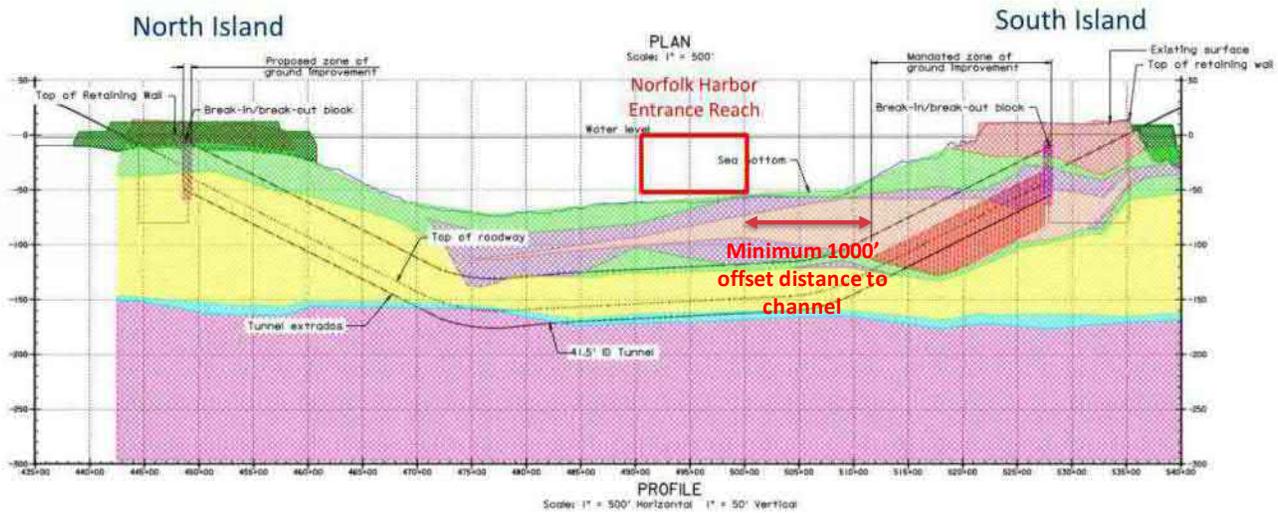


Construction Methods: TBM Operations



- Bored Tunnel Alignment between existing North and South Islands along a refined alignment
- The red line denotes the Limit of Disturbance (LOD)
- The red delineated area is the area of potential ground improvement

Construction Methods : Jet Grouting



- Proposed alignment for the bored tunnel between existing North and South Islands

Stakeholder Relations

Waterway User Survey



INPUT NEEDED! FROM WATERWAY USERS
The Hampton Roads Bridge-Tunnel (HRBT) Expansion Project

For the upcoming project construction, the Virginia Department of Transportation (VDOT) and its design-build prime contractor - Hampton Roads Connector Partners (HRCP) - are seeking input from all maritime and waterfront-dependent users who navigate/operate by the HRBT facility and general vicinity of the Norfolk Harbor, nearby Navigation Channels, Hampton Flats, and Willoughby Bay.

Your input is important to us! Information on how you use this waterway will assist the design and construction process for the project. **Please complete the brief online survey by October 1st by visiting the web address below or by scanning the QR code.**

Questions?
 Please contact Stephen Meyers: smeyers@hrcpjv.com

www.surveymonkey.com/v/HRBTSurvey

- Postcard notifications being mailed this week to waterway users within a 3-nautical mile radius of the project.
- Marine stakeholders included in the survey include: Boat Ramps, Boat Repair Facilities, Commercial Fishing, Marinas, Industrial/Commercial Ports, and Military Ports.
- Data supplied by waterway users will be used by HRCP to supplement the USCG Bridge Permit Application and the USACE Section 408 Permit for the purpose of navigation clearances and safety.
- 30-question online survey will be accessible through October 7th



Meeting Summary

Project: I-64 Hampton Roads Bridge-Tunnel (HRBT) Expansion
Meeting Title: USCG Sector Hampton Roads
Date: 18 September 2019 1300 to 1530
Location: USCG Sector Hampton Roads
 4000 Coast Guard Blvd
 Portsmouth, VA 23703

Attendees:

Company	Name	Initials	Phone	E-mail	Present
USCG ⁽¹⁾	CAPT Sam Stevens	SS	(757) 439-5469	samson.c.stevens@uscg.mil	XX
USCG ⁽²⁾	CDR Jennifer Stockwell	JS	(757) 398-6389	jennifer.a.stockwell@uscg.mil	XX
USCG ⁽³⁾	CDR Dean Horton	DH	(757) 274-7745	dean.e.horton@uscg.mil	XX
USCG ⁽⁴⁾	LT Jerimiah Mims	HC	Not given	Not given	XX
USCG	LTJG Julie Delesandri	JD	Not given	julie.n.delesandri@uscg.mil	XX
USCG ⁽⁴⁾	CWO Daniel Butierries	DGB	(757) 638-6637	daniel.g.butierries@uscg.mil	XX
USCG ⁽⁵⁾	CWO Jason Brisson	JB	(757) 274-7745	jason.m.brisson@uscg.mil	XX
USCG ⁽⁶⁾	MSTC Ryan Chartier	RC	(757) 668-5582	ryan.t.chartier@uscg.mil	XX
USCG ⁽⁷⁾	Jerry Barnes	JRB	(757) 398-6231	Jerry.R.Barnes@uscg.mil	Phone
USCG ⁽⁸⁾	LT Mitch Lotta	ML	Not given	Not given	Phone
VDOT	Jim Utterback	JU	(757) 858-6778	james.utterback@vdot.virginia.gov	XX
HRCP	Jose Martin Alos	JMA	(404) 702-1030	jmartinealos@hrcpv.com	XX
HRCP	David Barrier	DB	(514) 663-9198	dbarrier@hrcpv.com	XX
HRCP/I-64 DJV	Doug Gaffney	DG	(856) 924-3363	douglas.Gaffney@mottmac.com	XX
HRCP/I-64 DJV	Angela Stowe	AS	(845) 216-3052	angela.stowe@hdrinc.com	XX
HRCP/I-64 DJV	JP Magron	JPM	(212) 671-0180	JP.Magron@hdrinc.com	XX
HRCP/WRA	Emily Drahos	ED	(804) 327-5227	edrahos@wralp.com	XX
I-64 DJV/TPG ⁽⁹⁾	Paul Lattanzi	PL	(207) 808-9846	paul.r.lattanzi@paratusgroup.org	XX
I-64 DJV/TPG ⁽⁹⁾	Jamie Fessenden	JF	(925) 766-5790	jamie.fessenden@fessendenenergy.com	XX

(1) Deputy Commander, Sector Hampton Roads
 (2) Chief, Waterways, District 5
 (3) Chief, Prevention, Sector Hampton Roads
 (4) Command Center, Sector Hampton Roads

(5) Aids to Navigation (ATON), Sector Hampton Roads
 (6) Waterways, Sector Hampton Roads
 (7) Waterways District 5
 (8) Marine Environmental Response, District 5
 (9) TPG=The Paratus Group – subconsultant to DJV



Agenda:

- Welcome/Introductions
- Meeting Objectives
- HRBT Expansion Project Overview
- Key Elements of Navigation Safety Risk Assessment and Tunnel Construction Plan
- Roundtable Discussion with USCG, HRBT Teams

Meeting Notes:

No.	Description	Action
1.	Welcome/Introductions	
	PL – Introduction to project JU – Overview of entire project JMA – Overview of construction and design team SS – Overview of USCG team attending meeting	
2.	Meeting Objectives	
	PL provided overview of meeting objectives: <ul style="list-style-type: none"> • Provide US Coast Guard stakeholders with an overview of the HRBT Expansion Project • Provide a common understanding of the requirements of the Navigation Safety Risk Assessment (NSRA) and Tunnel Construction Plan (TCP) • Facilitate discussion between HRCP Team and operational Coast Guard personnel • Obtain information on how project activities could affect US Coast Guard missions • Answer any questions USCG may have 	
3.	HRBT Expansion Project Overview	
	SS question regarding shading of Norfolk Harbor Entrance and anchorage areas (F/G) on chart – answered by JPM JMA explained use of land trestle on North Bridge due to shallow water depth along shoreline SS – will construction traffic use Hampton Roads Entrance Channel or transition across channel? PL explained moving of navigation aid at mouth of Hampton Creek Approach Channel. JB stated that this is not a problem and he will help documentation process. SS asked if US Army of Corps Engineers (USACE) dredging project to widen navigation channel includes the area of jet grouting. DG stated the current plan accounts for the widening of the channel. JB brought up need to ATON for jet grout trestle on South Island. JMA stated that HRCP would like to keep trestle in place for duration of TBM boring if it does not impact navigation (the original plan is to have the trestle in place for about a year for the jet	HRCP to provide Barge Operation Plan detailing movements of vessels





No.	Description	Action
	<p>G anchorages are owned by the Navy and not likely a good spot. JB asked what time the barge fleeting would take place. JS then asked for a clarification on who will be anchoring. DB stated that the supply barges will be moving between project work locations to their port of loading. DB stated the anchorage area is mostly a refuge area for severe weather. DH/SS immediately stated the Hampton Flats area is not a good spot even for refuge. SS stated that the USCG will look at options and offered to reach out to the Navy to aid in the search for anchorage area. SS stated that the placement of anchorages is a thorny issue vs. waterway use.</p> <p>PL then suggested in the interest of time that meeting participants identify the issues they foresee for the remainder of the meeting, and any discussion of potential solutions be followed up on later.</p> <p>DG asked if the tunnel construction plan (TCP) should follow the framework of the High Rise Bridge Marine Operation Plan. JS/JB stated they will need to review the High Rise Bridge MOP. JPM added that the TCP, as requested by USCG, is a NSRA focused between the islands. JS stated that she will review TCP requirements with District bridge folks.</p> <p>SS then raised the issue of carrying the meeting forward. He suggested that key players establish a meeting and a cadence to keep all parties up to date on the project. DG added that a similar meeting was held for the 408 permitting. SS said to think of it as a standing ops brief. DG suggest that it be held monthly until April. DH/SS concurred.</p> <p>SS then returned to the anchorage issues. He wants to know exactly what is needed for the anchorage. He offered the USCG to help. He stated the USCG needs the barge operations plan to accomplish finding a suitable anchorage area. USCG noted that if we need to do temporary anchoring, that is a rulemaking process and would take 6-9 months.</p> <p>DG asked if moving ATON at the Hampton Creek Approach was difficult. JB stated that it is not difficult, and he will help.</p> <p>SS stated that the severe weather concern remains for him.</p> <p>JB – stated that Ultra Large Container Vessel (ULCV) traffic started in May 2017 (noted for use of 2017 AIS data). Currently averaging 5 transits a week. Expected to raise to 6 transit soon. Requires a 4-hour closure of the main channel with one-way traffic only. JB then spoke about the Thimble Shoal Channel dredge. The dredging will eliminate the auxiliary channels. The dredge will be in the outbound or inbound lane and could impact the ULCV traffic. Back-ups of traffic may occur. Dredging starts in 2020 and could take up to 2 years. HRCP should be aware of safety and security zones due to dredging. JS stated that USACE has ability to set up safety zones as necessary.</p> <p>DGB - main concern for the command center is a central point of contact for following up on distress calls from motorists. He also emphasized the importance of an open communication channel between construction team and USCG command center. DGB asked about construction hours. DB stated that there will be 24 hours/day construction taking place. Water activity is planned for daylight hours only. Night activities will be</p>	<p>USCG to aid in finding suitable anchorage location(s).</p> <p>USCG to review TCP requirements</p> <p>JPM/DG to establish meeting</p> <p>HRCP to provide Barge Operations Plan</p> <p>HRCP to submit Barge Operations Plan to DH/USCG</p>



No.	Description	Action
	<p>limited to deck construction and in-tunnel work. Non-working Barges will not have anybody on board at night. DH stated the importance of getting the barge operations plan. DH requested the barge operation plan be submitted to him.</p> <p>MSTC Chartier (RC) stated his main concern is the severe weather plan and the use of sub-contractors to move barges when securing the port due to limited resources when port closure is imminent. SS still concerned about hurricane hitting area over next 5 years. DH stated that he wants a plan for the barges during severe weather. DH suggested the southern branch of the Elizabeth River.</p> <p>RC stated that he is the contact for recurring marine events in the area.</p> <p>SS then stated that there are 4-5 weather events that affect the port every year. JB stated that ice was also an issue in Jan 2017 and the James River was closed due to ice flows. Shallow areas like Hampton Flats are especially susceptible to ice flows.</p> <p>SS stated a concern with potential spillage of construction related items into waterway. SS asked what material(s) are being used that could potential end up on waterway. SS then wanted to know who owned the salvage/response as well as recovery. JS stated that this should be included in the operations manual used by HRCP. Concern was the need for USCG resources to address responses that would normally be handled by contractor. DB said HRCP will clarify its plan as the project is developed.</p> <p>Lines of communication were discussed:</p> <ul style="list-style-type: none"> • Jerry Barnes/Hal Pitts for bridge and bridge lighting issues. • DH will follow-up on Electronic Freedom of Information Act (eFOIA) request submitted by TPG on 04 Sept 2019. • JB for ATON • JB stated that Marine Incident Reporting (MIR) should be included in Marine Operations Plan. • JB stated that coal exports pick-up in Winter. Vessels draw 49' and usually depart at high tide. LPG exports are picking up as well. • JB stated movement of ATON is ok and shifting channel is likely ok. He will help fill out necessary forms. 	<p>HRCP to include Severe Weather Plan in MOP.</p> <p>RC/USCG to provide list of recurring marine events to TPG</p> <p>HRCP to clarify salvage/response plans to USCG</p> <p>DH/USCG to follow up on eFOIA request for marine casualty data for TPG</p> <p>HRCP to include MIR process in MOP</p> <p>HRCP to coordinate ATON movement and Hampton Roads Approach Channel shift with JB/USCG</p>

End of Meeting.



USCG Sector Hampton Roads Meeting
18 September 2019

I-64 Hampton Roads Bridge-Tunnel (HRBT) Expansion Project

1

Agenda



- Welcome/Introductions
- Meeting Objectives
- HRBT Expansion Project Overview
- Key Elements of the Navigation Safety Risk Assessment and Tunnel Construction Plan
- Roundtable Discussion



3

The Design-Build Project



- Comprehensive Agreement between Commonwealth of Virginia and Hampton Roads Connector Partners (HRCP) signed in April 2019
- HRCP CJV Partners: Dragados, VINCI Construction, Flatiron Constructors, Dodin Campenon Bernard
- HRBT Expansion project is a design-build project
- Designers: HDR and Mott MacDonald
- Project Cost: \$3.8 Billion
- Scheduled Completion Date: November 2025

4



5

Introductions

6

- Provide US Coast Guard stakeholders with an overview of the HRBT Expansion Project
- Provide a common understanding of the requirements of the Navigation Safety Risk Assessment (NSRA) and Tunnel Construction Plan (TCP)
- Facilitate discussion between HRCP Team and operational Coast Guard personnel
 - Obtain information on how project activities could affect US Coast Guard missions
 - Learn from Coast Guard members' unique insight into potentially affected port partners
 - Answer any questions you may have

7

HRBT Expansion Project Overview



- Improvements to the I-64 corridor between Settlers Landing and I-564 (9.9 miles)
- New bridge-tunnel complex (3.5 miles) including
- Tunnel (1.7 miles) using a Tunnel Boring Method (TBM)

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