

An aerial photograph of a highway interchange. A multi-lane highway runs horizontally across the middle. A bridge is under construction, crossing over the highway. The bridge's structure is visible, showing concrete pillars and steel beams. There are construction vehicles and materials on the bridge deck. The surrounding area includes green trees, a residential neighborhood with houses, and a grassy field. A semi-transparent white banner is overlaid on the bottom half of the image, containing the title and date.

2021 CONSULTANT FORUM: CHIEF ENGINEER'S BRIEFING

Bart Thrasher, P.E.

April 15, 2021

Work Zone Safety

- **2020 Statistics**
 - 3503 Work Zone Crashes across Virginia (9.5% reduction from 2019 at 3869)
 - 11 Fatalities (35% reduction from 2019 at 17)
 - 960 Injuries (17% reduction from 2019 at 1151)
 - 857 Crashes related to Driver Distraction (15% reduction from 2019 at 687)
- **Crashes by Driver Age in 2020**
 - 65 and older = 493 (21% reduction from 2019 at 623)
 - 15-20 = 520 (16% reduction from 2019 at 620)



ENVIRONMENTAL STEWARDSHIP

- VDOT is fully committed to preserving the Commonwealth's valuable natural resources and is keenly focused on demonstrating VDOT's commitment to environmental requirements on construction projects, with one objective: elevating our environmental performance.
- Items that I've noticed or has been brought to my attention on active construction sites recently:
 - Please ensure that we are taking proper precautions and preparing the job site for storms.
 - The design and construction staff must work together to ensure ESC measures are aligned with construction sequencing.
 - VDOT's Environmental Performance Program (EPP) was created to help improve coordination efforts between VDOT and our industry partners.



Contract Advertisements (in Millions)

CY	Eng.	DB	DBB	Locality	Total
2017	\$242	\$506	\$1,143	\$322	\$2,213
2018	\$121	\$43	\$970	\$207	\$1,341
2019	\$191	\$159	\$915	\$452	\$1,732
2020	\$182	\$277	\$1,059	\$452	\$1,970

2020 Paving Program Report

VDOT

Report Date: 4-Feb-21

Construction Division

DISTRICT	# PROJECTS	ON-TIME	LATE	AWARD AMOUNT	COST OF WORK	% COST COMPLETE	% ORIGINAL TIME SPENT
STATE TOTAL:	141	138	3	\$ 306,509,584	\$ 307,902,888	100%	90%
BRISTOL	10	10	0	\$ 30,376,201	\$ 29,770,427	98%	81%
CULPEPER	9	9	0	\$ 21,725,499	\$ 22,633,471	104%	83%
FREDERICKSBURG	12	12	0	\$ 20,214,990	\$ 20,637,337	102%	87%
HAMPTON ROADS	6	4	2	\$ 12,358,930	\$ 11,591,975	94%	99%
LYNCHBURG	10	9	1	\$ 19,523,432	\$ 19,302,869	99%	94%
NORTHERN VIRGINIA	27	27	0	\$ 86,270,559	\$ 91,098,663	106%	98%
RICHMOND	15	15	0	\$ 40,948,646	\$ 39,417,560	96%	84%
SALEM	31	31	0	\$ 40,698,328	\$ 38,435,765	94%	93%
STAUNTON	21	21	0	\$ 34,392,999	\$ 35,014,821	102%	95%

LATE PROJECTS:

DISTRICT	UPC	DESCRIPTION	CONTRACTOR	AWARD AMOUNT	COST OF WORK	COMPLETION DATE	ACCEPTANCE DATE
Hampton Roads	114785	2020 SLURRY SEAL	BOXLEY MATERIALS	\$ 607,432.50	\$ 593,388.04	10/23/2020	11/6/2020
Hampton Roads	107429	CONCRETE PAVMENT REPAIR AND THMACO	BRANSCOME	\$ 3,860,235.00	\$ 3,860,235.00	11/11/2020	11/22/2020
Lynchburg	114860	2020 LATEX MODIFIED	BOXLEY MATERIALS	\$ 1,198,540	\$ 1,108,540	10/23/2020	11/4/2020



Paving Program Performance since 2017

Calendar Year	Contracts	On-Time	Late	% On-Time
2017	174	156	18	90%
2018	172	150	22	87%
2019	142	137	5	96%
2020	141	138	3	98%

Executing the Six-Year Improvement (SYIP) Program

FY 2020-2025 Six-Year Improvement Program breakdown:

- \$18.3 billion – Highway Construction (VDOT):
- \$4.6 billion – Rail and Public Transportation (DRPT)
- **\$22.9 billion - Total VDOT and DRPT SYIP**

**3,800 projects in the
FY 2020-2025 SYIP**

Third Round of SMART SCALE:

- \$859M
- 134 highway and public transportation and transportation demand management projects statewide

Fourth Round of SMART SCALE:

- \$1.4B
- 150 highway and public transportation and transportation demand management projects statewide

SGR Projects Beginning in Calendar Year 2021

Number of SGR Projects Starting in Calendar Year 2021 (Pre-December 2020 CTB Amendment to SYIP)						
District	VDOT-Owned		Locality-Owned		Total	
	Construction	PE	Construction	PE	Construction*	PE**
Bristol	4	0	9	1	13	1
Salem	5	0	0	0	5	0
Lynchburg	1	0	0	0	1	0
Richmond	10	0	2	0	12	0
Hampton Roads	2	0	0	2	2	2
Fredericksburg	0	0	0	0	0	0
Culpeper	0	0	0	0	0	0
Staunton	7	0	0	2	7	2
Northern Virginia	2	0	0	0	2	0
Total	31	0	11	5	42	5

CN Phase start date (advertisement date) in SYIP is in Calendar Year 2021

**The minimal number of PE starts in CY2021 is primarily because no new projects have been added in the previous two rounds. The amendment approved by the CTB on December 9 added 42 new projects to the SYIP. Many of their schedules have not yet been finalized, because they are new to the program, so they are not included in this table. VDOT will advance as many of these projects to PE phase in CY2021 as funding permits.



Breakdown of Upcoming Construction Work by District

CY 2021 Projected Advertisement Numbers		
District	# of Projects	Estimated Value
Bristol	40	\$62,633,639.00
Salem	38	\$79,331,710.00
Lynchburg	10	\$12,666,477.00
Richmond	32	\$103,093,124.00
Hampton Roads	22	\$58,555,727.00
Fredericksburg	12	\$39,335,980.00
Culpeper	23	\$35,096,270.00
Staunton	18	\$82,861,493.00
NOVA	14	\$45,280,818.00
Totals	209	\$518,855,238.00

Based on 24-Month Ad
Excludes locality, P3, DB, Paving and State Forces

Upcoming and Potential Design-Build Projects

- **Active Procurements**

- **Richmond City Bridges Over I-95**

- Richmond District: \$37M (est. contract value)
- Shortlist Complete. RFP released on April 7th

- **Boundary Channel Road Interchange**

- NOVA District: \$15M (est. contract value)
- RFP released on February 24th. Letter of Submittal due on May 12th.

- **I-81 Corridor Improvements**

- **Proposed I-81 Corridor ID# 39A/39B (MM136 to MM141)**

- Notice of Intent to Award issued on April 2nd.
- Anticipated CTB Award this month.

- **I-81 NB MM48.1 Extend Acceleration Lane**

- Single Phase Low Bid Procurement
- Letter of Submittal/Price Proposal received April 12th

Upcoming and Potential Design-Build Projects

- **Upcoming Projects**
 - **Hampton Roads Express Lanes Project**
 - Segment 4C (LaSalle to Settlers)
 - April 2021 RFQ Advertisement

 - Segment 1 (I-564 to I-264)
 - September 2021 RFQ Advertisement

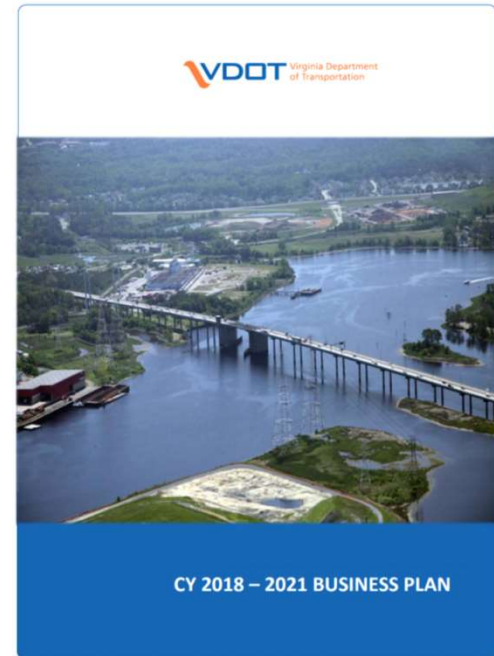
2021 Paving Schedules – Timelines

Treatment Type	Advertisement	Bid Letting	Fixed Completion Date
Surface Treatment	Oct. & Nov.	Nov. & Dec.	October 15, 2021
Slurry Seal/Latex Modified	Oct. & Nov.	Nov., Dec., & Jan.	October 15, 2021
Plant Mix	Nov., Dec. & Jan.	Jan., Feb. & Mar.	November 15, 2021
Plant Mix Pilot Projects*	Nov., Dec. & Jan.	Jan., Feb. & Mar.	8/20/2021 (3rd Friday in August)

* Advertisement and Bid Letting Goal - Advertise all individual treatment type contracts prior to the first bid letting including the same treatment type.

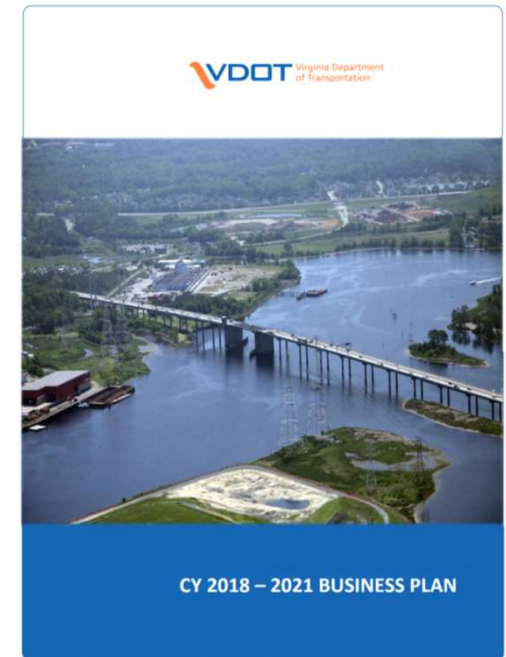
Cost Estimating

- **E&Y was brought onboard in 2020 to conduct a review of our existing system and provide recommendations on how we can improve.**
- **The Four (4) Main Items They Found:**
 - Our Estimating System is Not Broken
 - There is room for improvement.
 - Development of a Cost Estimation Office
 - Hiring of Mitch Ball as Cost Estimating Director effective January, 2021
 - Development of a Cost Estimation Manual
 - Draft Manual developed March 31st.
 - Creation of training and technical tools to help improve efficiency and accuracy of estimating process.



VDOT Procurement Review Update

- **VDOT and members of both VTCA and ACEC met on March 18th to discuss priority issues raised by industry.**
 - Currently a task force of both industry and VDOT members is working on addressing concerns with the number of classifications currently utilized during procurement and negotiations of contracts.



Major Projects Underway

- **I-95 NB Rappahannock River Crossing,**
 - Fredericksburg District: \$107M
 - Contractor: Wagman Heavy Civil
 - FCD: Spring 2024
 - Project Manager; Robert Ridgell, P.E.
- **I-95 SB Rappahannock River Crossing**
 - Fredericksburg District: \$102M
 - Contractor: Wagman Heavy Civil
 - FCD: Spring 2022
 - Project Manager; Robert Ridgell, P.E.
- **I-95 Fredericksburg Express Lanes Extension**
 - Fredericksburg District: \$535M
 - Service Commencement: October 1, 2022
 - FCD: Spring 2023
 - Public-Private Partnership with I-95 Express Lanes, LLC
 - Project Manager; Robert Ridgell, P.E.



Major Projects Underway

- **I-66 Express Lanes, Outside the Beltway**
 - Northern Virginia District: \$2.2B
 - Public-private partnership with I-66 Express Mobility Partners through 2066
 - Tolling Commencement: December 2022
 - Project Manager: Susan Shaw P.E.



Major Projects Underway

- **Rte. 58 Lover's Leap**
 - Salem District: \$300M
 - Contractor: Branch Civil Inc.
 - FCD: Summer 2026
 - Project Manager: Tony Handy, P.E., L.S.
- **Route 460/121**
 - Bristol District: \$400M
 - Contractor: Bizzack
 - FCD: Fall 2025
 - Project Manager: Marty Halloway, P.E.
- **I-81 Corridor**
 - Bristol, Salem and Staunton Districts: \$2.2B
 - Contractor: Various
 - Completion of First Round of Projects: 2033
 - Project Manager: Dave Covington, P.E.

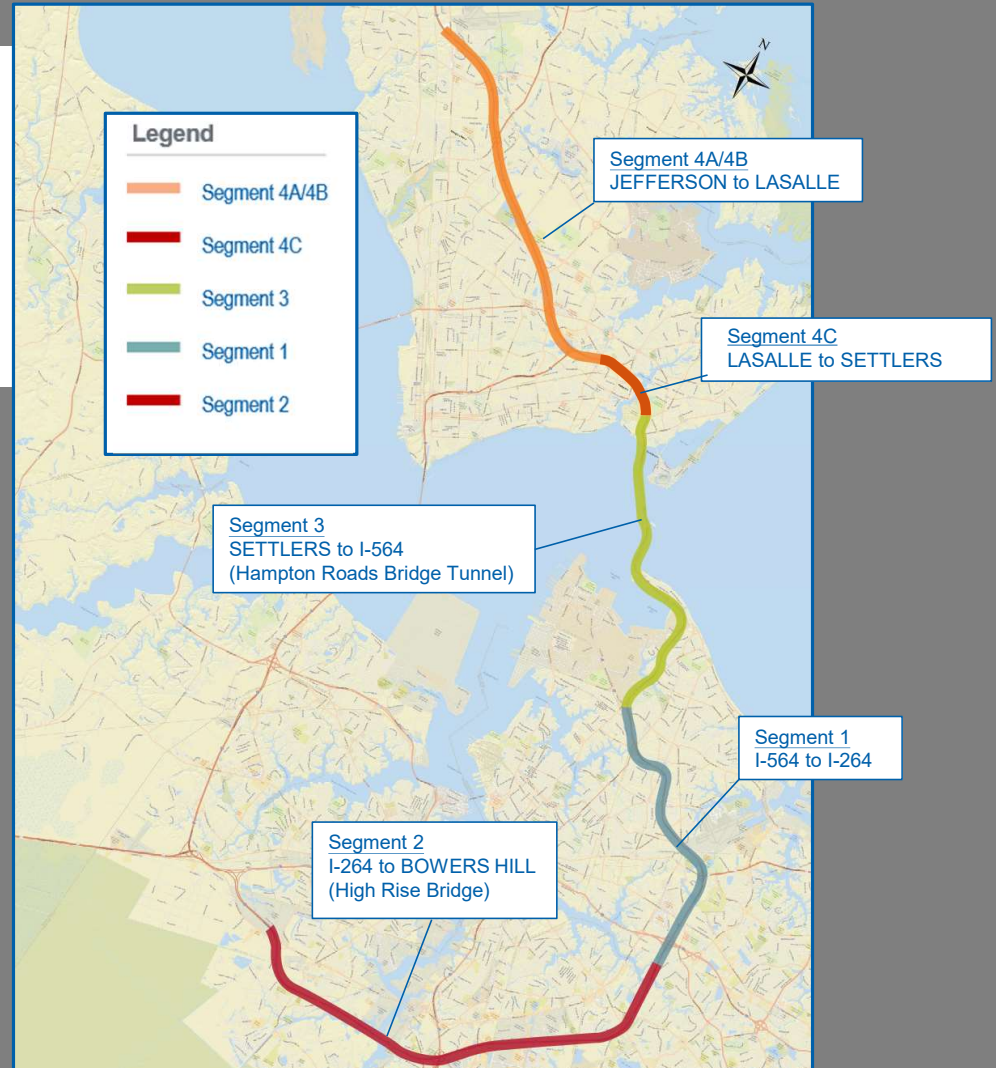


Major Projects Underway

- **High Rise Bridge**
 - Hampton Roads District: \$410M
 - Contractor: Granite-Parsons-Corman
 - FCD: Winter 2022
 - Project Manager: Scott Fisher, P.E.
- **HRBT**
 - Hampton Roads District: \$3.6B
 - Contractor: Hampton Roads Connector Partners
 - FCD: Winter 2025
 - Project Manager: Jim Utterback



Hampton Roads Express Lane Projects Location Map



Hampton Roads Express Lane Projects

Segment 4a/4b (Design Bid Build)

Description: Converting 10.5 miles of existing HOV lane into HOT lane in each direction

Schedule

Advertisement	May 2023
Award	July 2023
*Construction Complete	Dec. 2025

Major Work Items

- 1 bridge replacement (EB LaSalle Avenue)
- 1 mile of roadway widening to add buffer between HOT and GP, and maintain minimum shoulder width
- Right of way acquisition
- Tolling gantries
- Overhead signing
- *Construction dates may be refined to ensure projects are online prior to completion of HRBT

Hampton Roads Express Lane Projects

Segment 4c (Design Build)

Description: Adding 2.5 miles of interstate travel lane in each direction

Schedule

RFQ	April 2021
RFP	Nov. 2021
Award	May 2022
*Construction Complete	Dec. 2025

Major Work Items

- 2 bridge replacements (EB Hampton River)
- 4 bridge widening/rehabilitations (WB Hampton River, EB/WB King Street, WB Settlers Landing Road)
- 2.5 miles of roadway widening in each direction to add interstate travel lane
- Right of way acquisition
- Tolling gantries, Overhead signing, Noise walls
- * Construction dates may be refined to ensure projects are online prior to completion of HRBT

Hampton Roads Express Lane Projects

Segment 1 (Design Build)

Description: Converting 9 miles of existing GP shoulder into HOT PTSL in each direction

Schedule (Subject to Available Funding)

RFQ	Sept. 2021
RFP	Jan. 2022
Award	July 2022
Construction Complete	Dec. 2025

Currently there is a \$93M Shortfall
VDOT is working with our Regional partners
on funding options

Major Work Items

- 4 bridge replacements (EB/WB Tidewater Drive, EB/WB Chesapeake Boulevard)
- 9 miles of shoulder rehab/strengthening in each direction
- Roadway widening in spot locations to maintain minimum shoulder width
- Right of way acquisition in spot locations
- Tolling gantries
- Overhead signing
- Noise walls

* Construction dates may be refined to ensure projects are online prior to completion of HRBT



Focus for 2021

- **Delivery of Program**
 - **Implementing Round 4 of SMART Scale**
 - \$1.4B over 150 projects programmed into our 2021-2026 SYIP
 - Over 3800 projects currently in our 2020-2025 SYIP
 - We have plenty of work for everyone
 - **Concentration on Estimation Across State**
 - Implementation of E&Y Report
 - Emphasis on Smart Scale Projects
 - **Construction**
 - 209 New Projects starting in 2021 (\$519M)