



John Lynch, PE
Northern Virginia District Engineer

ASHE Potomac
October 13, 2021



Monica Bhatia

**Deputy District Administrator
Northern Virginia**

ASHE Potomac
October 13, 2021

NOVA Maintenance & Operations Budget (Fiscal Year 2022, as of 09/20/21)

Bridges	\$14M
Lights	\$2.7M
Management & Direction	\$8.7M
Markings, Markers & Message Signs	\$4.9M
Misc. Facility & Other	\$5.9M
Misc. Traffic & Safety	\$11.6M
Non-Rental Equip & Inventory Mgmt.	\$1.6M
Pavement	\$115.9M
Other Routine Maintenance	\$29.7M
Permitting	\$4.8M

NOVA Maintenance & Operations Budget (Fiscal Year 2022, as of 09/20/21)

Signals	\$9.6M
Signs	\$2.5M
Snow & Ice* (Total allocation TBD)	\$12.9M
Transportation Operations Center & Technology	\$15.4M
Tunnels	\$465K
Total NOVA M&O Budget FY22	\$240.7M

2021 - PAVING SUMMARY

In 2021, we have a total of 35 paving contracts.

- 3 Interstate Plant Mix Contracts
- 4 Primary Plant Mix, 2 Primary Latex Contracts and
- 23 Secondary Plant Mix, 3 Secondary Latex Contracts

					as of 9/21/2021
2021 Paving Summary					
System	Target, LM	Advertised, LM	Target, \$M	Advertised, \$M	Awarded, \$M
Interstate	49	71	8.00	12.18	13.63
Primary	159	158	17.70	19.13	17.19
Secondary	748	916	83.89	101.77	95.33
PE UPC					3.40
Total	956	1144	109.59	133.08	129.56

2022 - Tentative PAVING SUMMARY

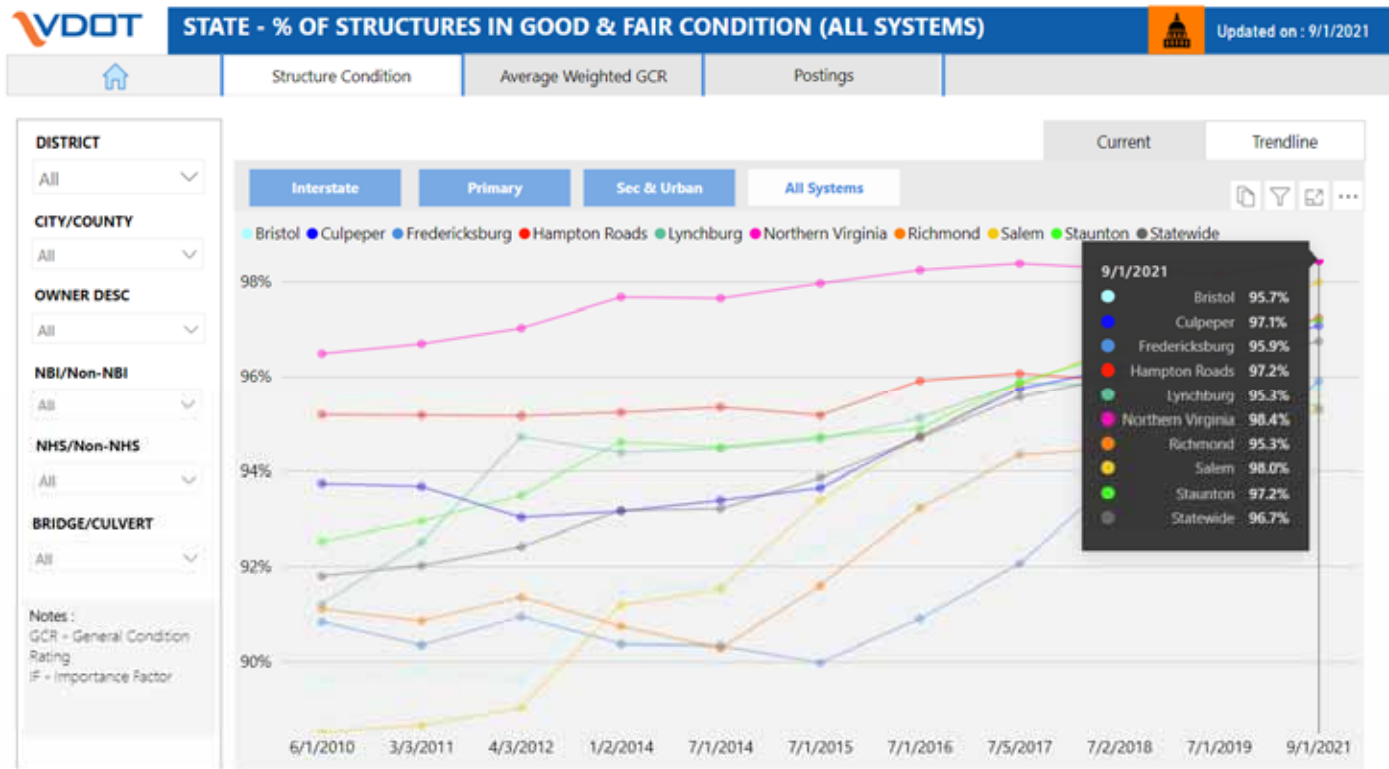
In 2022, we have planned for 27 contracts:

- 1 Interstate Plant Mix Contract
- 5 Primary Plant Mix, 2 Primary Latex Contracts
- 15 Secondary Plant Mix, 2 Secondary Latex Contracts/ 2 Secondary Slurry Contracts

2022 Paving Summary - DRAFT - as of 10/4/2021

System	Target, LM	Planned, LM	Target, \$M	Planned, \$M	Awarded, \$M	Total Contracts
Interstate	40	22	10.80	4.54		1
Primary	143	206	19.45	25.05		7
Secondary	765	820	77.98	75.50		19
PE UPC				3.00		
Total	948	1048	108.23	108.08	-	27

Structure and Bridge Condition Report, 9/1/2021



SNOW REMOVAL

Lanes miles to plow – 14,025

- **Interstate: 802**
 - **Primary: 1,781**
 - **Secondary: 11,366**
- **24 Salt Domes – largest dome at I-495 and Van Dorn holds 33,000 tons of salt**
 - **Materials on Hand at start of season**
 - **Salt: 120,000 tons**
 - **Brine: 250,000 gallons**
 - **Sand: 25,000 tons**



Traffic Trends

- The average weekday traffic volume on the interstate is nearly at pre-COVID level.
- The average weekday traffic volume on primary roadway is about 14% below September, 2019.
- Traffic volume and congestion during AM peak hours are still less than pre-COVID.
- Traffic volume on primary roadways in September, 2021 is almost unchanged compared to August, 2021.
- Traffic conditions vary depending on locations. Additional analyses continue to be conducted using traffic count data collected from the detectors located at the signalized intersections. The special timing plans have been developed/implemented to accommodate the traffic pattern variations.
- While the normal timing plans have been resumed at many corridors, some other corridors are running special COVID plans.
- NRO Signal Operations team continues to monitor traffic conditions throughout the region and make timing adjustments as needed.

Weekday 24 Hour Volume - Interstate	Sep-19	Sep-20	Aug-21	Sep-21	Compare to Last Month	Compare to September 2019
I-66 Eastbound at Quincy St	51860	30231	41288	42467	3%	-18%
I-66 Westbound at Quincy St	N/A	27931	36439	37996	4%	
I-395 Northbound South of Duke St	85199	77689	87616	85516	-2%	0%
I-495 Northbound South of Braddock Rd	113691	103776	108045	106636	-1%	-6%
I-495 Southbound South of Braddock Rd	116546	102120	111726	110337	-1%	-5%
I-95 Northbound North of Cardinal Dr	77202	72944	79262	76582	-3%	-1%
I-95 Southbound North of Dumfries Rd	78006	72148	76475	74887	-2%	-4%
Total	522505	486839	540851	534421	-1%	-5%

NOVA Systemic Initiatives

As of August 31, 2021

Systemic Safety Improvement	PE			CN		TOTAL
	Not Started	Underway	Complete	Underway	Complete	
High-Visibility Backplates (HVSB)*	0	0	0	2	1,397	1,399
Flashing Yellow Arrow (FYA)*	0	0	0	9	563	572
Curve Delineation	0	52	2	52	41	147
Pedestrian Crossings	334	14	53	0	12	413
Unsignalized Intersection	71	0	0	71	0	142
Centerline Rumble Strip – Primary Roadways	3.18 mi	8.89 mi	0	0	7.64 mi	19.71 mi
Edgeline Rumble Strip – Primary Roadways	0	6.53 mi	0	1.73 mi	1.59 mi	9.85 mi

*Complete as of October 12, 2021

Statewide Systemic Implementation Plan – Funding & Schedule

ORIGINAL
2019 Plan

Source	HSIP Funding Through FY 25 (\$M)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Schedule (Calendar Year)
High-Visibility Backplates (VDOT)	15.2	8.8	2.4	4				Complete by July 1, 2021
Flashing Yellow Arrows (VDOT)	17	7.4	1.95	7.65				Complete by July 1, 2021
Curve Delineation (VDOT)	29	1.8			12	15.15		Complete 2024
Pedestrian Crossings (VDOT)	22	2.2	2.3	3	3.3	6.9	4.75	Complete 2025
Unsignalized Intersection (VDOT)	8.35	3.35	3		2			PE 2020, CN Start 2021. \$17M still needed
Shoulder Wedge (VDOT)	Maintenance funds							Resurfacing Cycle - 15 yr
CL Rumbles - Primaries (VDOT)	3.1	1.35	0.35	0.35	0.35	0.35	0.35	Resurfacing Cycle - 15 yr
Edge Rumbles - Primaries (VDOT)	21.6	2	3	3	3	7.6	3	Resurfacing Cycle - 15 yr
Total	116.7	26.9	13	18	20.7	30	8.1	

REVISED
2021 Plan

Source	HSIP Funding Through FY 25 (\$M)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Schedule (Calendar Year)
High-Visibility Backplates (VDOT)	15.2	8.8	2.4	4				Complete by December 2021
Flashing Yellow Arrows (VDOT)	17	7.4	1.95	7.65				Complete by December 2021
Curve Delineation (VDOT)	30	1.8		16.7	11.5			Funding increase. Complete 2023
Pedestrian Crossings (VDOT)	34.1	2.2	2.3	12.3	15.5	1.8		Funding increase. Complete 2025
Unsignalized Intersection (VDOT)	24.2	3.35	3	10.3	6.8	0.7		Fully fund. Complete 2024
Shoulder Wedge (VDOT)	Maintenance funds							Resurfacing Cycle - 15 yr
CL Rumbles - Primaries (VDOT)	3.1	1.35	0.35	0.35	0.35	0.35	0.35	Resurfacing Cycle - 15 yr
Edge Rumbles - Primaries (VDOT)	21.6	2	3	3	5	8.6		Resurfacing Cycle - 15 yr
Total	145.2	26.9	13	54.3	39.1	11.5	0.4	

LEGEND

PE & CN

PE

CN

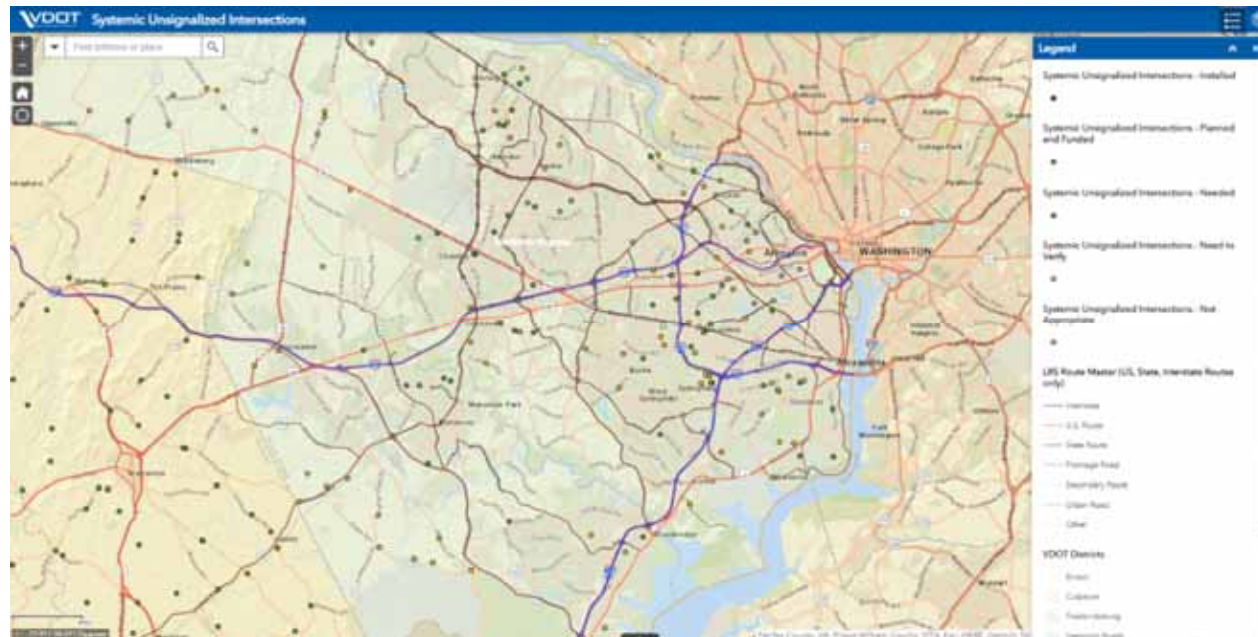
RED = Update from Original

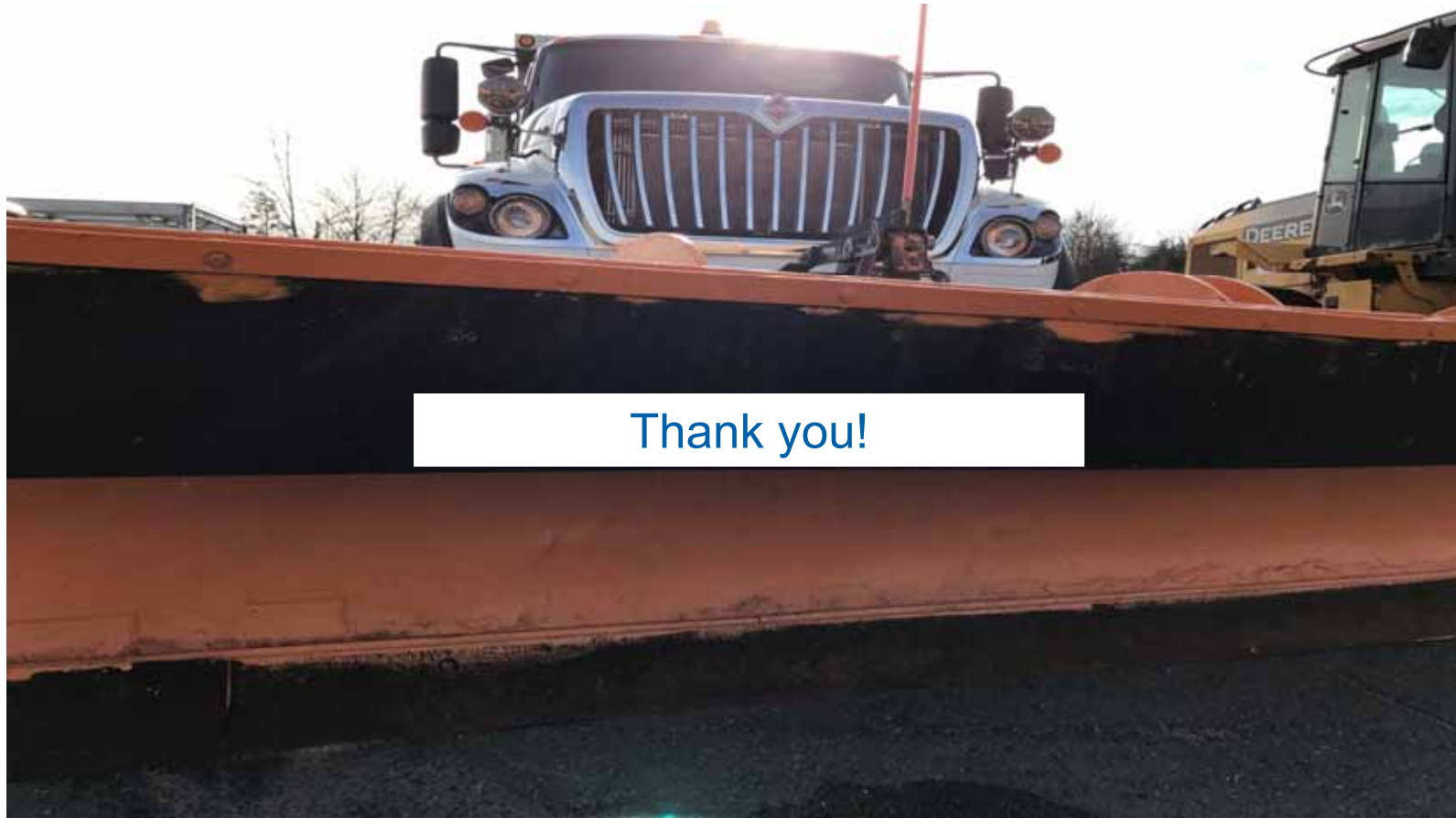


Systemic Initiative Maps

Systemic Unsignalized Intersections

- High Visibility Signal Backplate (HVSb):
<http://vdot.maps.arcgis.com/apps/webappviewer/index.html?id=5be5ba1b6e1e4eeebc9f1113e8d2b6b5>
- Flashing Yellow Arrow (FYA):
<http://vdot.maps.arcgis.com/apps/webappviewer/index.html?id=91026767d0004b4baa2a9a19c4780c73>
- Curve Delineation:
<http://vdot.maps.arcgis.com/home/item.html?id=c870a6f53c10438385501f3d9f883c7c>
- Pedestrian Crossing:
<http://vdot.maps.arcgis.com/apps/webappviewer/index.html?id=83b292ba0ee041f8978df8d06817008a>
- Unsignalized Intersections:
<http://vdot.maps.arcgis.com/apps/webappviewer/index.html?id=352d3f3929914c4eac40009c2b248027>
- Rumble Strips (ELRS & CLRS) – Primary Roadways:
<http://vdot.maps.arcgis.com/home/item.html?id=6b68bb04685140a8bd92665323b60009>







Bill Cuttler, PE

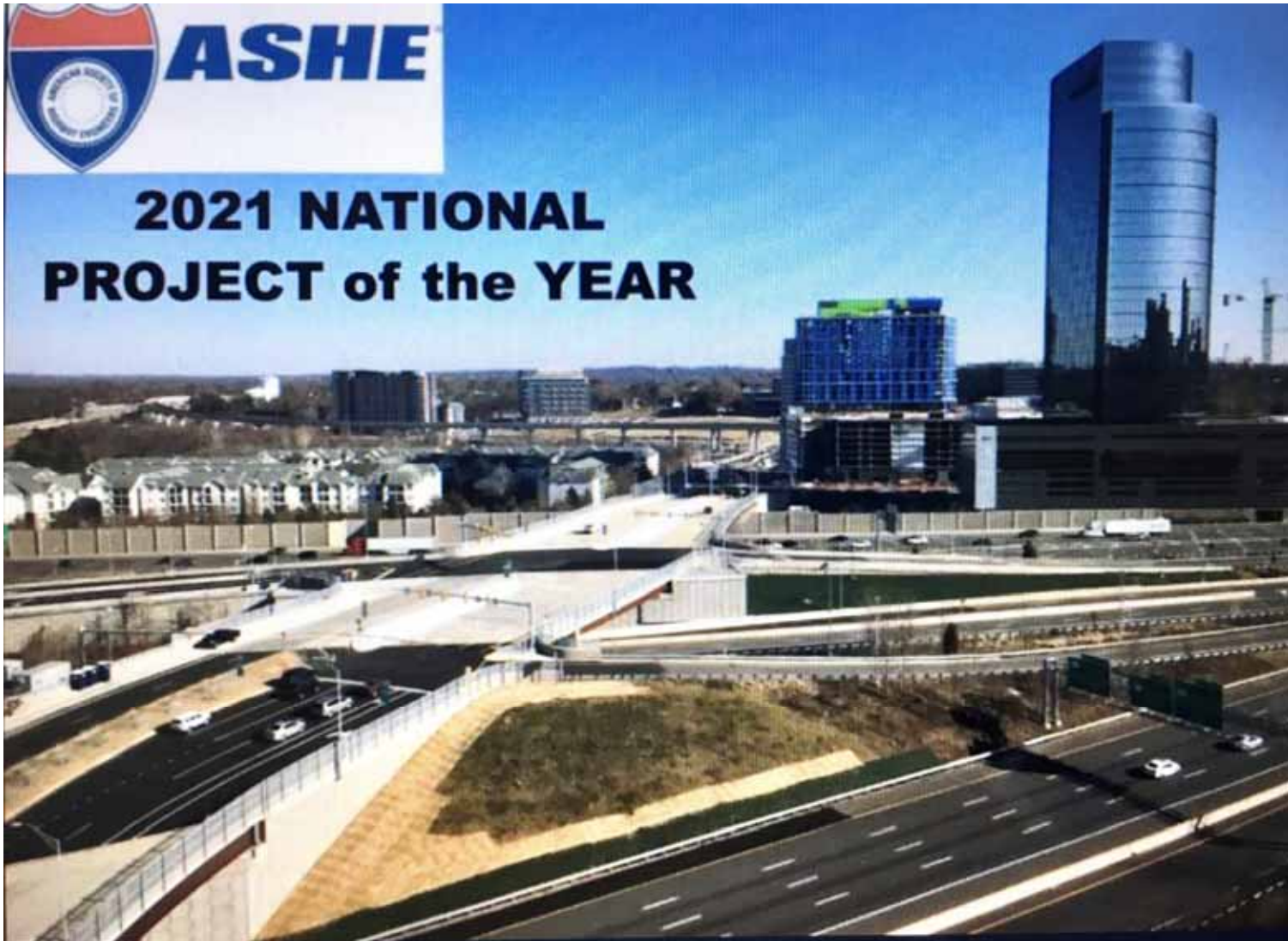
**Deputy District Engineer
Northern Virginia**

ASHE Potomac
October 13, 2021



ASHE

2021 NATIONAL PROJECT of the YEAR

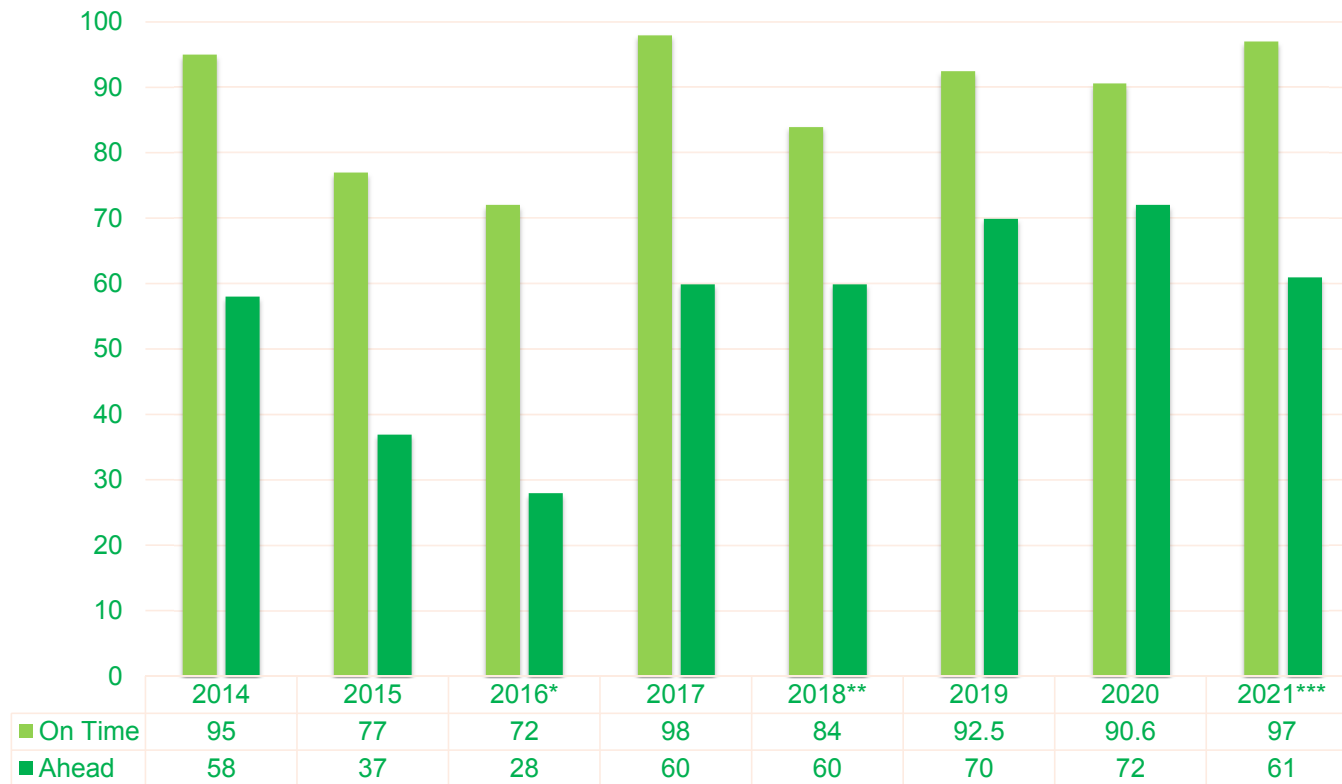


Jones Branch Connector Excellent Teamwork

- Design team and owners are active in ASHE
- During construction weekly meetings included designers, owners & contractor
- Adjacent developers willingly shared their development plans – even when they were proprietary
- Homeowners identified their needs for parking and security and were easy to accommodate
- Local politicians appreciated a non-controversial project
- Early opening milestones were met



VDOT-Administered Construction On-Time in Northern Virginia District



* Governor's Technology Award – IT as Efficiency Driver, Government to Citizen

** National Project of the Year Award - Design Build Institute of America

*** National Project of the Year Award - American Society of Highway Engineers



PROJECT DELIVERY OVERVIEW

Updated: 10/12/2021 6:40:16 AM

PROJECTS HOME

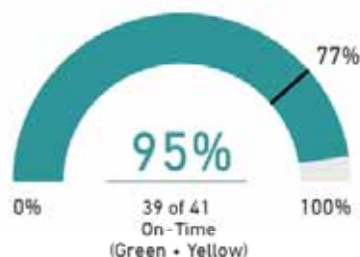
PROJECT DEVELOPMENT

ALL CONTRACTS

VDOT MANAGED

LOCALLY MANAGED

ON-TIME PERFORMANCE



Status	Active	Completed	Total
On-Time	Count	Count	Count
R	2		2
Y	4		4
G	29	6	35
Total	35	6	41
	\$252M	\$15M	\$267M

(Target : 77% of Projects Complete Delivery Phase On-Time)

ON-BUDGET PERFORMANCE



Status	Active	Completed	Total
On-Budget	Count	Count	Count
R	1		1
Y	8	2	10
G	26	4	30
Total	35	6	41
	\$252M	\$15M	\$267M

(Target : 85% of Projects Complete Delivery Phase On-Budget)

Fiscal Year	UPC	Contract ID	District	Residency	City/County	Road System
Current Fiscal Ye...	All	All	Northern Virginia	All	All	All
Description	Contract Type	Type of Work	State of Good Repair	Smart Scale		
All	All	All	All	All		

* Please right-click the data row and select Drillthrough to view contract detail

Contract ID	District	Description	On-Time	On-Time Reason	On-Budget	On-Budget Reason
C00106573DB101	Northern Virginia	ROUTE 7 INTERCHANGE AT BATTLEFIELD PARKWAY	G	Today or Current Contract Completion date is 49 days prior to the Original Contract Completion Date	G	Active project with contract less than or equal to 3% of the Original Contract Award Amount
C0000118722N01	Northern Virginia	2021 PLANT MIX	G	Today or Current Contract Completion date is 255 days prior to the Original Contract Completion	G	Active project with contract less than or equal to 3% of the Original Contract Award Amount



PROJECT DEVELOPMENT UPDATE

Nicholas J. Roper, P.E.
NOVA District Project Development Engineer
October 13, 2021

Project Development Summary

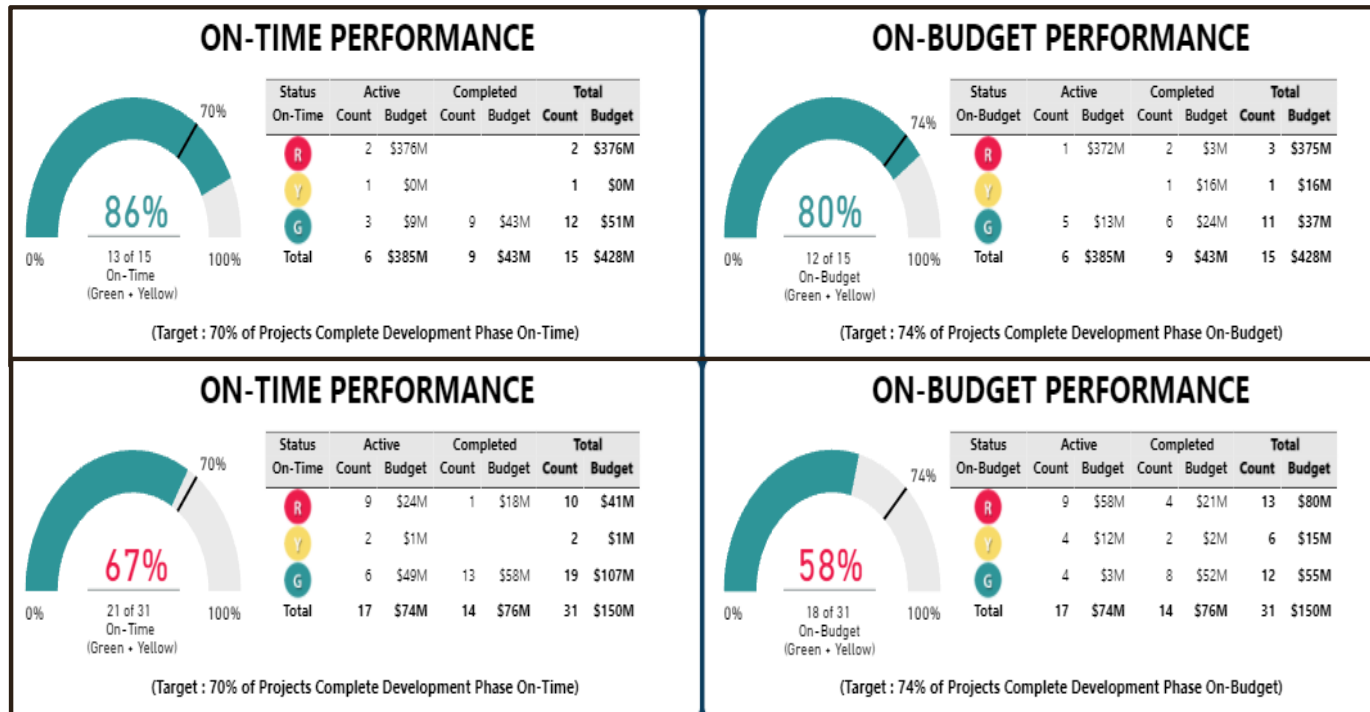
Administration	CY for Advertisement	No. of Projects	Construction Estimate	Total Project Estimate
VDOT 28% Projects 67% Value	2021 ^{Oct - Dec}	4	\$24.8M	\$35.4M
	2022	18	\$64M	\$78.5M
	2023	9	\$68.5M	\$102M
	2024+	21	\$1.16B	\$1.77B
	TOTAL	52	\$1.3B	\$1.987B
Administration	CY for Advertisement	No. of Projects	Construction Estimate	Total Project Estimate
LAP 72% Projects 33% Value	2021	21	\$68.7M	\$87M
	2022	23	\$115M	\$141M
	2023	22	\$79M	\$123.5M
	2024+	67	\$451.5M	\$645M
	TOTAL	133	\$714M	\$996.9M
Grand TOTAL		185	\$2.03B	\$2.9B

Majority of major projects are scheduled for advertisement in late 2023, 2024 and beyond

Project Development Dashboard

VDOT Dashboard

LAP Dashboard



**NOVA Overall
for Project
Development**

**On-Time
Performance – 72%**

**On-Budget
Performance – 65%**

**Projected On-Time
Performance – 85%**

**Projected On-Budget
Performance – 69%**

Consulting Opportunities

- **Accelerated Smart Scale Projects – PE Start moved from FY26/27 to FY22**

Admin	UPC	Description	Locality	Construction Estimate	Total Estimate	PE Start Date
VDOT	119086	Arlington Blvd Safety Improvements	Arlington	\$17M	\$29M	June 22
LAP	119088	Rte 1 South Median Refuge island	Alexandria	\$3.5M	\$4.3M	June 22
LAP	119073	Rte 294 and Old Bridge Rd Intersection Improvements	Prince William	\$22.8M	\$33.9M	May 22
LAP	119037	Rte 1 at Glebe Rd Intersection Improvements	Alexandria	\$1.3M	\$3.1M	June 22
LAP	119089	Chain Bridge Road Sidewalk and Bus Stop Improvements	City of Fairfax	\$5.7M	\$9.3M	June 22
LAP	119479	Country Club Commons Connector Trail	City of Fairfax	\$4.1M	\$5.1M	June 22

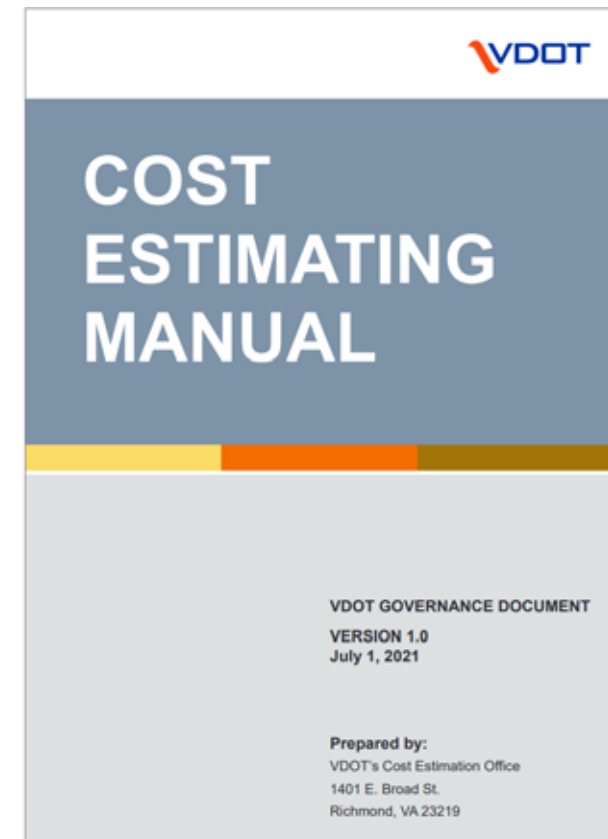
- **I-95 Interstate Operations Enhancement Program Projects**
 - I-95/Rte 123 Interchange modification and Horner Road Park-n-Ride Enhancement – possible design-build in 2023
- **Route 29 Widening/Reconstruction Phase II – in design-build procurement**
- **Potomac Commuter Garage (Prince William) – in design-build procurement**
- **Federal Infrastructure Bill – ?**

Contracting Opportunities

Admin	UPC	Description	Locality	Construction Estimate	Advertisement Date
LAP	113198	University Blvd Extension (Edmonson to Sudley Manor)	Prince William	\$15.5M	October 21
VDOT	105521	Widen E. Spring Street	Herndon	\$9.3M	December 21
LAP	92999	Fuller Heights Rd/Fuller Road Relocation	Prince William	\$4.1M	December 21
LAP	106496	Army Navy Dr Complete Street Bike/Ped Improvements	Arlington	\$14.2M	March 22
LAP	113189	Belmont Ridge Rd (Truro Parish Rd to Croson Lane)	Loudoun	\$38.6M	April 22
VDOT	120311	Rosslyn Tunnel Rehabilitation	Arlington	\$19M	April 22
VDOT	TBD	E. Elden Street Utility Ductbank	Herndon	\$12.6M	May 22
LAP	118128	Cinder Bed Roadway	Fairfax	\$11.3M	October 22
VDOT	118394	Bridge Rehabilitation at I-95 NB/SB over Powells Creek	Prince William	\$8.6M	November 22
LAP	107947	Neabsco Mills Rd Widening	Prince William	\$21.4M	December 22
LAP	107439	Wiehle Ave & W&OD Trail Grade Separated Crossing	Fairfax	\$8.6M	January 23

Cost Estimating Manual

- **Implementation**
 - **Existing Active Projects in the SYIP:** next required update or submission, per PMO 3.6 procedures, but no later than **July 1, 2022**.
 - **Ongoing Project Funding Applications:** Estimates for Revenue Sharing and Transportation Alternatives, for submission for the SYIP FY23 (FY23-FY28) funding cycle shall be updated no later than **April 1, 2022**.
 - **Future Project Funding Applications:** The use of the Manual shall be effective on **August 2, 2021**.
- **Revisions**
 - Expecting a revision to the manual that provides more details and guidance on conceptual level / study level cost estimates in 2022
- **Training**
 - Training on cost estimating, including fundamentals, advanced estimating, and enhanced estimating practices in early 2022. A number of in-person events are being planned around the state



Multimodal Accommodations – Public Concern for Roadway Width & Pedestrian Crossing

- Richmond Highway Widening/BRT

Richmond Hwy/Mt. Vernon Hwy



10/11 lanes including BRT
+ Median

Richmond Hwy/Sherwood Hall Ln



12 lanes including BRT
+Median

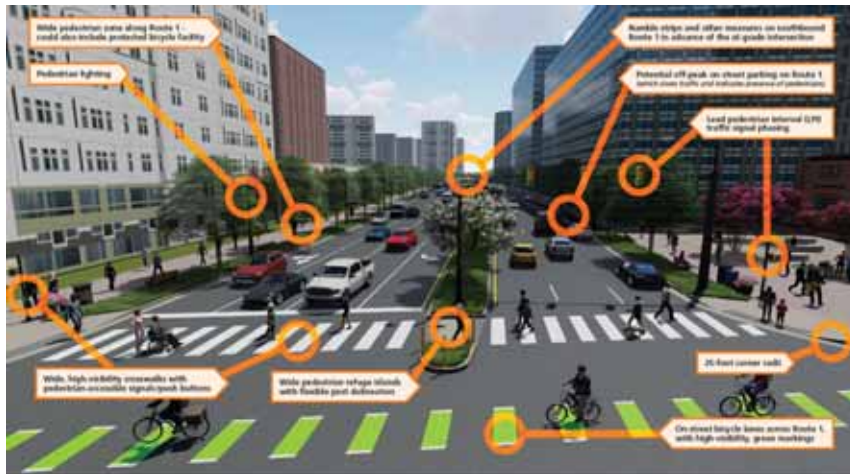


Workers from the Greene Funeral Home carry a casket across Richmond Highway to demonstrate against a highway expansion in Fairfax County. (Eric Lee for The Washington Post)

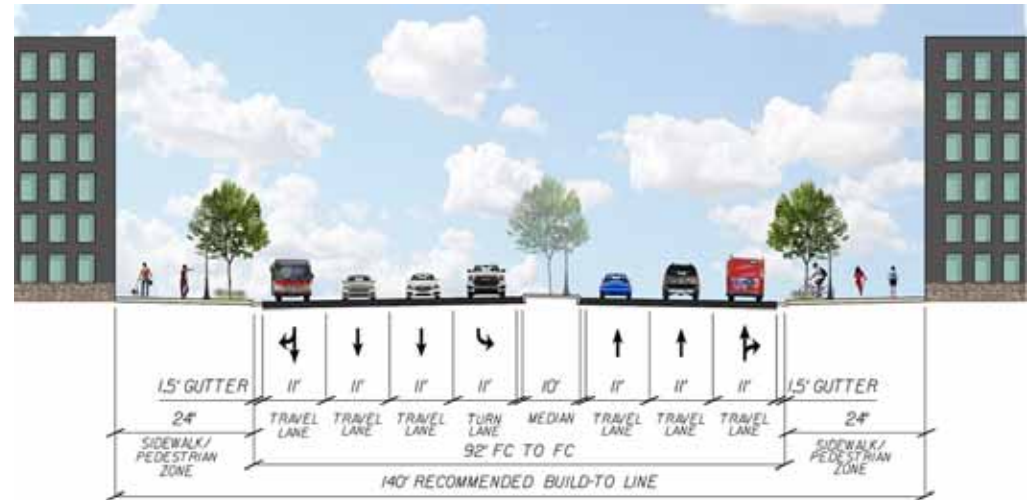
VDOT and FCDOT are examining operational effects if turning lanes are eliminated

Multimodal Accommodations – Public Concern for Roadway Width & Pedestrian Crossing

- Route 1 Multimodal Improvements Study in Crystal City

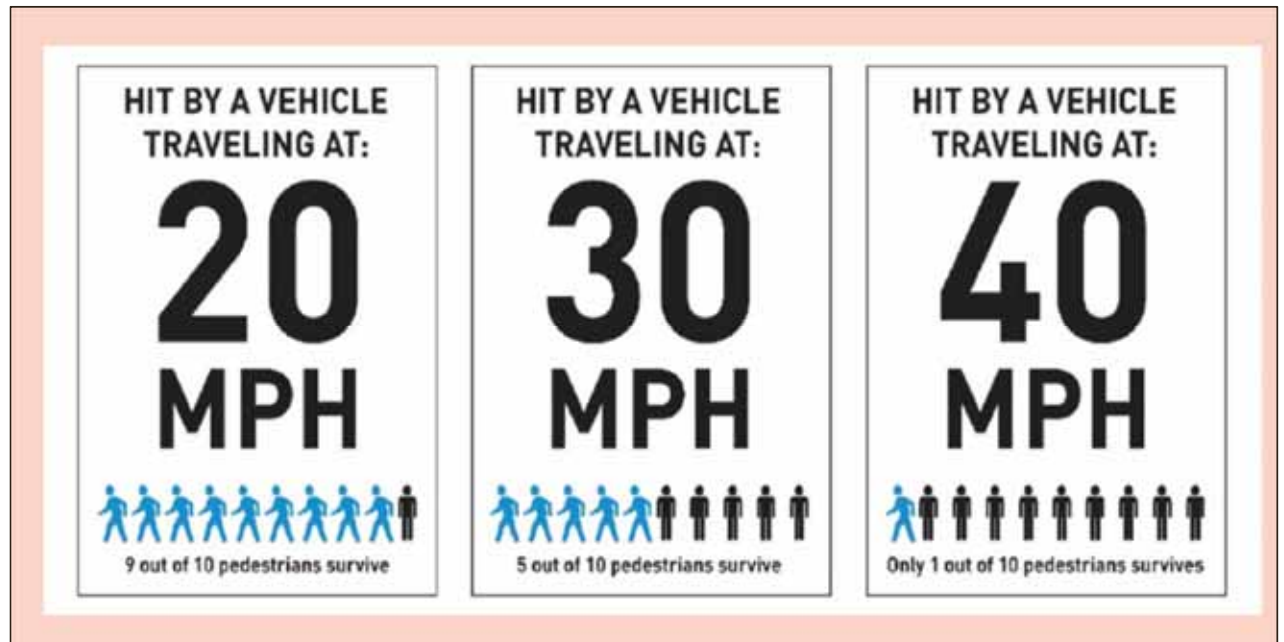
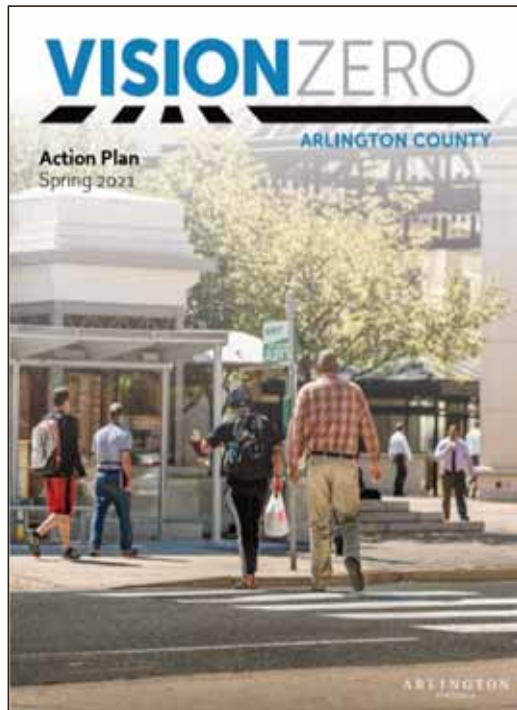


Intersection Safety Features



Typical Section Restricted to Maximum 7 Lanes

Multimodal Accommodations – Public Concern for Speed



Data Source: US Department of Transportation

- Design speed for Richmond Highway Corridor Improvements lowered from 45 mph to 35 mph
- Present design speed for Route 1 in Crystal City is 30 mph (current posted speed limit is 35 mph) ; investigating 25 mph



Questions / Discussion

Thank You

ASHE Potomac
October 13, 2021