



13<sup>TH</sup> ANNUAL

# What You Need To Know About Transportation

# 2017

October 3, 7:30 – 10:30 am  
Waterford at Fair Oaks



Virginia Department of Rail and Public Transportation

# Transit and Rail Funding in the Commonwealth

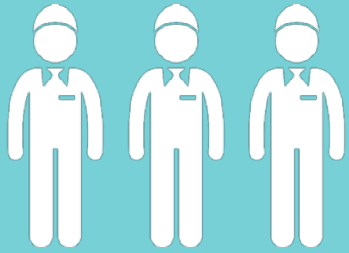
Northern Virginia Transportation Alliance

October 3, 2017

**Jennifer Mitchell**  
Agency Director

## Economic Benefits

Transit Capital Spending  
by Virginia transit  
agencies generates



**\$150 million**  
in productivity costs

## Transit Spending

Each year, Virginia  
transit agencies spend:

**\$630 million**

on capital, including

**\$ 440 million**

on state of good repair  
investment



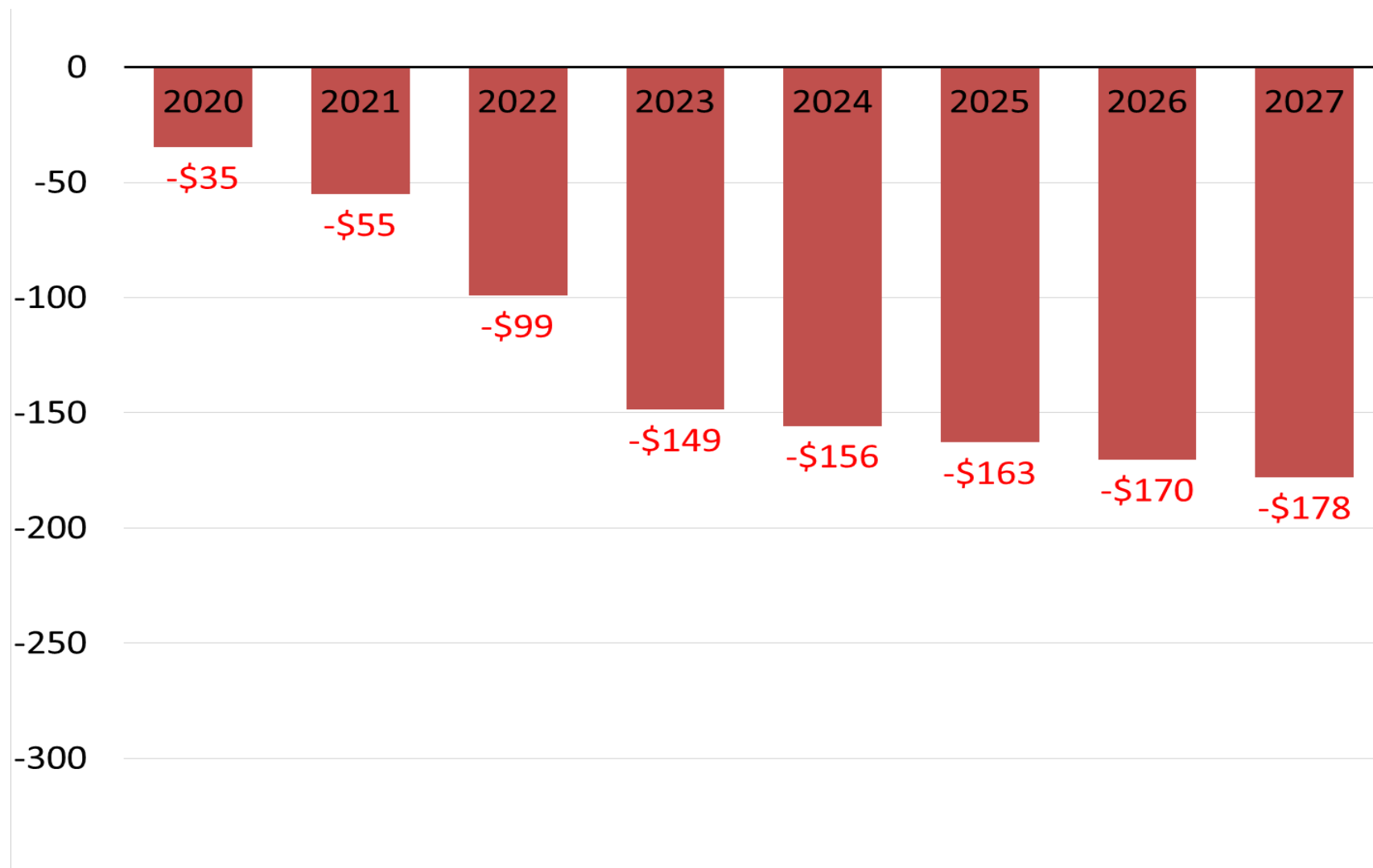
## Benefits for Virginia



**\$600 million**

in tax revenues to  
the Commonwealth  
from Metro and VRE  
(NVTC, 2018)

# Future Transit Capital Funding Gap



# Revenue Advisory Board Funding Principles



Virginia should consider a funding approach that utilizes:

- A combination of revenue sources to spread the impact or a single statewide source that is predictable and sustainable
- Revenue sources that ramp up gradually to address future gaps and needs
- A combination of statewide and regional sources with the majority of support coming from statewide sources
- An approach for regional funds directed to prioritized needs within that region
- A floor on regional taxes
- Excess Priority Transportation Fund revenues (after debt service) dedicated to transit capital as this source becomes available

# WMATA Governance and Funding



## WMATA Funding Needs:

- \$15.5 billion in additional capital funds needed over the next 10 years for state of good repair and safety needs
- Operating subsidies are growing at nearly twice the rate of revenues

## Former U.S. DOT Secretary Ray LaHood leading review

- Recommendations anticipated in October 2017
- Review WMATA's governance structure, labor policies, and its long-term financial stability
- Compare WMATA's condition to similar transit systems throughout the country
- Identify recommended executive and legislative actions
- Coordinating with MWCOG Metro Strategy Group



# Toll Revenues for Multimodal Improvements



## I-66 Outside the Beltway

- Concession agreement includes \$800M over the next 50 years
- Will support new and enhanced point-to-point, peak period commuter buses
- Operations begin in 2022

## I-66 Inside the Beltway

- \$10 million upfront payment followed by annual funding for transit
- Toll revenue allocations to fund new transit, TDM, bicycle, pedestrian, and roadway options
- Tolling to begin in December 2017

## I-395/I-95 Express Lanes

- \$15 million per year for transit and TDM
- DRPT and regional partners determined a comprehensive set of transit and TDM enhancements for the corridor that could be funded with annual transit payment

# NOVA Smart Scale Transit Projects

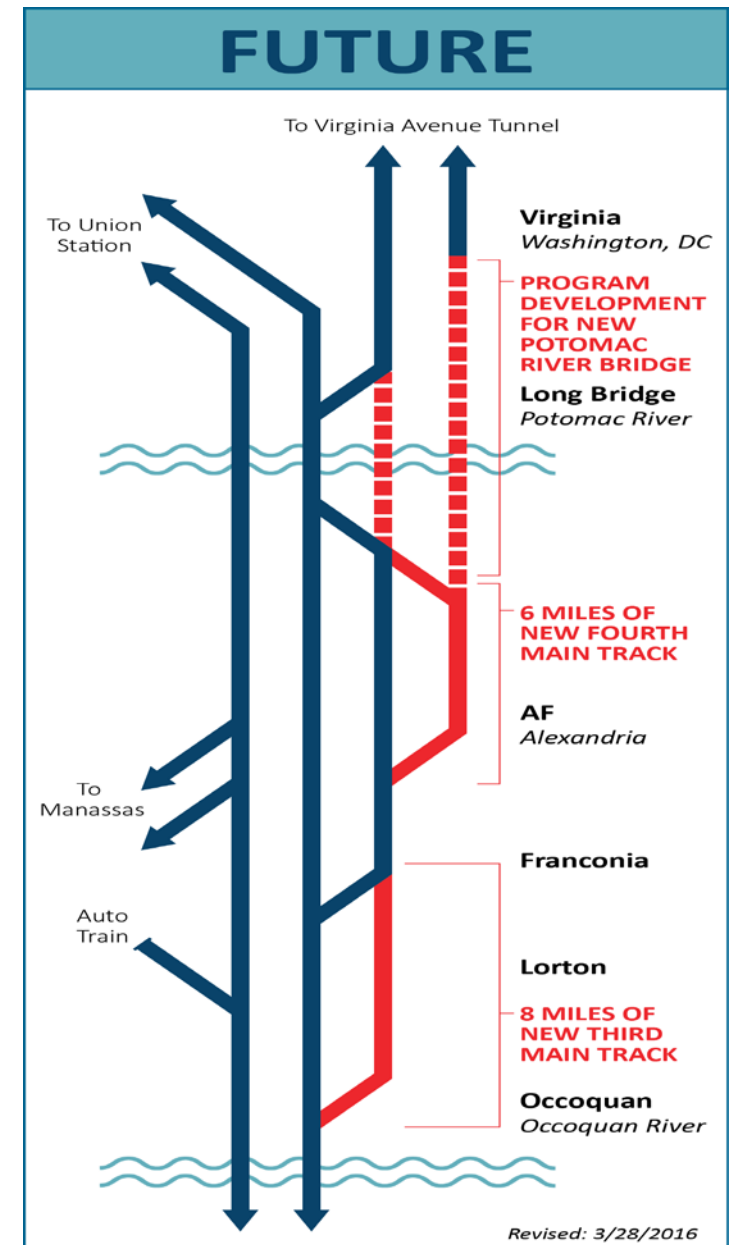
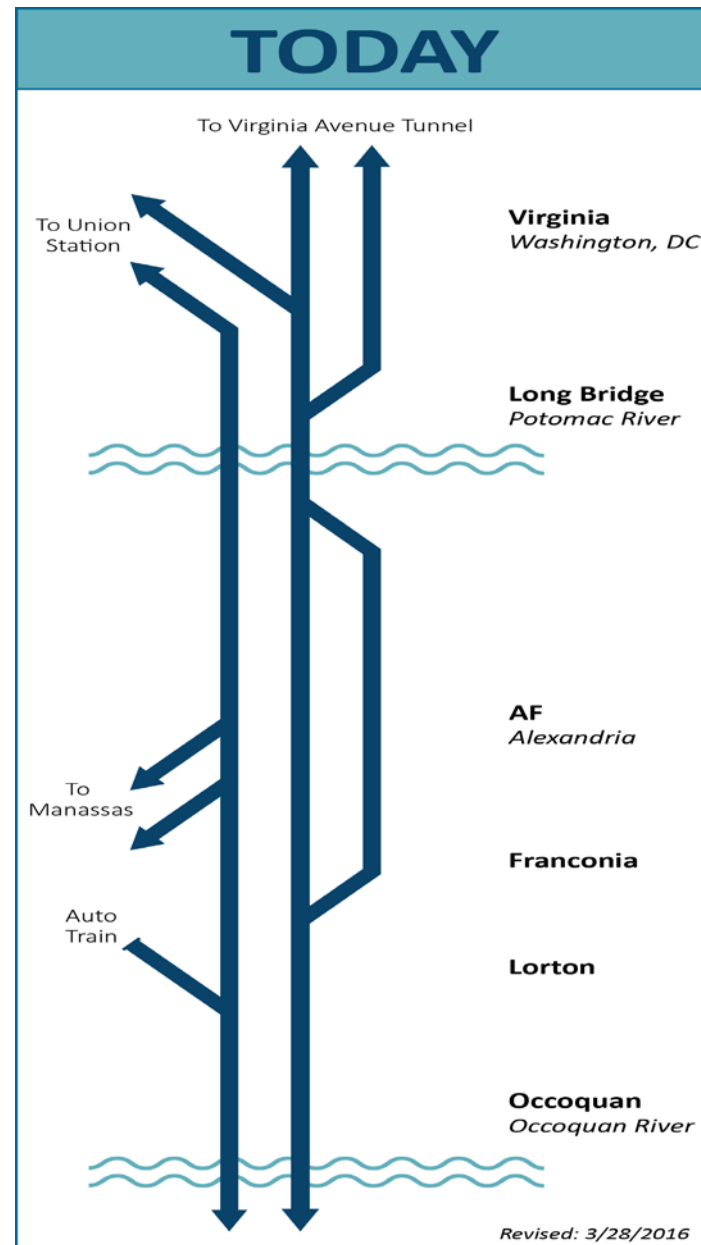


- Ballston Metrorail Station West Entrance
- ART Service Restructuring and Expansion
- I-66 TDM Strategies
- West End Transitway- Southern Towers Transit Facilities
- DASH Bus Service & Facility Expansion
- **Columbia Pike Smart Corridor – 3<sup>rd</sup> highest Benefit/Cost Score in Virginia**
- Rosslyn-Ballston Corridor Multimodal Connections
- Loudoun County Transit Buses Acquisition
- **VRE Fredericksburg Line Capacity Expansion – Highest Raw Benefit Score in Virginia**





# Atlantic Gateway





Virginia Department of Rail and Public Transportation

# Virginia's Transit Funding and Other Challenges

Northern Virginia Transportation Alliance

October 3, 2017

**Jennifer Mitchell**  
Agency Director





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# NORTHERN VIRGINIA HIGHLIGHTS

October 3, 2017

Helen Cuervo, P.E.  
District Engineer, Northern Virginia

# Northern Virginia Highlights

Updates to SMART SCALE

Recent Project Successes

Upcoming Projects



# SMART SCALE OVERVIEW



- Established by Virginia General Assembly in 2014
- Process used to prioritize projects for FY17-22 and FY18-23 Six-Year Programs
- Number of applications evaluated (statewide):
  - FY17: 287 applications
  - FY18: 404 applications

Total \$ Funded	# of NOVA Projects Funded	NOVA Funding
FY 17 - \$1.42 B	18	\$222.9 M
FY 18 - \$1.03 B	21	\$367.3 M

- Continuing to improve SMART SCALE for the next round beginning March 2018. Application due date August 1, 2018.

# Proposed SMART SCALE Changes

- Limit number of applications allowed based on population thresholds:
  - Localities with <200k population: 4 applications
  - Localities with >200k: 8 applications
  - MPO/PDCs/transit agencies <500k: 4 applications
  - MPO/PDCs/transit agencies >500k: 8 applications
- Project Readiness: Add guidance on required level of project planning and documentation. Documentation of public support - a resolution of support from a governing body.
- Project Eligibility: Add guidance on eligibility when a portion includes maintenance or State of Good Repair element.
- Congestion: Scale person throughput measure based on corridor length

# Proposed SMART SCALE Changes



- **Safety:** Remove crashes related to DUI and use blended rate for fatalities and injuries
- Refine Economic **Development Calculation:**
  - Zoned properties must get primary access from project.
  - Site must be specifically referenced in local and regional planning documents.
  - Reduce project impact buffer.
  - Clarify between conceptual and detailed site plans.
  - Additional credit within economically distressed areas.
- **Land Use:** Provide specific definition of “mixed use” and new methodology for measuring access to key non-work destinations such as food, healthcare, education
- **Accessibility:** Eliminate 45/60-minute cap for access to jobs by auto and transit, respectively

# Construction Program

About \$600 million in active construction, traditional and design-build underway.

Northern Virginia completed 98% of projects (40 of 41) on time in fiscal year 2017, highest on-time percentage since release of the VDOT Dashboard.



*\$58 million Jones Branch Connector in Tysons partially opens in 2018.*



# Recent Project Completions

\$59 million  
**Diverging-Diamond  
Interchange at I-66  
and Route 15**  
in Haymarket  
opened in July 2017.



# Recent Project Completions

Route 28 spot widening with NVT, Fairfax, & Loudoun completed in June.

Fourth lane southbound from Waxpool to Route 50, and northbound from McLearen to Dulles Toll Road.





# Recent Project Milestones

## *Loudoun County Parkway/Old Ox Road*

- Opened new intersection in September
- Old Ox reconstruction and widening through 2018
- \$113 million jointly funded by VDOT/Loudoun County/MWAA/NVTA





# Construction Underway

## *Route 7 over Dulles Toll Road*

- Rehab and widening two bridges from 1960 and approaches from four to six lanes
- Adding shared-use
- \$45 million with state, federal and NVTa funding
- Completion spring 2018



# Recent Bicycle and Pedestrian Highlights

## **Belmont Ridge Road over W&OD Trail**

Grade separation to improve safety opened in July as part of road widening.

## **Fairfax County and Prince William Parkways**

Work underway to pave ~30 miles over two years.

## **Route 7 at Dulles Toll Road**

Shared-use paths, bridges, tunnel as part of \$45 million bridge rehabilitation.



*Belmont Ridge at W&OD Trail.*



# Major Projects in Development

## *Route 7 Corridor Improvements*

Seven miles of widening, intersection and bike/ped improvements approaching Tysons.

### **Proposed schedule:**

Request for Qualifications: Late summer

Request for Proposals: Fall 2017

Right of Way/Utilities/Construction: 2018



*Route 7 environmental review.*

# Major Projects in Development

## *Richmond Highway (Route 1)*

Three-mile widening, bike/ped facilities in coordination with Fairfax County Bus Rapid Transit planning.

Anticipated Cost: \$215 million

### **Proposed Schedule:**

Draft Environmental Assessment: Late 2017

Public Hearing: 2018

Right of Way: 2019

Construction: 2023





# Maintaining Our Pavement

1100 lane miles will be resurfaced in 2017, about \$135 million

See all roads scheduled for paving at [virginiaroads.org](http://virginiaroads.org)

Entering the 2017 paving season,  
our roads rated:

INTERSTATES

93%

PRIMARIES

87%

SECONDARIES

36%







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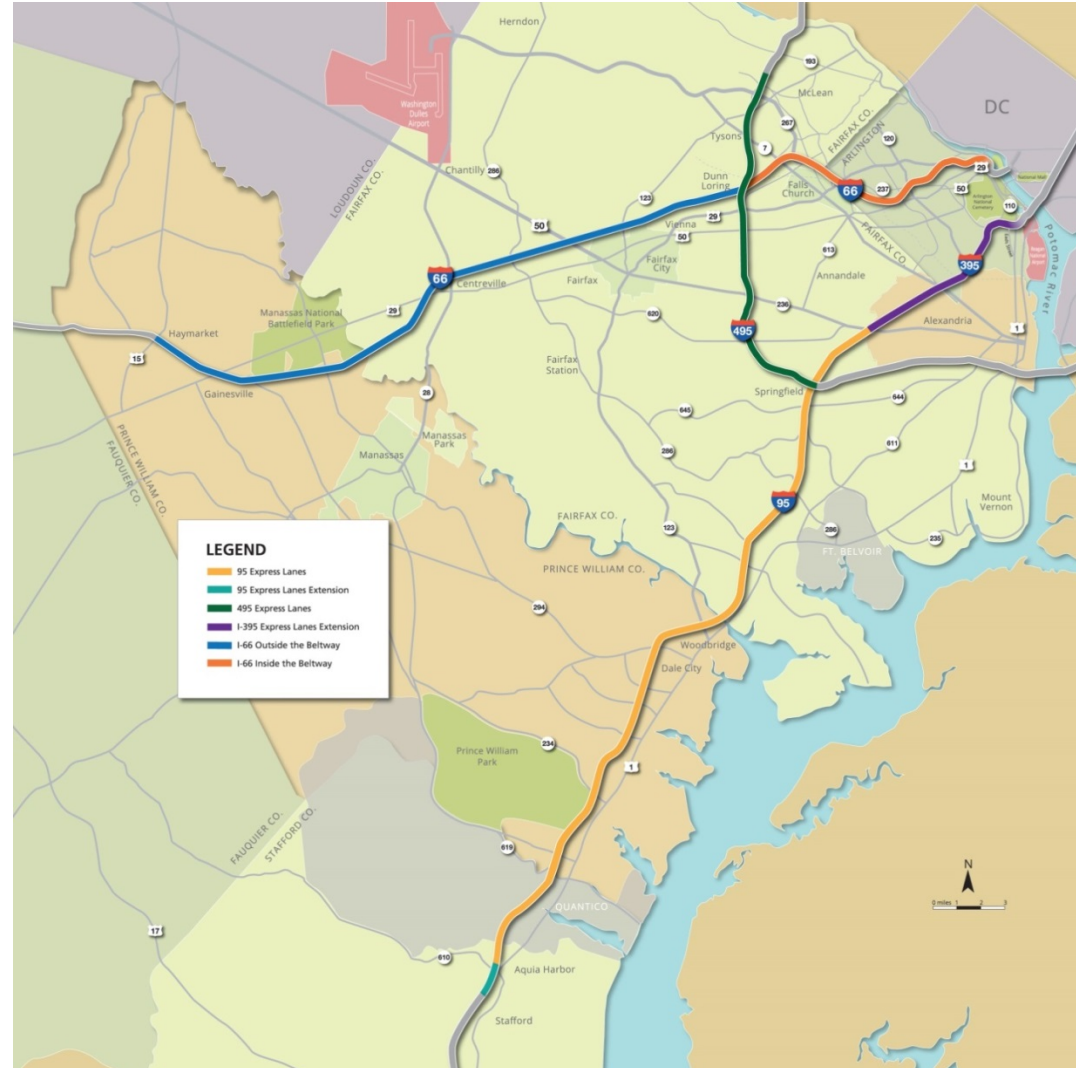




**2017 What You Need to Know About Transportation  
Northern Virginia Transportation Alliance  
October 3, 2017**

Susan Shaw, P.E., Megaprojects Director  
Virginia Department of Transportation

# Northern Virginia Express Lanes Network



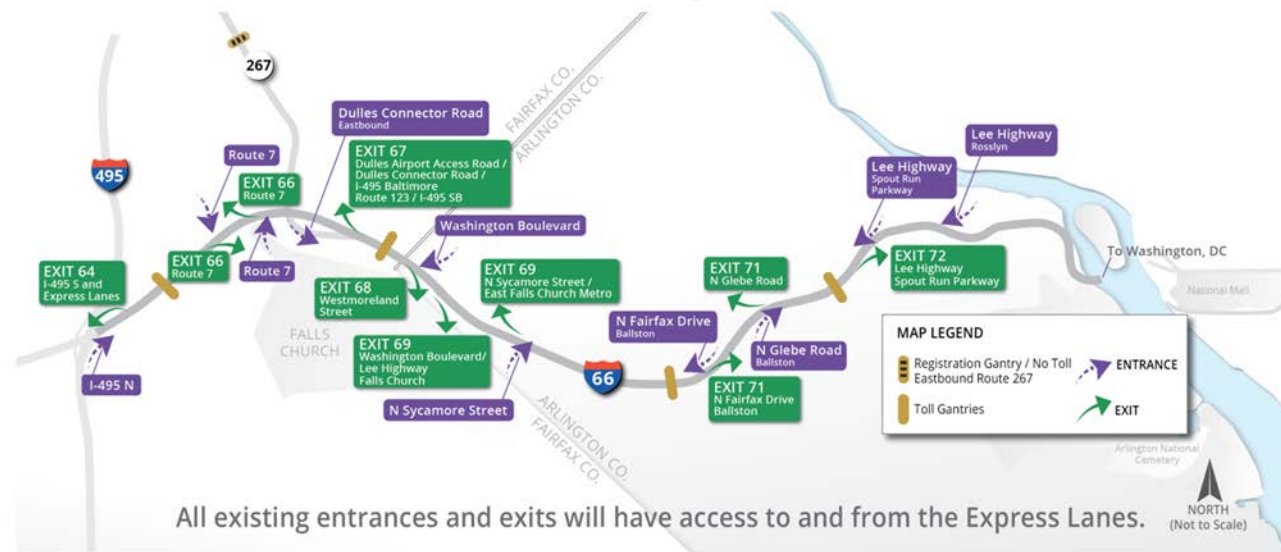
## I-66 Inside the Beltway Program

- Tolling begins  
**December 2017**



- Multimodal projects benefitting I-66 users funded by toll revenue
  - 10 new projects operational by December 2017
  - Second Round Call for Projects

# 66 ExpressLanes



## Hours of Operation I-66 Express Lanes Inside the Beltway



The lanes are free with no tolling or HOV requirement at all other times.





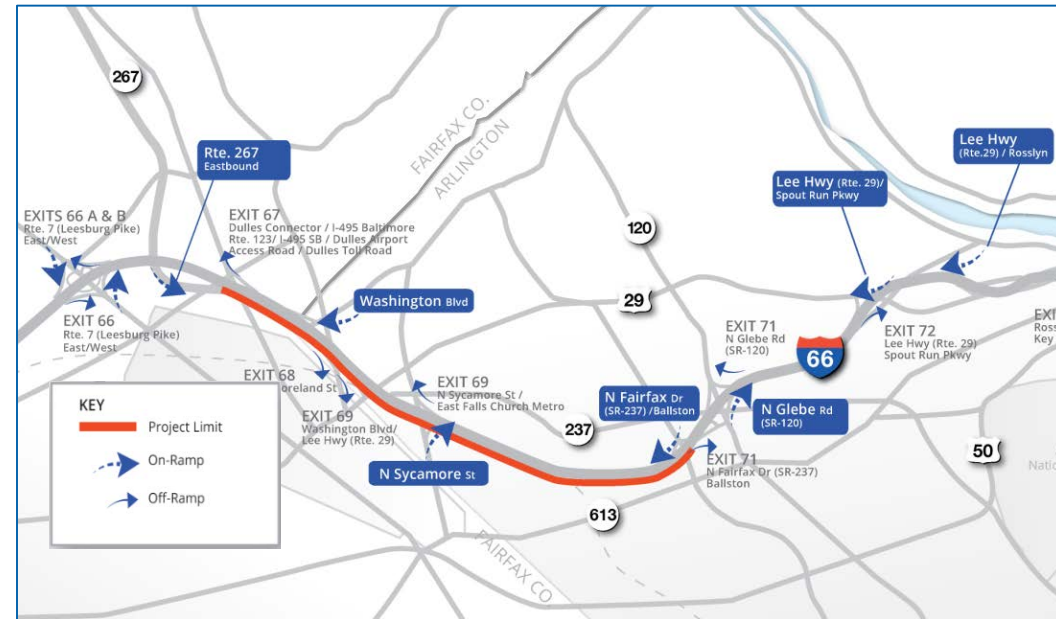
# Transform 66 Inside the Beltway

## I-66 Eastbound Widening

### Dulles Connector Road to Fairfax Drive

## Major Components


- Widening 4 miles of I-66 EB from two to three lanes
- 11,480 linear feet of noise walls (new and replacement)
- New W&OD Trail pedestrian and bicycle bridge over U.S. Route 29 (Lee Highway)
- Off-ramp improvements at Washington Boulevard and Glebe Road



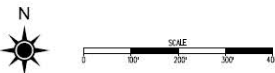
# Transform 66 Inside the Beltway

## Proposed West Falls Church Metro Access

**Project Location**



North Arrow & Scale



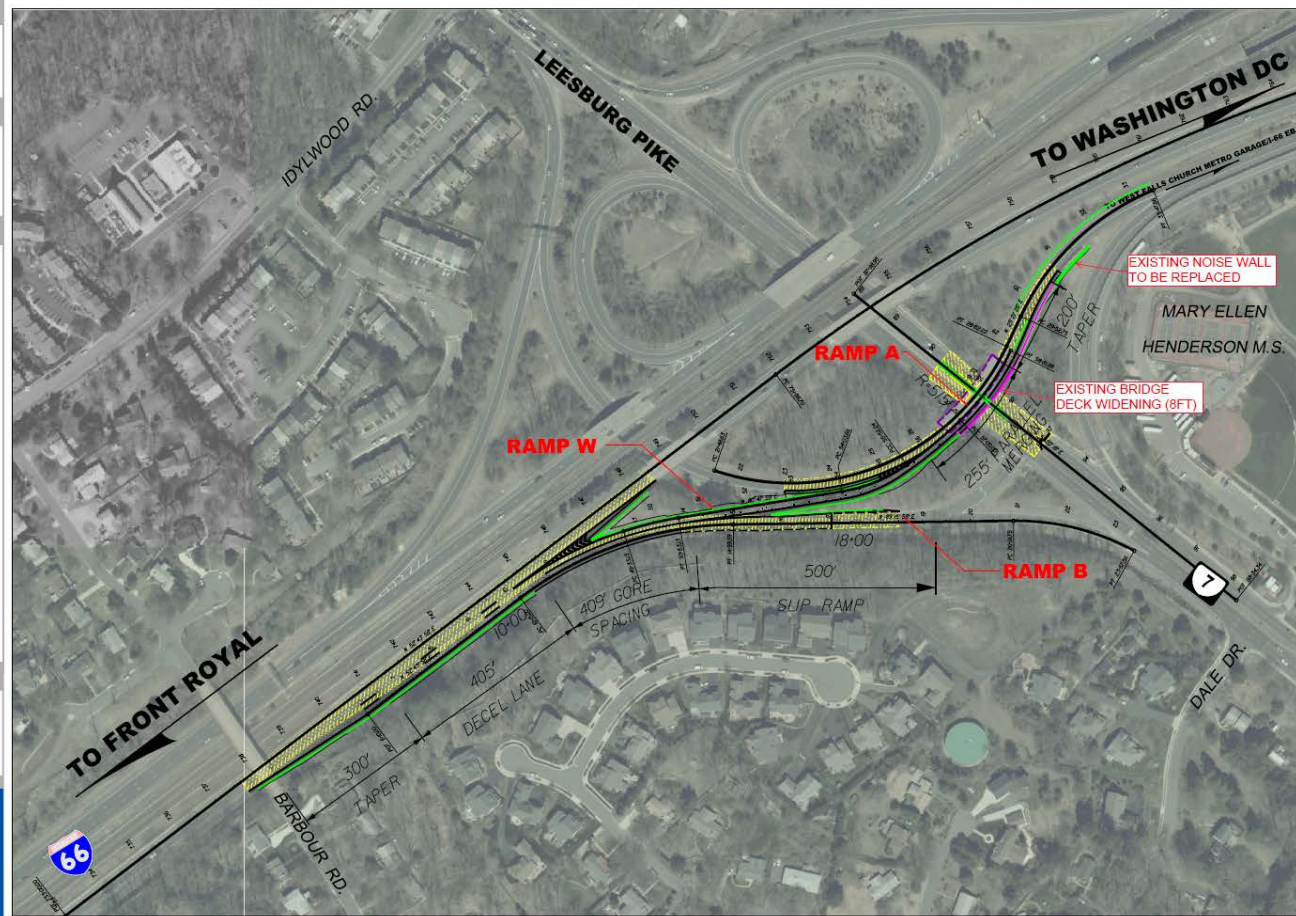
**Legend**

- Proposed Full Depth Travelway
- Proposed Full Depth Shoulder
- Proposed Mill & Overlay
- Proposed Median Barrier
- Proposed Guard Rail

**Contact Information**

Anyenda Baxter  
Project Manager  
Mary Gloney  
Design Project Manager  
Virginia Department of Transportation  
4875 Alliance Drive  
Fairfax, VA 22033

USE INSIDE THE BELTWAY RITE 7 RAMP MODIFICATION  
Fairfax County, Virginia  
State Project Number: 09960206287, 77501  
APC: 106491  
Federal Project Number: 03A2066-10560  
These plans are preliminary and incomplete until they are used in the design for any kind of construction or the acquisition of right of way. Additional statements for utility relocation may be required beyond the proposed right-of-way shown on these plans.  
Imagery Courtesy of the Commonwealth of Virginia copyright 2000/2010.



3-22-2017

## 2022: Transforming I-66 Outside the Beltway

- Congestion relieved on all lanes
- Faster transit through Express Lanes
- Move 2,000 to 4,000 more people per hour
- New buses and transit routes
- 4,000 new park and ride spaces
- Improved safety



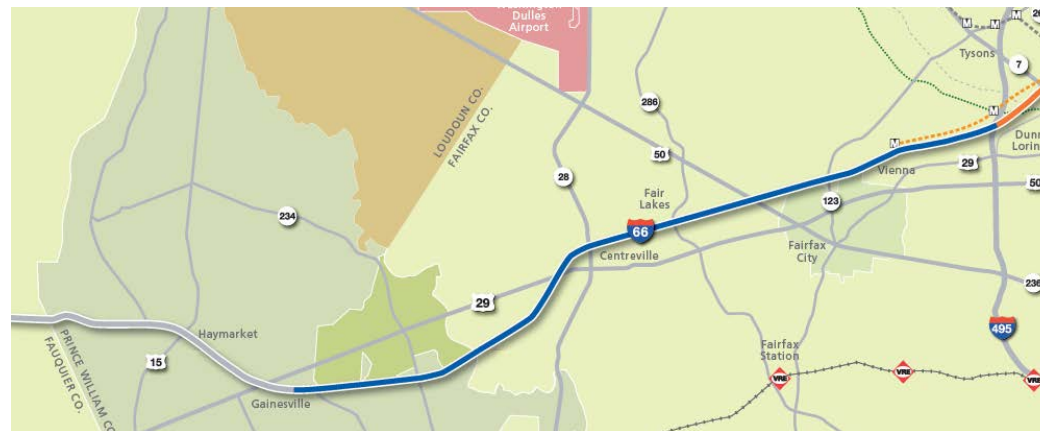
Multimodal Solutions - 495 to Haymarket





# Transform 66 Outside the Beltway Project Overview

- Multimodal improvements to 22.5 miles of I-66
- 2 express lanes in each direction from I-495 (Capital Beltway) to Gainesville (University Boulevard)
- 3 general purpose lanes in each direction
- HOV and transit access to express lanes
- Median space reserved for future transit
- Improved park and ride options with access to express lanes
- Shared use bike and pedestrian trails – integrated with existing trails



Multimodal Solutions - 495 to Haymarket



## Transform 66 Outside the Beltway Project Team



Public outreach  
Project oversight



**Concessionaire:** Long-term agreement to finance, operate and maintain the I-66 Express Lanes. I-66 EMP is a consortium between Cintra and Meridiam Infrastructure



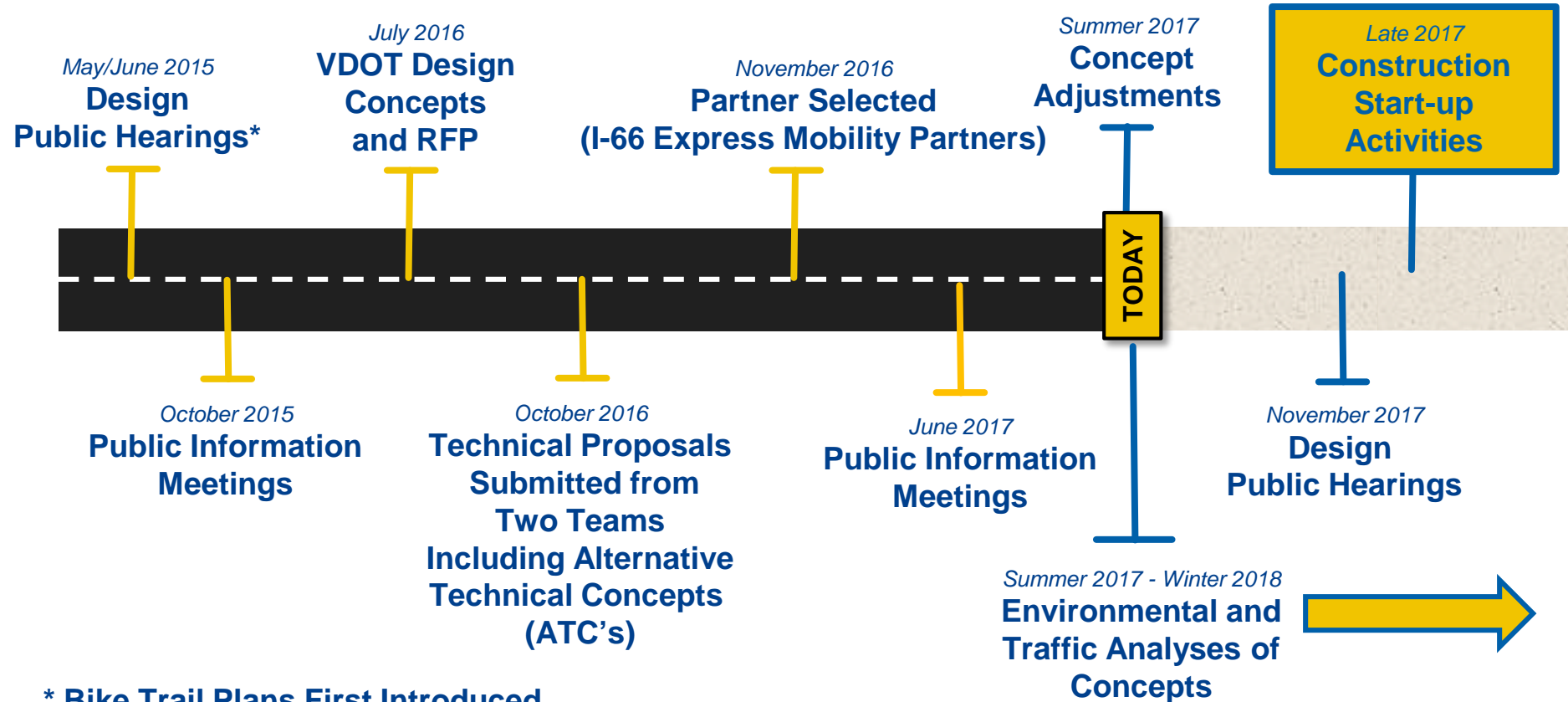
**Design-builder:** Joint venture of Ferrovial Agroman and Allan Myers, VA



Multimodal Solutions - 495 to Haymarket



# Where We Are in Design Process



\* Bike Trail Plans First Introduced



Multimodal Solutions - 495 to Haymarket



# Transform 66 Outside the Beltway

## Potential Projects Funded by Concessionaire Payment

Jurisdiction	Project	Request (Millions)
Arlington County	East Falls Church Metrorail Station Bus Bay Expansion	\$4.8
Fairfax County	Jermantown Road Bridge over I-66: Widen to four lanes	\$11.0
	Route 50 and Waples Mill Road intersection improvements	\$2.0
	Monument Drive bridge pedestrian facility improvement	\$3.8
	Commuter parking structure at Government Center/Fairfax Corner	\$38.5
	Lee Highway pedestrian improvements: Completion of missing segments of pedestrian walkway on the south side of Lee Highway from Nutley Street to Vaden Drive	\$1.3
	Poplar Tree Road bridge construction to four lanes	\$6.0
	I-66 median widening (Lee Highway (Route 29) to Route 28) for WMATA Orange Line accommodation	\$40.0



# Transform 66 Outside the Beltway

## Potential Projects Funded by Concessionaire Payment

Jurisdiction	Project	Request (Millions)
Prince William County	Route 234 at Balls Ford Road interchange including Balls Ford Road improvements	\$168.0
	Balls Ford Road widening: Groveton Road to Route 234 Business (Sudley Road)	\$67.4
City of Fairfax	George Snyder Trail: From Chain Bridge Road (Route 123) to Fairfax Boulevard (Route 50) at Draper Drive	\$13.6
Town of Vienna	Nutley Street SW mixed-use trail: From Marshall Road SW to Tapawingo Road SW	\$0.3
PRTC	Western bus maintenance & storage facility	\$11.1
VRE	VRE Manassas Line capacity expansion and real-time multimodal traveler information project (rolling stock, Broad Run station/parking/expansion, South Manassas 3rd track, Manassas Station platform extension, Manassas Park parking/bridge, real-time traveler info)	\$128.5
Prince William County	Route 234 at Balls Ford Road interchange including Balls Ford Road improvements	\$168.0
	Balls Ford Road widening: Groveton Road to Route 234 Business (Sudley Road)	\$67.4
<b>Total</b>		<b>\$496.3</b>

## What to Expect During Construction

- Construction start-up late 2017 within existing right of way
- Construction ramp-up spring 2018
- Construction to take place throughout the 22.5 mile corridor for duration of project
- No lane closures on I-66 during peak periods
- Public will be kept informed through Transform66.org, social media, TV, radio, print media, roadway signage
- Provide advance construction information to adjacent communities and address issues of concern – Good Neighbor policy



Multimodal Solutions - 495 to Haymarket



# Design Public Hearings

6 – 8:30 PM

Presentation at 7 PM

## **Monday, November 13, 2017: Segment 3**

Oakton High School Cafeteria

2900 Sutton Road, Vienna, VA 22181

## **Tuesday, November 14, 2017: Segment 2**

Stone Middle School Cafeteria

5500 Sully Park Drive, Centreville, VA 20120

## **Thursday, November 16, 2017: Segment 1**

Piney Branch Elementary School Cafeteria

8301 Linton Hall Road, Bristow, VA 20136



Multimodal Solutions - 495 to Haymarket



# I-395 and I-95 Express Lanes Extensions

## I-395 Express Lanes Northern Extension

- Construction underway
- Open in fall 2019; other project elements completed by summer 2020
- Project includes adding one additional southbound lane on I-395 between Duke Street and Edsall Road

## I-95 Express Lanes Southern Terminus Extension

- 2.2-mile extension of 95 express lanes beyond Garrisonville Road in Stafford County
- **Open in October 2017**
- Funded jointly by Transurban and Commonwealth

## I-95 Express Lanes Fredericksburg Extension

- 10-mile extension to Route 17 (Exit 133)
- Construction start in 2019: open in 2022



Project funding sources include Transurban, the Commonwealth, and Atlantic Gateway, and will provide for annual transit payment.





**For More Information:**

**[www.Transform66.org](http://www.Transform66.org)**

**[www.66expresslanes.org](http://www.66expresslanes.org)**



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# What You Need To Know About Transportation

# 2017

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# Washington Metropolitan Area Transit Authority

## KEEPING METRO SAFE, RELIABLE AND AFFORDABLE

Christian Dorsey  
WMATA Board of Directors

What You Need to Know About Transportation  
October 3, 2017



# Metro Keeps the Region and Virginia Working

- \$235B of real estate value within half-mile of rail stations
- Land value near Metrorail generates \$3.1B per year in jurisdiction tax revenues
- If there were no transit in the region, congestion would increase by 25%, costing over \$1.5 billion annually
- Recent NVTC study estimates Metrorail and VRE generate over \$600 million annually in Virginia state general fund revenues





# Getting Metro Back 2 Good

- Customer offloads down 40% and railcar reliability up more than 50%\*
- Rail customer on-time performance improved to 89% for August
- 50 new 7000 series trains (400 railcars) in service
- Slashed more than \$100 million in spending and ended FY 17 with balanced budget



\* In first seven months of 2017, compared to same period in 2016

# WMATA Funding Challenges

- Metro GM recommends investing \$15.5 billion in capital funding over 10 years for safety and reliability
- Metro GM has proposed a multi-year stable revenue source generating \$500 million per year for a Capital Trust Fund
- Federal PRIIA funding expiring next year
- Metro operating budget growing at an unsustainable rate





# WMATA Governance and Reform

- Independent review of WMATA by former U.S. Secretary of Transportation Ray LaHood
- NVTC resolution on WMATA governance
- Compact reforms
- Labor reforms



## What Can You Do?

- WMATA is asking elected officials, the business community, and other stakeholders to:
- Support the creation of a multi-year, stable revenue source generating \$500 million per year for a new Capital Trust Fund
- Support efforts to reauthorize the federal PRIIA legislation at the current level of \$1.5 billion over ten years



# THANK YOU!





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# Maryland Business Community Perspective

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## The Northern Potomac River Crossing

Dusty Rood

Chair, Montgomery County Chamber of Commerce

CEO, Rodgers Consulting



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# How Autonomous Vehicles and Other Technology Will Change Everything

13th Annual  
*What You Need to Know  
About Transportation*

*October 3, 2017*

Richard Mudge  
Compass Transportation and Technology

# Three Types of Technology

- Safe
  - Automatic braking etc.
  - Deployed in most new cars
- Self-Driving
  - Requires driver assistance
  - Most Car Companies will have in some cars by 2018
  - Not all roads – expressways to start
- Driverless
  - The grand vision – 5 years or 50?
  - 39 companies testing vehicles in California
  - Low-speed shuttles work today

# Key Characteristics

- Connected vehicles (V2X)
  - vital to achieve full safety and capacity benefits
  - Competing technologies
- Link with shared mobility firms
  - Uber/Lyft and many more
- Private sector leads deployment
  - Public sector regulations important
  - No major public investment required

# Possible Impacts

(no consensus here)

- Safety
- Traffic congestion improves (most places)
- Cost of travel declines
  - More VMT (car and truck) and PMT (Passenger Miles Travelled)
  - Access improves
  - Good for disabled and elderly
- Reduced auto ownership
- Change public investment in roads and transit
- Need to change how we plan
  - NVTa's TransAction scenarios as example
- Some losers but good for economy as a whole



# Hard Not to be Optimistic About the Future of Transportation

Richard Mudge, Ph.D.

[dick@compasstranstech.com](mailto:dick@compasstranstech.com)

Compass Transportation and Technology



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# TransAction Update:Regional Collaboration, Regional Results



**Northern Virginia Transportation Alliance-2017 What  
You Need To Know About Transportation**

**Martin E. Nohe, Chairman  
October 3, 2017**

**Northern Virginia  
Transportation Authority**  
*The Authority for Transportation in Northern Virginia*

# Thank You for Your Efforts

## Your Voice Matters

- Business Community helped bring focus to solutions for regional transportation needs.
- HB 2313 facilitated a new chapter in regional transportation funding.
- NVTa has developed regional plans since 2002, but having \$340M\* in annual revenue as a result of HB 2313 has lead to getting things done!

*\*Average Annual HB 2313 Revenue FY2017 – FY2023*

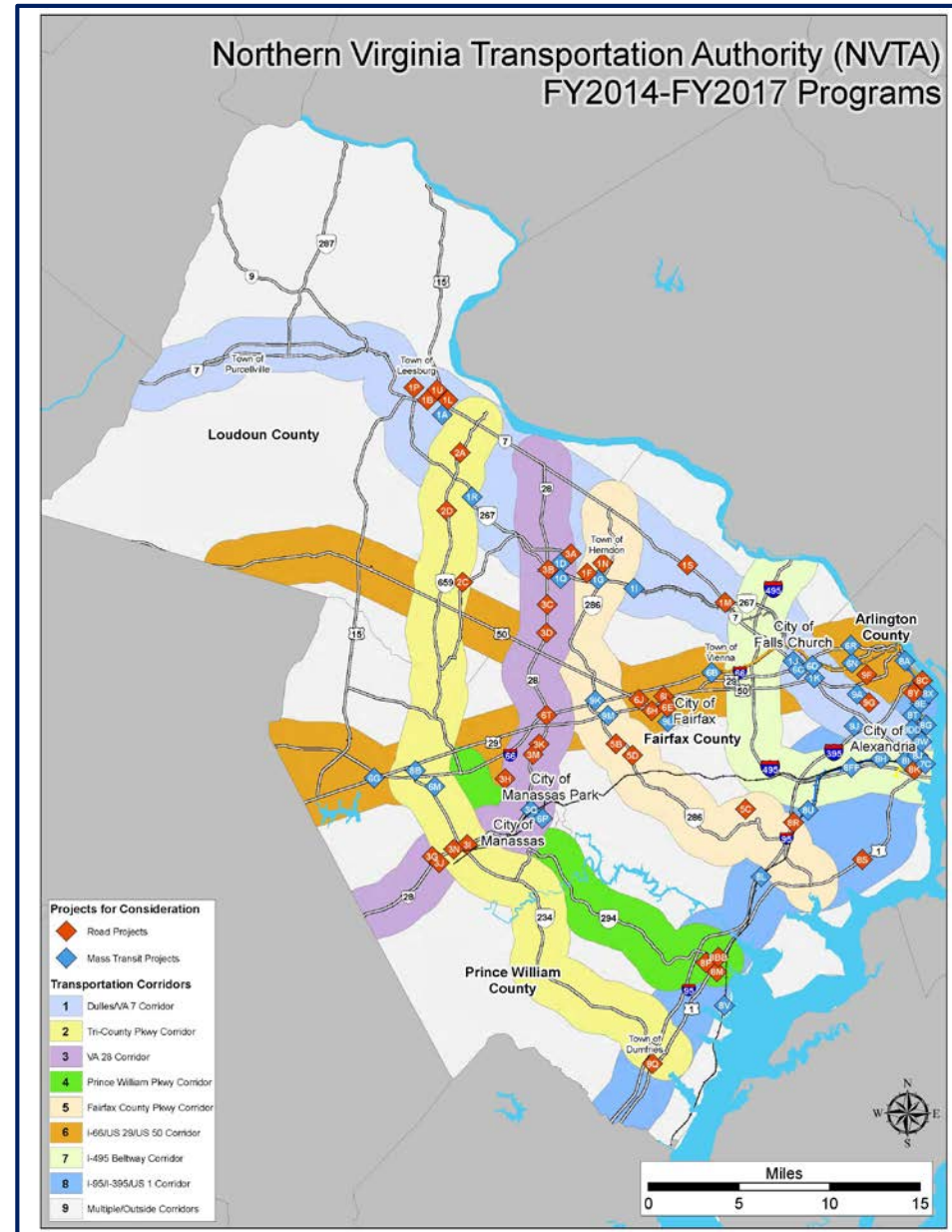




# Regional Transportation Investments Funded in Three Years

**79 Projects**

**\$990 Million Total**



# Planning for Next Round of Investments - TransAction Update

- **Performance Based Analysis on Corridors and Segments**
  - 15 Performance Measures
  - Approximately 352 multi-modal candidate projects across 11 regional corridors/28 corridor segments
- **Mega-Projects in Baseline:**
  - Transform 66 (inside and outside the beltway)
  - I-95/395 Express Lanes
- **Mega-Projects in Draft TransAction Plan:**
  - American Legion Bridge
  - Bi-County Parkway
  - Metrorail Extensions/VRE Expansion
  - Potomac River Crossing
  - Route 28 Widening
  - Route 1 Widening with Bus Rapid Transit
  - Regional Bus Rapid Transit Network
- **Fiscally Unconstrained**
  - \$42 Billion
  - Not enough \$\$ to fund all of the needs



# Planning for Next Round of Investments - FY2018-2023 Six Year Program

- First Six Year Program for NOVA Region
- \$1.5 Billion in Regional Revenues
- Bi-Annual Update
- Congestion Reduction Relative to Cost Analysis
- Synchronize with Commonwealth's SYP
- Call for Regional Transportation Projects
  - October 2017
- Public Comment Period
  - Spring 2018
- Adoption of FY2018-2023 Six Year Program
  - June 2018



# Planning for Next Round of Investments- Performance Based Planning/Programming

## – HB 599

- Only applicable to Northern Virginia
- Focus on Congestion Reduction in NOVA
  - Congestion reduction given highest weight
- Evaluation required to be eligible for HB 2313 revenues
- VDOT coordinate with CTB, DRPT & NVTa in evaluation process
- Must be conducted every 4 years
- Evaluation shall include a minimum of 25 projects
- Employs the use of a transportation model
- 7 performance metrics: 6 for congestion reduction, 1 for emergency management evacuation

## – Smart Scale

- Statewide process
- Priority is Congestion Mitigation in NOVA and Hampton Roads
  - Congestion mitigation given highest weight
- 2 congestion mitigation measures





# Planning for Next Round of Investments- Regional Coordination

## – Commonwealth Transportation Board

- \$500M I-66 Outside the Beltway Concessionaire Payment Recommendations
  - NVTa issued a Call for Projects on 6/8/2017
  - 26 project applications received from 7 jurisdictions/agencies
  - 14 projects approved for CTB consideration
- Six Year Program
  - Leverage funding opportunities
- Corridors of Statewide Significance
- VTrans 2040

## – National Capital Region Transportation Planning Board

- CLRP
- Round 9.0 Forecasts
- Long Range Plan Task Force



# Stay Connected with NVTa

- Visit our websites:
  - [TheNoVaAuthority.org](http://TheNoVaAuthority.org) and [NVTATransAction.org](http://NVTATransAction.org).
- Engage with your local governments (counties, cities and towns) and attend NVTa public meetings.
- Subscribe to our e-mail list at [TheNoVaAuthority.org](http://TheNoVaAuthority.org) for regular NVTa updates.
- Like us on [Facebook](https://www.facebook.com/NVTa).
- Follow us on Twitter:
  - [@NVTaAuthority](https://twitter.com/NVTaAuthority) and [@NVTATransAction](https://twitter.com/NVTATransAction).





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