



COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

1401 East Broad Street
Richmond, Virginia 23219

(804) 786-2701
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COMMONWEALTH TRANSPORTATION BOARD WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

January 14, 2020
10:00 a.m.

1. USDOT Routes Initiatives
Thomas Nelson, Virginia Administrator, Federal Highway Administration
2. Route 3 Business Over Rappahannock River
Chatham Bridge: Special Use Permit
Marcie Parker, Virginia Department of Transportation
3. Environmental Division Overview
Angel Deem, Virginia Department of Transportation
4. Rail Industrial Access Presentation-Phoenix Packaging Operations, LLC-
Jeremy Latimer, Virginia Department of Rail & Public Transportation
5. Update on Public Transportation in Virginia
Jennifer DeBruhl, Virginia Department of Rail & Public Transportation
6. Update on Rail in Virginia
Michael McLaughlin, Virginia Department of Rail & Public Transportation
7. Transportation Alternatives Program
FY21/22 Application Update
Russ Dudley, Virginia Department of Transportation
8. WAZE
Rob Cary, Virginia Department of Transportation
Dani Simons, Public Sector Partnerships at WAZE

Agenda
Meeting of the Commonwealth Transportation Board
Workshop Session
January 14, 2020
Page 2

9. SmartScale Update
Chad Tucker, Office of Intermodal Planning and Investment
10. 2019 VTrans Vision, Goals, Objectives, Guiding Principles
2019 Mid-term Needs Identification Methodology
Jitender Ramchandani, Office of Intermodal Planning and Investment
11. Governor's Omnibus Transportation Bill
Nick Donohue, Deputy Secretary of Transportation
12. Director's Items
Jennifer Mitchell, Virginia Department of Rail & Public Transportation
13. Commissioner's Items
Stephen Brich, Virginia Department of Transportation
14. Secretary's Items
Shannon Valentine, Secretary of Transportation
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1. USDOT Routes Initiatives
Thomas Nelson, Virginia Administrator, Federal Highway Administration

This presentation is currently unavailable.

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ROUTE 3 BUSINESS OVER RAPPAHANNOCK RIVER CHATHAM BRIDGE: SPECIAL USE PERMIT

| Marcie Parker, Fredericksburg District Engineer

| January 14, 2019

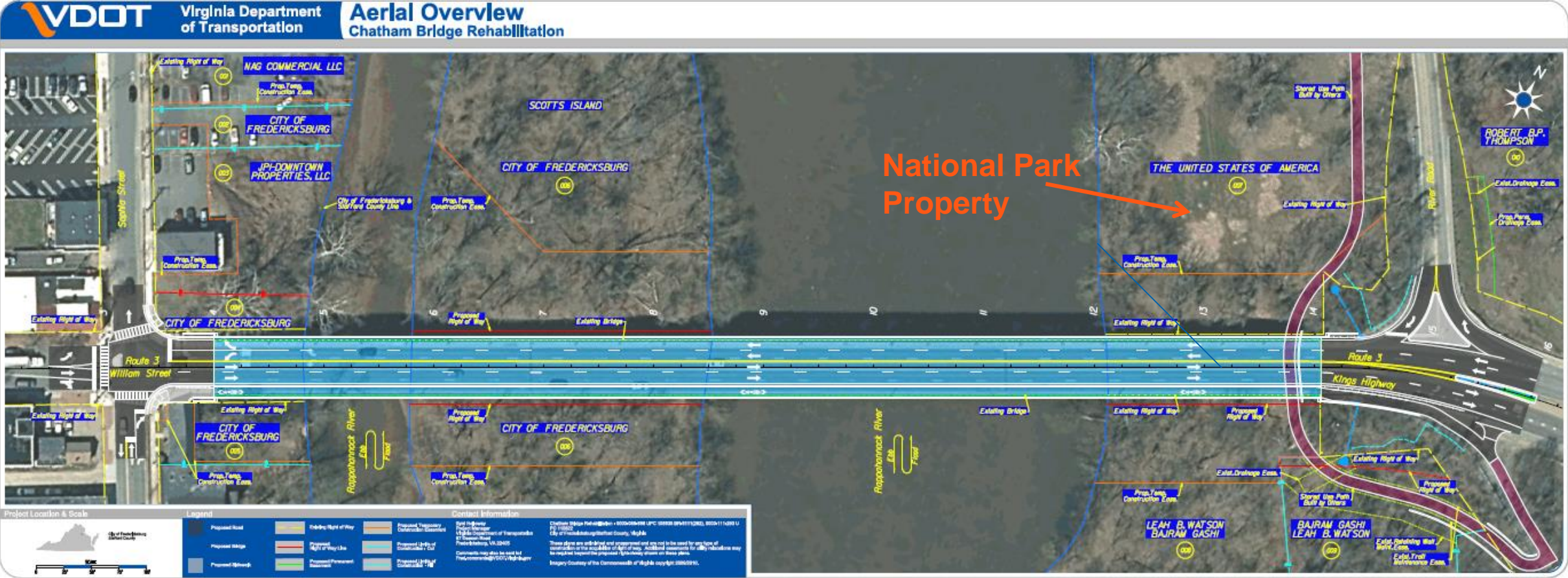
Project Overview

- **\$23.4 million State of Good Repair bridge rehabilitation project**
- **Chatham Bridge connects Stafford County and downtown City of Fredericksburg**
- **Replacement of bridge travel surface, beams, railing, and lighting fixtures**
- **Repair of substructure and approaches**
- **Existing weight posting will be removed upon completion**
- **Project advertisement accelerated due to bridge condition**



The Chatham Bridge was built in 1941, and is structurally deficient; It carries an average of 16,000 vehicles a day

Project Plan



Project Location & Scale

Legend

Proposed Road	Existing Right of Way	Proposed Right of Way
Proposed Bridge	Proposed Right of Way Line	Proposed Utility of Contractors / Out
Proposed Structure	Proposed Permanent Easement	Proposed Utility of Contractors / In

Contact Information

Virginia Department of Transportation
 1115 North 1st Street
 Richmond, VA 23219
 (800) 977-7777
 www.vdot.gov

These plans are preliminary and unperfected and are not to be used for any type of construction or the acquisition of right of way. Additional assessments for utility relocation may be required to complete the proposed right-of-way plans on these plans.
 Copyright © 2017, VDOT, Virginia Department of Transportation.

Project Schedule

Detour sign installation and ramp improvements

Complete

Utility relocation

Underway

Project advertisement

January 2020

Project award

April 2020

Bridge closes to traffic

Late May 2020

Bridge opens to traffic

November 2021

Project complete

April 2022

Special Use Permit

- National Park Service requires a special use permit granting access to their property for construction
- National Park Service has already signed the special use permit
- Board approval needed prior to Commissioner's signature





Environmental Division

CTB Overview
January 14, 2020

Angel Deem
Environmental Division Director

MISSION

VDOT Mission:

Our mission is to plan, deliver, operate, maintain, and support a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

Environmental Division Mission:

Our mission is to facilitate regulatory compliance and environmental protection through leadership, accountability and continuous improvement while delivering the Commonwealth's transportation program.

DIVISION STRUCTURE

Division Director
Angel Deem

Asst. Director – Project Development <i>Cooper Wamsley</i>	Asst. Director – Project Delivery Ed Wallingford	Contracts & Business Support Patrick Hughes
NEPA Programs	Compliance	Procurement
Cultural Resources	Water Quality Permitting	Contract Management
Air & Noise	Threatened & Endangered Species	Administrative & Training Budgets
Procedures Management	MS4 Support	Data Administration

Central Office – 43 staff

- Procedures, Program Development
- Guidance, Technical Assistance
- Complex Project Management

9 District Offices – approx. 100 staff

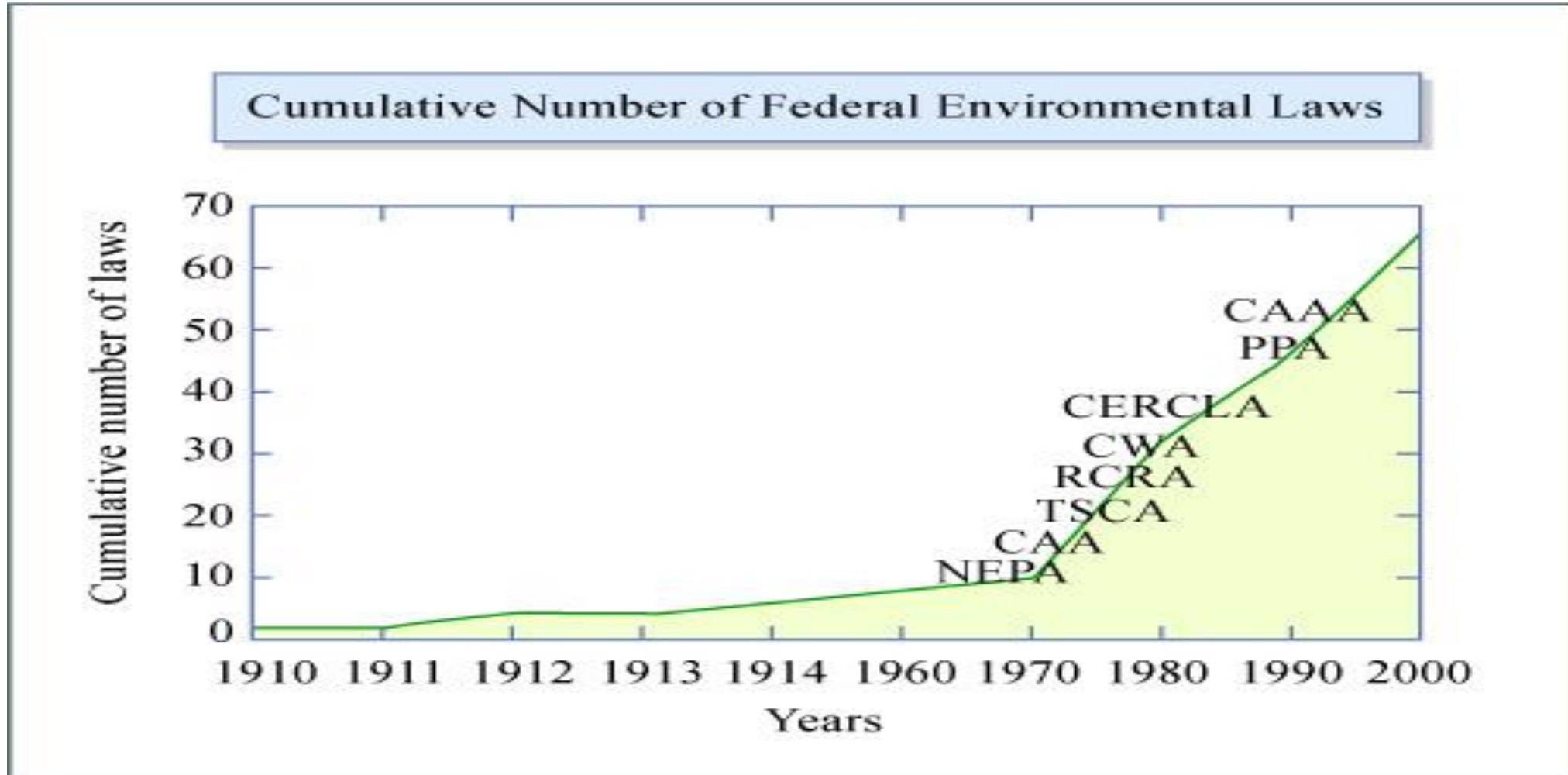
- Project Reviews & Clearances: NEPA, Water Quality Permitting, T&E Clearance, Compliance
- Regional Staff for Cultural Resource & Hazardous Materials

Products and Services

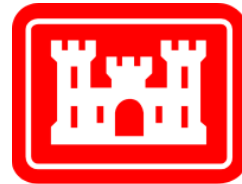
- **Regulatory Clearances**
- **Negotiate and Manage Efficiencies**
- **Statewide Environmental Business Tools & Products**
- **Environmental Program Administration**
- **Technical Assistance and Coordination**



Regulatory Clearances



Regulatory Partners



**US Army Corps
of Engineers®**



DHR | Virginia Department of Historic Resources



Identification – Avoidance – Minimization - Documentation

Resources:



Existing Traffic



Future Traffic Patterns



Communities



Community Facilities



Farmland



Forested Areas



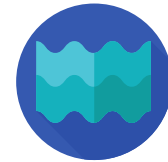
Noise



Wetlands & Streams



Water Quality



Floodplains



Wildlife & Habitat



Threatened & Endangered Species



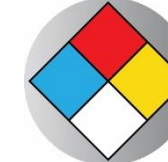
Historic Structures



Archaeological Resources



Parks & Recreation Areas



Hazardous Materials



Air Quality



Property

Clearances & Commitments

- NEPA Document Approval
- Permit Acquisition - Conditions
- Project Design
- Time of Year Restrictions
- Contract Special Provisions & Copied Notes
(R&B Specs)



Negotiate and Manage Efficiencies

- **Streamlining Agreements with State Agencies**
- **Federal Agency Liaisons**
- **Programmatic Agreements**
- **Process Efficiencies**
- **State Agency Assistance**



Statewide Environmental Business Tools & Products



Navigation: PROJECTS GIS REPORTS DOCUMENTS CONTRACTS

Comprehensive Environmental Data

Projects

Show: All Construction Projects

Project Identifier	State Project	Jurisdiction
All Active Construction Projects		
Wythe Creek Road- Additional Soil Borings	00172-147-23653848	Poquoson
Work Order 1: Beam End Repair- BRDG-966-333	00017-088-23741583	Spotsylvania
Woodrow Wilson Bridge Mitigation Sites	00000-909-18973848	Northern V
Wise Region Gateway Signs Phase 2	00000-000-10001584	VA State

CEDAR branches out with new functionality



Construction	✦
Construction	✦
Construction	✦
Construction	✦
Construction	✦
Construction	✦

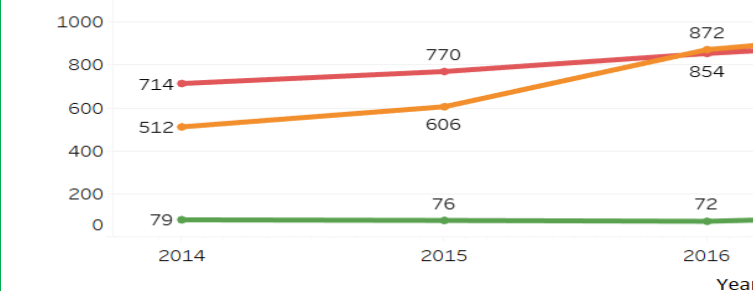
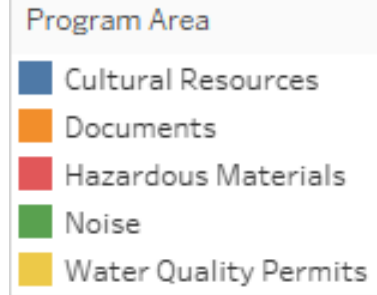
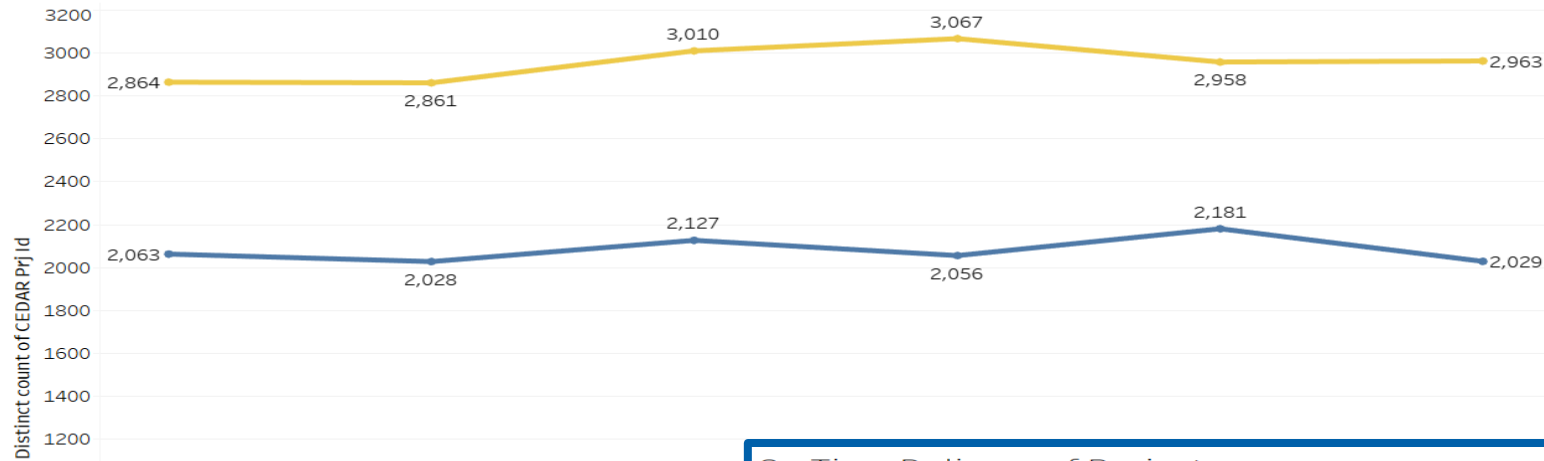
Environmental Program Administration

- **Environmental Memoranda**
- **Performance Metrics**
- **General Assembly**
- **Reviews of Proposed Regulation**

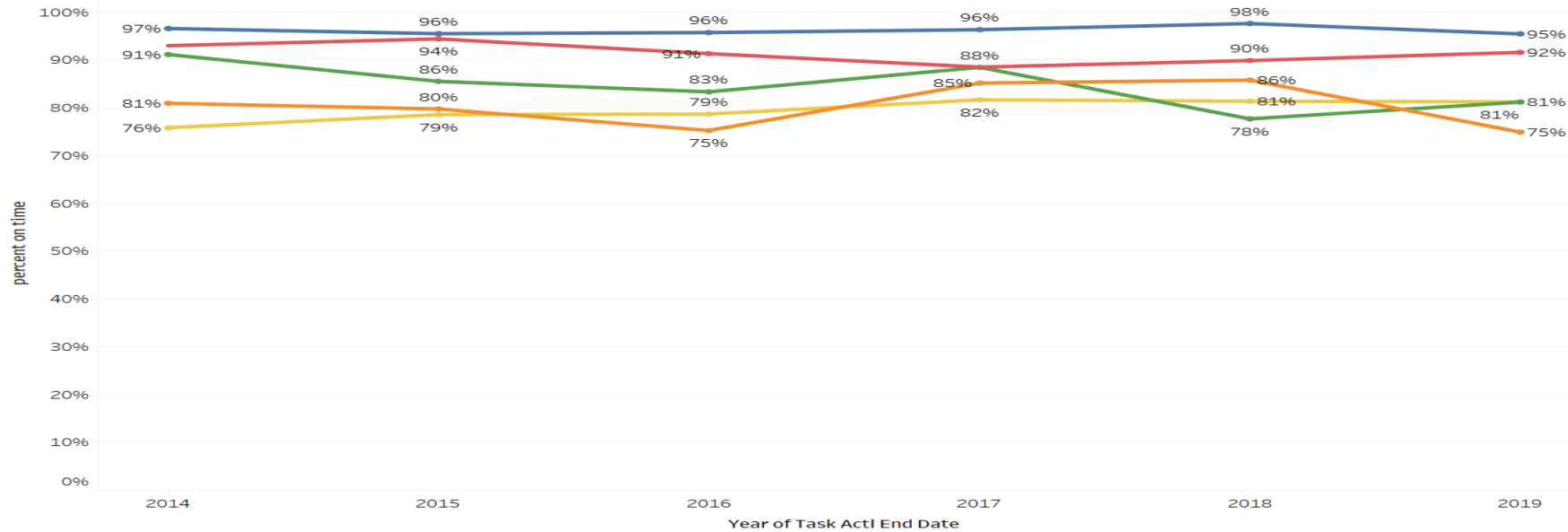


Performance Metrics

Trend of Activities over 5 years



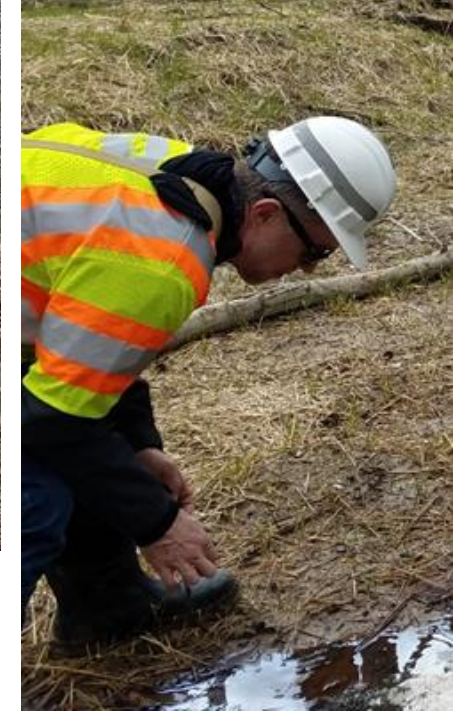
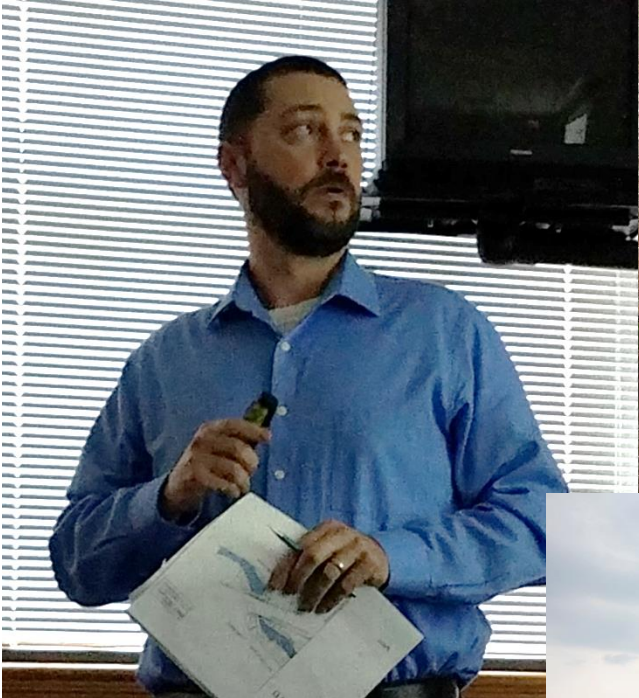
On Time Delivery of Projects



Technical Assistance & Coordination

- **SME Resource for District Staff**
- **Specialized Programs (Chesapeake Bay TMDL, Air & Noise)**
- **Technical Advisor on Design-Build and P3**
- **Tools/Guidance for Locally Administered Projects**
- **Environmental Research**

Environmental Staff in Action



Environmental Staff in Action



**Rail Industrial Access Program Application Briefing
Phoenix Packaging Operations, LLC
Pulaski County**

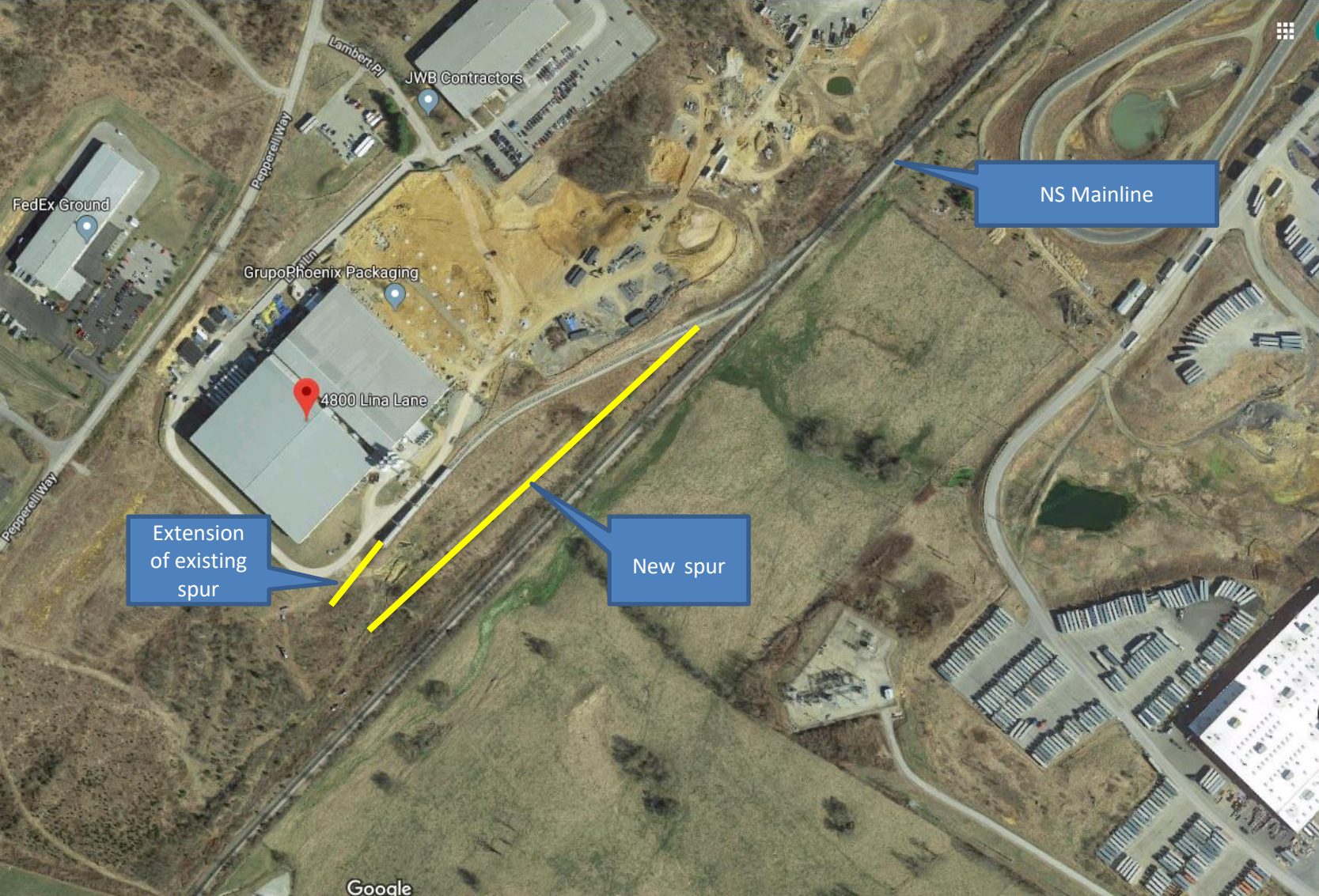
Commonwealth Transportation Board, January 14, 2020

Jeremy Latimer, Director of Rail Transportation Programs
Department of Rail and Public Transportation



Virginia Department of Rail and Public Transportation

Project Location



Project Overview and Background

- Coordination with VEDP on the expansion since 2017.
- Phoenix has been working with the Port on incentives to increase shipments from the Port of Virginia.
- Phoenix Packaging Operations, LLC designs and manufactures rigid packaging solutions for commercial food and beverages, healthcare, and disposable consumer product industries.
- The expansion will serve national and international markets and will ship through the Port of Virginia.
- The facility will be served by Norfolk Southern Railroad.

Application Summary

- Application for \$450,000 in Rail Industrial Access Funds
 - Applicant will provide minimum 30% match
 - \$30M Total Estimated Capital Expenditure (\$30M package of loans and incentives)
 - New 176,000 square foot warehouse and manufacturing facility
 - Build new rail spur
 - Extend a former RIA grant funded rail spur
 - \$450,000 Grant in 2012
 - Met requirements of 2012 grant – 154 annual carloads
 - Approximately \$1M Rail Project Cost
 - Capital expenditures outside the \$450,000 grant will be paid for by the applicant as well as other state and local grants and incentives
 - Cost overruns responsibility of applicant

Public Benefits

- Public Benefits:
 - Additional 296 railcars annual commitment (currently 164 carloads per year)
 - 1,006 additional trucks off of Virginia highways annually (currently 558 annual trucks)
 - 145 new jobs associated with expansion
 - 96% of shipping will be by rail
- Application scores 69 of 100 points
 - Minimum 50 points needed to be recommended to CTB
- Minimum threshold will be 10 new carloads

Questions?

Jeremy Latimer

jeremy.latimer@drpt.Virginia.gov

www.drpt.Virginia.gov

804-786-4440

Public Transportation in Virginia

Statewide Economic Impacts of Public Transportation and Projected Near-Term Capital Needs



MERIT Transit Reforms Implemented

- Capital Program Prioritization
 - » *Methodology implemented with capital project funding in FY20*
- Performance Based Operating Assistance
 - » *Transition Formula/Transition Assistance in FY20*
- Transit Strategic Plans
 - » *Pilots nearing completion, several others underway*
- Special Programs updated using the MERIT methodology
 - » *Demonstration, Technical Assistance, Transportation Demand Management, Senior/Human Service*

Major Studies/Initiatives Completed

- Virginia Breeze Intercity Bus Expansion Study
 - » *Two routes identified for expansion, service to begin in Spring/Summer 2020*
- Coordinated Human Service Mobility Plan
 - » *Identified priority areas for improvement in human service transportation*
- Integrated Mobility Plan
 - » *Autonomous Bus and Autonomous Shuttle projects underway*
- Battery Electric Transit Buses
- Economic Impacts of Transit
- Transit Capital Needs Assessment

Transit Ridership in Virginia

Forty-one agencies provide transit services in urban, suburban, and rural communities throughout Virginia. Ridership in many parts of the state is growing for the first time in 5 years, in contrast with national trends. In 2019, transit accounted for:

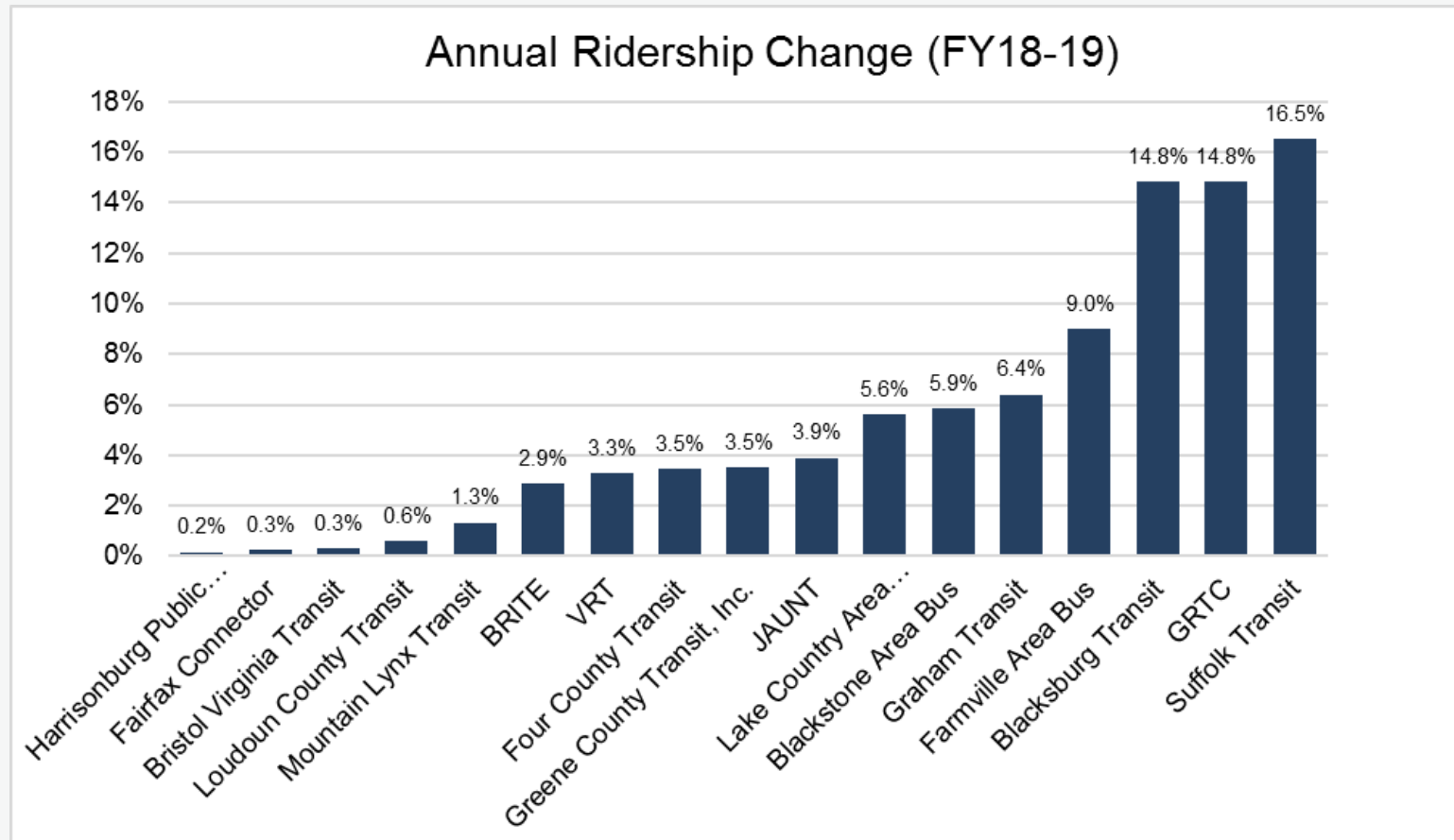
○ **172 Million**
Annual Riders

○ **1 Billion**
Annual Passenger Miles Travelled

○ **470,000**
Daily Riders

○ **2.7 Million**
Daily Passenger Miles Travelled

Ridership Trends



Economic Impacts of Transit

The presence of transit as a travel option in communities throughout Virginia has a large annual impact on the economy of the state:

○ Transit Supports:



28,940
Jobs Statewide

○ Those Jobs Create:



\$1.9 Billion
In Labor Income

○ Generating:



\$3.5 Billion
In Gross State Product

○ And Brings Back:

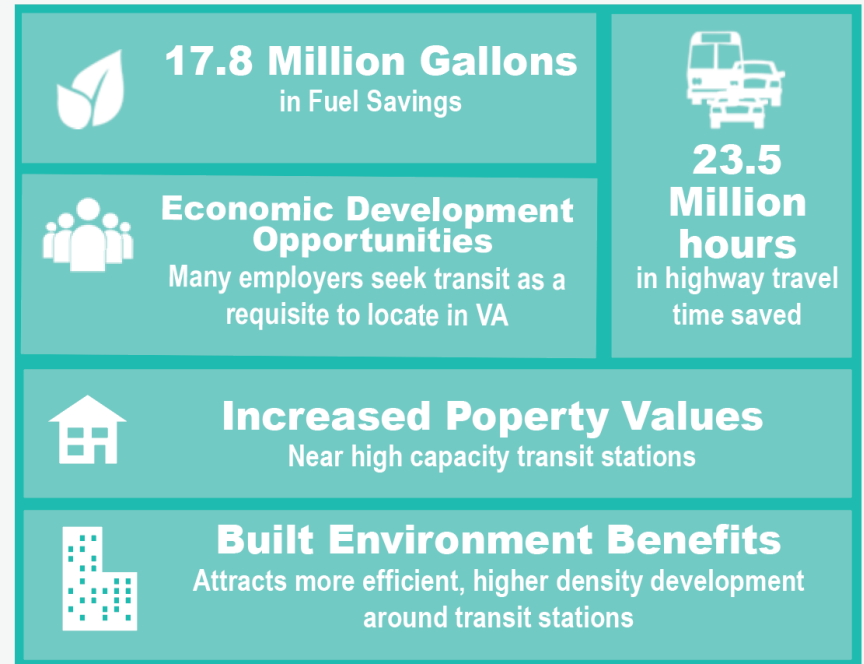
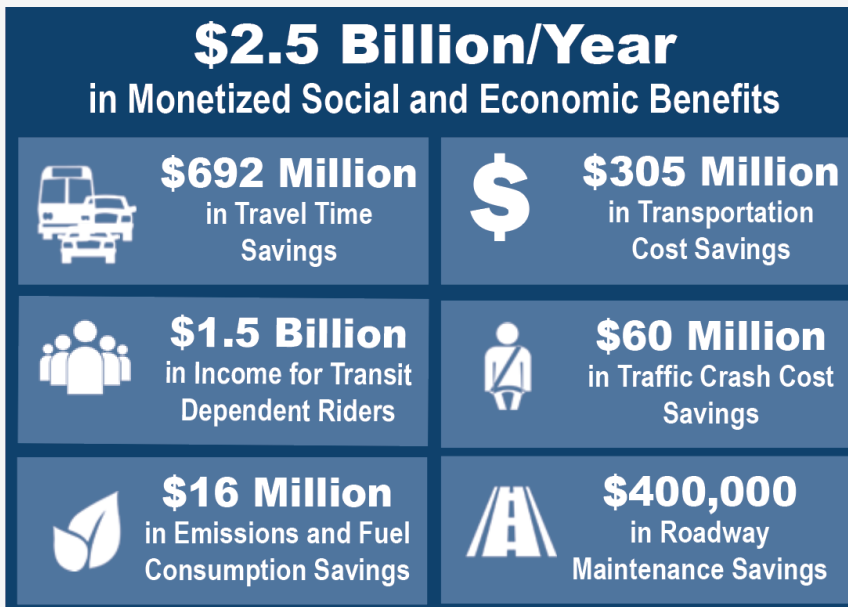


\$607 Million
In Tax Revenues

Every dollar of public investment in transit generates **\$2.91** in economic activity statewide.

Economic Impacts of Transit

The presence of transit also brings an impressive amount of additional monetized and qualitative social and economic benefits annually:



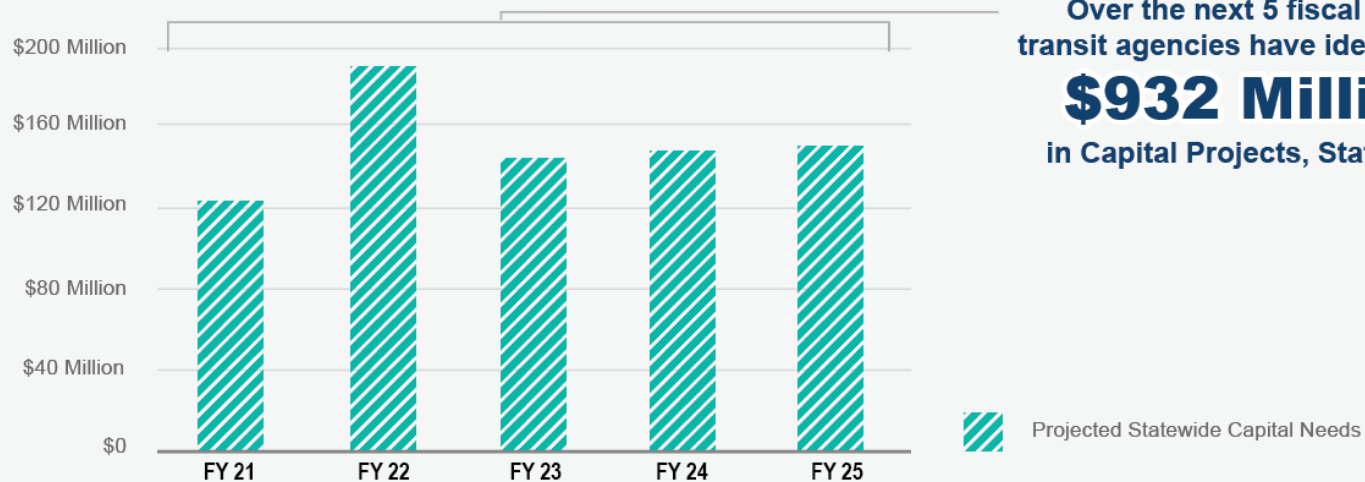
Capital Needs - Fall 2019 Update

- Each Fiscal Year, transit agencies submit a 5-year capital budget that is included in the Six Year Improvement Program
 - » *Includes projected capital expenses with federal, state, and local shares*
- Fall 2019 Update: In order to improve the accuracy of these capital budget projects, DRPT staff engaged transit agencies throughout the state to:
 - » *Account for recent changes in the use of the capital program – WMATA, SMART SCALE, Toll Revenues*
 - » *Reassess revenues – major de-obligated balances allocated, capital bonds programmed to projects*
 - » *Identify those “projects that will realistically be implemented” over the next 5 years with greater scrutiny and accuracy*
- Moving forward, Transit Strategic Plans will provide better forecasts of needs to support improved capital forecasts.

Statewide Capital Needs

Continued capital investment is needed to ensure that Virginia transit agencies have sufficient funds to replace aging assets when needed and expand services where appropriate.

Projected Statewide Transit Capital Needs, FY2021-25



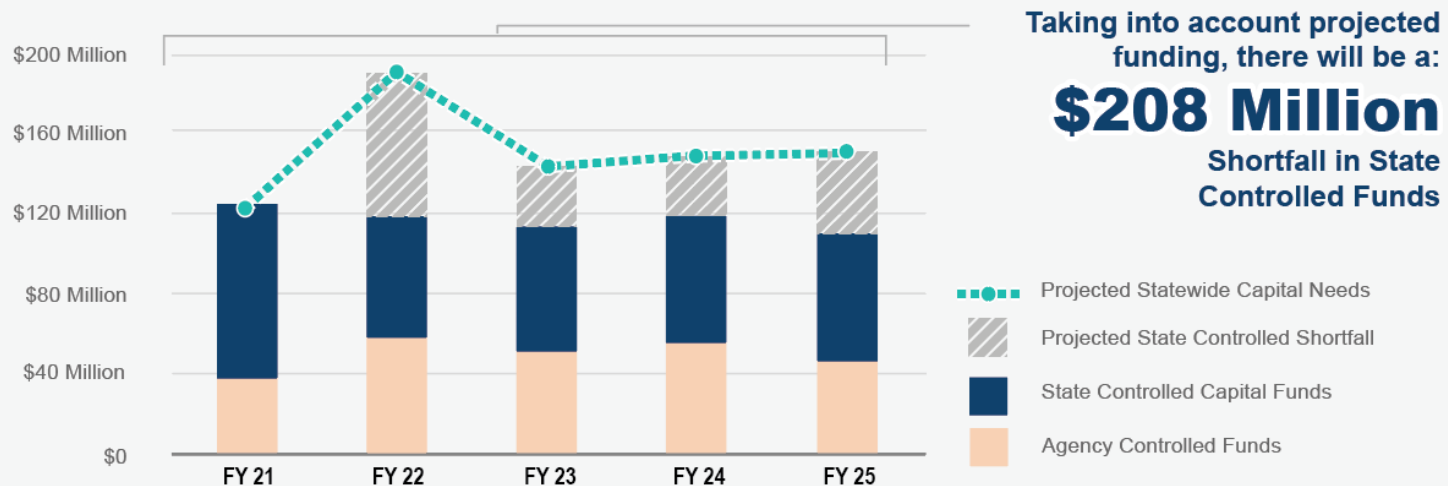
Over the next 5 fiscal years, transit agencies have identified **\$932 Million** in Capital Projects, Statewide

NOTE: Capital Needs for Washington Metropolitan Area Transit Authority (WMATA) are not included

Statewide Capital Needs

However, state controlled capital funds are projected to fall short of the needs that statewide agencies have identified.

Projected Statewide Transit Capital Needs and Funding, FY2021-25



NOTE: Capital Needs for Washington Metropolitan Area Transit Authority (WMATA) are not included

Statewide Capital Needs

To make up for the anticipated \$208 Million shortfall in statewide capital funds...

The state will need:

**\$42 Million
per Year**
in Additional Capital Revenues

Without Additional Resources

- Identified needs are primarily for State of Good Repair (SGR)
- Limits on the use of federal funding
- Prioritization can be used to direct timing of funding, but the backlog of unfunded needs will increase over time
- Limited resources can be redirected from major expansion projects (20% of available funds) to SGR, but will not fulfill SGR needs
- More financial burden will fall on localities, which will need to provide additional resources or cut services

Public Transportation in Virginia

Statewide Economic Impacts of Public Transportation and Projected Near-Term Capital Needs



Transforming Rail in Virginia

Commonwealth Transportation Board, January 14, 2020

Michael McLaughlin, Chief of Rail Transportation
Department of Rail and Public Transportation



Virginia Department of Rail and Public Transportation

12/19/2019 Virginia-CSX Announcement

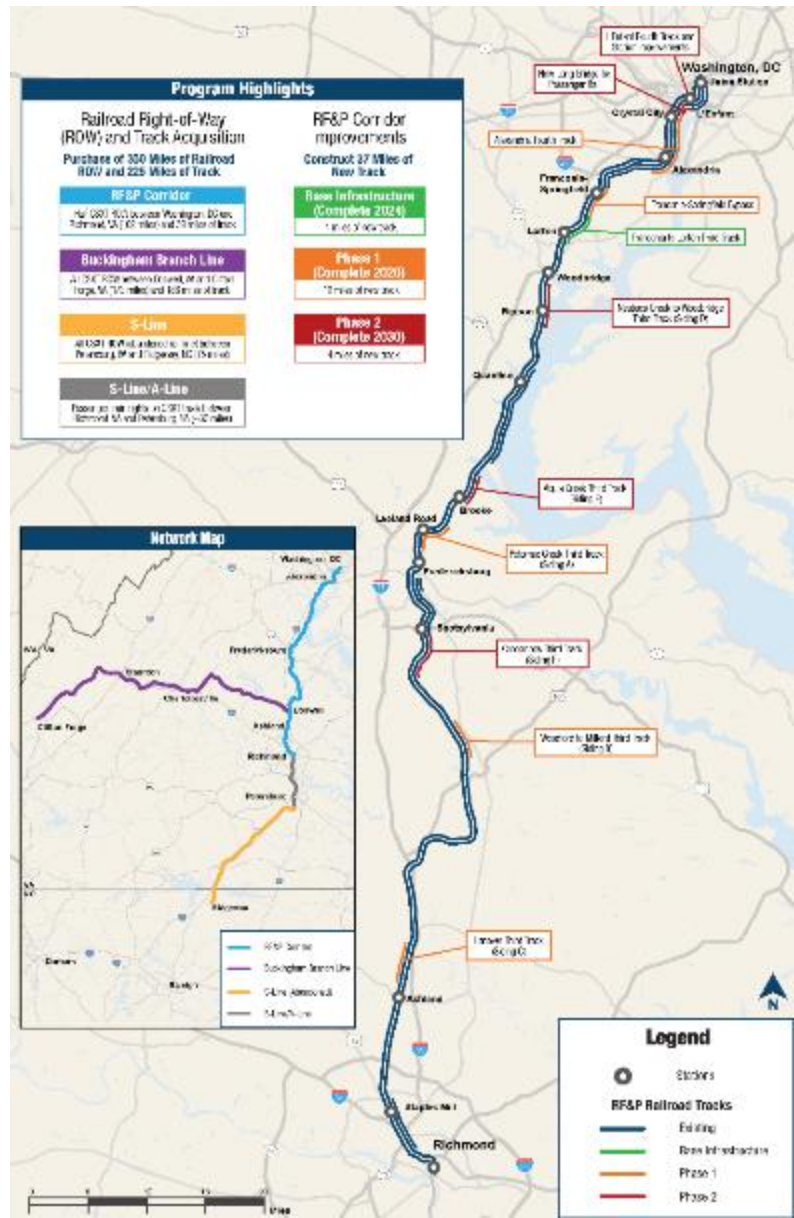
On December 19th Governor Northam and Secretary Valentine announced a **\$3.7B** landmark deal with CSX that includes purchase of over:

- **350 miles** of railroad right of way
- **225 miles** of track



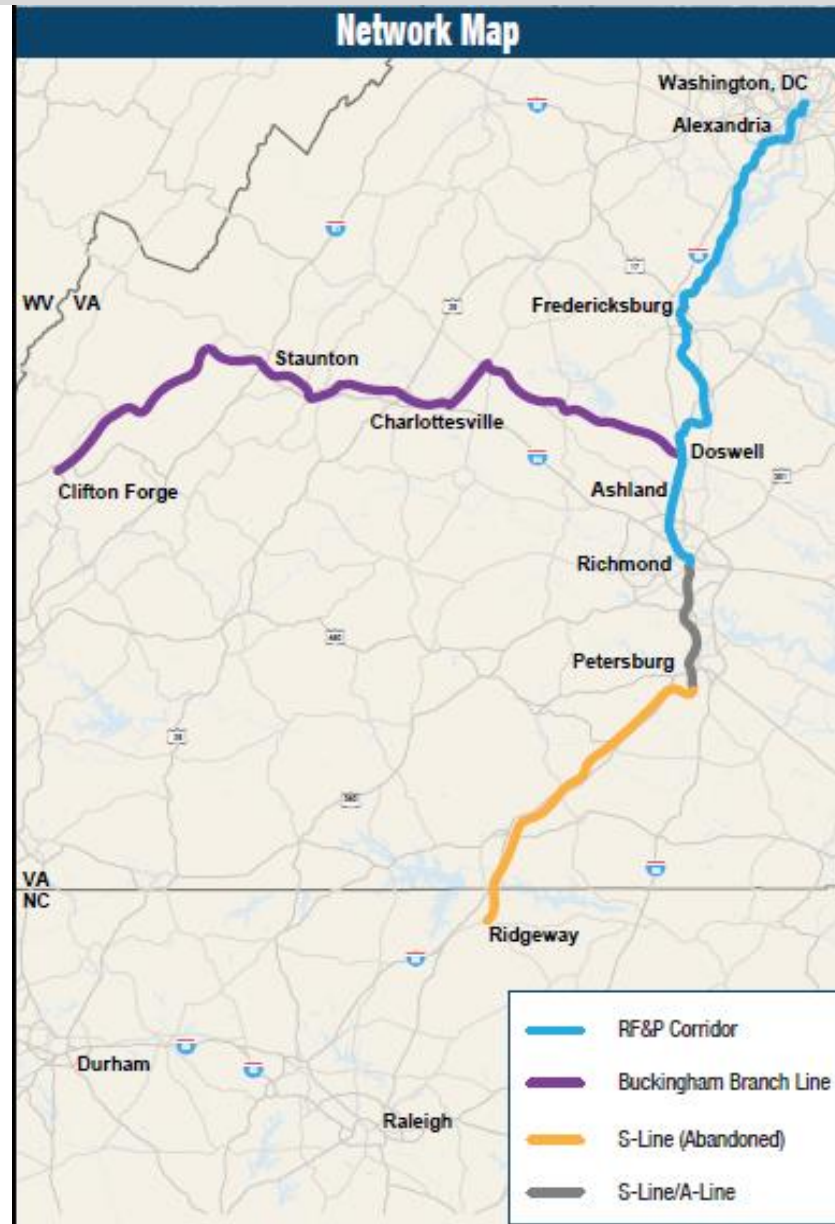
Major Features

- Acquisition of ROW, track and passenger rights from CSX
- Build-out of infrastructure in two phases
- Completion of phases will result in additional VRE / Amtrak service
- Path forward to full separation of freight and passenger service in future
- Preservation of future rail corridors



Acquisition

- 100+ miles of right of way and 39 miles of track from DC to Richmond along the “RF&P”
- 30 miles of passenger rights from Richmond to Petersburg
- 170+ miles of track on the Buckingham Branch from Doswell to Clifton Forge
- 75 miles of abandoned track from Petersburg to Ridgeway, NC



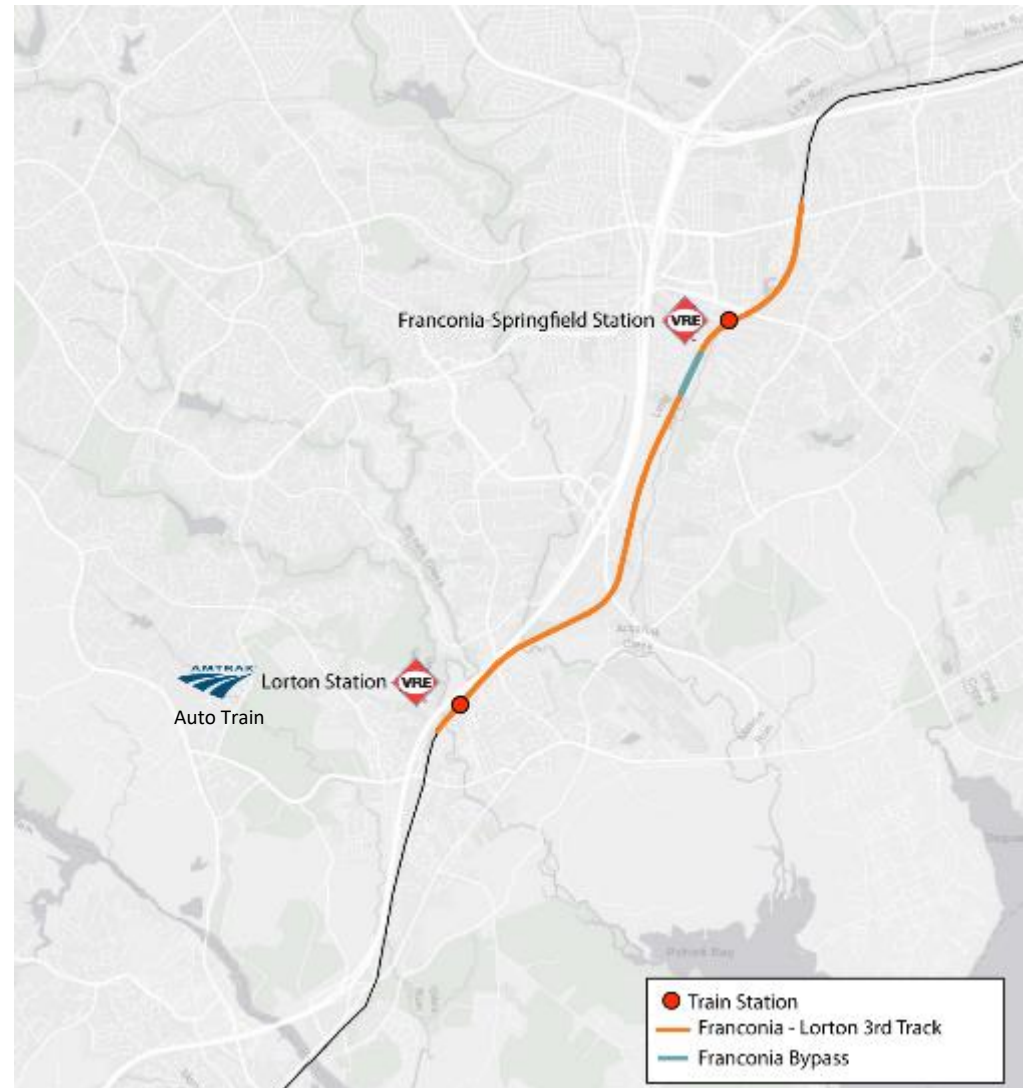
Infrastructure – Long Bridge Corridor

- Construction of Long Bridge and 4th track in DC
- 4th track in Arlington and Alexandria
- All passenger trains in VA travel through this corridor



Infrastructure – Franconia to Lorton

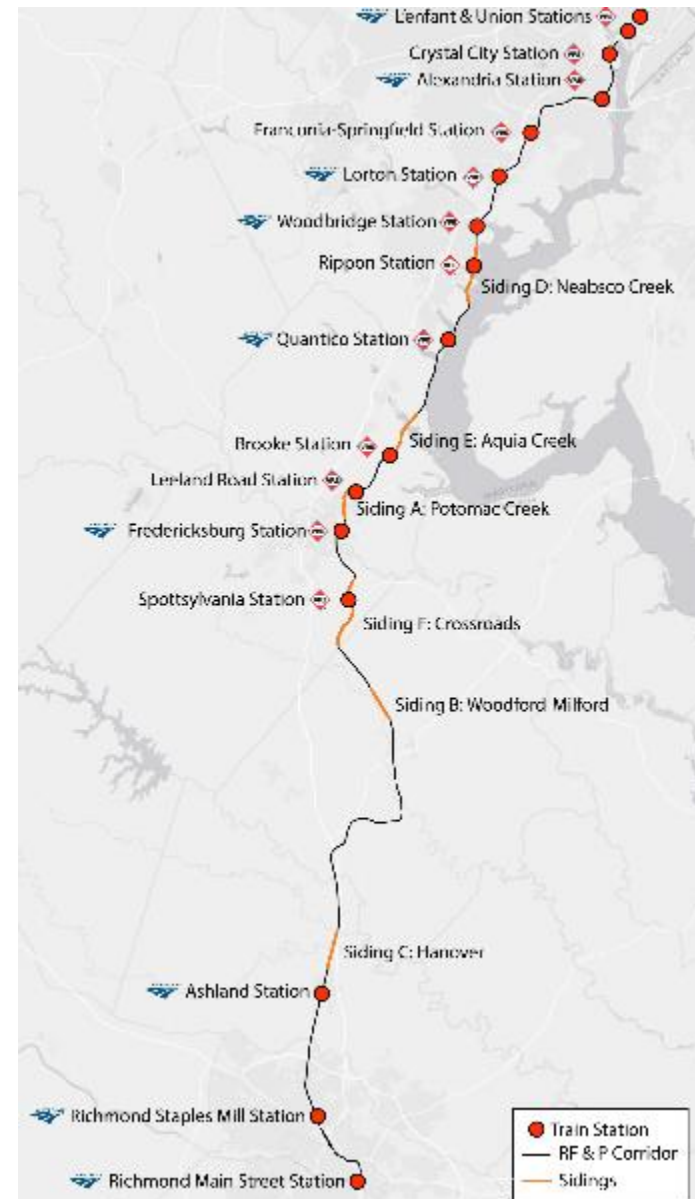
- 3rd track from Franconia to Lorton
- Franconia-Springfield Bypass



Infrastructure – Six Sidings

Sidings consist of a third track built adjacent to existing two tracks at the following locations:

- A. Potomac Creek
- B. Woodford - Milford
- C. Hanover
- D. Neabsco Creek - Woodbridge
- E. Aquia Creek
- F. Crossroads



Long Bridge

- Approximately 1.5 mile corridor includes a new two-track bridge over the Potomac and fourth track in DC
- Five additional structures over roadways and Washington Channel
- Estimated cost: \$1.9 Billion



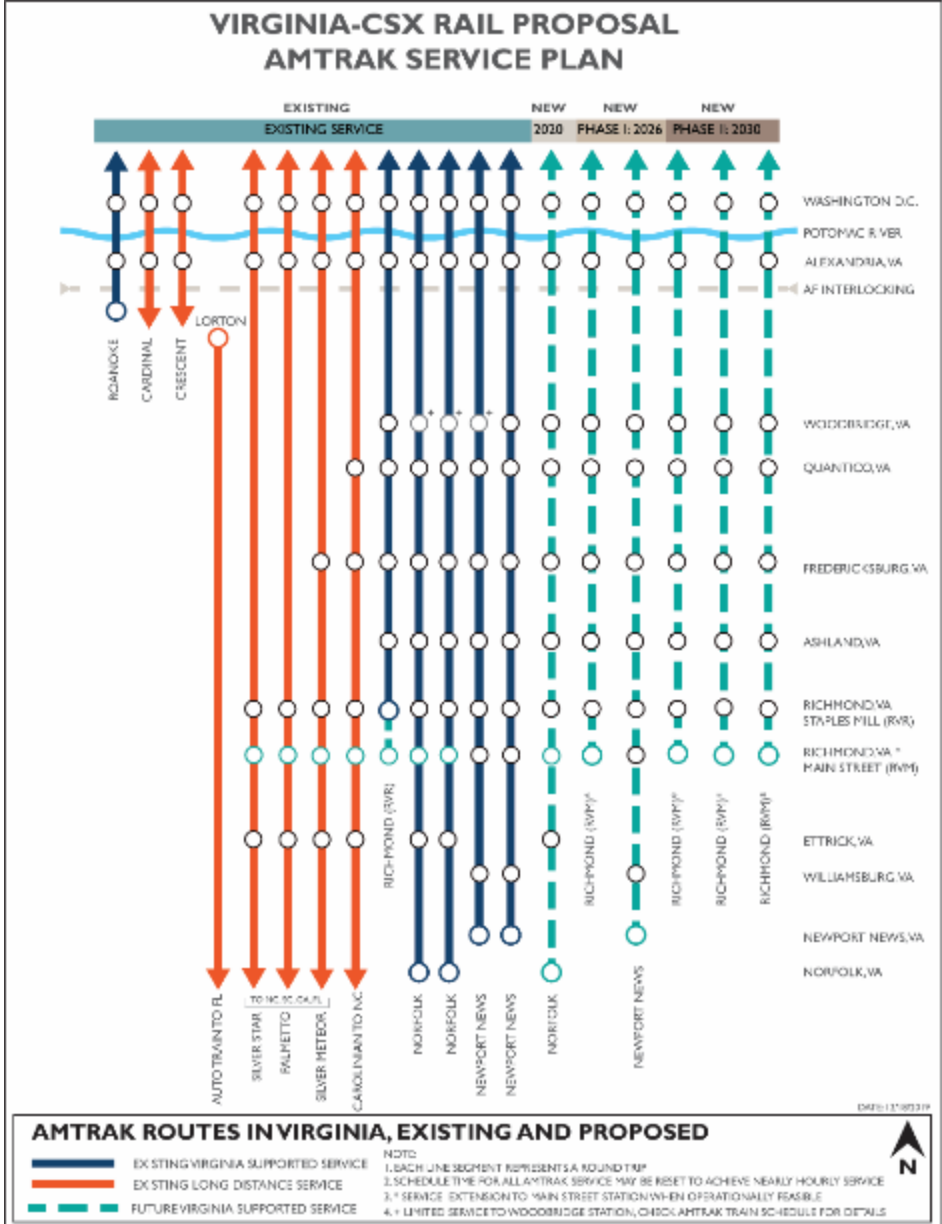
Service

- Provides Virginia with control and guaranteed VRE / Amtrak service
- Double state-supported Amtrak, with nearly hourly service from DC to Richmond
- Additional train to Norfolk with mid-day arrival/departure
- New round-trip train to Newport News
- Increase VRE service by 75% along the Fredericksburg line + new late night service offering
- Allows future ability to increase trains on the VRE Manassas Line



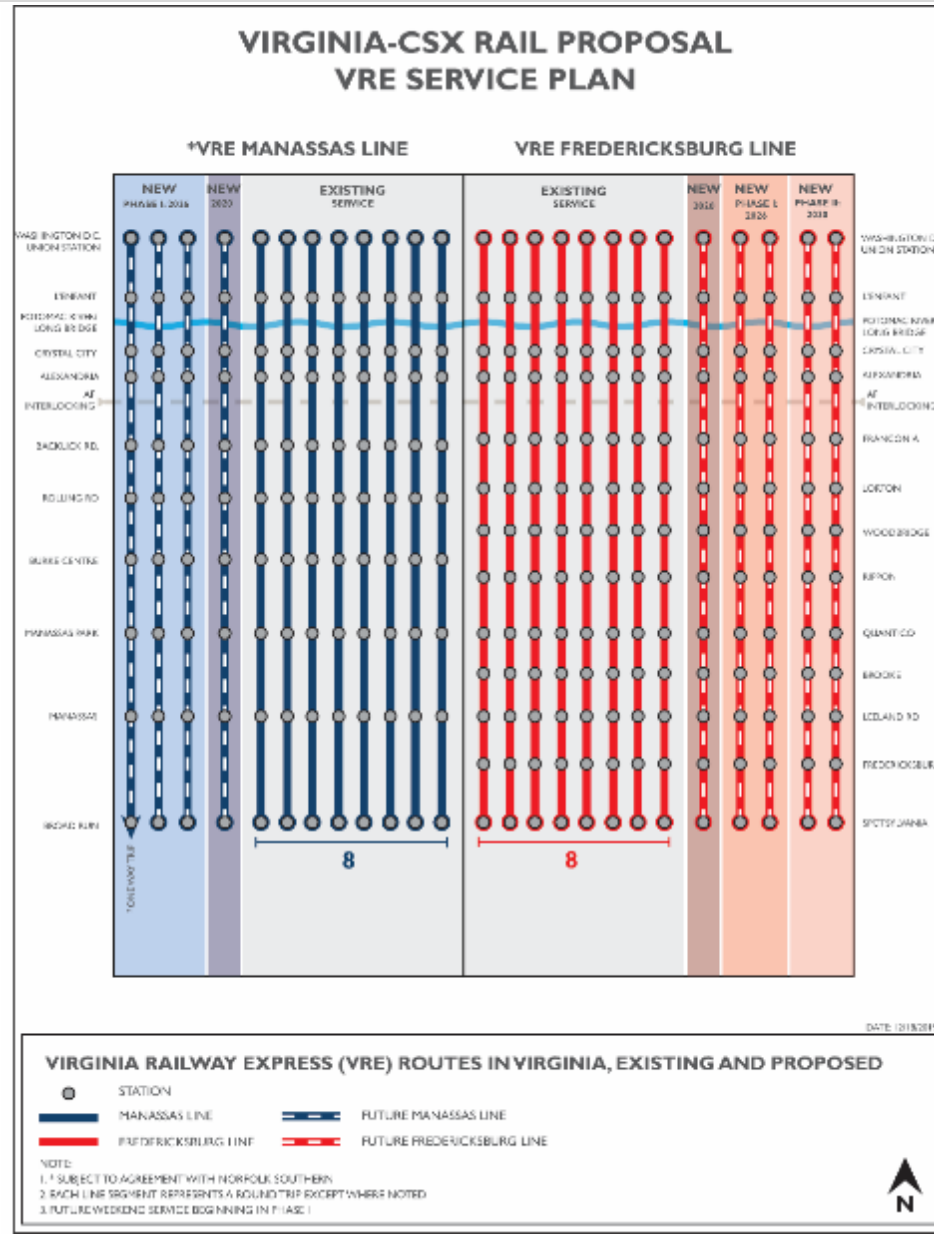
Amtrak Service Plan

- 6 additional round-trip trains connecting Virginia to the northeast by 2030



VRE Service Plan

- 5 additional round-trip VRE trains on the Fredericksburg Line by 2030
- Includes late-night & weekend service



Next Steps

- Finalize definitive agreements with CSX
 - Conduct land survey and title work necessary for agreements
 - Maintenance and operation agreement
 - Transition Agreement
- Develop service agreements with Amtrak and VRE
- Refine financial plan and secure commitments from other state, Federal and local funding partners
- Continue working with CSX and other stakeholders to advance rail projects in the corridor
 - Alexandria / Arlington 4th Track Design
 - Long Bridge Preliminary Engineering

Questions?

Michael McLaughlin

www.drpt.Virginia.gov

www.drpt.virginia.gov/rail/transforming-rail-in-virginia/



TRANSPORTATION ALTERNATIVES PROGRAM

FY21/22 Application Update

| Russ Dudley - Local Assistance Division

January 14, 2020

Program Overview

- Available funding includes Transportation Alternatives (TA), Safe Routes to Schools (SRTS), and a Recreational Trail Programs mandatory set-aside (provided to Dept of Conservation & Recreation)
- 10 eligibility categories
- Legislation provides that 50% of funds are distributed based on population and 50% can be used anywhere in state
 - Metropolitan Planning Organizations (MPOs) in Transportation Management Areas (TMAs) make selections (>200,000 population)
 - District CTB members make selections with \$9M/yr statewide funding
 - CTB At-Large /Secretary make selections with funding based on population areas under 200,000 and any statewide amount over \$9M/yr

Eligible Categories

1. **On-Road and off-road Bike/Ped facilities**
2. **Infrastructure projects that provide safe routes for non-drivers**
3. **Conversion of abandoned railway corridors into trails**
4. **Construction of turn-outs, overlooks, and viewing areas**
5. **Inventory, control, and removal of outdoor advertising**
6. **Rehabilitation of historic transportation facilities**
7. **Vegetation management practices in transportation rights-of-way**
8. **Archaeological activities related to impacts from implementation of a transportation project**
9. **Environmental mitigation of water pollution related to highway construction**
10. **Environmental mitigation focused on wildlife protection or habitat connectivity**

FY21/22 Application Summary

- **October 1, 2019 deadline**
- **Applications submitted through SMART Portal for two-year cycle**
- **128 Applications requesting ~ \$86.6M**
- **Anticipated allocations FY21/22 ~ \$ 41.2M after Rec Trails distribution; Minus \$507,925 for Donor Districts' Balance Entry**

Tentative Allocation Distribution (2 Year)

MPO/TMA Areas	\$ ~ 12.5M
District Members	\$ 18M (\$2M per District)
At-Large Members/Secretary	\$ ~ 10.2M

Application Submittal Package

- **FY21/22 Application Summaries with Scores**
- **Current CTB TAP Selection Policy**
- **List of Current Active Projects by District**
- **Safe Routes to School Information**
- **Copy of Current De-Allocation/Re-Allocation Process**
- **Central Office Local Assistance Division Staff Contact List**

CTB Project Selection Policy

- **Selected projects will receive not less than 50% of the funds requested in the application**
- **If requested amount is \$200,000 or less, the request will be fully funded if that amount completes a project**
- **Projects not under construction within four (4) years of the project's first allocations availability are subject to deallocation**

Project Scoring

Average Project Score

- **All applications have a Project Score based on:**
 - Project funding
 - Project concept
 - Project improves the transportation network
 - Sponsor's ability to administer a federal project
 - Project's readiness to proceed

Priority Ranking

- **Additional info to assess progress of existing projects**
 - Focus on projects that will use funds quickly
 - Projects reviewed based on several indicators
 - Ranking from 1 to 6
 - 1 - project ready for construction
 - 6 - initial stages of project development

District Summaries

- **Provides indication of current status (under construction, agreement pending, etc.) for all active projects**
- **Indicates each year that an allocation was provided and amount reimbursed to date**
- **Color Coded for status – Legend on last page of each District**
- **At-Large Members received all nine district summaries**

Deallocation/Reallocation Process

- All active projects reviewed for potential action based on progress
- Revised policy formally adopted by CTB – July 2013
- Policy now allows for an ongoing review and action
- Project sponsors are provided “45 day letters” as described in the Process
- With sufficient documentation, short extensions are granted (up to one-year)
- District CTB member contacted for decisions on deallocation or any further time extension beyond one year

Transportation Alternatives – Next Steps

December 2019	Validated/Scored Applications
January 14, 2020	Present TAP Update and Scores to CTB District Members/MPO for use in Selections
January 30, 2020	CTB District Member Selections to LAD / LAD Provides to MPOs
February 20, 2020	MPO Project Selections to LAD
March 17/18, 2020	CTB At-Large Member Selection Meeting
April – May 2020	SYIP Public Meetings
June 17, 2020	CTB Approval of Project Allocations



Virginia Commonwealth Transportation Board

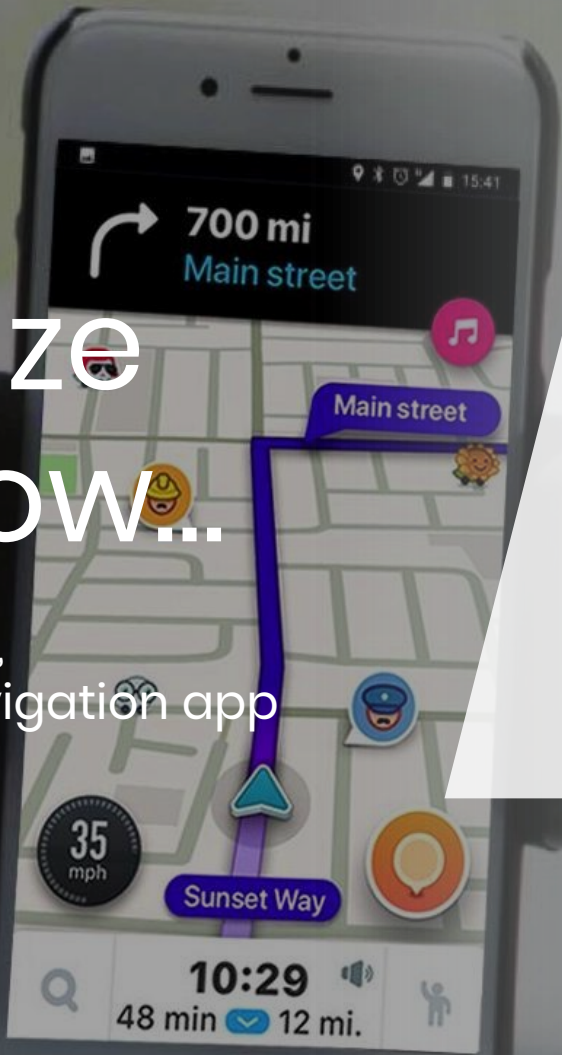
Waze for Cities & States

Your partner in mobility

January 14, 2020

The Waze You Know...

The world's largest,
crowdsourced navigation app



130M+

Monthly
Active Users

33B KM

Driven/Month

18.5M

Hazards Reports
Per Month

76K

Active
Map Editor
Volunteers

185

Countries

**Completely
free**

A photograph of two women driving in a car. The woman in the foreground has large, curly, light-brown hair and is wearing a denim vest over a white top. She is smiling broadly. The woman in the background is also smiling. The car's interior and the road ahead are visible.

The Waze You Will Know...

A mobility platform that helps people move more freely in the communities where they live & work.

1300+

Data Sharing Partners

60+

Crises Supported Annually

18

Cities Using Waze Beacons

4

Countries Carpooling with Waze

What Makes Waze Unique

We bring together users, public sector organizations, private sector companies and community members to solve mobility challenges globally. We believe the best mobility solutions come from technology empowering people to work together.



Waze's Tools for Public Agencies

We're all in this together, and we're happy to partner with cities to help them meet our shared goals. We have four programs that take some of the best of Waze and give it to cities—and are made stronger by city participation.



Data Sharing

Free, real-time data sharing to inform planning



Carpooling

Reduce CO2 emissions and congestion



Beacons

Improve safety in non-GPS environments



Crisis

Keep citizens safe and informed during incidents

Waze for Cities: Data Sharing

Waze provides public sector partners access to Waze data and allows partners to provide Waze data to be communicated directly with drivers



DATA
SHARING



CARPPOOLING



BEACONS



CRISIS

WAZE'S DATASETS INCLUDE:

- User-generated reports like traffic jams, crashes, hazards, construction, potholes, roadkill, stopped vehicles, objects on-road, and missing signs
- Waze can also provide email alerts for “unusual traffic events” helping you quickly spot & manage irregularities.

PUBLIC SECTOR PARTNERS CAN PROVIDE:

- Street closures information both (permanent and temporary changes (for construction or events))
- “Push” alerts to drivers for major events or incidents

VDOT & Waze

Data Sharing in Action



DATA
SHARING



CARPPOOLING



BEACONS



CRISIS

VDOT Data Shared with Waze

Road Closures (planned events & work zones)
Incident (construction, crashes)
Major Traffic Events

Waze Data Shared with VDOT

Incidents
Traffic Jams (Waze auto-calculates traffic jams by comparing current road conditions with historical road data.)
Hazards/construction/potholes/roadkill/missing signs
No speed data, personal data, historical data, police activity/location data

**Data-sharing partner since
2016**

511VA Website

Waze Layer



DATA SHARING



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The screenshot displays the 511VA website interface. At the top, there is a navigation bar with the VDOT logo, 'Virginia Traffic Information', and '511' branding. Below this is a menu with options like 'My 511', 'Map Views', 'Text Views', 'Resources', 'Reach the Beach', 'Northern Va. 1-85/295', 'Contact Us', and 'Help'. A left sidebar contains several sections: 'Weather', 'Traffic Alerts', 'Info', 'Legend', 'Quick Settings' (with a 'Toggle Full Screen Mode' button), 'Overlays' (with options for Road Conditions, Traffic Speeds, and Precipitation), and 'Icon Layers' (with various event categories like Road Work, Message Sign, High Priority Incidents, etc.). The main area is a map of Virginia showing road networks with various overlays. A prominent feature is the 'Waze Layer', which shows red and orange circular markers on roads, indicating reported events or incidents. The map also shows traffic speed overlays in green and yellow, and road condition indicators. The bottom right corner of the map area has a 'Waze' logo.

Unplowed Roads

VDOT suggestion has turned into a Waze global feature

- The feature will offer the Waze community of over 130 million monthly users the opportunity to be better prepared for hazardous winter weather conditions.
- VDOT plans to monitor reports coming in from Wazers, and those who are simply shoveling their driveways and sidewalks, this winter and determine how they can incorporate this data into their operations for the following winter.



DATA SHARING



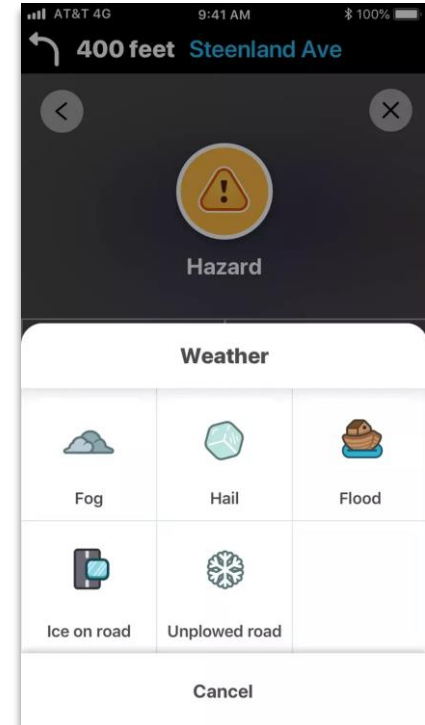
CARPPOOLING



BEACONS



CRISIS



Unplowed Roads

Feature has garnered extensive local and global press coverage



DATA
SHARING



CARPPOOLING



BEACONS



CRISIS

The Washington Post

Waze “data is free to about 1,300 government agencies that are part of the Waze for Cities Data program, Simons said. ...the work with VDOT exemplifies “what can be accomplished when we collaborate with public-sector partners to meet community needs.” - Washington Post

Mashable

Thanks to the 130 million monthly active users who crowdsource information and report it, Waze can give you all sorts of information about road hazards. Snow-related alerts now join as many as 25 other reportable hazards, including oil on the road, potholes, roadkill, missing signs, and even tornadoes.” - [Mashable](#)

engadget

“In theory, this doesn't just help you save time and stay safe. It could help cities gauge how well their snowplows clear the roads, and pinpoint parts of town that aren't receiving adequate care.” - [Engadget](#)

waze

Waze's Approach to Traffic

Routing, Carpool and Trucks



DATA
SHARING



CARPPOOLING



BEACONS



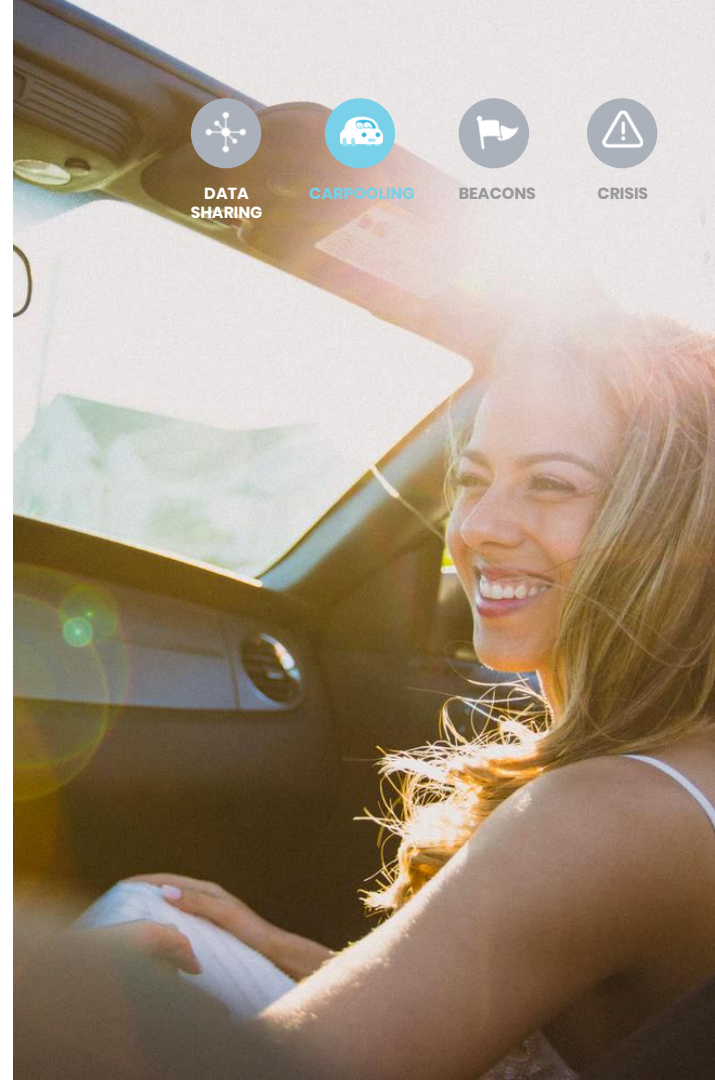
CRISIS

- **Traffic is getting worse**
 - VA statewide vehicle registrations jumped 40% from 2010–2019
 - More cars = more traffic
- **Waze works to fight traffic in two ways:**
 - The Waze navigation app tries to find open stretches of road and spreads cars across the grid of public streets
 - Waze Carpool tries to make it easier for people to fill up empty seats in their car and take unnecessary cars off the road
- Waze strives to **reflect current policies and limitations** as accurately as possible.
- Waze was **created for use with personal vehicles**, and expanded to offer navigation tools for motorcycles and taxis. We **do not currently support truck routing**, public transit or bicycles.

Waze Carpool

Peer-to-peer carpooling - no private drivers - is becoming reality in cities through our easy-to-use app, promoting:

- Reduced congestion
- Time savings in the HOV/HOT lanes
- Happier & more affordable commutes
- Greater mobility access for residents



Waze Carpool makes sharing a trip easy, safe and fun



DATA SHARING



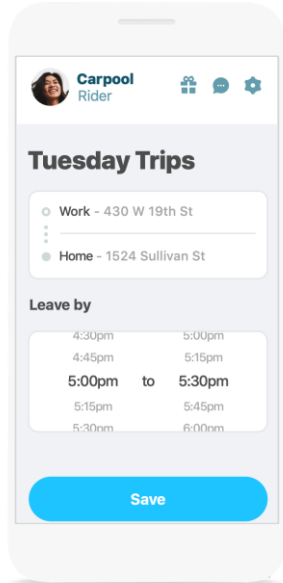
CARPOOLING



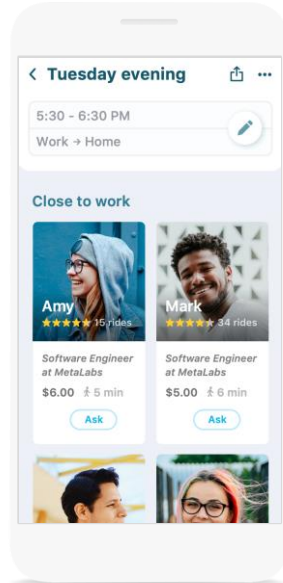
BEACONS



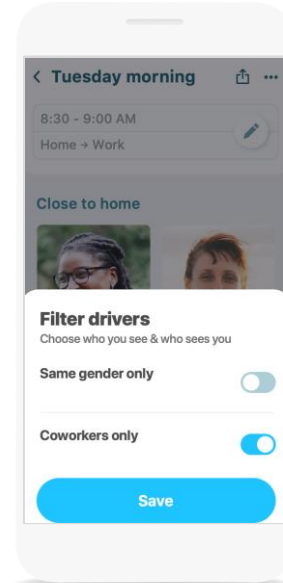
CRISIS



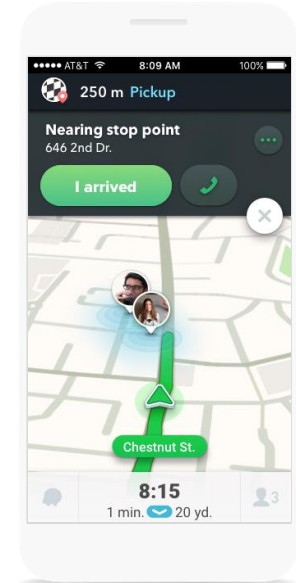
Easy onboarding.
Customize your schedule daily or weekly



Algorithm automatically matches drives & riders on or near route

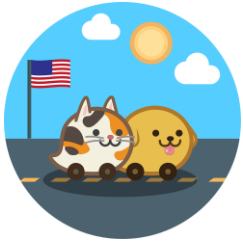


Safety first: get to know carpoolers, filter by same gender or coworkers only



Most efficient route using Waze technology

Waze Carpool is making inroads



25,000,000

miles shared by Waze Carpoolers in the USA



710,000

monthly global Carpool rides



150,000

trees would need to grow for 10 years to remove the same amount of CO₂



DATA SHARING



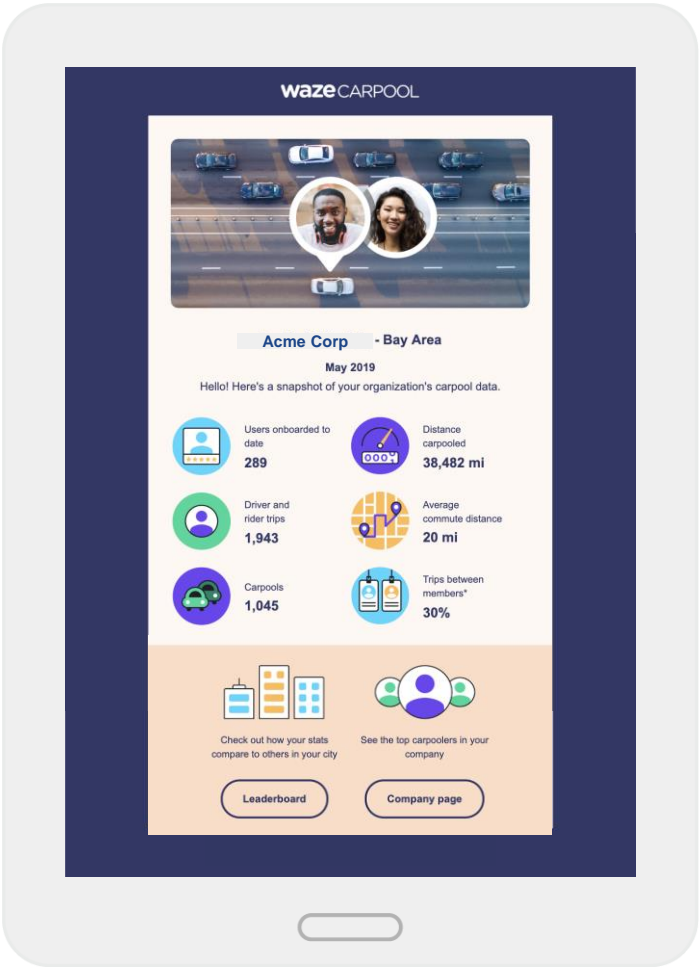
CARPPOOLING



BEACONS



CRISIS



Waze Carpool helps agencies track TDM goals

Looking Ahead

Waze 2020 Priorities of note for the CTB



DATA
SHARING



CARPPOOLING



BEACONS



CRISIS

- Help make our data sharing program easier to use and more useful
 - Improving our online education and community support for our Waze for Cities partners
- Help our public partners make map edits they need, when the need them
 - Deepening ties between our Waze for Cities partners and our local map editors
- Increase the amount of useful information we provide to Wazers
 - Engaging our Waze for Cities partners to keep sharing their closures, major traffic events and hazards with us
- Continue to grow Carpool to help fight traffic
 - Working with our Waze for Cities partner to spread the word about Carpool and align with existing transportation demand management programs

waze

Thank you!

Stay in touch!

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203-980-8820

waze.com/wazeforcities



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

**Proposed Changes to SMART SCALE
Policies and Methods - Round 4**

January 2019





Summary of Proposed Policy Changes



- Timeline and schedule
 - 1 month pre-app intake
 - Pre app caps - 4+1 and 10+2
- Project eligibility
 - Transit maintenance facility must include capacity/service expansion
 - Prohibit systemwide projects
- Project Readiness
 - Adaptive signal control projects must include corridor study or operational analysis
 - Major Transit Investments - BRT/Light Rail
 - require planning study that shows alternatives considered
 - inclusion in agency's Transit Strategic/Development Plan

Fall Meeting Public Feedback

- Much of the feedback was in response to proposed changes to Land Use (setting L1 to 0% of the score and adjusting the Land Use weight in Area Type A from 20% to 15%)
- Next most common comment was that we should not adjust the Safety categories to a split of S1 at 70% and S2 at 30%
- Several comments regarding the complexity of SMART SCALE and asking us to look for ways to simplify the application and scoring processes
- We will provide full summary of comments to the Board related to proposed changes in February



**SMART
SCALE**

*Funding the Right
Transportation Projects
in Virginia*

Project Evaluation and Scoring

Environment

Resource Impact Measure



- Problem: treating measure as a benefit
- Significant potential impact = 0 and No impact = 100
- After lessons of Round 1 - potential impact was then scaled by points in all other measures
- Results can be counter intuitive - if you do not consider \$
- Example - HRBT, which had the second-highest total impact to sensitive resources received the greatest number of points for this measure due to high benefit score

No Changes from December

Environment - Recommendation for Round 4

- 1) Convert E1 to subtractive measure (subtracting up to 5 points at end of scoring)
- 2) E2 (Air Quality Energy) measure weight changed to 100%

Congestion



- Feedback - concern that current methods do not account for congestion on both weekdays and weekends
- Implement method to better account for peak period congestion throughout entire week (weekdays and weekends)
- Datasource: INRIX dataset
- ***During December Board meeting we committed to providing more details on this modified approach (next 5 slides)***

Congestion- Recommendation for Round 4

- 1) Implement method to better account for peak period congestion throughout entire week (weekdays and weekends)

Congestion

Peak Period Expansion Factor



- Common traffic analysis methods are based on peak hour analysis
- Since peak congestion can extend beyond peak hour SMART SCALE policy requires congestion benefits to be calculated for peak period
- Peak Period Expansion Factor (PPEF) is a value used by the SMART SCALE team to convert estimated peak hour delay and throughput benefits to peak period benefits
- ***PPEF can be thought of as average congestion duration*** - a value of 1.75 would mean facility is congestion 1 hour and 45 minutes

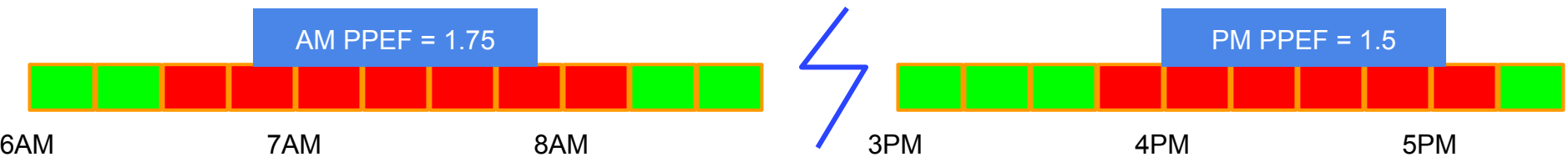
Congestion

Current Peak Period Expansion Factor



- INRIX is datasource used by Commonwealth for various purposes:
 - Travel time Variable Message Signs on Interstates
 - VTrans congestion and reliability needs
 - Calculation of PPEF for SMART SCALE
- Travel Time Index (TTI) is used to calculate PPEF
- TTI is the ratio of the congested travel time to the free flow travel time
- Using 15-minute increments the TTI data is averaged Mon-Fri from 6AM to 9PM

MONDAY - FRIDAY (Typical Work Week)



Congestion

Proposed Peak Period Expansion Factor



- Proposed method nearly identical to previous method
- **Main difference** - Base calculation on ***Mon-Sun (include Sat and Sun) from 6AM to 9PM*** is calculated
- PPEF for facilities that experience weekend congestion would likely increase
- Anticipate this change will result in following:
 - Congested during work week and weekend - PPEF increase/decrease
 - Congested only on weekend - PPEF increase
 - Congested during work week but no congestion on weekend - PPEF decrease

- SMART SCALE team has been working on the following areas related to safety
 - Targeted Crash Modification Factors (CMFs)
 - Weighting of S1 (crash frequency) versus S2 (crash rate) - currently 50/50
 - Recommend changing weight to 70/30
 - Supports Board targets to reduce fatal and severe injury crashes and policy changes related to HSIP program

Safety - Recommendations for Round 4

- 1) For certain project types a targeted CMF will be used
- 2) 70/30 split in weighting - more weight to reduction in crash frequency
- ~~3) Area Type A - Increase safety weight from 5% to 10%~~

Change since
12/10/19

Economic Development Sites



- Floor Area Ratio (FAR) assumptions for zoned-only properties can be problematic
- Large industrial tracks (250+ acres) with assumed FARs of 1
 - 250 acre would equate to 10,890,000 sq ft building
 - Boeing Everett Factory - 4.28M sqft
- Several tracts with assumed FARs of 5.0 or higher
- Applicants provided documentation of local ordinances allowing FAR value used - just because it is allowed does not mean it is likely

Economic Development - Recommendation for Round 4

- 1) FAR for zoned only properties capped at 0.3 unless applicant can prove average FAR around project is higher or minimum FAR in local zoning ordinance is higher than 0.3
- 2) Incorporate VEDP Business Ready Sites into site weighting process

Economic Development Sites: VEDP Business Ready Sites



Current weighting process

- Development square footage scaled by up to 5 points:
 - 0.5 points if proposed project is specifically referenced in comprehensive or development plan, and
 - Up to 0.5 points based on level of economic distress**PLUS**
 - .5 points for Conceptual Site Plan Submitted, or
 - 1 point for Conceptual Site Plan Approved, or
 - 2 points for Detailed Site Plan Submitted, or
 - 4 points for Detailed Site Plan Approved

Economic Development Sites: VEDP Business Ready Sites



Proposed weighting process (changes in orange)

- Development square footage scaled by up to 5 points:
 - 0.5 point if proposed project is specifically referenced in comprehensive or development plan, and
 - Up to 0.5 point based on level of economic distress
PLUS
 - **.5 points** for Conceptual Site Plan Submitted, or
 - **0.5 point** for Conceptual Site Plan Approved, or
 - **1 points** for Detailed Site Plan Submitted, or
 - **2 points** for Detailed Site Plan Approved
PLUS
 - **1 point** for redevelopment of existing site (existing building vacant or abandoned)
PLUS
 - 0.25 points for VEDP Tier 3 sites
 - 0.5 points for VEDP Tier 4 site, or
 - 1 point for VEDP Tier 5 site

Change since
12/10/19

- L1 multiplies non-work accessibility by future density; existing dense areas do well in this measure but emerging areas may not due to lack of current non-work destinations
- L2 multiplies non-work accessibility by the *change* in population and employment; areas that do well in L1 also tend to perform well in L2
- Current weighting has L1 at 70% and L2 at 30% - recommend even weight for both measures (50/50)

Land Use - Recommendations for Round 4

- ~~1) Drop L1 measure and give 100% of weight to L2~~
- 1) Modify current weighting of L1 and L2 from 70/30 to 50/50
- ~~2) Area Type A Land Use weight changed from 20% to 15%~~
- ~~3) Area Type A Safety weight changed from 5% to 10%~~

Change since
12/10/19

Other Minor Changes

- Area Types
 - Fredericksburg Area Metropolitan Planning Organization (FAMPO) has formally passed resolution to request change in Area Type from A to B
 - New River Valley Regional Commission (NRVRC) has expressed desire to change Area Type from C to D - formal resolution has not been received to-date
- Policy resolution in February will clean up and clarify existing policy - example: formalize policy for project cancellation



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Thank you





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**2019 VTrans Vision, Goals, Objectives, Guiding Principles
2019 Mid-term Needs Identification Methodology**

Commonwealth Transportation Board

Nick Donohue, Director, Office of Intermodal Planning and Investment
Jitender Ramchandani, AICP, PMP

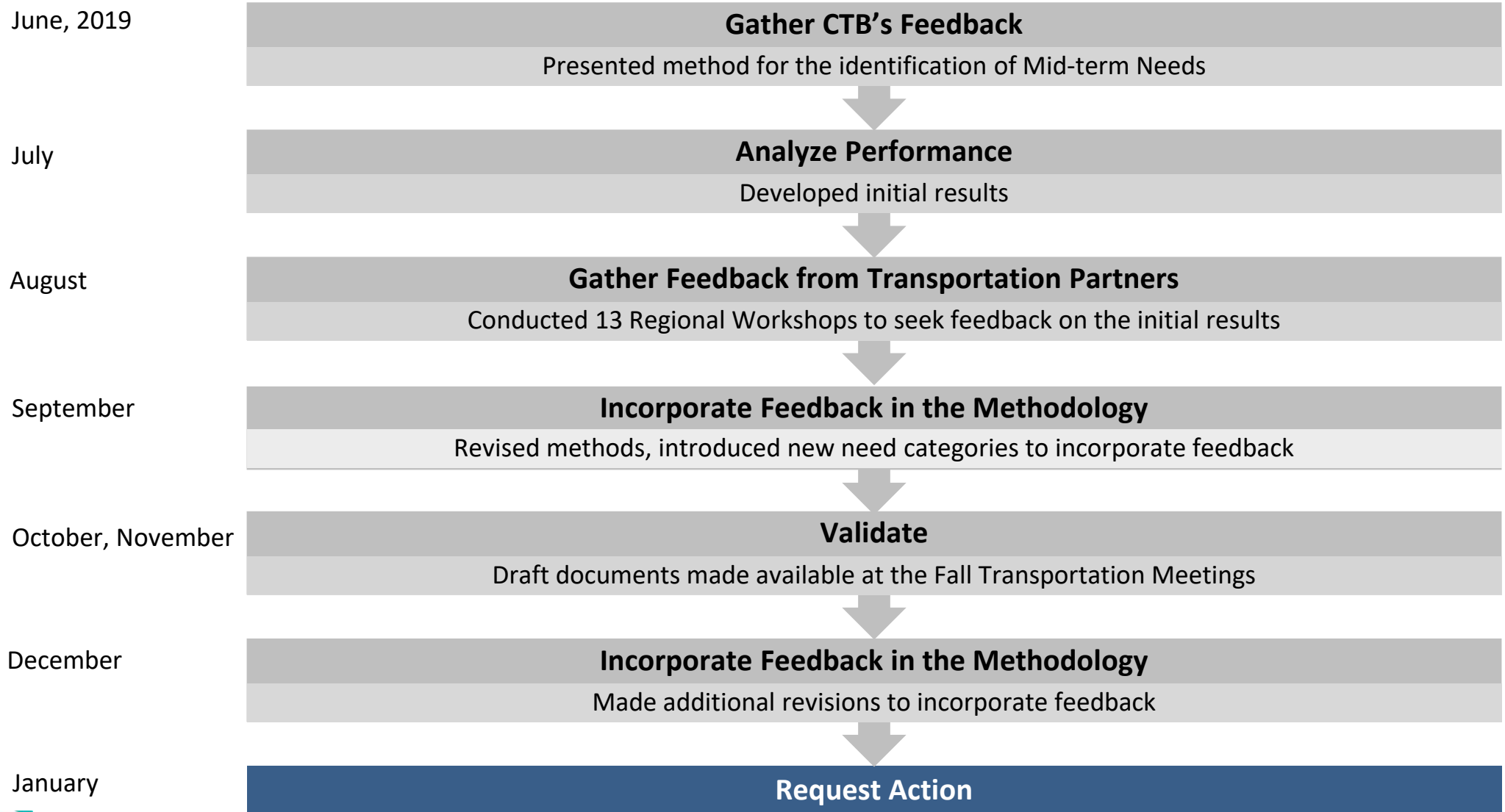
January 15, 2020



PRIMARY PURPOSE

- Request for Board Action
 - VTrans Vision, Goals, Objectives, and Guiding Principles
 - 2019 VTrans Mid-term Needs Identification Methodology

VTRANS MID-TERM NEEDS – TIMELINE



REQUESTED BOARD ACTIONS

1. Approval of **VTrans Vision, Goals, Objectives, and Guiding Principles**
2. Approval of **Methodology used to develop the 2019 VTrans Mid-term Needs**
3. Inclusion of **Route 288 as a component of North Carolina to Washington Corridor of Statewide Significance**
4. Acceptance of the **2019 VTrans Mid-term Needs**

REQUESTED BOARD ACTIONS *(CONT.)*

- Resolution also directs staff to:
 1. **Develop a VTrans Action Plan** that prioritizes the identified 2019 Mid-term Needs and includes recommendations for such prioritized needs
 2. **Modify the 2019 Mid-term Needs** to reflect changes in the transportation system that have taken place since the data used in the 2019 Mid-term Needs were developed
 3. **Review and provide recommendations to the modify the Board action**, entitled *Action to Approve the VTrans Multimodal Transportation Plan Needs Recommendations Methodology and Recommendations by the Commonwealth Transportation Board*, taken on January 10, 2018
 4. **Develop scenarios to assess the impacts of divergent futures trends** and conduct an assessment of vulnerability of the transportation network, local communities, and regions from flooding and sea-level rise



VTRANS | VIRGINIA'S
TRANSPORTATION PLAN



COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

1401 East Broad Street
Richmond, Virginia 23219

(804) 786-2701
Fax: (804) 786-2940

COMMONWEALTH TRANSPORTATION BOARD WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

January 14, 2020
10:00 a.m.

11. Governor's Omnibus Transportation Bill
Nick Donohue, Deputy Secretary of Transportation

This presentation is currently unavailable.

###



COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

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Chairperson

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**COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA**

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

January 14, 2020
10:00 a.m.

12. Director's Items
Jennifer Mitchell, Virginia Department of Rail & Public Transportation

This item does not have a presentation associated with it.
#



COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

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**COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA**

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

January 14, 2020
10:00 a.m.

13. Commissioner's Items
Stephen Brich, Virginia Department of Transportation

This item does not have a presentation associated with it.

###



COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

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Chairperson

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COMMONWEALTH TRANSPORTATION BOARD WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

January 14, 2020
10:00 a.m.

14. Secretary's Items
Shannon Valentine, Secretary of Transportation

This item does not have a presentation associated with it.

###