

#### **PWC Neighborhood Services Conference**

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# **Overview: VDOT's primary Function**

The Virginia Department of Transportation is responsible for building, maintaining operating the state's roads, bridges and tunnels.

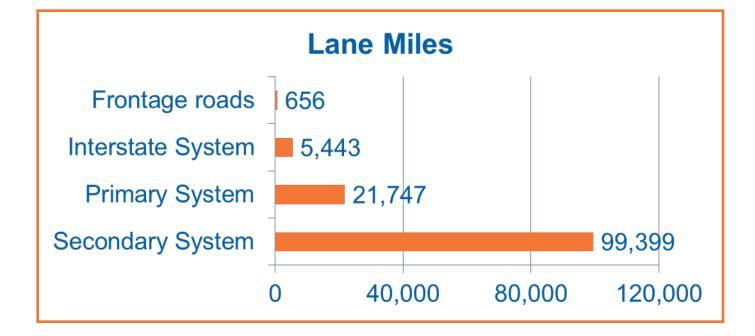
Through CTB, VDOT provides funding for airports, seaports, rail and public transportation.

Virginia has the third-largest state-maintained highway system in the country, behind Texas and North Carolina.

VDOT is responsible for managing more than 57,000 centerline miles.

Most other states have limited or no involvement in "local" roads.

### **Overview: VDOT's Road Network**



# **Overview: Organization of VDOT**

#### **Central Office**

provides Policy and Oversight for State-wide programs

#### **9 District Offices**

• provides coordination for project development, construction, and coordination of land development activities

#### **29 Residency Offices**

- responsible for 1 to 5 counties
- Serve as primary contact for BOS
- oversee AHQ

#### **183 Area headquarters**

• at least one per County

#### **NOVA District**

- Fairfax, Arlington, Loudoun, & Prince William Counties
- Urban district, Residency functions are combined within the District Office
- Transportation and Land Use directors and Assistants serve as Liaison to Localities and elected officials.



# Project Development: County and VDOT Partnership

### **County BOS:**

- Identifies new projects
- Establishes project priorities
- Help determines funding options to pursue



#### VDOT:

- Facilitates project delivery for VDOT or coordinates locally administered projects
- Ensures adequate funding is available and estimates are updated prior to work beginning
- Future Maintenance activities

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# Project Development: Six-Year Improvement Program (SYIP)

The Six-Year Improvement Program outlines planned funding for transportation projects proposed for construction development for the next six years.

The SYIP is updated annually and approved by the CTB typically in June.

Projects are selected based on a prioritization process based on HB-2.

## Life Cycle of a Candidate Project

How it's planned.

OT

### How it's scored.

#### How it's funded.



# How it's planned.

VTRANS 2040 serves two functions, and produces two independent, but connected documents.

The VTRANS 2040 Vision Document.

The VTRANS 2040 Multimodal Transportation Plan (VMTP)

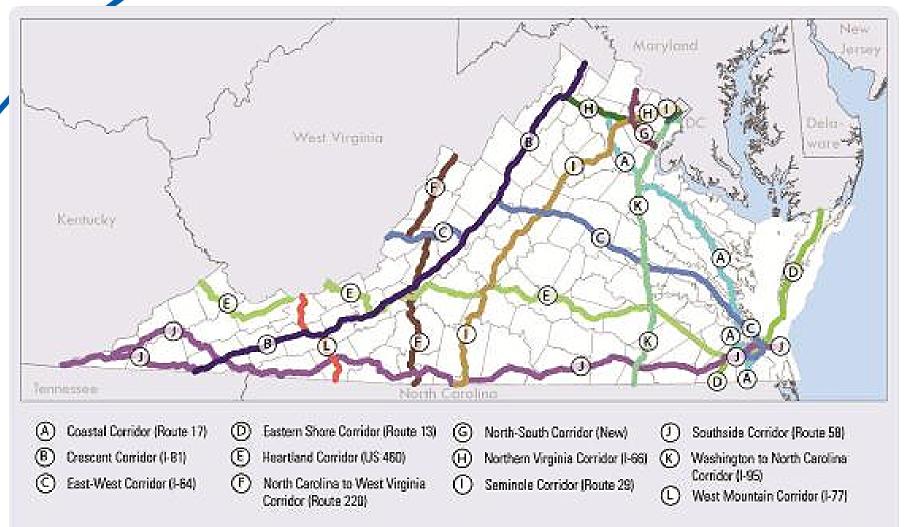
The policy and recommendations of the plan will focus on: corridors of statewide significance, identified regional networks, local designated growth areas and safety.



# **Corridors of Statewide Significance**

- Approved by the CTB
- Demonstrate the following characteristics:
  - Multiple modes and/or an extended freight corridor
  - Connection among regions, states and/or major activity centers
  - High volume of travel
  - Unique statewide function and/or fulfillment of statewide goal
- Includes parallel/connecting facilities, rail lines, ports, airports, etc (not just the Interstates)

# Virginia CoSSs



# **Regional Networks**

### Defined as:

DOT

- Jurisdictions that are included either in whole or in part within MPO Planning Area Boundaries
- Any additional element of the transportation system that is connected to the MPO area and deemed critical to the MPO

# **Urban Development Areas**

Areas voluntarily designated by local governments as prime areas for future economic growth

- Must reflect transportationefficient land use principles including:
  - Mixed-use land use
  - Interconnected streets
  - Moderately compact growth





Neighborhood Street The Neighborhood Street is a major local street intended for use where the predominant character is residential. This street is used to connect residential neighborhoods.

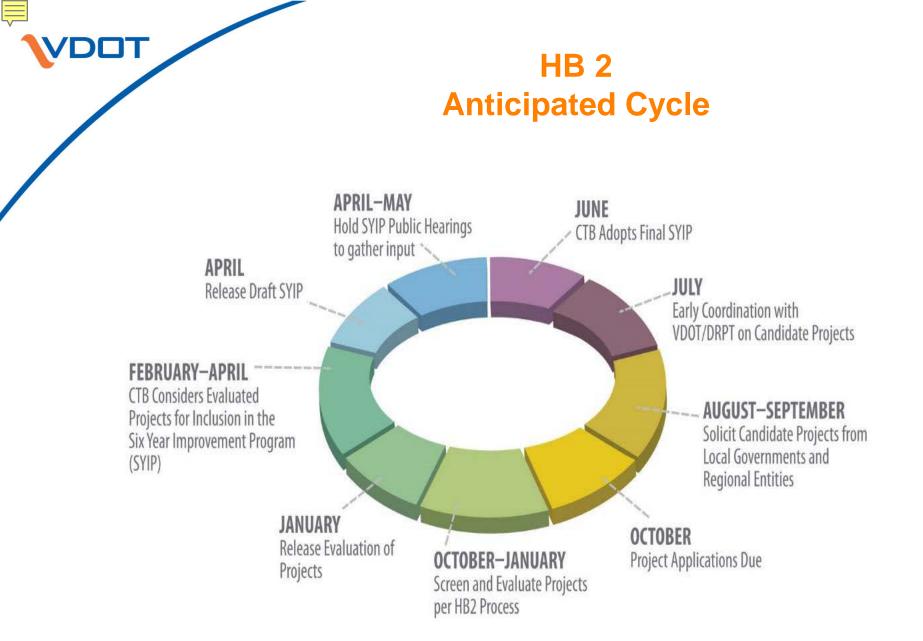


# **Project Development: HB 2**

- House Bill 2 (HB 2) is a new state law that requires the CTB to develop and implement a process for prioritizing projects
- Some types of projects and funding are exempt from HB 2
  - Congestion Mitigation and Air Quality
  - Highway Safety Improvement Program
  - Transportation Alternatives
  - Revenue Sharing
  - Secondary/Urban Formula Funds
  - Regional funds for NOVA, Hampton Roads



 Projects not exempt will follow prescribed process to determine eligibility for funding and ultimate rating as compared to other projects submitted.



### **Project Development: Project Milestones**

- Planning Phase typically at request from locality
- Scoping Phase project team established, survey, initiates environmental review process
- **Preliminary Design Phase** design of road, bridge, traffic controls, NEPA, public involvement, etc.
- **Detailed Design Phase** design of road, bridge, traffic controls, landscaping, right of way and utility needs, E&S control and hydraulic plans, utility design, UFI, constructability review, work zone review, authorizing R/W total takes, FI
- Final Design and Right of Way Acquisition Phase finalizing all design features, obtaining environmental permits, UFI, authorizing right of way and utilities (partial takes)
- Advertisement Phase finalizing plans, specifications, estimates, bidability review, securing environmental and R/W certifications, verifying funding, getting environmental permits
- Construction Phase contactor bid, VDOT selects the lowest qualified bidder; VDOT provides oversight, inspections before accepting completed project. Inclement weather, late delivery of materials, unforeseen conditions may impact



### **Programs: Funding programs**

Airport Access Program – for licensed public use airports; max \$500K

- Economic Development Access Program initiated by locality; must meet set of requirements;
- Federal Lands Access Program administered by Eastern Federal Lands; focused on improving roads that access to, are adjacent to or are located within federal lands;
- Highway Safety Improvements Program (HSIP) is focused on reduction of fatalities and severe crashes. VDOT developed highway Safety Program; Bicycle and Pedestrian Safety program and Highway-Rail Grade crossing program;
- **Recreational Access Program** funding limits per road or bike access apply
- **Revenue Sharing Program** initiated by locality by resolution; focus to provide additional funding to locality for construction /reconstruction or maintenance of roads within the locality. Local funds are matched with state funds; statutory limits apply on the state amounts authorized per locality.
- **Transportation Alternatives Program** now includes Safe Routes to School Program and Recreational Trails Program – focus on pedestrians and bicyclists



### **Programs: Access Programs**

**Program Facts:** 

Provides funding to upgrade existing roads or construct new roads serving new or expanding economic development sites

Locality applies for funds and CTB approves project specific allocations; Application based VDOT

## **Programs: Revenue Sharing Program**

**Program Facts:** 

50/50 matching program

Open to Counties, Cities and Towns in Urban System

Program allocation up to \$200 million

Maximum allocation of \$10 million per locality

Application based



## Programs: Transportation Alternatives Program

#### **Program Facts:**

Intended to improve non-motorized transportation, enhance the public's travel experience, revitalize communities and improve the quality of life.

Application based

Scored based on varying parameters.

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# **Project Development: Locally Administered Projects (LAP)**

Locally administered projects account for approx. 20% of total SYP construction dollars and approx. 36% of total construction projects

VDOT supports localities by:

- Project Coordination
- Local Program Workshops
- Compliance Assessment
- Focus on timely use of funds

**Project Development: Unpaved Road Program** 

When the secondary system of highways was established in 1932, VDOT accepted nearly 34,000 miles of unpaved roads.

Today, our unpaved road inventory is about 7,700 miles thanks to the efforts to pave these roads.

CTB formula provides funds for unpaved roads

Distribution is based on ratio of miles of eligible unpaved roads with traffic count over 50 vpd.

### **Paving a Gravel Road**

#### **Rural Rustic Road Program**

#### Pave in Place Program

Suitable for roads with traffic below 750 vpd; Minor improvements needed within existing right of way Result is 18' pavement width with 2'wide shoulders

#### **Traditional Reconstruction**

Suitable where right of way and improvements to road geometrics are needed

Minimum 40' right of way plus easements as needed;

Donated right of way frees funds for construct

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# **Programs: Rural Rustic Road Program**

Is initiated by County by resolution to declare the candidate road a Rural Rustic Road;

Program goals are to leave trees, vegetation, side slopes and drainage undisturbed as much as possible without compromising public safety.

941 projects (856 miles) were completed since program began in 2003

Candidate road have meet criteria such as:

- Located in low density development areas
- Carries traffic volume less than 1500 vpd
- Existing road has minimal safety issues

#### http://www.virginiadot.org/business/local-assistanceprograms.asp

## **High Volume Unpaved Road Program**

Set aside from CTB formula unpaved road funds to provide supplemental funding for providing a hard surface on high volume unpaved roads

Application based for funding on annual basis for roads carrying over 500 vpd, with max request of \$300K per locality per year

#### Applications are prioritized based on criteria:

- Higher volume roads
- Engineering completed and R/W need was secured
- Construction will begin within 6 months
- Additional local funds allocated
- Project addresses identified safety issues
- Direct access to schools/community/public service facilities

### Land Development: Access Management

Roads are a critical public resource and a major investment of the public's money.

Land development is regulated by legislation, regulations and standards in an effort to balance the right of property owners to reasonable access to the highway with the right of users of the highway to mobility, safety and efficient expenditure of public funds.

Land development proposals are subject to Access Management that focuses on location, spacing and operation of entrances, street intersections, median openings and traffic signals.

Additions of new entrances, intersections and traffic signals to the road create new conflict points where vehicles slow down increasing congestion and potential concerns.

More info on Access Management is located at: www.virginiadot.org/projects/accessmgt

### Land Development: Plans, TIA's

VDOT works with local jurisdictions to review rezoning applications, subdivision plans, construction plans and site plans to evaluate traffic impacts and to identify and recommend needed roadway improvements.

Existing transportation needs exceed available funding, and VDOT's limited resources cannot be relied upon to correct/improve transportation issues created by new developments.

Chapter 527 of the 2006 Acts of General Assembly resulted in a requirement for Traffic Impact Analysis (TIA) to be submitted for VDOT review as well as submissions from localities of Comprehensive Plan Amendments and Rezoning's.

VDOT's review of development applications/plans and TIA's focus on determination if the proposed designs are adequate to accommodate the traffic generated by the proposed site. The TIA's must analyze a forecast of traffic impacts into future years and describe how the site will be served by the existing and future roadway network.

### Land Development: Land Use Permits

VDOT is responsible for regulating the location, design, construction and maintenance of street and driveway connections to the State Highway System.

VDOT's obligation is to protect of the transportation infrastructure, economy of maintenance, preservation of proper drainage, safe and efficient movement of vehicles and pedestrians thereon.

Anyone planning any activity or work within the right of way under VDOT's jurisdiction must first obtain a land use permit.

Land use permit is also required for an existing entrance to a site that is being modified due to change in land use, traffic type and volume.

Permits and subsequent inspection ensures the work done in the right of way meets VDOT standards and policies, complies with highway regulations, preserves the integrity and functionality of the highway, and provides for the safety of the traveling public.

### Maintenance

Based on needs, budgets are developed and distributed based on the quantity and cost of work needed to preserve, maintain and operate at a target condition for roadway assets.

Allocations distributed to Districts, Residencies, & AHQ

Roadway – pavement, shoulders, bridges, tunnels, drainage
Roadside – vegetation, drainage, barriers
Traffic and Safety – guardrail, signs, markings, signals, lighting
Emergency Response – snow and ice removal, incident response
Facilities, Equipment, other services – Rest Areas, ferries, equipment, administration

### **Maintenance: Activities**

**Ordinary Maintenance** - work that preserves the roadway assets, corrects minor defects and extends the life of the asset;

**Planned Preventive Maintenance** – planned activity done prior to need of repair; not based on the condition of asset, cyclical, does not add to the capacity of the asset;

**Repair/Corrective Maintenance** – work required to return damaged asset to its designed capability;

**Restore/Replace Activity** – replacement or complete restoration of assets that cannot be repaired;

**Major Rehabilitation** – applies to bridges and pavement only; work includes complete, full depth reconstruction (i.e. removal and replacement of pavement or bridge)

# Maintenance: Roadway & Roadside

Includes pavement, shoulders, bridges, tunnels

#### **Road Re-paving Program**

Prepared annually, scope dependent on the funding level

Street selection - based on pavement rating conducted by VDOT on a rotational basis

Major roads are priority, subdivision streets selected in clusters, funding dependent

Currently 33% of local roads in NOVA District are in state of good repair

Last year \$110 Million contract for repaving of NOVA District roads;

### **Maintenance: Traffic and Safety**

Includes evaluation of requests which could include traffic signals, signs, pavement marking, guardrail, etc.

Please use Customer Service Center at 1-800-ROR-ROAD (800-367-7623) or request on line at <u>https://my.vdot.virginia.gov/</u>:

VDOT conducts evaluation of each request using MUTCD as a primary guideline

Speed Limits – requests initiated by locality; require engineering study by VDOT and approval by the Commissioner.

Traffic Counts – are used by VDOT as basis for safety, economic and engineering considerations in the development, operations and management of our road system.

### **Maintenance: Emergency Response**

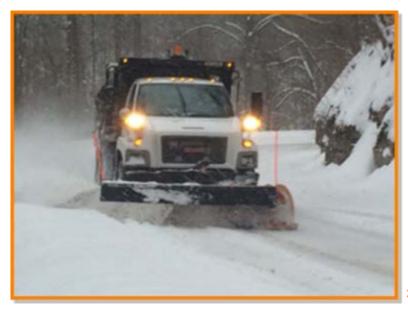
Snow Removal: Operations are prioritized matching the functional classifications of roadways;

Priority includes all interstates, most primary routes, few very high service secondary routes;

Goals: For a typical 2-4 inch snow fall, goal is to make a pass in all subdivisions within 24 hours after the storm has ended.

For a typical 6-inch snow fall, goal is to make a pass in all subdivisions within 48 hours.

All routes receive progressive and continuous effort to meet snow removal goals.



# NOVA Snow: 2014-2015

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| Total Snow in Inches       | 18.3              |
|----------------------------|-------------------|
| Total Number of Events     | 24                |
| Snow Budget                | \$50.5            |
| Snow ACTUAL                | \$128.5M          |
| 6 Days Yielded 91% of Snow |                   |
|                            | 1/6; 2/16;        |
|                            | 2/17;2/21;2/2;3/5 |
| State Equipment            | 126               |
| Equipment                  | 4,000+            |
|                            |                   |

## NOVA Snow: 2015-2016

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| Road Miles           | 17,000   |
|----------------------|--|
| Snow Budget          | \$70.7M  |
|                      |  |
| State Equipment      | 126  |
| Contractor Equipment | 3,600+   |
| Salt                 | 140,000 tons   |
| Sand                 | 25,000 tons  |
|                      | Snow Budget<br>State Equipment<br>Contractor Equipment<br>Salt |

186,000 gals

Liquid

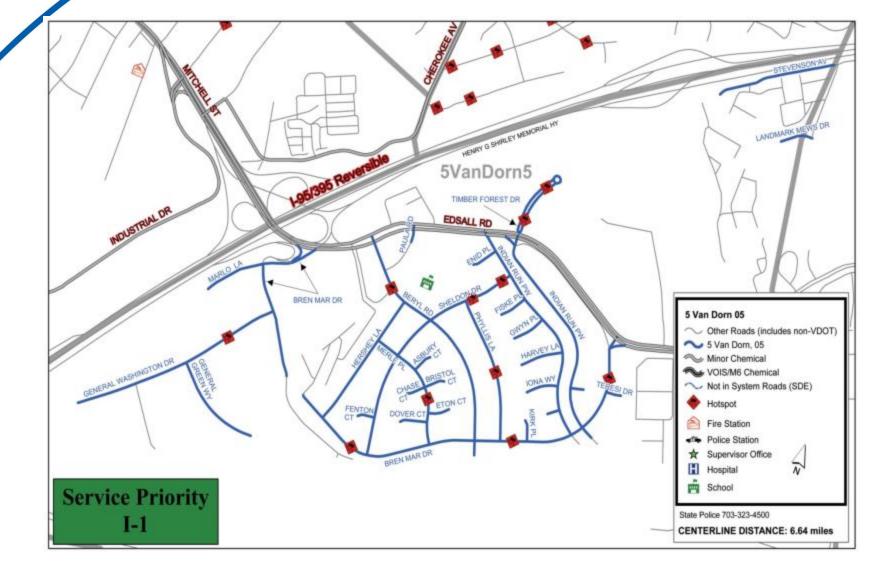
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### **NOVA Snow: BEFORE AN EVENT**

| S NATIONAL WEATHER SERVICE   | Weather Rudar/Satellite KaleNaps Forecast Sites/Rudes Text Forecasts HETAlerts Server Weather Horizones Training Relatels   |
|--|---|
| HOME FORECAST - PAST WEATHER - SAFETY - INFORMATION - EDUCATION - NEWS - SEARCH - ADOUT -  | Q Satur   |
| Go C Current conditions at Washington Dulles International Airport, DC (KIAD)  | Image: Controls       Image: Controls         Image: Controls       Image: Controls |
| Let: 38.271 Let: 74.578 Eler: 3126           Fair         Marmichy 40%         More information           56°F         56°F         Beconeter 30.45 is (1001.4 mb)         More information           Deupoint 35°F (2°C)         2.0ar Hinker         3.0ar Hinker           Visibility 10.80 ml         Last update 26 Oct 12.32 pm EDT         More information |   |

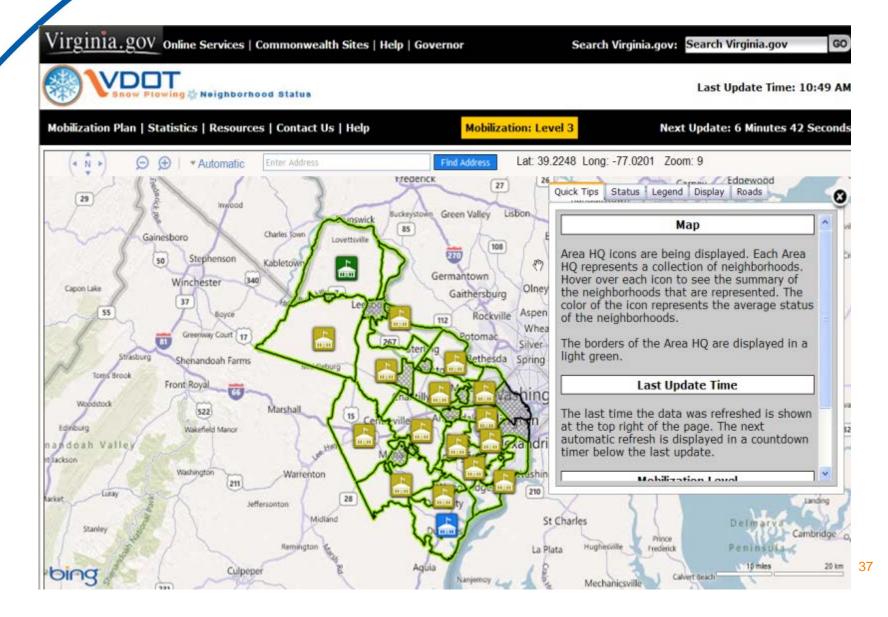
- National Weather Service
- Iteris Weather Service
- Road Weather Info. System (RWIS)
- Mobilization Plan
- Incident Command
- Pre-Treatment/Anti-Icing
- Pre-Staging of Equipment

**NOVA Snow: SNOW MAP** 



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# NOVA Snow: Automatic Vehicle Locator (AVL)



### **NOVA Snow: Interstate Cameras**



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# **HOW CAN YOU HELP?**

- Do not pass snow plow trucks when they are plowing
- Allow plow trucks back into the main line from turn lanes
- Stay at least 100 ft. behind a plow truck
- Do you have windshield washer fluid?
- Do you have 1/2 tank of gas?
- Are your tires suited for winter weather?
- Do you have medicine/food/water?
- When shoveling driveways, leave the last 5 feet of snow at the curb until after the plow has passed.
- Shovel to the right facing the road
- Park on the odd numbered side of the street
- Park in driveways
- Allow room for the plow to come through
- PLEASE STAY OFF ROADS

**Communication: A Layered Approach** 

#### **Public**

- Call 511 for road conditions
- Visit <u>www.511virginia.org</u> for road conditions and traffic cams
- Follow @511northernva on Twitter for road conditions and accidents
- Visit <u>www.YouTube.com/VDOT</u> web for snow removal tips
- Visit <u>www.VirginiaDOT.org</u> for news and road conditions
- E-mail <u>novainfo@vdot.virginia.gov</u> or call 1-800-FOR-ROAD to report unplowed roads

# VDOT

# **VDOT CONTACT INFO**

1-800-FOR-ROAD 1-800-367-7623 VDOT website: <u>http://www.virginiadot.org/</u> Resources: <u>http://virginiaroads.org/</u> Report a problem: <u>https://my.vdot.virginia.gov/</u>





# **Questions?**

# **Thank You!**