



COMMONWEALTH *of* VIRGINIA
Office of the
SECRETARY *of* TRANSPORTATION

Innovation and Technology Transportation Fund

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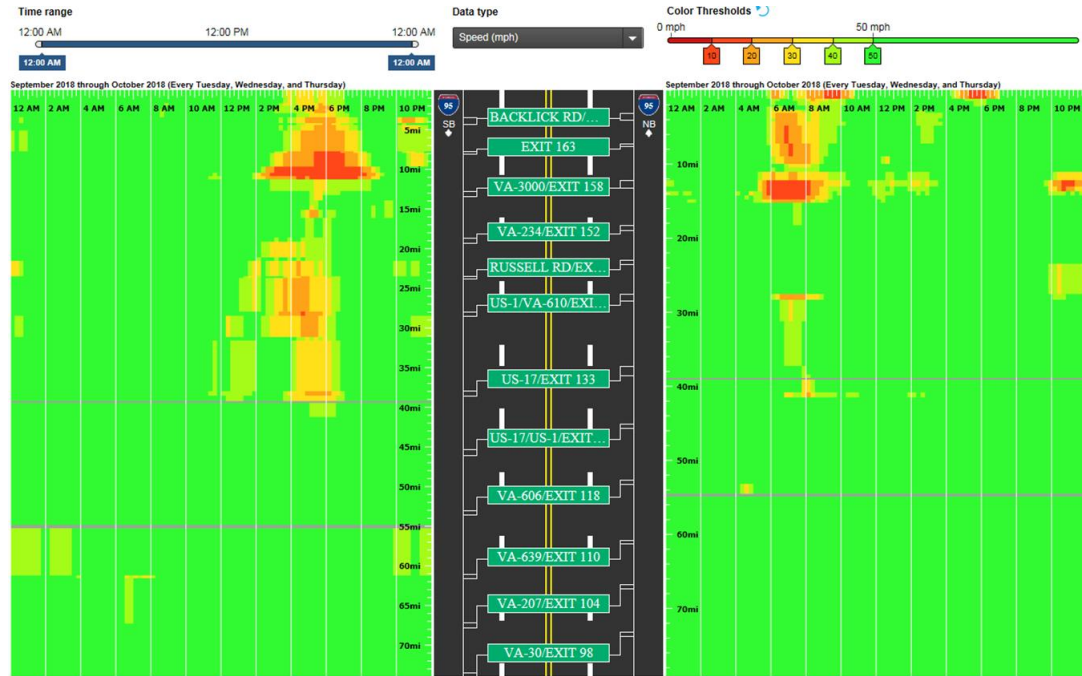
Innovation and Technology Transportation Fund

- The ITTF provides funding specifically for the purposes of funding pilot programs and fully developed initiatives pertaining to high-tech infrastructure improvements with a focus on:
 - Reducing congestion
 - Improving mobility
 - Improving safety
 - Providing up-to-date travel data
 - Improving emergency response

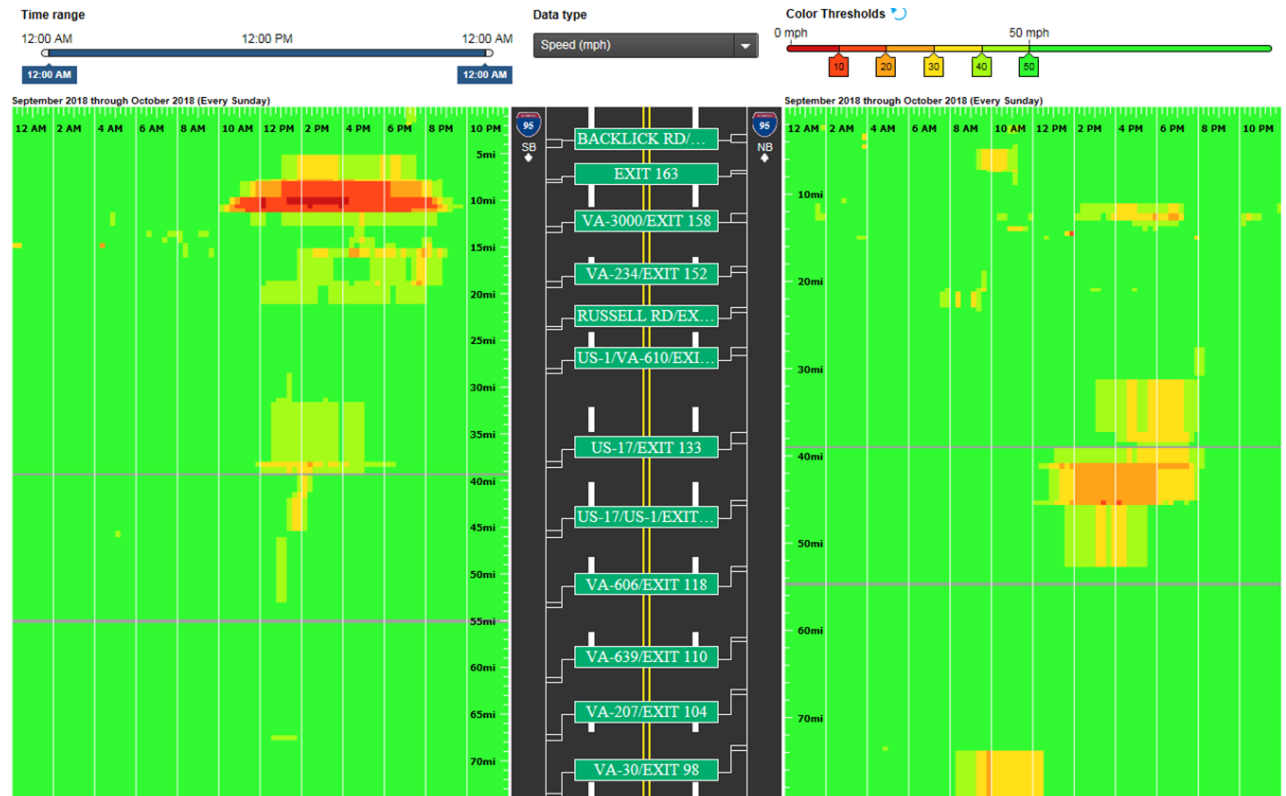
Proposed Projects

- **Thirteen projects are proposed that provide a mix of:**
 - **Interstate vs. arterial**
 - **Multimodal approaches**
 - **Demonstrations of proven technology and piloting of experimental approaches**
- **All projects will be evaluated to enable deployment in other regions**

I-95 Operational Improvements



Sept./Oct. Weekdays



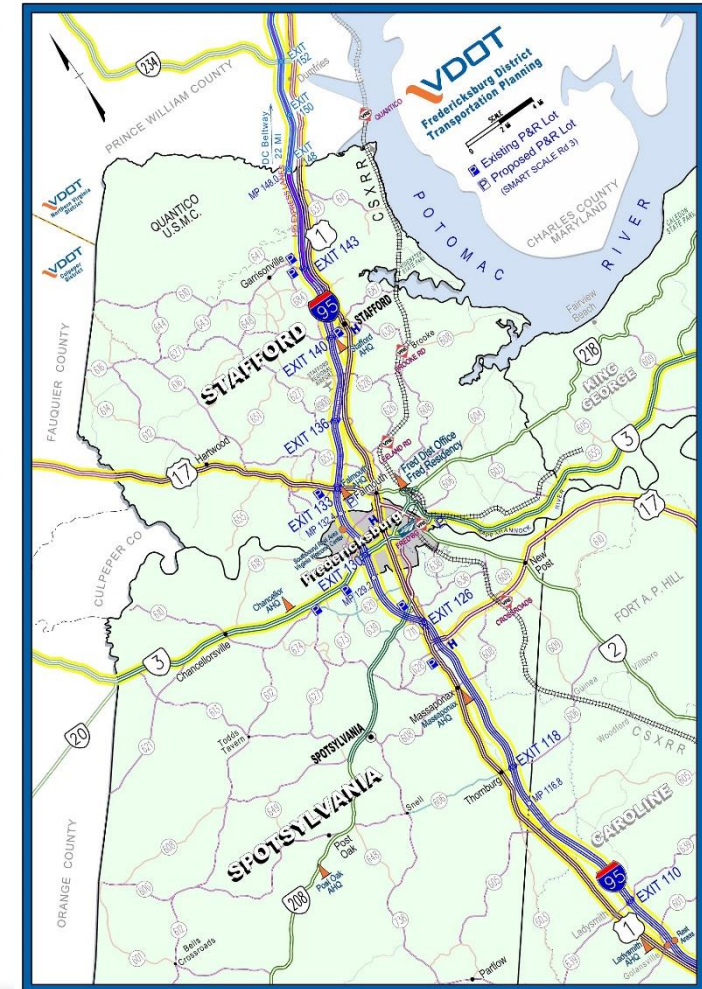
Sept./Oct. Sundays

I-95 Operational Improvements

- **Differences in geometry, travel patterns (commute vs. non-commute), and congestion intensity will require a range of solutions**
 - **Ramp metering – previous ITTF project has identified 7 ramp locations where metering would be beneficial**
 - **Active traffic management – experience internationally has shown VSL/speed harmonization to be effective in reducing congestion**
 - **Other strategies to include improved incident response, traveler information, etc.**
 - **Total cost: \$ 30 million**

Parking Demand Management System

- Provide real-time parking information for 8 park & ride lots on I-95 that support VRE
- Sensors at entry and exit
- Real-time information display and publication to portal for further dissemination
- Total Cost: \$1,950,000



Parking Demand Management System



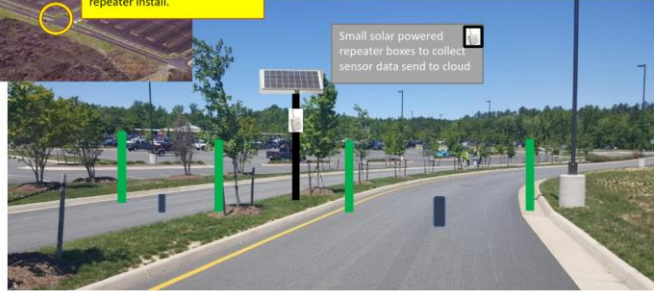
Updated location of sensors and repeater to simplify repeater install.

Installation Requirements:

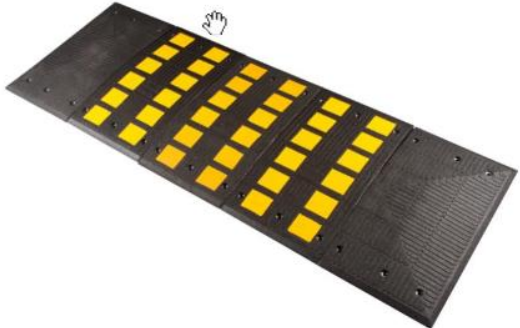
- Install u channel pole for repeater placement
- Assemble & attach repeater and solar panel to pole
- Drill 2 sensor holes & embed sensors
- Diagnostics & testing

Sensors are installed flush with the pavement at entry and exit lanes to count car traffic.

Rubber bendable delineators are installed 12 - 14ft apart to leave room for snow plows and funnel traffic over sensors



Small solar powered repeater boxes to collect sensor data send to cloud



I-81 Operational Improvements

- The I-81 Corridor Improvement Study identified a number of operational strategies targeted at the non-recurring congestion that is common throughout the corridor
- Signal enhancements to facilitate detours when incidents occur is a key element of the operational improvement plan
 - Real-time signal timing modifications to address diverting traffic patterns
 - Real-time monitoring of conditions for operational improvement and traveler information
- Total cost: \$10 million