



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

**VTrans Update: Needs
Assessment and Recommendations**

Nick Donohue
Deputy Secretary of Transportation
March 14, 2017

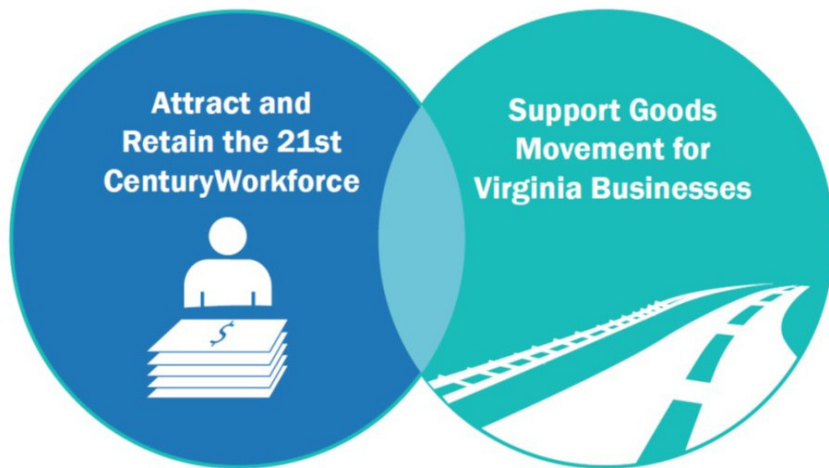


Virginia Department of Rail and Public Transportation





The Commonwealth Transportation Board is directed, with assistance from the Office of Intermodal Planning and Investment (OIPI), to conduct a comprehensive review of statewide transportation needs in a Statewide Transportation Plan – VTrans.



Vision – Virginia’s multimodal transportation plan will be *Good for Business, Good for Communities, and Good to Go*. Virginians will benefit from a sustainable, reliable, transportation system that advances Virginia businesses, attracts a 21st century workforce, and promotes healthy communities where Virginians of all ages and abilities can thrive.

Overview



VTrans2040 has several key components

- **2040 Vision**
- **2025 Multimodal Transportation Plan**
 - Needs Assessment
 - Recommendations
- **2040 Scenario Analysis**
- **Performance-based planning with target setting**

Overview



- **Conduct a comprehensive review of statewide multimodal transportation and capacity needs for—**
 - **Corridors of statewide significance**
 - **Regional networks**
 - **Urban development areas**
 - **Safety**
- **Plan shall promote economic development, intermodal connectivity, environmental quality, accessibility for people and freight, and transportation safety**

VTrans2040 Vision



- Serves as the policy document that will guide the needs assessment and 2025 priority recommendations
- Key provisions include—
 - Trends analysis
 - Vision and goals
 - Guiding principles
- Adopted by the Commonwealth Transportation Board in December 2015

Needs Assessment: Corridors of Statewide Significance



- **Key intercity travel market**
- **Analyzed by logical segments**
- **Guiding principles for assessment**
 - **Safety and operations**
 - **Improving reliability**
 - **Redundancy and mode choice**
 - **Reducing severe congestion and bottlenecks**
- **Statewide focus and data driven analysis**

Needs Assessment: Regional Networks



- **Key intra-regional travel market**
- **Analyzed in each metro area**
- **Guiding principles for assessment**
 - **Economic competitiveness and accessibility/connectivity**
 - **Opportunity to link Region’s economic vision to future transportation needs**
 - **Extensive outreach to determine desired economic future of each region**
- **Mix of statewide and local focus, and driven by data and local input**

Needs Assessment: Urban Development Areas



- **Key local activity center travel**
- **Analyzed for each designated development area**
- **Guiding principles for assessment**
 - **Context sensitive multimodal transportation solutions**
 - **Last-mile access to jobs and non-work attractions**
 - **Safe bike and pedestrian circulation**
 - **Improve connections to local multimodal networks and regional transportation options**
- **Local focus and driven by local input**

Needs Assessment

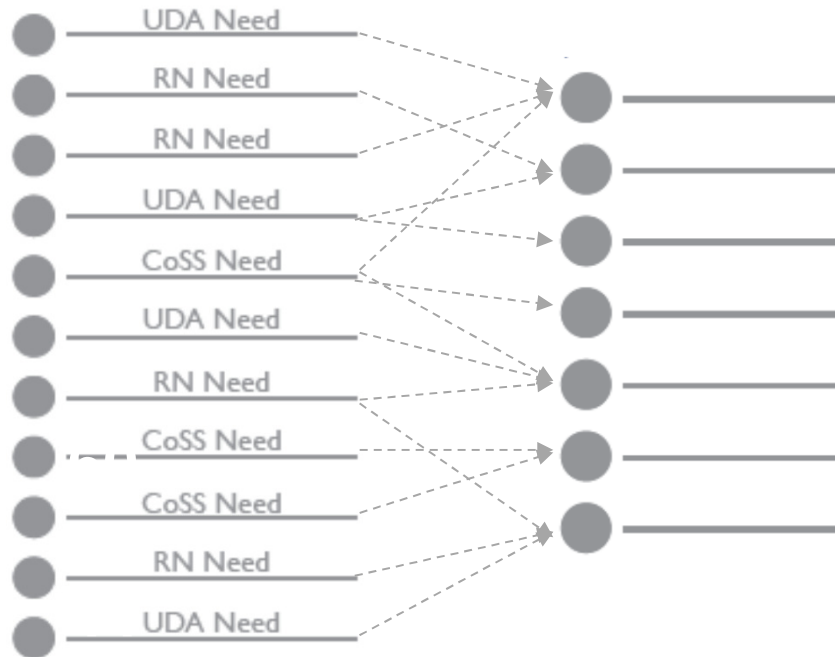


- **Adopted by the Board in December 2015**
- **Board directed Office of Intermodal Planning and Investment to—**
 - **Prioritize the needs**
 - **Develop recommendations to address 2025 prioritized needs**
 - **Set deadline of end of 2016**

Consolidation and Prioritization of Needs



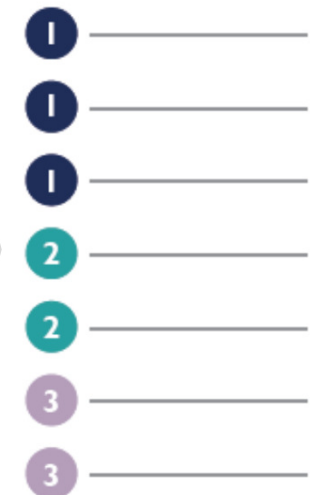
2025 Needs Assessment (800+ needs identified)



Consolidated Needs (170 needs identified)



Tiered Needs (within each District)



Total Tiered Needs

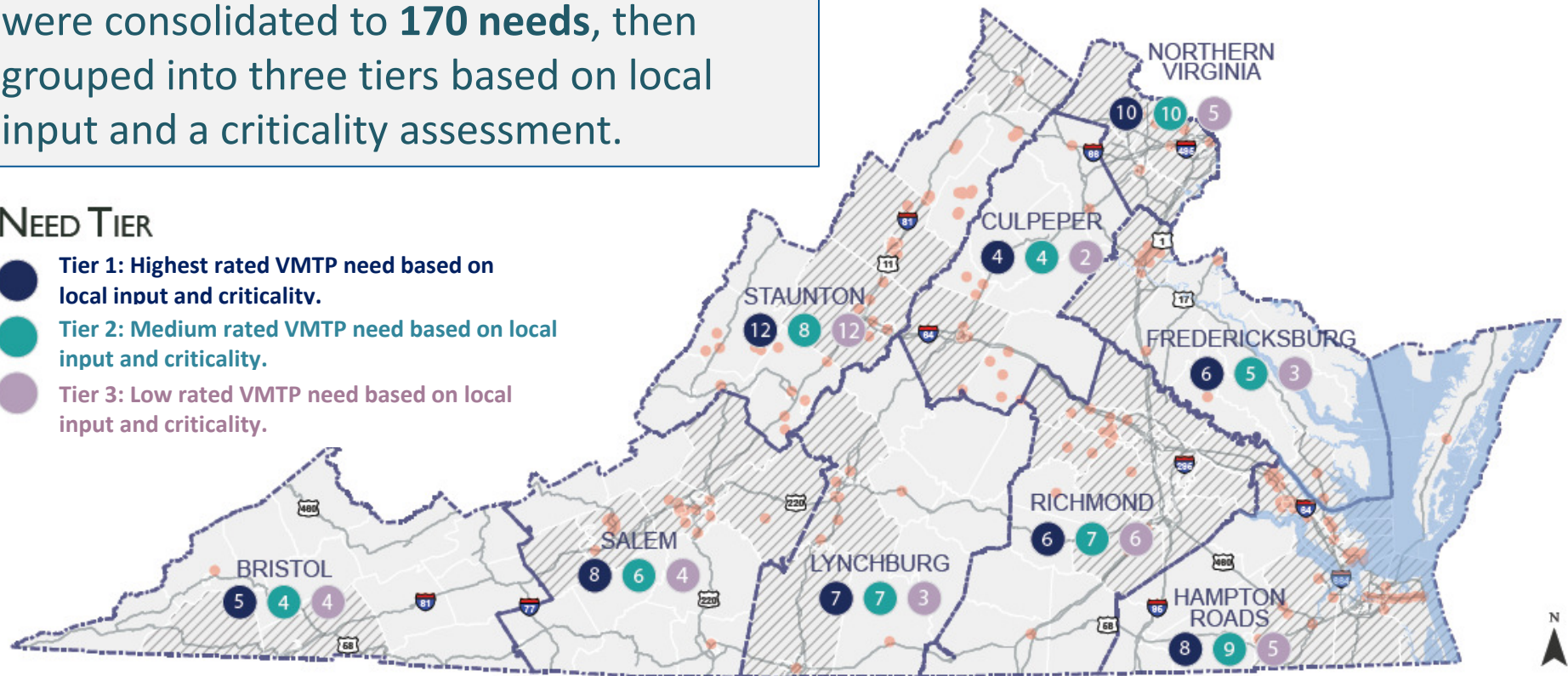


Needs Assessment

Over **800 needs** in the Needs Assessment were consolidated to **170 needs**, then grouped into three tiers based on local input and a criticality assessment.

NEED TIER

-  Tier 1: Highest rated VMTP need based on local input and criticality.
-  Tier 2: Medium rated VMTP need based on local input and criticality.
-  Tier 3: Low rated VMTP need based on local input and criticality.



Why Recommendations?



- **New concept for VTrans**
 - Focus on critical needs over next 10 years with solutions based on VTrans guiding principles
 - Supports new Federal planning regulations which place more attention on performance based planning and programming
- **Project-level recommendations**
 - Represents state perspective on a future pipeline of projects for consideration under SMART SCALE and other programs
 - Strengthens the connection between planning, project development, and programming
 - Reflects common sense engineering per guiding principles

Recommendations Development Process



Gap Assessment

Do the Funded & Pipeline Projects Fully Address the Need?

Recommendation Tracking

Fully Funded: 2017-2022 Six Year Improvement Program (SYIP) and other programs

Unfunded Pipeline: Project sources include – SYIP partially funded, MPO LRTPs & PDC plans, Smart Scale unfunded, Transit Development Plans, Regional TDM plans, and other regional and local studies and plans

Gap Recommendations “New Ideas”

Study/Plan
Strategies

Program/Policy
Projects

**VDOT & DRPT
Review and
Regular
Coordination**

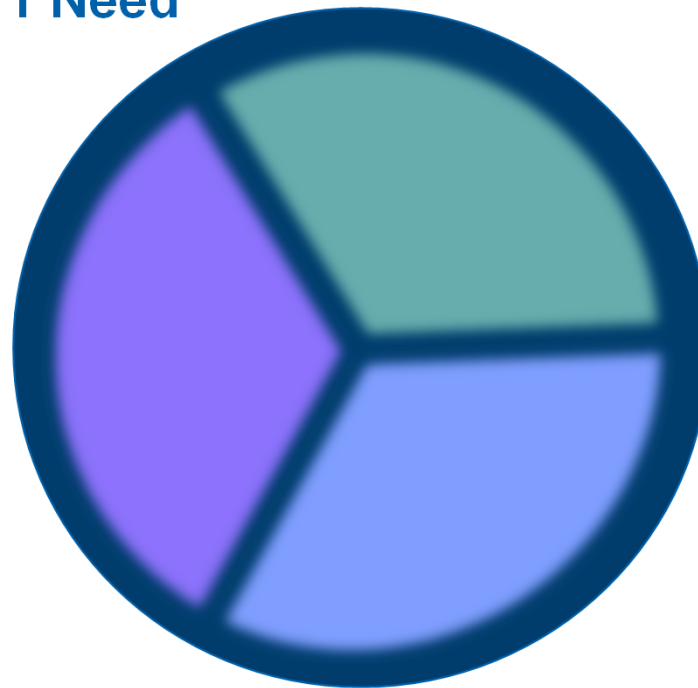
**Stakeholder
Review**

Types of Recommendations

Example 2025 Tier 1 Need

Funded Projects

Funded (SYIP, TIP, agency programs) projects that address the Need



New Ideas

Recommendations for projects, studies, or programs to meet a potential gap in addressing the Need

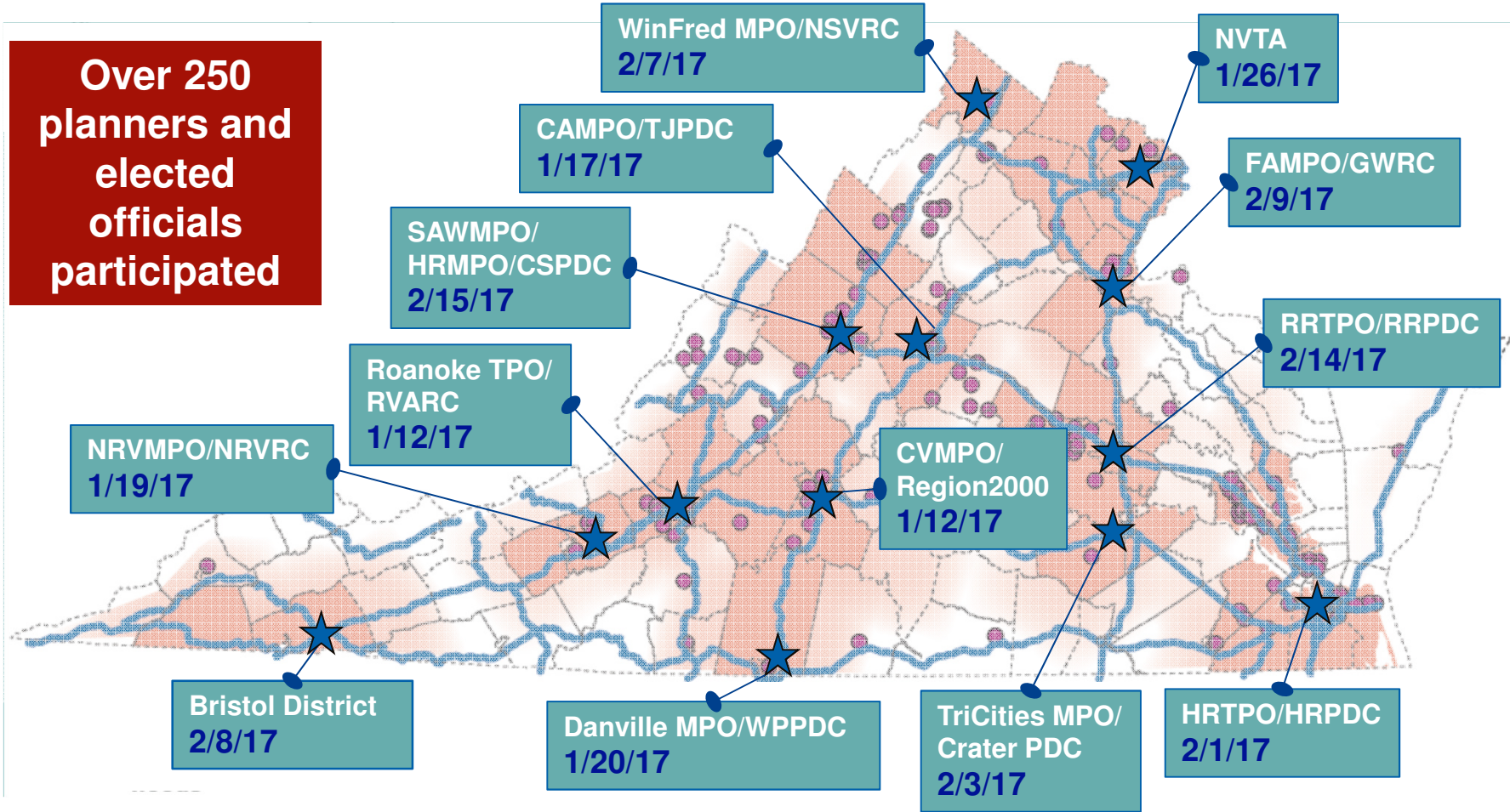
Pipeline Projects

Unfunded or partly funded projects from local and regional plans or studies that address the Need

Focus on VTrans2040 Guiding Principles – especially:

- Optimize Return on Investment
- Consider Operational Strategies and Demand Management First

Regional Meetings on Draft Recommendations



Regional Meetings on Draft Recommendations



DRAFT Recommendations Summary Summary of the DRAFT VMTP 2025 Recommendations for Tier 1 Needs

DRAFT VMTP 2025 Recommendations - Tier 1 Needs - BRISTOL DISTRICT

NEED TYPE

- Number Reliability
- Network Connectivity
- Transportation Demand Management
- Reliability & Peak Choice
- Reliability & Stability
- Intermodal
- Programs
- Construction and Access
- Access to Transportation Networks

NEED TIER

- Tier 1: Priority Needs (shown as red circles)
- Tier 2: Localized Needs (shown as blue circles)
- Tier 3: Localized Needs (shown as purple circles)

IDENTIFIED NEED

B.10 Within the Bristol District, the I-81/US 11 corridor has safety, congestion, reliability, and bottleneck issues, as well as a lack of parallel facilities.

FUNDED PROJECTS

- Add Lane on I-77 (south) at Exit 80 (from 2.2 mi. east of SB I-81 off-ramp to 1.2 mi. east of SB I-81 off-ramp) (FY 2017-2022 SYSP, SMART Scale)
- I-81 eastern acceleration (Exit 72) to deceleration lane (Exit 73) (FY 2017-2022 SYSP)
- Lane Highway Widening - Exit 5 Phase 1B (FY 2017-2022 SYSP, SMART Scale)
- Lane Highway Widening - Exit 5 Phase 2 (FY 2017-2022 SYSP, SMART Scale), CST 2021
- Connector Road - Phase 2 (FY 2017-2022 SYSP, SMART Scale)
- US 11 Shoulder Initiative (Washington County)

RECOMMENDATIONS

PIPELINE PROJECTS

- BD5** Exit 83: Replace Overhead Bridges, improve ramps and relocate frontage roads
- BD6** Exit 77: Relocate frontage roads to improve safety and capacity at the ramps
- BD6** Widen US 11 between Hillman Hwy and Engrish Dr (Abingdon)
- BD7** US 11 Widening Phase 3 Aleix Dr. to Old Airport Road (Bristol)
- BD8** US 11 Intersection Improvements in Abingdon
- BD9** I-81 Exit 35 (State Route 107) Interchange Modifications (Smart) (SMART Scale, Round 2)

NEW PROJECT IDEAS

- BD10** Enhanced ITS/ATMS on I-81 and US 11 throughout the Bristol Abingdon area from TN state line to Exit 2.
- BD11** Enhanced ITS/ATMS on I-81 and US 11 from roughly from Rural Rebout (Exit 60) to Pulaski (Exit 89).
- BD12** Extend US 11 widening (SMART Scale, Round 2) from Highlands Shopping Center to BVA Authority south to Exit 10.
- BD5** Incident quick clearance program along the I-81 corridor including vehicle staging and incentives for quick clearance.
- BD5** Additional capacity improvements at Exit 81 and Exit 80.

DRAFT Recommendations Profiles Details for 299 specific pipeline and new idea recommendations

VTrans2040 Multimodal Transportation Plan (VMTP)
2025 Tier 1 Recommendation Profile
Based on Analysis of VMTP Needs Assessments

Recommendation Details

Project Reference Number: 801

Short Description: I-81 Abingdon Area Comprehensive Interchange Capacity/Operational Study

District: Bristol Local Jurisdiction: Washington County

VMTP Need Type (Phase I in all applicable boxes):
 Corridor of Statewide Significance Regional Network UDA Safety

Needs Addressed from VMTP Needs Assessment (List needs as numbered in reports):
 Crescent Corridor (I-81), B1 A, C, D, Regional Network - Bristol Area

Project Status: New, Unique Recommendation

Recommendation Features
 Type (Phase I in all applicable boxes):
 Highway Bike/Pedestrian Bus Transit Rail Transit Freight Rail Travel Demand Management

Detailed Description of Improvements:
 Comprehensive Interchange Capacity/Operational Study at Exit 14 through Exit 22 Area - The Exit 19 improvement represents an interim fix given sensitive rural growth nearby. The Exit 17 Interchange improvement only adds new capacity to the southside of the interchange. The study should evaluate the ultimate design/operation of all interchanges together, the existing and future routes, and include the potential for connecting frontage roads between all interchanges to serve local traffic.

Potential Funding Sources (Phase I in all applicable boxes):
 SMART SCALE TAP CMAG RHP Precipitation Other: _____

Estimated Project Cost (in \$M): 0.80 Right of Way Required for Project (TBD by study)

If Applicable: Smart Scale Project Feasibility
 Based on Qualitative Review of Project

Comments for future potential projects resulting from study:

Safety: Future projects will improve safety at interchanges.

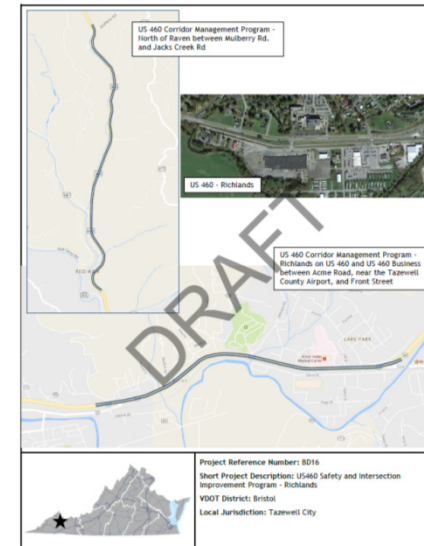
Congestion/Mitigation: Future projects could impact recurring delay.

Accessibility: Project unlikely to impact regional accessibility to jobs; mainly local benefits.

Land Use: Not applicable within this region.

Environment: Future project could have an environmental footprint and may help reduce emissions.

Economic Development: Project could enhance access for future development and improve corridor reliability.

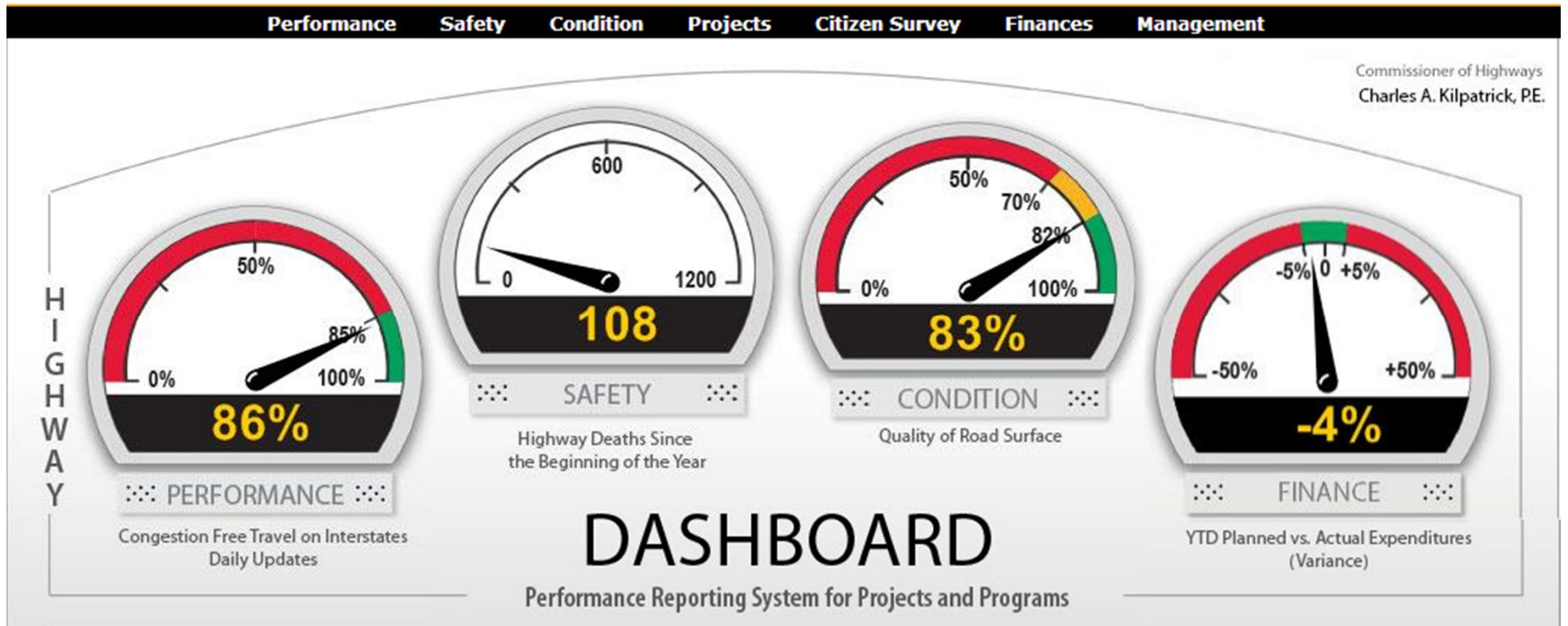


Recommendations Next Steps



- Review all comments received during regional meetings and online public comment
- One-on-one meetings with CTB members to discuss stakeholder comments
- Update plan, post to the web for final stakeholder and public review
- Board consideration of revised recommendations

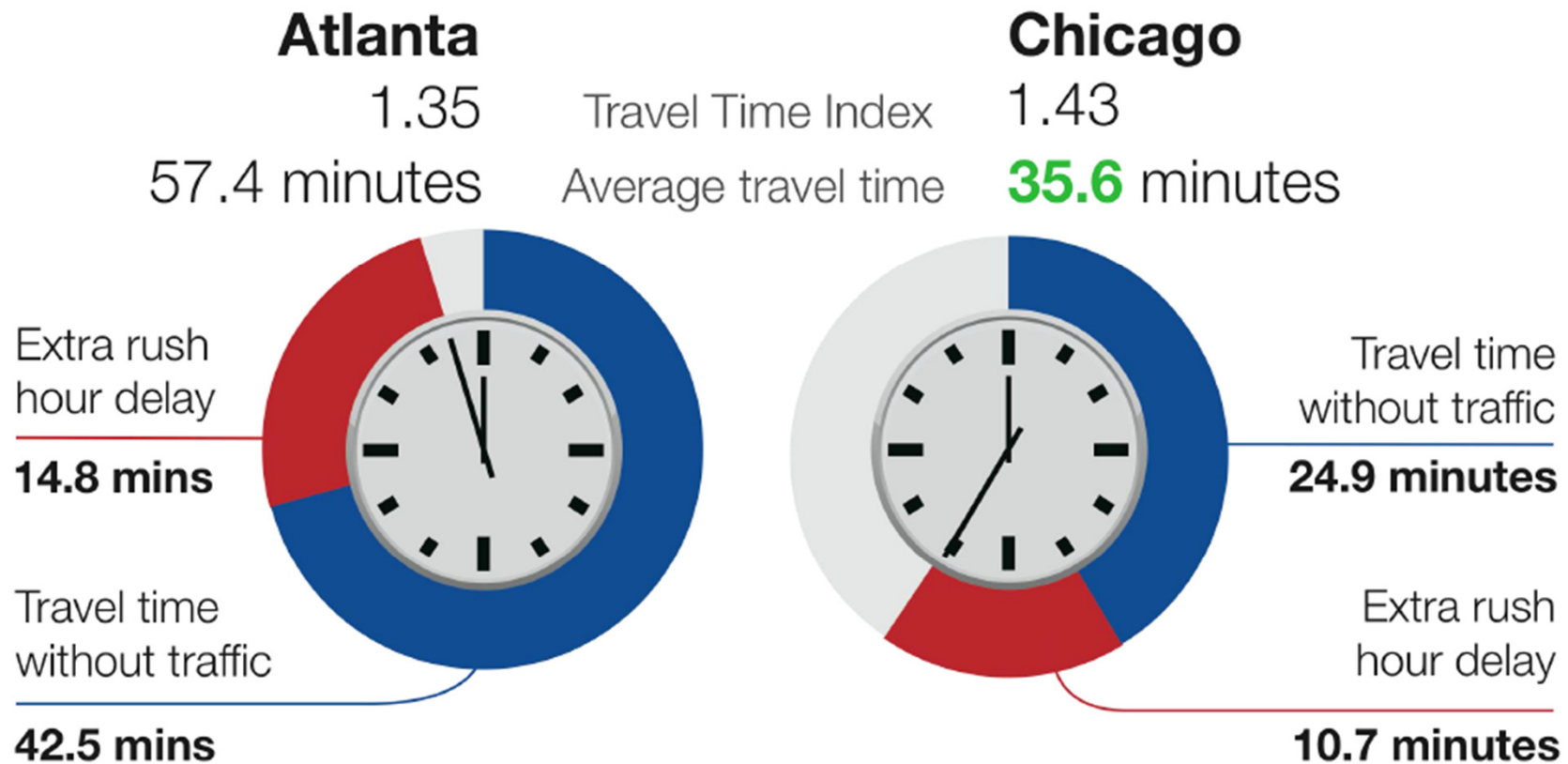
What is Performance-Based Planning?



Performance-Based Planning

- **Performance-based planning involves**
 - **Determining goals for the future**
 - **Setting targets for performance measures**
 - **Examining how different policy and investment decisions could impact the ability to achieve the targets**
 - **Adopting policies that best help the Commonwealth achieve these targets**
 - **Tracking whether investments and policies resulted in the expected outcomes**

Performance-Based Planning



Though Atlanta has a much lower (better) Travel Time Index (TTI), Chicago commuters spend 20 minutes less per peak period trip.

Performance-Based Planning

- **HB2241/SB1331 codify several performance-based planning best practices**
 - Requires the Board to establish targets for surface transportation performance
 - Directs the Board to report annually on progress towards such targets
- **Intermodal Office will develop recommendations for the Board's consideration**
 - Draft targets
 - Process to evaluate progress and identify potential remedies