

I-81 2025 CORRIDOR IMPROVEMENT PLAN

I-81 Advisory Committee Meeting

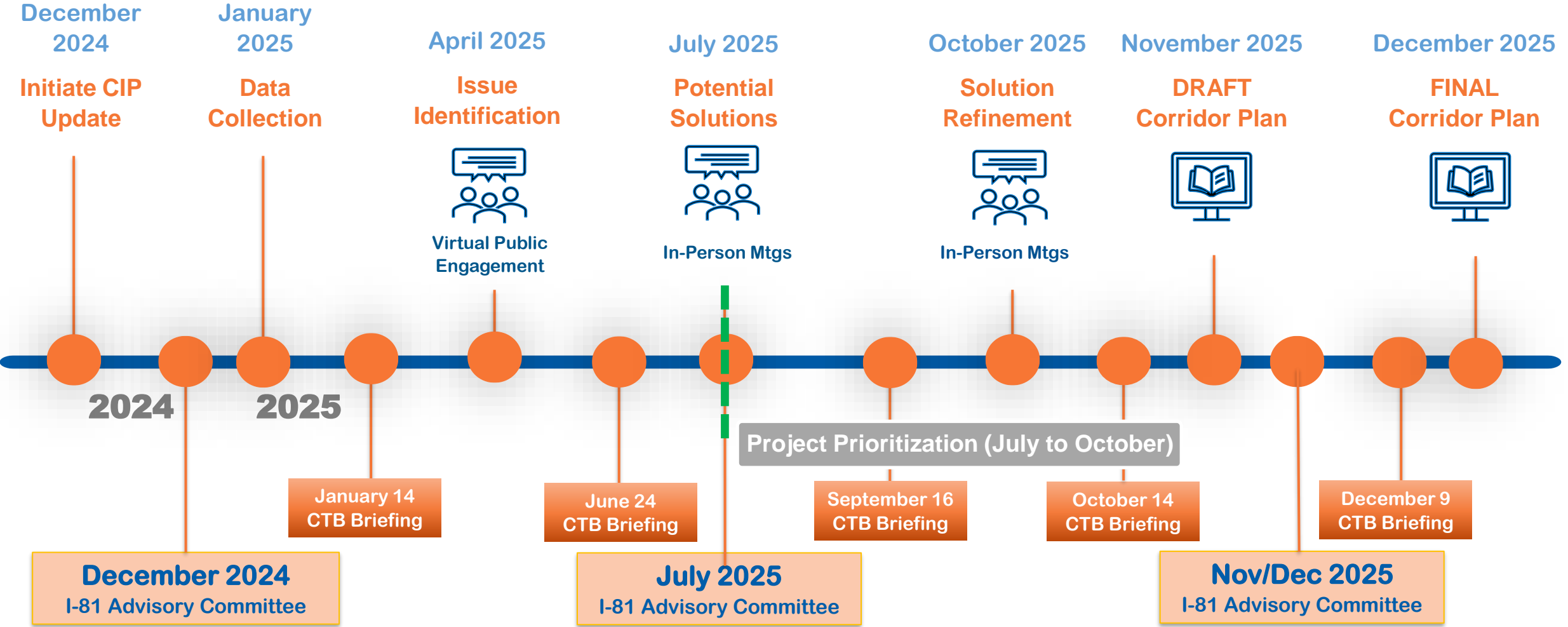
| Ben Mannell, AICP

July 14, 2025

2025 I-81 CIP: I-81 Committee Update

- **I-81 CIP Schedule and Update**
- **I-81 CIP Update- Work to Date**
 - **Performance Measures**
 - **Public Feedback from Round 1 Engagement**
- **Upcoming Round 2 Public Meetings**
- **Next Steps**

CIP Schedule: December 2024 – December 2025



I-81 Corridor Improvement Plan Update

- 65 projects in the 81 Program have advanced or are advancing to construction
- Next tranche of projects need to be identified
 - Projects are complex and need to be identified early
 - Allows advanced activities- resulting in refined construction costs and shovel-ready projects
- Project identification is performance driven
- Solutions will be identified using a SMART SCALE-like process



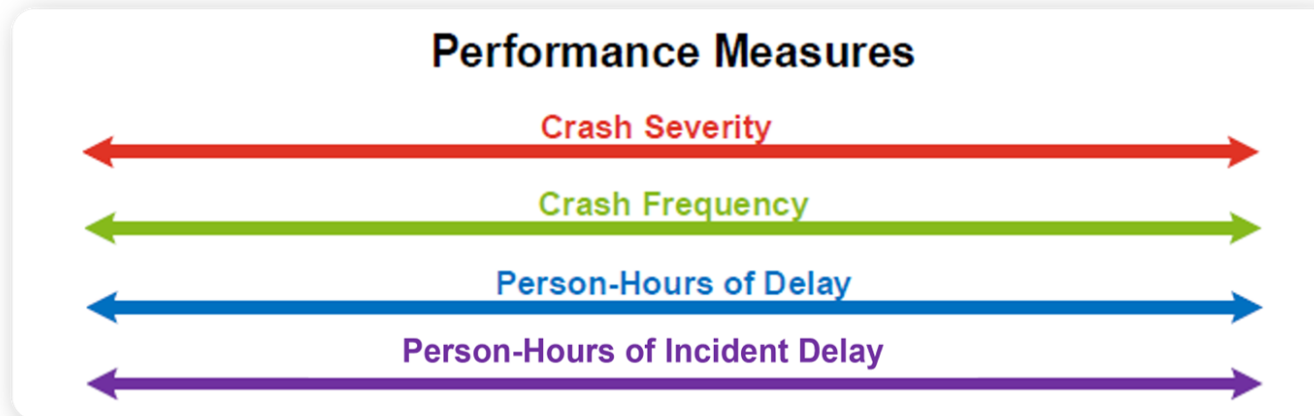
I-81 CIP Update: Work to Date

- **Performance measures analysis- complete**
- **Round 1 public engagement- complete**
 - Performance measures and public validation
 - Feedback on issues
- **Potential solutions development- underway**
- **Round 2 public meetings- underway**
 - Summary of feedback from Round 1
 - Feedback on potential solutions

Performance Measures Used

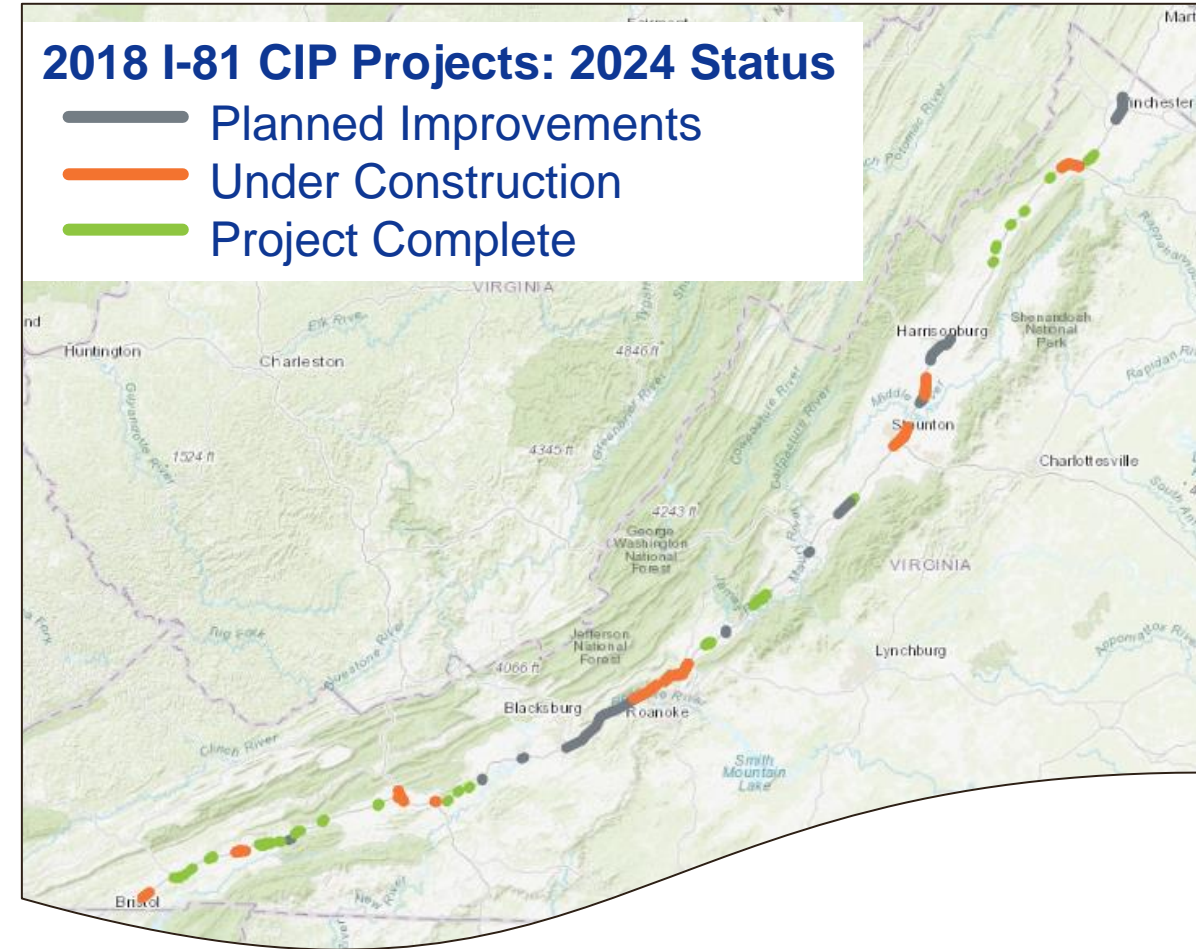
Determine the top 25% of one-mile segments for the following performance measures in both directions of I-81

Crash Severity	fatal and severe injury crashes over the last 5 years
Crash Frequency	rate of crashes during the last 5 years
Person-hours of Delay	hours of delay caused by congestion, incidents, and weather events
Person-hours of Incident Delay	incidents or crashes that lead to at least one lane of the interstate being closed an hour or more



Data Analysis Assumptions

- **Exclude 2020 data**
 - 5-year dataset: 2019 & 2021-2024
- **Exclude one-mile segments in 2018 I-81 CIP with widening and truck climbing projects already programmed for improvement**



Performance Measures Summary

Milepost	District	Number of One-Mile Segments (both directions) in the Top 25% by Performance Measure			
		Crash Severity	Crash Frequency	Person Hours of Delay	Person Hours of Incident Delay
0–88	Bristol	44	49	9	2
88–175	Salem	30	33	29	23
175–325	Staunton	59	49	93	109

Source: VDOT Roadway Network System (RNS) Data, INRIX

Round 1 Public Outreach (Virtual)—Problem Identification

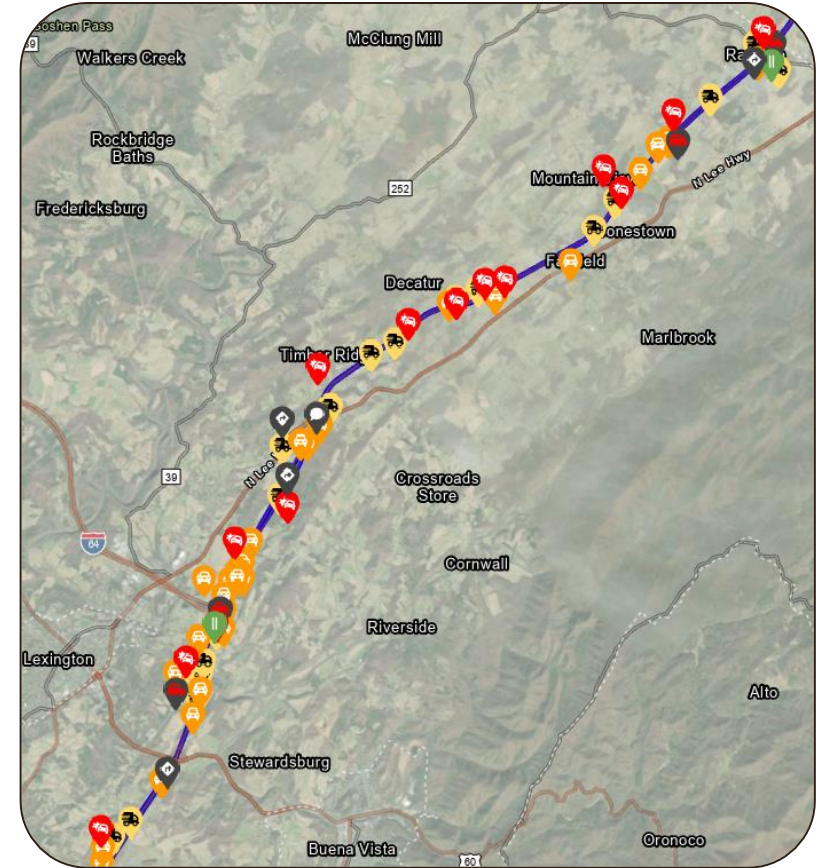
- Open April 1-15, 2025

VIRTUAL ENGAGEMENT

 **4,000**
COMMENTS





 **4,700**
PARTICIPANTS

- Performance measures identified, public asked to validate based on their driving experience
- Location-specific issues identified, and written comments provided



Round 1 Public Outreach Feedback Summary

Location-Specific Issue Identification by District

Issue Type	Bristol	Salem	Staunton	Total
 1. Congestion	36%	31%	42%	39%
 2. Truck Operations	25%	26%	20%	22%
 3. Safety	18%	16%	23%	21%
 4. Speeding and Aggressive Driving	10%	16%	9%	10%
5. Geometry	5%	7%	3%	4%
6. Pavement Markings and Signing	3%	1%	2%	2%
7. Other	2%	3%	1%	2%

- Participant-identified
- Top four issue types accounted for **92%** of the total identified

Round 1 Public Outreach Feedback Summary Continued

Top 10 Written Comment Themes



Need for additional lanes- 22%



Short/poorly designed ramps- 6%



Congestion and backups- 20%



Interchange and weigh station geometry- 5%



Heavy truck volumes- 19%



Pavement and drainage issues- 2%



Frequent crashes and safety concerns- 14%



Noise and local impacts- 1%



Aggressive/high-speed driving- 10%



Insufficient truck parking- 1%

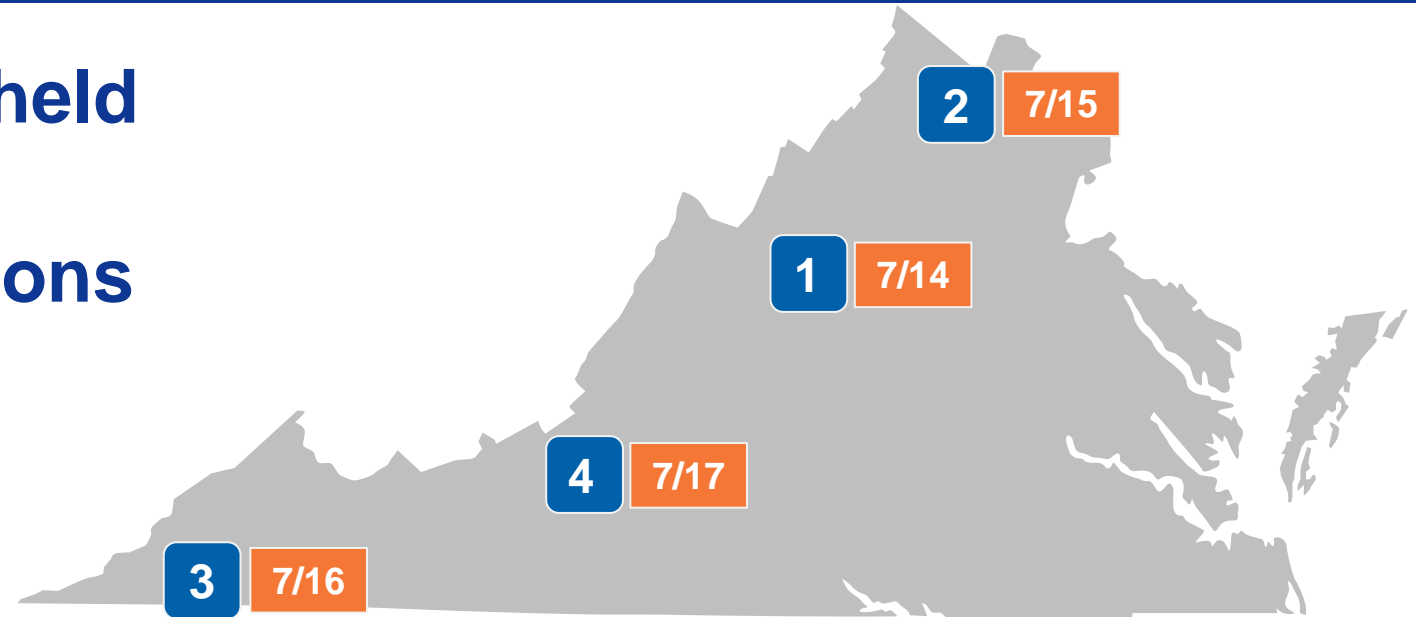
Round 1 Public Outreach Comments by District

- **Written comment themes from each District**
 - Congestion or capacity constraints
 - Heavy truck volumes
 - Safety concerns
- **Comments on the above issues were focused in areas where there are currently programmed projects with construction activity or activity starting in the next 2 to 3 years**



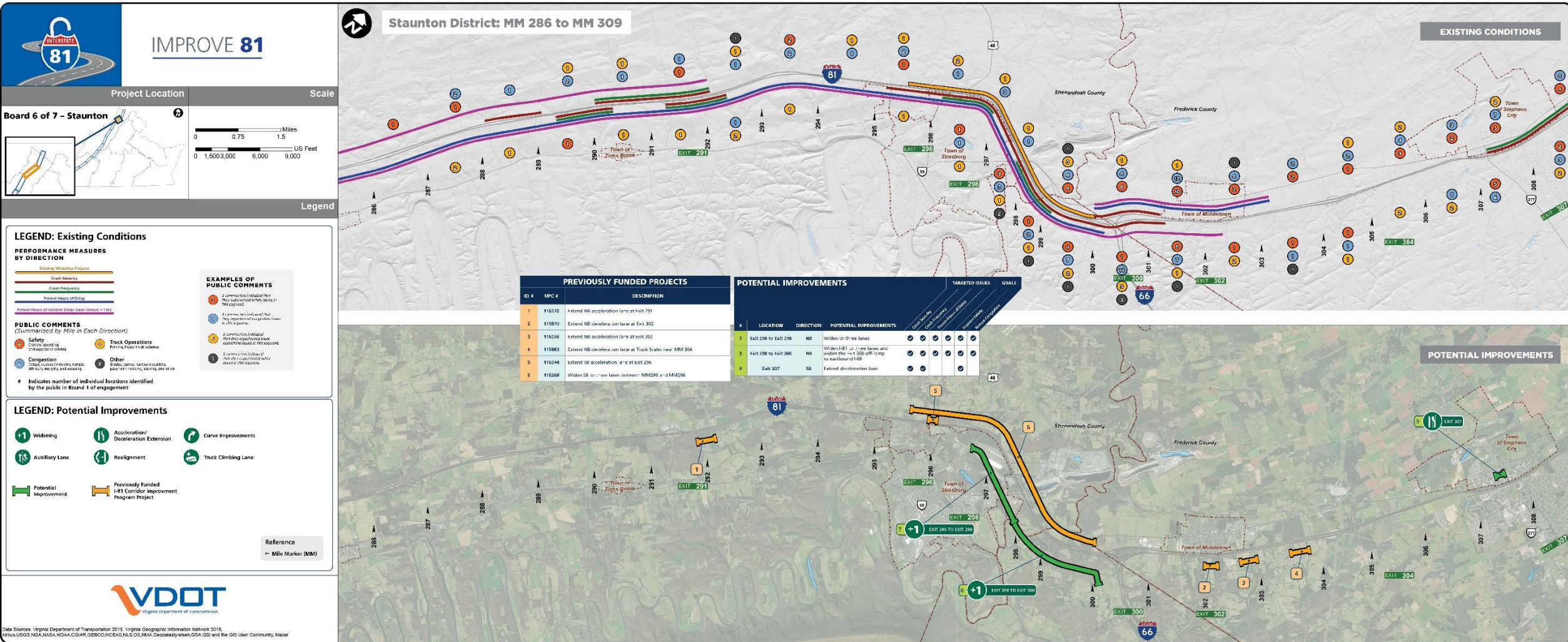
Round 2 Public Meetings—Potential Solutions

- Four in-person meetings held week of July 14th
- Maps with potential solutions driven by performance measures
 - Operations
 - Capital
- Survey gathering public comment on potential solutions
- Meeting materials and survey will be posted on-line

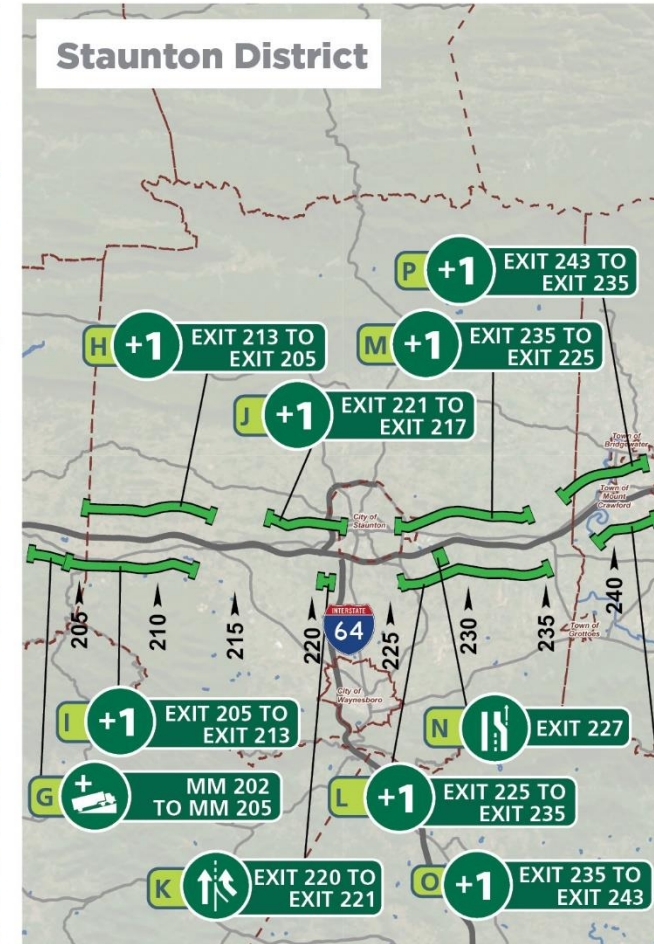
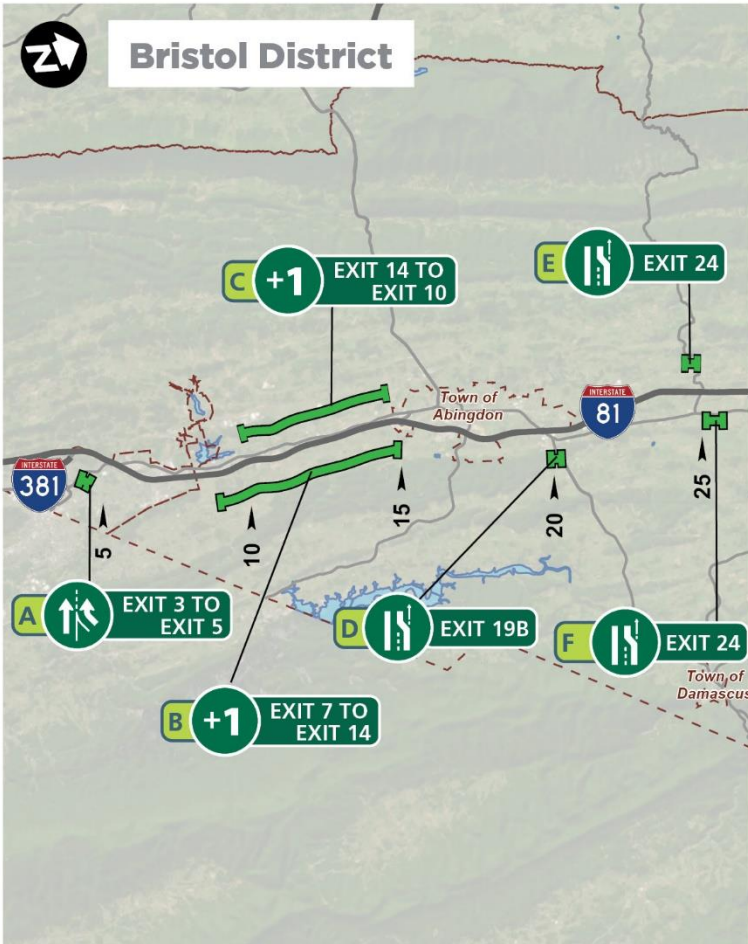


- 1 Staunton South- Blue Ridge Community College 5-7pm
- 2 Staunton North- Shenandoah University 4-6pm
- 3 Bristol Hilton Garden Inn (Exit 7) 5-7pm
- 4 Salem Civic Center 5-7pm

I-81 CIP Public Meeting Board—Sample



District Potential Solutions—Samples



LEGEND: Potential Improvements

- +1** Widening
- Acceleration/Deceleration Extension
- Curve Improvements
- Auxiliary Lane
- Realignment
- Truck Climbing Lane

I-81 Corridor Improvement Plan—Potential Solutions Summary

District	Solutions Summary	Improvement Type						Total
		Widening	Auxiliary Lane	Truck Climbing Lane	Accel/Decel Lane Extension	Curve Improvement	Realignment	
Bristol	No. of Improvements	2	1	0	5	2	0	10
	Total Mileage*	10.9	0.4	0	2.1	2.9	0	16.3
Salem	No. of Improvements	2	0	2	1	0	2	7
	Total Mileage*	33.0	0	4.1	0.3	0	4.1	41.5
Staunton	No. of Improvements	13	1	2	7	0	0	23
	Total Mileage*	70.7	0.7	5.6	2.2	0	0	79.2
Total	No. of Improvements	17	2	4	13	2	2	40
	Total Mileage*	114.6	1.1	9.7	4.6	2.9	4.1	137.0

* I-81 corridor centerline mileage

Financial Constraints

- **\$2 - 2.25 billion in revenue anticipated to be available for new projects**
- **Potential solutions identified in 2025 CIP far exceed anticipated revenue**
- **SMART SCALE-like prioritization will be used to narrow potential solutions list**



Next Steps

- **Study team will use public feedback from the July meetings to inform recommended solutions**
- **Fall public meetings**
 - **Present refined solutions that have been prioritized using a SMART SCALE-like process**
- **Present refined solutions to the I-81 Advisory Committee and CTB**
- **Anticipate adopting updated Corridor Improvement Plan in December**

Questions and Comments

VDOT Study Managers

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Study Website

Improve81.org/get-involved/2025-cip-update/

Study Email

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