

STARS

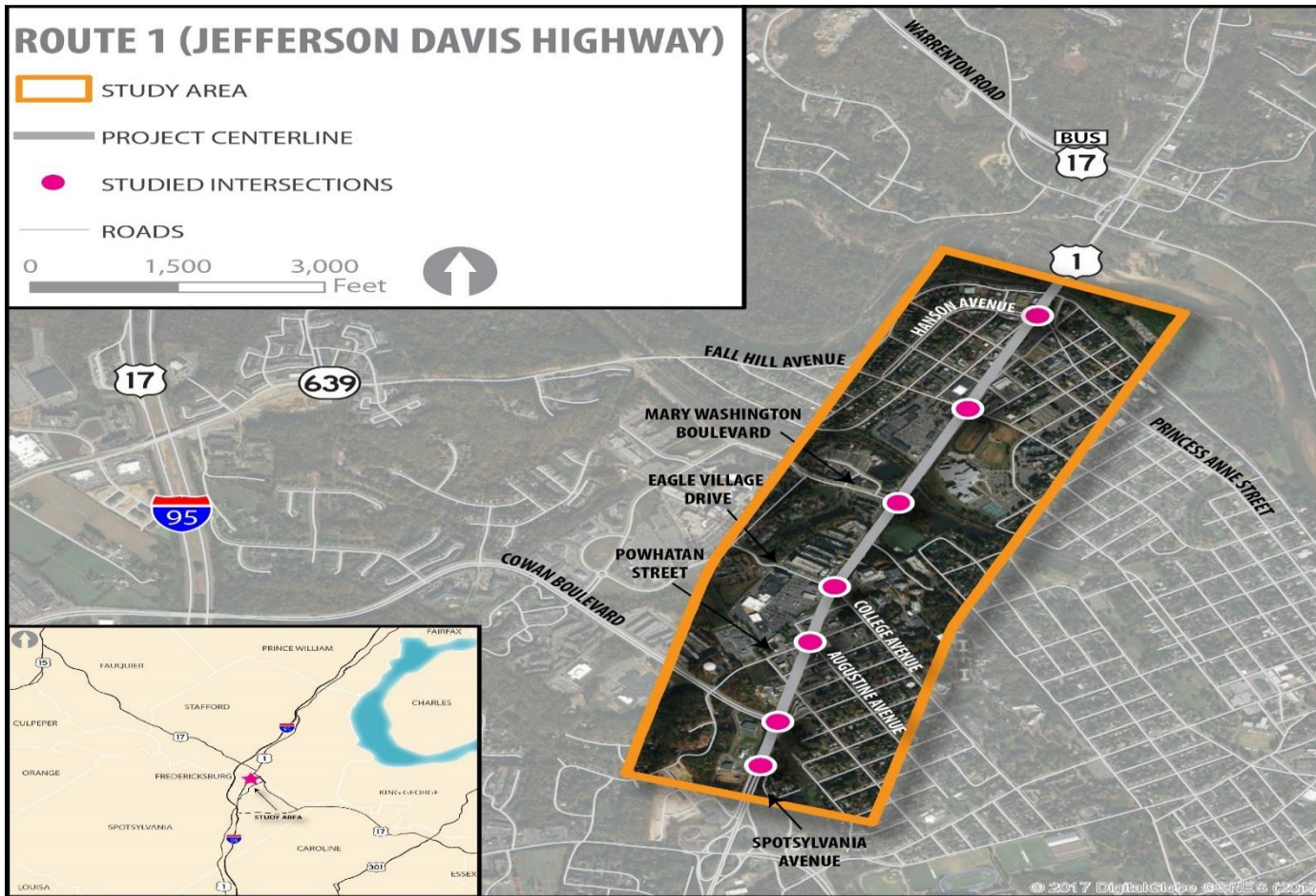
STRATEGICALLY TARGETED AND
AFFORDABLE ROADWAY SOLUTIONS

ROUTE 1 CORRIDOR STUDY

Public Information Meeting – August 27, 2018



STUDY AREA



STARS PROGRAM GOALS

- **Develop comprehensive, innovative transportation alternatives to relieve congestion bottlenecks and solve critical safety challenges**
- **Involve planners, traffic engineers, safety engineers, roadway designers, and local stakeholders**

STARS Project Stakeholders



Develop Projects to Program in the
VDOT Six-Year Improvement Program

PROJECT STAKEHOLDERS

- **Virginia Department of Transportation**
- **City of Fredericksburg**
- **Fredericksburg Area Metropolitan Planning Organization**
- **Property Owners**

EXISTING TRAFFIC CONDITIONS

■ **PM Peak Period Most Congested**

- Fall Hill Avenue Intersection – Significant Delay
- Cowan Blvd./Rowe St. – Moderate Delay

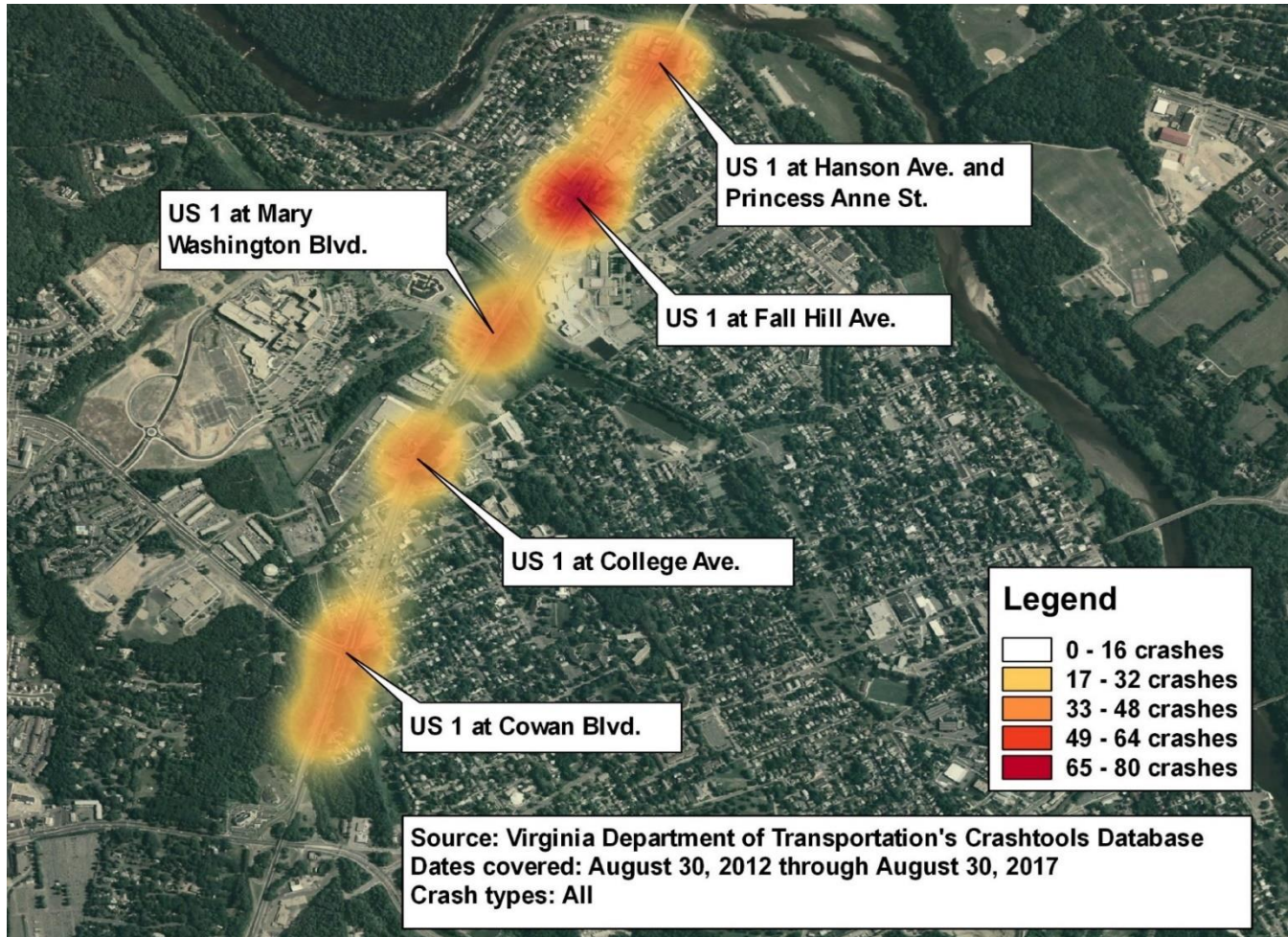
■ **Queuing Issues**

- Princess Anne St./Hanson Ave. – SB & WB Left Turns
- Fall Hill Ave. - SB & WB Left Turns
- Cowan Blvd./Rowe St. – NB Left Turn & SB Right Turn

■ **Weaving Issue**

- NB from Route 3 Off-Ramp to Make Left Turn at Cowan Blvd.

CRASH HEAT MAP



ROAD SEGMENT CRASH RATES

Segment	Total CR (Per 100 MVM)		Statewide Average (2015)
SR 3 to Cowan Crossing/Spotsylvania Ave.	116.74	≤	151.62
Cowan Crossing/Spotsylvania Ave. to Cowan Blvd.	179.91	≥	151.62
Cowan Blvd. to Eagle Village Dr.	197.50	≥	151.62
Eagle Village Dr. to Mary Washington Blvd.	77.26	≤	151.62
Mary Washington Blvd. to Fall Hill Ave./SR 639	192.91	≥	151.62
Fall Hill Ave./SR 639 to Princess Anne St./Hanson Ave.	362.09	≥	151.62
Princess Anne St./Hanson Ave. to Warrenton Rd./Butler Rd.	144.45	≤	151.62

Exceeds the state average crash rate

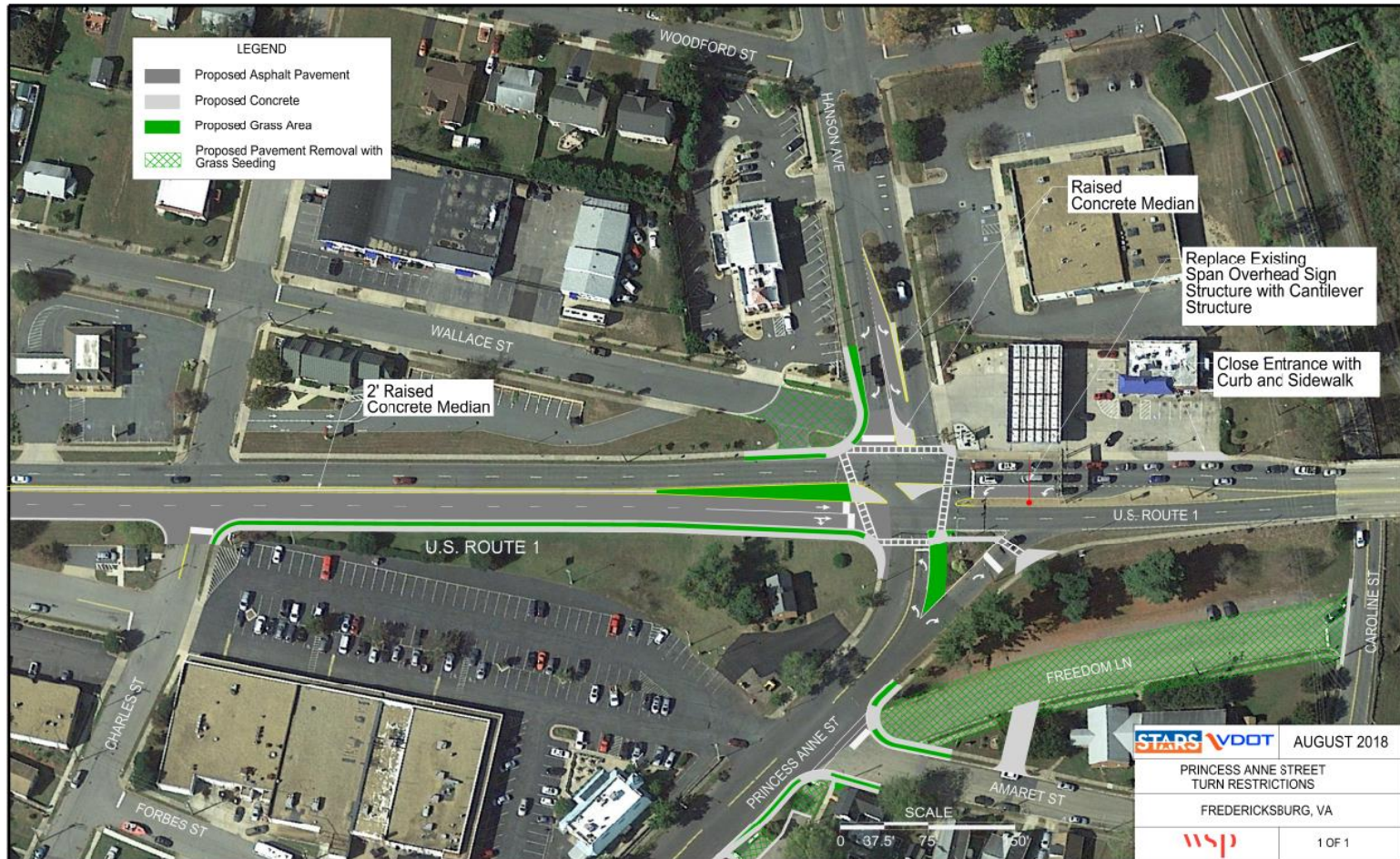
IMPROVEMENT OPTIONS

- Innovative Intersection Concepts
- Intersection Geometry
- Signal Operations
- Turn Restrictions
- Access Management

PRINCESS ANNE STREET/HANSON AVENUE — EXISTING CONFIGURATION



PRINCESS ANNE STREET/HANSON AVENUE – PREFERRED ALTERNATIVE



PREFERRED ALTERNATIVE BENEFITS – PRINCESS ANNE ST./HANSON AVE.

- **75% Reduction in Delay vs. No Build**
- **57% Crash Reduction vs. No Build**
- **Freedom Lane Closure Creates Opportunity for Alternate Use**
- **Amaret St./Van Buren St./Princess Anne St. Intersection Simplified**
- **Access Management Improvements**

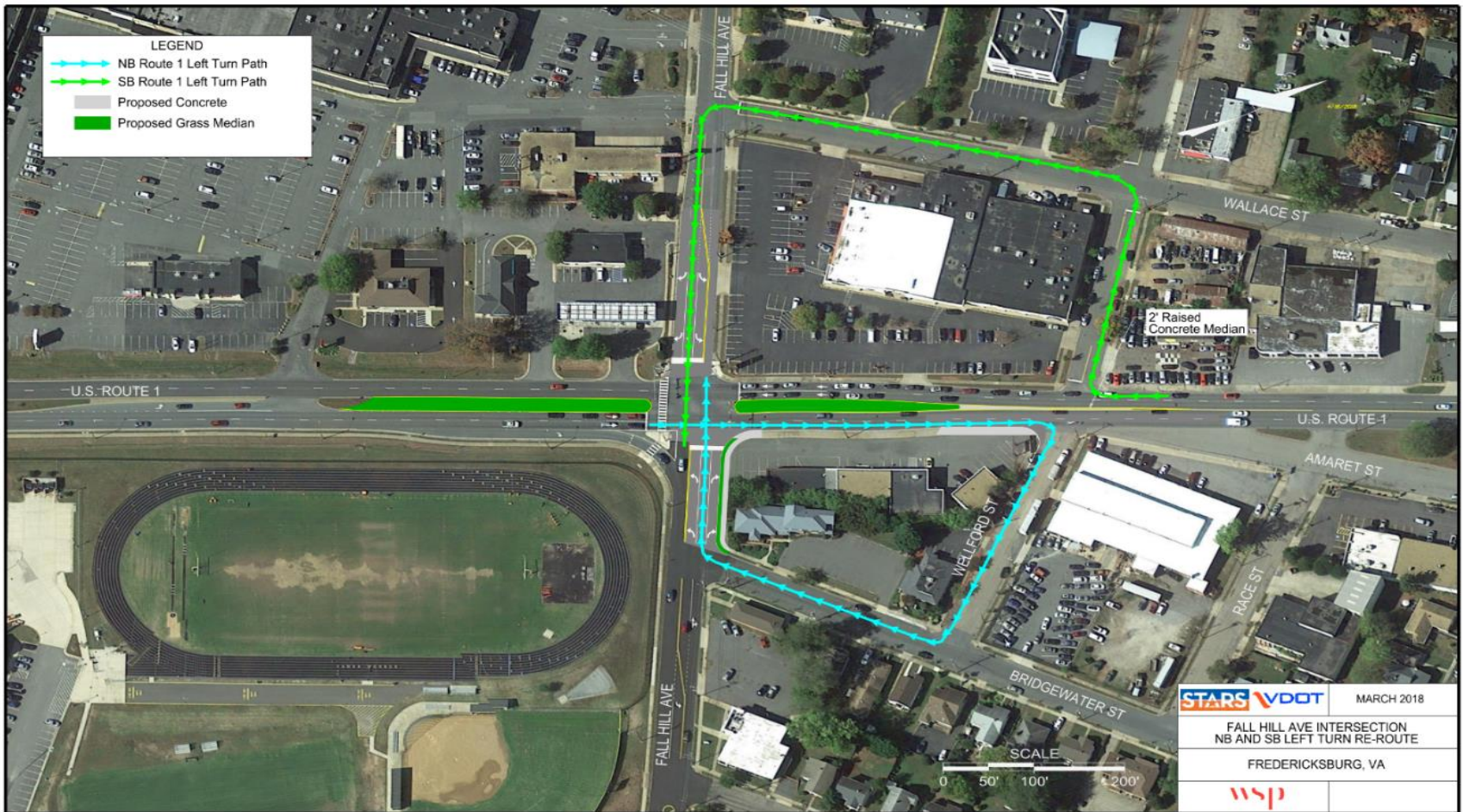
FALL HILL AVENUE – EXISTING CONFIGURATION



FALL HILL AVENUE – PREFERRED ALTERNATIVE A



FALL HILL AVENUE – INNOVATIVE INTERSECTION ALTERNATIVE B



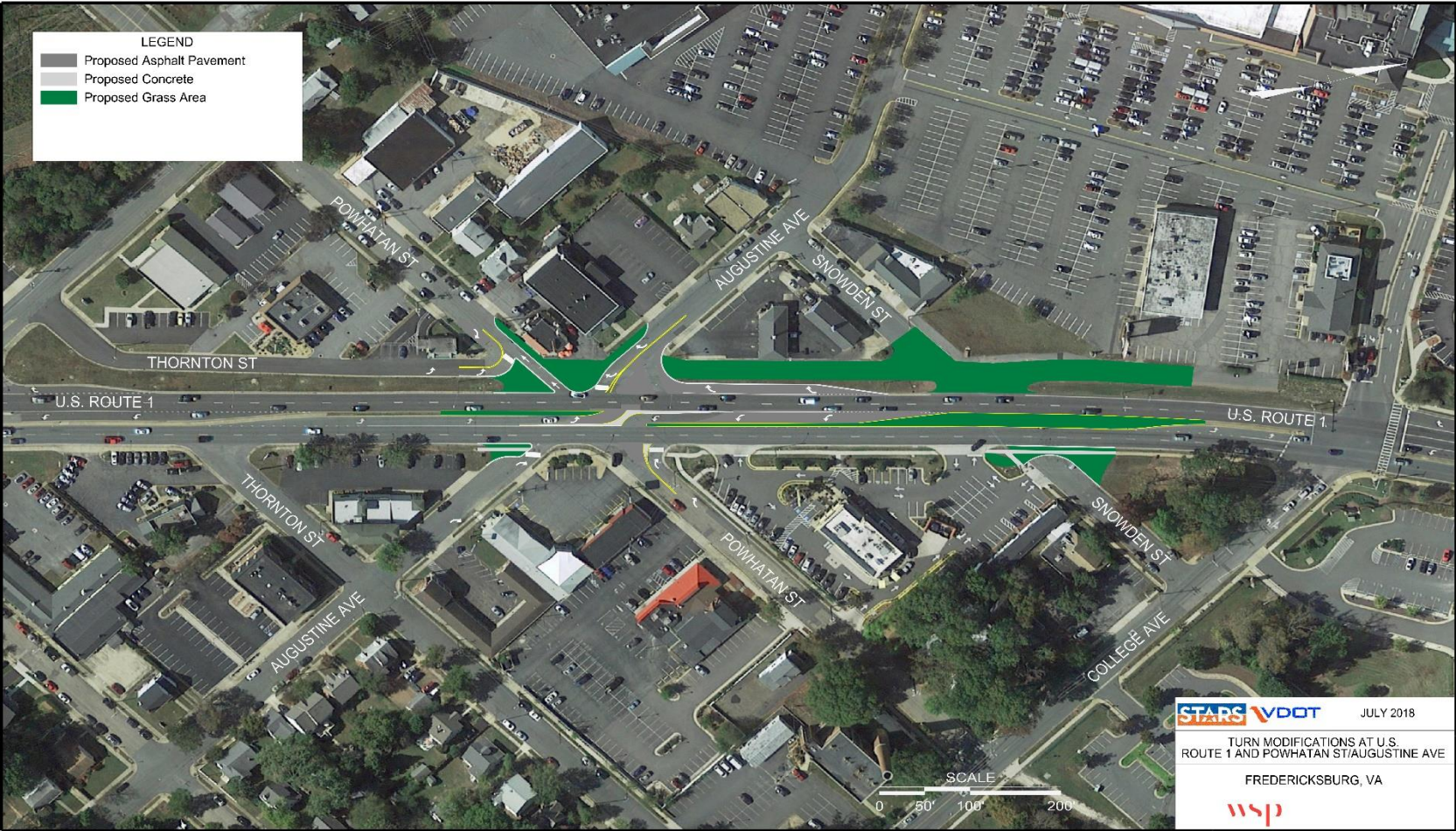
PREFERRED ALTERNATIVE BENEFITS – FALL HILL AVENUE

- **Alternative A is the Current Smart Scale Application**
- **Combination of Alternatives A and B could be Ultimate Phased Recommendation**
- **Alternative A Reduces Overall Delay vs. No Build by 40%**
- **Projected Crash Reduction of 31% vs. No Build for Alternative A**

POWHATAN STREET/AUGUSTINE AVENUE — EXISTING CONFIGURATION



POWHATAN STREET/AUGUSTINE AVENUE – ACCESS MANAGEMENT



COWAN BLVD. & COWAN CROSSING INTERSECTIONS — EXISTING CONFIGURATION



COWAN BLVD./ROWE STREET – PREFERRED ALTERNATIVE



PREFERRED ALTERNATIVE BENEFITS – COWAN BLVD./ROWE ST.

- **Delay Reduced by 42%**
- **Cross Street Operations Improved**
- **25% Crash Reduction vs. No Build**
- **Northbound Left Turn Queuing Issue Improved**

COWAN CROSSING/SPOTSYLVANIA AVENUE – PREFERRED ALTERNATIVE



PREFERRED ALTERNATIVE BENEFITS – COWAN CROSSING/SPOTSYLVANIA AVENUE.

- **Delay Reduced by 15% vs. No Build**
- **41% Crash Reduction vs. No Build**
- **Northbound Weaving Issue Solved by New Traffic Signal at Ramp Terminus**
- **Additional Storage Provided for Northbound Left Turn at Cowan Blvd.**
- **Spotsylvania Avenue Access Improved for Planned Redevelopment**

PROJECT STATUS/NEXT STEPS

- ✓ Data Collection and Field Review
- ✓ Crash Analysis
- ✓ Existing Conditions Operational Analysis
- ✓ Future No-Build Conditions Operational Analysis
- ✓ Development of Improvement Alternatives
- ✓ Future Build Conditions Operational Analysis
- ✓ Selection of Preferred Intersection Alternatives
- ✓ Planning-Level Cost and Schedule Estimates
- **Public Information Meeting – TODAY**
- **Prioritization/Packaging of Improvements**
- **STARS Improvement Summary Sheets**
- **Final Report**

STARS

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AFFORDABLE ROADWAY SOLUTIONS

ROUTE 1 CORRIDOR STUDY

Thank you!

