Route 1 Corridor Study

Public Information Meeting – August 27, 2018
STUDY AREA

ROUTE 1 (JEFFERSON DAVIS HIGHWAY)

STUDY AREA

PROJECT CENTERLINE

STUDIED INTERSECTIONS

ROADS

0  1,500  3,000 Feet

STARS

STRATEGICALLY TARGETED AND AFFORDABLE ROADWAY SOLUTIONS

2
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

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.
## Road Segment Crash Rates

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

*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

LEGEND
- Proposed Asphalt Pavement
- Proposed Concrete
- Proposed Grass Area
- Proposed Pavement Removal with Grass Seeding

Raised Concrete Median
2' Raised Concrete Median
Replace Existing Span Overhead Sign Structure with Cantilever Structure
Close Entrance with Curb and Sidewalk

STRATEGICALLY TARGETED AND AFFORDABLE ROADWAY SOLUTIONS
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

LEGEND
- Proposed Asphalt Pavement
- Proposed Concrete
- Proposed Grass Area

STRATEGICALLY TARGETED AND AFFORDABLE ROADWAY SOLUTIONS
Cowan Blvd. & Cowan Crossing Intersections – Existing Configuration
Cowan Blvd./Rowe Street – Preferred Alternative

Strategically Targeted and Affordable Roadway Solutions
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
Thank you!

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