Richmond Highway (U.S. Route 1) Corridor Improvements

Public Information Meeting

Tuesday, April 18, 2017
Mount Vernon High School
8515 Old Mt. Vernon Road, Alexandria, VA 22309

Amanda Baxter, VDOT, Special Projects Development Manager
Mark Gibney, PE, VDOT, Design Project Manager
Today’s Meeting

- Introduce the Richmond Highway (US Route 1) Corridor Improvements Project
- Traffic Projections
- Crash History
- Access Management
- Superstreet Concept vs Traditional Intersection
- Environmental Review Process
- Right of Way Process
- Project Schedule and Funding
- Public Outreach Plan
Proposed Improvements

- **Widening of Richmond Highway (US Route 1) from four lanes to six lanes**
  - Jeff Todd Way to Napper Road
  - Approximately 3 miles
- **Safety – access management principles incorporated**
- **Congestion relief**
- **Two options**
  - Conventional intersections
  - Superstreet
- **Median reservation for future Bus Rapid Transit (BRT)**
- **Sidewalks and separate bicycle path on both sides of road**
- **Bridge Replacements**
- **Potential noise walls**
- **Utility relocation**
The intent of this exhibit is to depict the configuration of elements within the proposed right-of-way. For clarity, potential landscaping is not depicted.
### Traffic Volume Projections

<table>
<thead>
<tr>
<th></th>
<th>South of Jeff Todd Way / S Mt Vernon Memorial Hwy</th>
<th>North of Buckman Road / N Mt Vernon Memorial Hwy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual Average Daily Traffic</td>
<td>% change from 2016</td>
</tr>
<tr>
<td>2016</td>
<td>34,500</td>
<td></td>
</tr>
<tr>
<td>2025 No Build</td>
<td>38,050 (10.3%)</td>
<td></td>
</tr>
<tr>
<td>2025 Build</td>
<td>39,000 (13.0%)</td>
<td></td>
</tr>
<tr>
<td>2045 No Build</td>
<td>47,400 (37.4%)</td>
<td></td>
</tr>
<tr>
<td>2045 Build</td>
<td>51,000 (47.8%)</td>
<td></td>
</tr>
</tbody>
</table>

*Future volumes are based on MWCOG model version 8.4, which is based on the current Fairfax County Comprehensive Plan and does not reflect changes resulting from BRT implementation.*
Travel Time Index

Existing 2016  5:00PM - 6:00PM

2045 No Build  5:00PM - 6:00PM

2045 Build  5:00PM - 6:00PM

Travel Time Index*

<table>
<thead>
<tr>
<th>Color</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>0.00 - 1.20</td>
</tr>
<tr>
<td>Yellow</td>
<td>1.20 - 1.50</td>
</tr>
<tr>
<td>Orange</td>
<td>1.50 - 2.00</td>
</tr>
<tr>
<td>Red</td>
<td>2.00+</td>
</tr>
</tbody>
</table>

* The Travel Time Index is the ratio of the peak-period travel time as compared to the free-flow travel time.
# 2011 – 2016 Crash History

<table>
<thead>
<tr>
<th>Type of Collision</th>
<th>Collision Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear End</td>
<td>232</td>
</tr>
<tr>
<td>Deer</td>
<td>2</td>
</tr>
<tr>
<td>Ped</td>
<td>22 *</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Angle</td>
<td>141</td>
</tr>
<tr>
<td>Head On</td>
<td>9</td>
</tr>
<tr>
<td>Side Swipe - Same Direction</td>
<td>30</td>
</tr>
<tr>
<td>Sideswipe - Opposite Direction</td>
<td>7</td>
</tr>
<tr>
<td>Fixed Object in Road</td>
<td>1</td>
</tr>
<tr>
<td>Non-Collision</td>
<td>3</td>
</tr>
<tr>
<td>Fixed Object - Off Road</td>
<td>12</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>461</strong></td>
</tr>
</tbody>
</table>

* 2 Fatalities

<table>
<thead>
<tr>
<th>Type of Collision</th>
<th>Collision Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury Crash</td>
<td>222</td>
</tr>
<tr>
<td>Pedestrian Injury Crash</td>
<td>26</td>
</tr>
<tr>
<td>Property Damage Crash</td>
<td>213</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>461</strong></td>
</tr>
</tbody>
</table>
Movements to/from side streets are restricted to improve traffic flow and reduce conflicting movements.
Access Management

Movements to/from side streets are restricted to improve traffic flow and reduce conflicting movements.

Before

32 conflicts

After

4 conflicts
Traditional vs Superstreet

Traditional street

Superstreet
Traditional vs Superstreet Concept

Traditional Street
- Consistent with Driver expectations
- Level of Service F
- Public acceptance
- Higher Side street delays
- Better Emergency vehicle access

Superstreet
- Simplified Signal Phasing
- May confuse drivers
- Level of Service C
- Fewer conflict points
- Crash reduction expected *
- Higher vehicle throughput
- Safer for pedestrians

* Per FHWA Crash Modification factors
National Environmental Policy Act (NEPA) Reports & Technical Studies Underway:

- Noise Analysis
- Air Quality Analysis
- Natural Resources
  - Endangered Species
  - Streams
  - Wetlands
- Historic Properties
- Hazardous Materials Investigations
- Socioeconomic
  - Environmental Justice
Noise Wall Process

1. Present noise study results and potential noise wall locations at public hearings

2. Perform noise measurements at representative receptors along the corridor

3. Perform noise modeling

4. Identify impacts (is noise mitigation warranted?)

5. Design and assess mitigation (typically noise walls)

6. Identify Noise Receptors

Final Design

1. Finalize noise barrier designs once the project has received design approval

2. Obtain VDOT Chief Engineer approval

3. Obtain FHWA concurrence

4. Solicit public input from benefited property owners and renters (voting process)

5. Incorporate approved noise wall(s) into the final road design construction plans

We are here
Each property impact is unique

Further design details are needed to determine full right of way impacts

Right of way acquisition process to begin after detailed design – anticipated in mid-2019

Right of Way representatives will be at each public meeting
### Project Schedule

<table>
<thead>
<tr>
<th>Activities</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Information Meeting #1</td>
<td>April 18, 2017</td>
</tr>
<tr>
<td>Release Environmental Assessment</td>
<td>Late 2017</td>
</tr>
<tr>
<td>Public Information Meeting #2</td>
<td>Late 2017</td>
</tr>
<tr>
<td>Public Hearing</td>
<td>Mid 2018</td>
</tr>
<tr>
<td>Federal Highway Administration Finding of No Significant Impact and Design Approval</td>
<td>Late 2018</td>
</tr>
<tr>
<td>Final Design</td>
<td>Late 2018</td>
</tr>
<tr>
<td>Right of Way Acquisition and Utility Relocations</td>
<td>Mid 2019</td>
</tr>
<tr>
<td>Begin Construction</td>
<td>Early 2023</td>
</tr>
<tr>
<td>Project Open to Traffic</td>
<td>2026</td>
</tr>
</tbody>
</table>

### Cost Summary

<table>
<thead>
<tr>
<th>Phase</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary Engineering</td>
<td>$12.5 million</td>
</tr>
<tr>
<td>Right of Way</td>
<td>$142.3 million</td>
</tr>
<tr>
<td>Construction</td>
<td>$60.0 million</td>
</tr>
<tr>
<td>Total</td>
<td>$214.8 million</td>
</tr>
</tbody>
</table>

- **Green**: Fully Funded
- **Yellow**: Partially Funded
- **Red**: Not Funded
## Project Funding

<table>
<thead>
<tr>
<th>Richmond Highway Corridor Improvements ($ in Millions)</th>
<th>Need</th>
<th>Available</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Estimate</td>
<td>215.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal RSTP</td>
<td>17.1</td>
<td>16.0*</td>
<td></td>
</tr>
<tr>
<td>Revenue Sharing</td>
<td>6.9</td>
<td>27.8</td>
<td></td>
</tr>
<tr>
<td>Regional NVTA</td>
<td>1.0</td>
<td>146.2</td>
<td></td>
</tr>
<tr>
<td>VA Smart Scale Request</td>
<td></td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>215.0</strong></td>
<td><strong>25.0</strong></td>
<td><strong>190.0</strong></td>
</tr>
</tbody>
</table>

### Funding Gap

- **Funding Gap Identified**: $190.0M

**Possible ways to address $190M funding gap:**

- Additional revenue sharing requests
- NVTA regional, additional federal RSTP funds, local revenues, and developer contributions

*NVTA has endorsed, CTB approval anticipated in June 2017*
Public Outreach Plan

- **Multiple opportunities for public involvement**
- **Coordination with key stakeholder groups** including:
  - Localities (Fairfax County)
  - Homeowner and Business Owners Associations
  - Fort Belvoir
  - Transit Providers
- **Second Public Information Meeting** late 2017
- **Public Hearing** in 2018 on design concepts
- **Regular email updates to stakeholder database and frequent outreach** before meetings and key project milestones
- Briefings to community groups
- Proactive media outreach
- Coordination with elected officials
- Project website:
  http://www.virginiadot.org/richmonddhighway
How to Provide Comments

- **At Tonight’s Public Information Meeting:**
  - Submit written comments on the comment sheet
  - Provide oral comments during the question and answer session following the formal presentation

- **Mail:**
  - Mail written comments to VDOT, attention Mark Gibney, at: VDOT Northern Virginia District, 4975 Alliance Drive, Fairfax, VA 22030

- **Email:**
  - Email your comments or questions to RichmondHighway@vdot.virginia.gov

- **Online:**
  - Submit your comments via the online comment form, available at www.virginiadot.org/richmondhighway

Please reference “Richmond Highway Corridor Improvements” in subject line of all correspondence
Richmond Highway (U.S. Route 1) Corridor Improvements

THANK YOU

http://www.virginiadot.org/richmondhhighway