



Hunter Mill Road Bridge over Colvin Run Project Update

May 2020

Presentation Outline

- Overview
- Existing Bridge Conditions/Temporary Improvements
- Proposed Bridge and Roadway Design
- Proposed Design Elements
- Proposed Trail Crossing
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- Proposed Costs and Schedule
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Overview

For a number of years, VDOT has been closely monitoring the condition of the bridge to insure continued operability and safety. In February, VDOT conducted an inspection of the bridge and determined that the condition of the bridge was deteriorating rapidly. On a temporary basis, the bridge was strengthened; however, the load had to be reduced. In light of the above, VDOT met with the supervisor and Fairfax County DOT to review the current situation, present options and determine a recommended option for a permanent replacement. A meeting was then held with community leaders and the supervisor to present the recommended option and solicit feedback. The community leaders expressed their support of the recommended option presented herein.

Existing Bridge Conditions



Temporary
timber bent
added in
2012

Temporary
knee braces
added in 2016



Virginia Department of Transportation

- The photographs above, taken in 2019, show the improvements made to maintain the integrity of the structure.

Existing Bridge Conditions - Superstructure

- Condition Rating = 3 (Serious)
- Significant corrosion of steel girder webs and flanges



➤ Bridge is structurally deficient



Virginia Department of Transportation

These photos, taken in 2019, show the degradation of the steel girders.

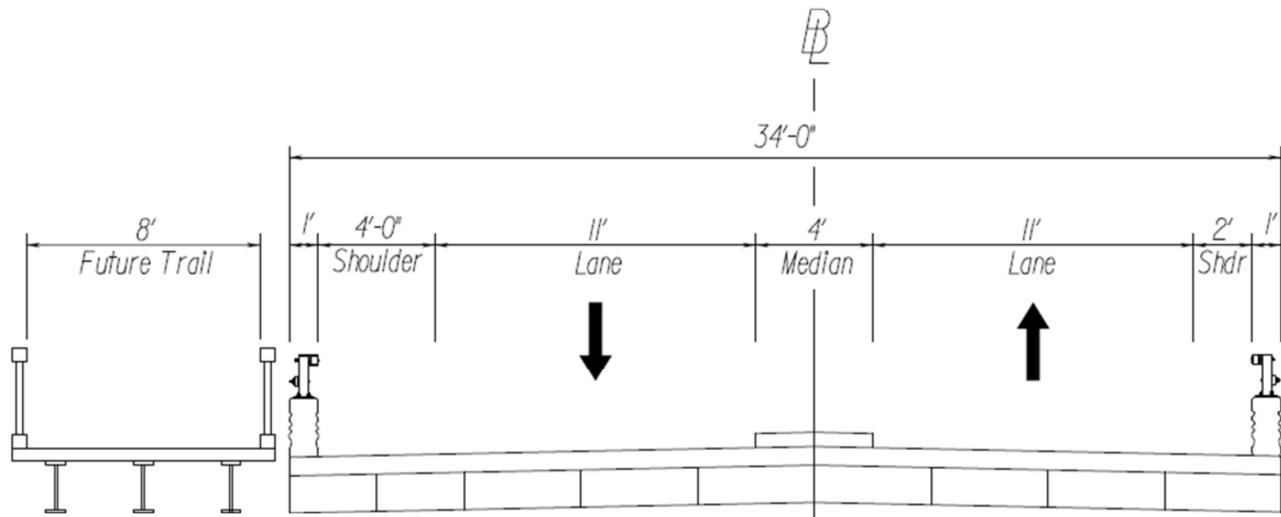
Temporary Improvements as of Feb 29, 2020

- Additional wooden beams added between “I” beams
- Load Rating reduced to 10 tons
- One lane bridge width reduced to approximately 10 feet



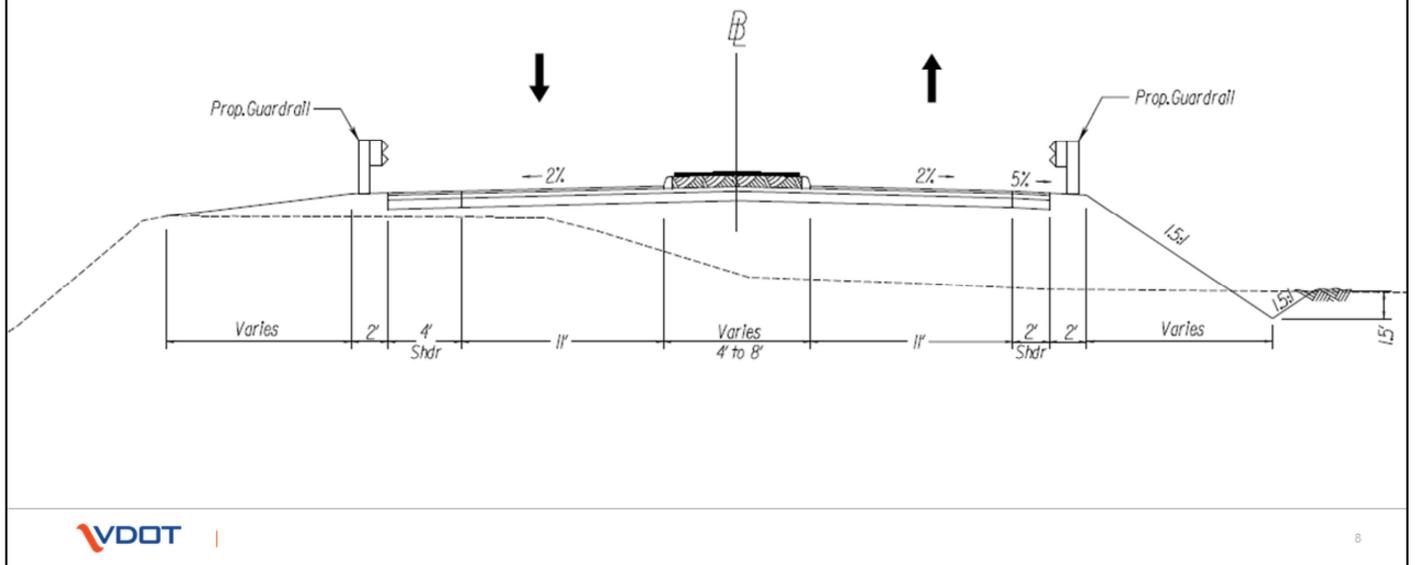
- VDOT inspected the bridge and determined it needed additional strengthening.
- Timber beams were placed in between the steel beams to strengthen the bridge and the load was reduced to 10 tons.
- Fairfax County Public Schools and Fairfax County emergency services were notified of reduced load.
- Future load testing may require reduced weight restrictions.

Proposed Vehicular and Future Pedestrian Trail Bridge Cross Sections



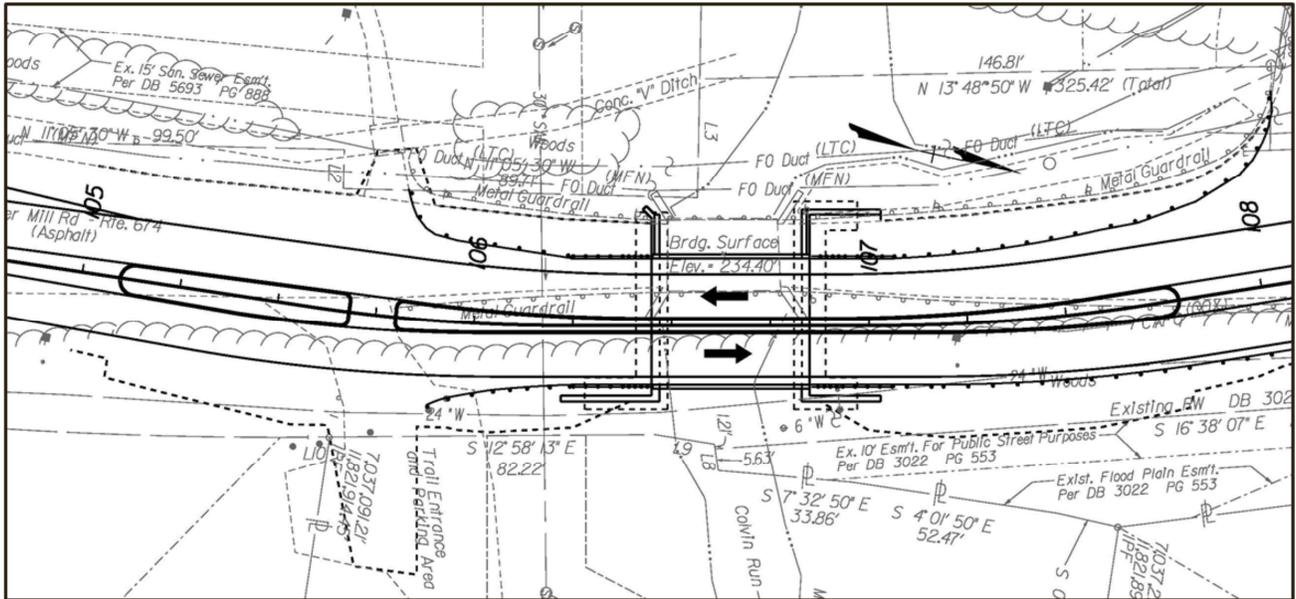
- To minimize speed, the bridge was kept as narrow as possible. A planter will be incorporated into the median.
- The 2' shoulder in the northbound lane is the minimum allowed.
- VDOT will build the abutments for the bridge to accommodate the future trail, but the trail bridge will be built by Fairfax County in the future.

Proposed Roadway Cross Section



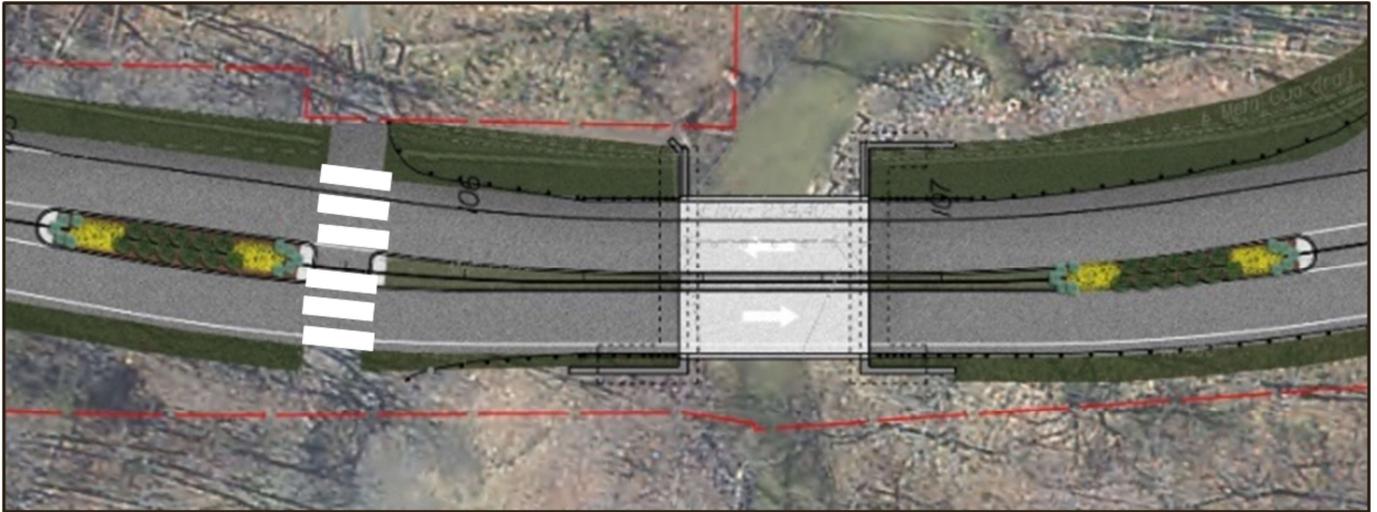
The median will have a variable width (4' to 8' wide) and include plantings.

Proposed Plan View



- The median on the bridge will be 4' and will be paid for by VDOT.
- The median outside of the bridge will be as wide as 8' and will be paid for by FCDOT.

Proposed Median/Splitter Island with Landscaping



- The above graphic shows the proposed trail crossing, two lane bridge and median/splitter island with landscaping.
- The roadway shifts to the east close to the right of way. The line of sight looking north is anticipated to be improved.

Bridge Elevation (Vehicular & Pedestrian use)



*** Subject to change. Final details to be determined.

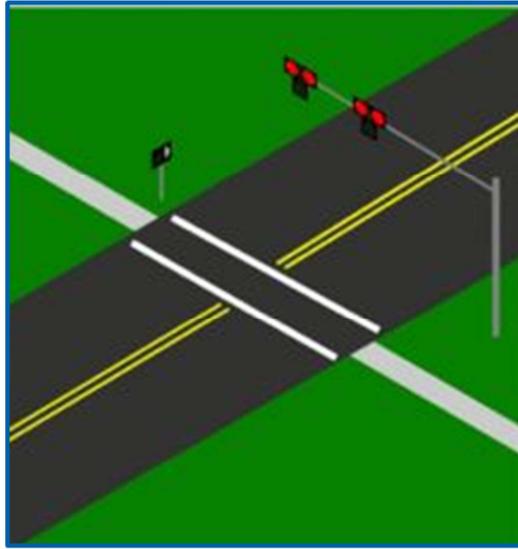
The above rendering shows the side of the bridge and is in keeping with the natural feel of the stream valley.

Proposed Median/Splitter Island with Landscaping



The above conceptual view shows the median landscaping and crosswalk. The maximum height of plants will be 3 feet.

Proposed Traffic Control at Trail Crossing



Note:

To be installed and maintained by VDOT. Pending successful completion of the Warrant Study.

High-intensity Activated crosswalk (HAWK) Beacon



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- The above graphic shows a proposed High-intensity Activated crosswalk (HAWK) beacon. It is activated when a trail user pushes the button.
- VDOT is investigating if the HAWK beacon will be warranted.
- VDOT will install and maintain the device.

Before and After

Existing bridge

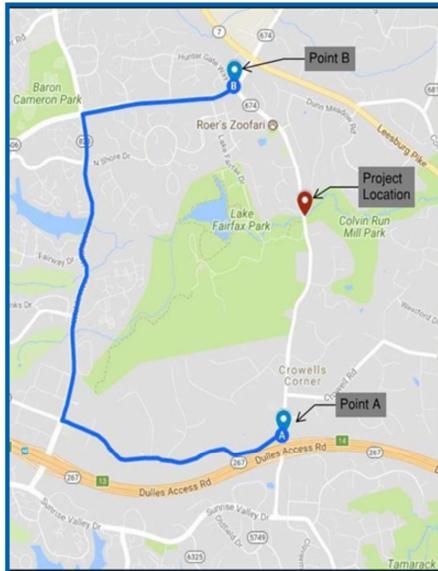


Proposed bridge



This slide illustrates the roadway shift to the east.

Construction and Maintenance of Traffic



- A detour will be implemented as needed during the duration of construction (see graphic):
 - Existing distance from Point A to B = 2 miles
 - Detour length from point A to B = 4 miles
- Anticipated Construction Contract: 16 months
- Construction Options under consideration:
 - Complete Road Closure – Duration TBD
 - Staged Construction – Duration TBD

Complete Road Closure:

- Detour travel distance = 4 miles
- Replace bridge in its entirety
- Shorter construction time than staged construction

Staged Construction

- No detour; travel distance = 2 miles
- Build east side first and then open it to traffic; then build west side

Project Costs and Funding

Anticipated Project Costs

Phase	Bridge & Approaches (VDOT)	Splitter Island (Fairfax County)
Preliminary Engineering	\$ 700,000	\$ 163,000
Construction	\$ 3,900,000	\$ 245,000
Total	\$ 4,700,000*	\$ 408,000

*The bridge replacement is funded with State of Good Repair funds.

- The cost of the bridge and approaches is \$4,700,000 which is already allocated by VDOT using State of Good Repair funds.
- The cost of the splitter island outside of the bridge will cost \$408,000 and will be paid for by Fairfax County.

Anticipated Project Schedule

Milestones	Dates
Public Information Meeting	April 16, 2018
Public Hearing (Tentative)	TBD
90% Plans	September 23, 2020
Pre-Advertisement Conference	October 14, 2020
Advertise for Construction	February 9, 2021
Notice to Proceed	April 22, 2021
Contract Completion	TBD

VDOT would like to proceed with a Public Hearing in the future, when permitted in light of COVID-19 restrictions, at which time the current conditions will be shown and the recommended option presented.

Next Steps

- **Because time is critical due to the condition of the bridge, VDOT is proceeding with the proposed design with the input and support of elected officials, County staff and community leaders**
- **The federal government is not permitting public hearings due to COVID-19. Once this is lifted, VDOT will schedule a public hearing and notify residents.**

Feedback

Please email comments and questions to:

- Meetingcomments@vdot.Virginia.gov
- Please include “Hunter Mill Road Bridge” in subject line
- Commend period ends June 12, 2020

Contact Information:

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THANK YOU!