



Evaluation of Strengthening/Replacement Alternatives John G. Lewis Memorial Bridge on Route 673 (Featherbed Lane) over Catoctin Creek

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Link to the project webpage:

http://www.virginiadot.org/projects/northernvirginia/route_673_over_catocin_creek.asp

Alternative 7

Features

- **Replace existing Pratt thru truss bridge with a new through truss bridge similar in appearance**
 - Will carry one reversible lane
 - Designed for AASHTO LRFD HL-93 loading
 - Increases horizontal clearance between the bridge railings from 11'-2" to 14'
 - Crash tested bridge safety railing
 - Timber Glu-lam Deck
- **New Abutments**
- **Estimated Cost \$3.0M to \$4.0M**



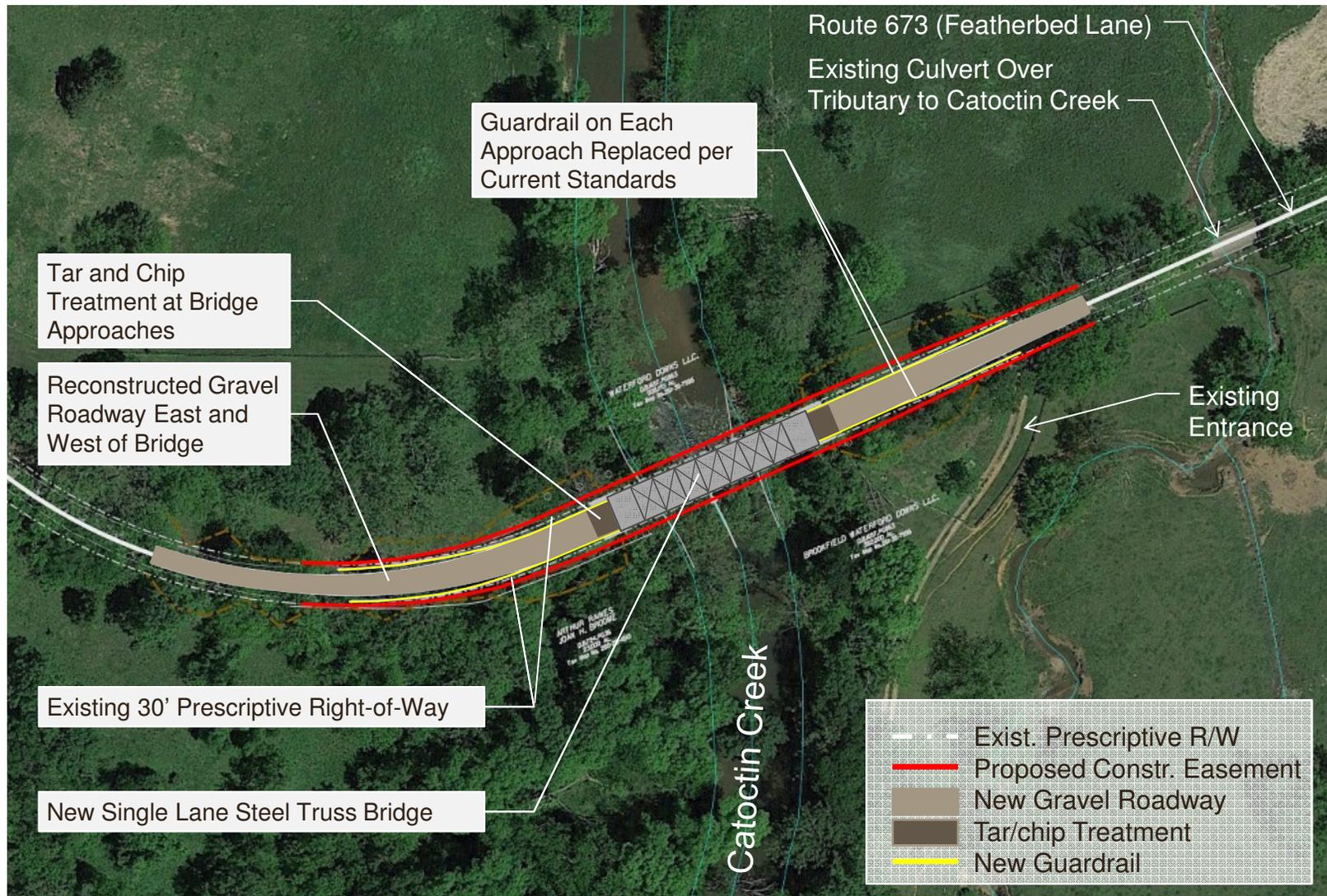
Alternative 7 New Single Lane Steel Thru Truss Bridge



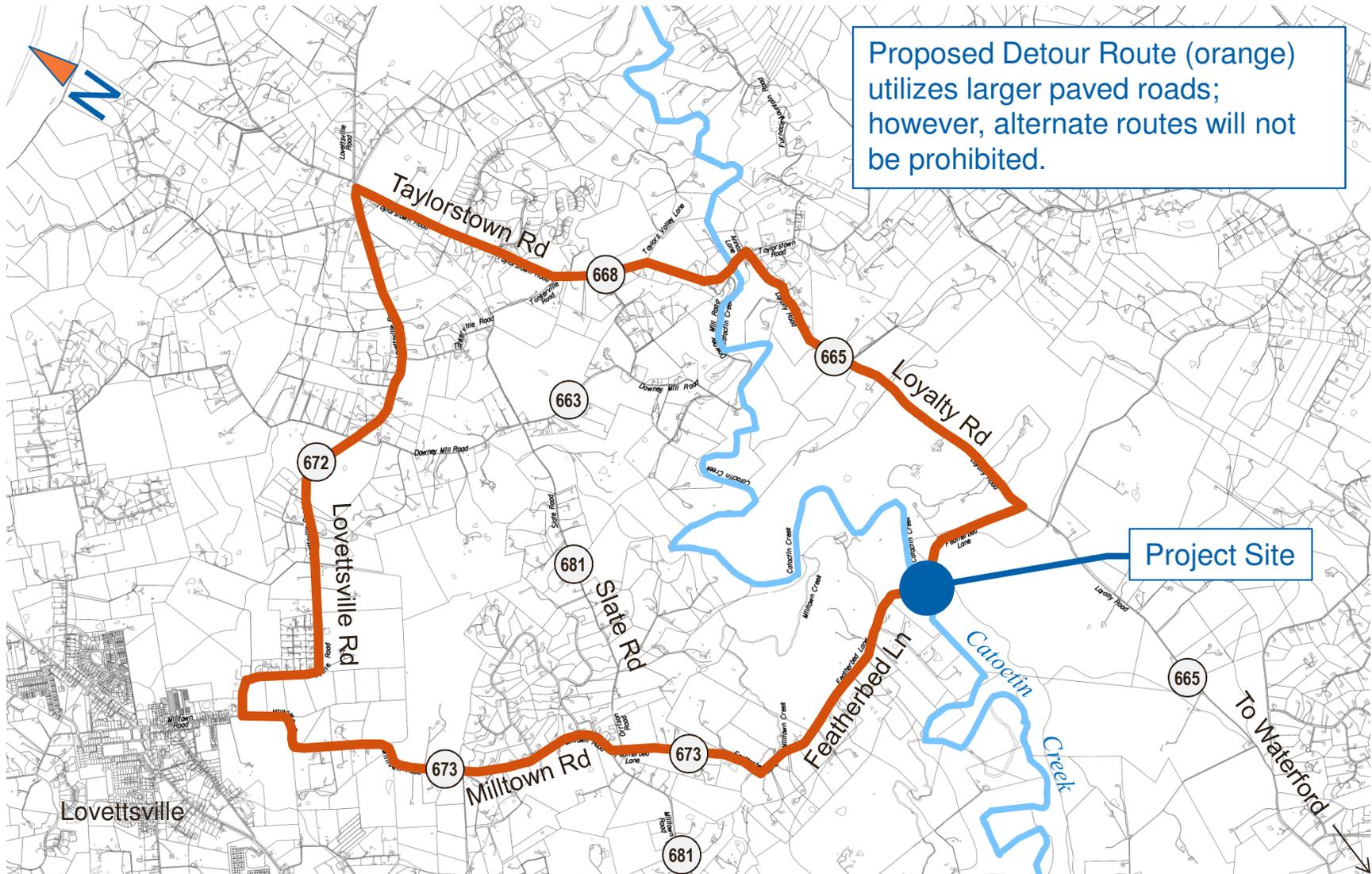
John G. Lewis Memorial Bridge over Catoctin Creek ALTERNATIVE 7 - New Single Lane Steel Thru Truss Bridge



Alternative 7 – Roadway Plan



Detour Route



Proposed Detour Route (orange) utilizes larger paved roads; however, alternate routes will not be prohibited.

Project Site

Historical Truss Bridge Preservation Springbrook Road Truss over Linville Creek, Broadway, VA Single Span (136 ft) Thatcher through truss bridge, Built 1898



Before



After

Highlights:

Listed in the National Registry of Historic Places and in Virginia Landmarks Registry.

Built in 1898, the capacity was recently reduced to a 4 ton weight limit posting.

It was decided to close the bridge for safety reasons (non-redundant design can lead to instantaneous collapse, no emergency responder vehicle access).

In order to keep the bridge at the current location, the County decided to repurpose the one-lane Truss Bridge as a pedestrian bridge. A new parallel 2-lane bridge was constructed to carry traffic (4-spans, prestressed box beams with concrete overlay, 136 ft long x 32 ft wide).

The project maintains the old historic truss bridge in its current setting and provides a new bridge to meet current and future traffic needs.