

**Layng Covered Bridge Rehabilitation Project**  
**MP 0.218**  
**Estimated Road Fund Cost \$102,700**



**Project Scope: Rehabilitate the covered bridge by replacing failed members and replace roof.**

|                         |                   |                         |            |
|-------------------------|-------------------|-------------------------|------------|
| <b>Project Limit</b>    | MP 0.202 to 0.235 | <b>Bridge Number</b>    | 39C241     |
| <b>Functional Class</b> | Local             | <b>Project Status</b>   | Proposed   |
| <b>Road Name</b>        | Layng Road        | <b>Project Category</b> | Structures |

**Existing Bridge Condition**

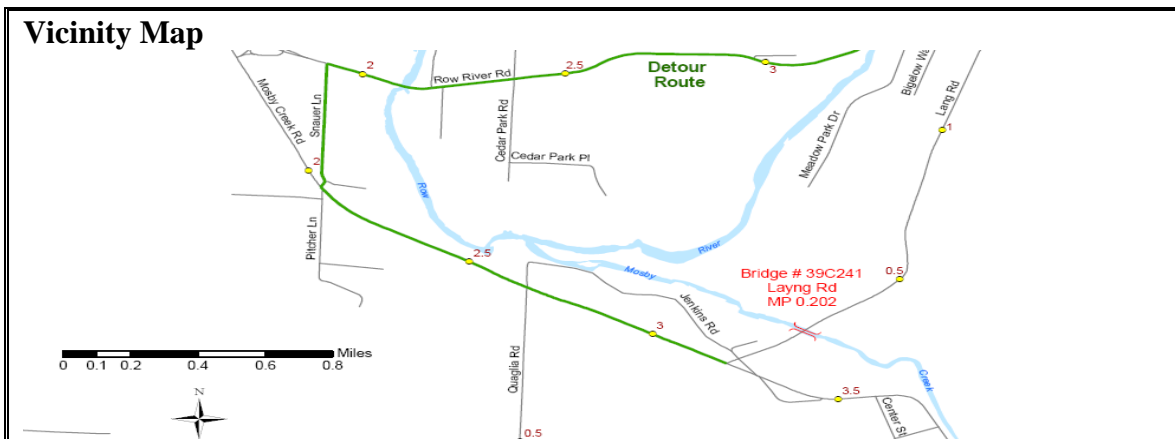
|                    |               |                      |                        |
|--------------------|---------------|----------------------|------------------------|
| <b>ADT</b>         | 260           | <b>Truck Traffic</b> | 10                     |
| <b>Bridge Type</b> | Wooden Bridge | <b>Load Rating</b>   | 14 ton (9 T operating) |
| <b>SR</b>          | 25.9          | <b>Height</b>        | 12'4"                  |
| <b>Width</b>       | 15.1 feet     | <b>Span /Length</b>  | 135 feet               |

**Existing Bridge Views**



**Define the Problem**

This bridge is in a deteriorated condition due to traffic, weathering, vandalism, and pests. Key bridge members such as, truss members, stringers, floor beams are in a state of decay that is affecting its load carrying capacity. Currently, the bridge is posted for a load restriction (Posted Load 8 ton).



**Layng Covered Bridge Rehabilitation Project**  
**MP 0.218**  
**Estimated Road Fund Cost \$102,700**



**Proposed Solution**

Replace the existing 89-year old bridge with a new bridge. However, considering the historic importance of the covered bridge, it may merit restoration by replacing only the members that have decayed or damaged. It may also need post-tensioning to remedy any sagging effects. The bridge will be dismantled during restoration, and rebuilt completely with sound structural members. The bridge roof will also be removed and replaced with lightweight roof.

**Project Cost (\$,000s)**

| PROJECT ELEMENT          | TOTAL          | FY 11 | FY 12          | FY 13 | FY 14 | FY 15 |
|--------------------------|----------------|-------|----------------|-------|-------|-------|
| Pre-Engineering          | \$85           |       | \$85           |       |       |       |
| Right-of-way Phase 1     |                |       |                |       |       |       |
| Construction Engineering | \$75           |       | \$75           |       |       |       |
| Construction -structure  | \$725          |       | \$725          |       |       |       |
| Consultancy Service      | \$115          |       | \$115          |       |       |       |
| <b>Total Cost</b>        | <b>\$1,000</b> |       | <b>\$1,000</b> |       |       |       |

**Funding Source (\$,000s)**

| FUND SOURCE             | TOTAL          | FY 11 | FY 12          | FY 13 | FY 14 | FY 15 |
|-------------------------|----------------|-------|----------------|-------|-------|-------|
| Road Fund-HBP match     | \$103          |       | \$103          |       |       |       |
| HBP Fund-structural imp | \$897          |       | \$897          |       |       |       |
| State Aid               |                |       |                |       |       |       |
| Other                   |                |       |                |       |       |       |
| <b>Total Fund</b>       | <b>\$1,000</b> |       | <b>\$1,000</b> |       |       |       |

**Factors for Project Selection**

|                                 |                                     |                                     |                                     |                                     |                                     |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Safety Improvement              | <input type="checkbox"/>            | <input type="checkbox"/>            | Plan Consistency                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Structural Capacity Enhancement | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Economic Development                | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Congestion Improvement          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Supports Tourism, Recreation        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Provides Bike/Ped Alternative   | <input type="checkbox"/>            | <input type="checkbox"/>            | Preserves Bridge Pavements          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Degree of Users Benefits        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Has Public Support (Public Request) | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Leverages Other Projects/Funds  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Total Factor Considered             |                                     | 9                                   |

**Foot Notes<sup>+</sup>**

Project Selection factors are shown as informational purposes only. Bridge projects are not ranked, as are other project types for funding priority. These projects are prioritized based on maintenance recommendations prepared by bridge inspectors. This bridge has been recommended for rehabilitation in the recent bridge inspection report.

The Layng Covered Bridge is a candidate for rehabilitation / replacement owing to its poor structural condition rating and low overall bridge sufficiency rating (SR). Bridges with an SR below 50 are generally replaced with a new structure.

Lane County applied for Highway Bridge Program (HBP) funds to address structural deficiency of the bridge. Staff anticipates approval of the funds in next allocation cycle FY 2012 or later.

The Road Fund cost shown includes the required match for federal funding, which is calculated at the required match rate at 10.27%.