

Maclay Bridge Closure

Frequently Asked Questions

January 2024



Background

The Maclay Bridge trusses were constructed in the 1920s and placed at their current location in 1953; in addition, eastern concrete beam spans were built in 1965 as part of a rehabilitation. The bridge crosses the Bitterroot River in Missoula, connecting North Avenue West with River Pines Road. The bridge serves the Target Range and Big Flat areas. In 2011, the Montana Department of Transportation (MDT) load posted the bridge at 11 tons.

MDT notified Missoula County of the need for an emergency closure of Maclay Bridge, and the bridge was closed indefinitely on January 25, 2024.

Bridge load postings and closures are a matter of public safety. MDT is responsible for inspecting and load rating state as well as off-system, primarily county owned, bridges. Bridge closures are necessary for a variety of reasons, but safety is our top priority.

MDT will work with Missoula County to determine if there are temporary repairs that could be performed to reopen the structure. We recognize that the closure of Maclay Bridge is an inconvenience to the community, and MDT appreciates your patience as we evaluate options for the bridge.

Maclay Bridge Closure

Why is the bridge closed?	After receiving both the bridge inspection findings and load rating review, MDT's Load Rating Technical Panel determined closure was the most appropriate course of action due to wear on the bridge. The bridge closure notification was immediately sent after the safety risk determination was complete.
What is wrong with the bridge?	The field inspection identified steel section loss, holes in the stringers (commonly known as secondary beams), and previously undocumented corrosion with loss to the floor beams. The engineering calculations identified the possibility of a localized failure in the stringers, which posed a significant safety risk to the traveling public. After MDT made the safety risk determination, the bridge closure notification was immediately sent to Missoula County.
The field inspection happened last summer but Missoula County did not close the bridge until January. Is that unusual?	The Maclay Bridge closure followed standard MDT processes and associated timelines. The field inspection team requested a review of the bridge's load rating because of the wear conditions noted. MDT's consultants conducted engineering calculations as part of the load rating review to identify the structural capacity of the bridge, which resulted in the bridge closure.
If the County owns the bridge, why is MDT involved?	MDT is responsible for inspecting, load rating, and completing engineering calculations for state and off-system bridges. MDT also participates in construction and funding for repair or replacement of bridges across the state.
Why did you close the bridge to bicycle and foot traffic?	MDT's bridge inspections and load ratings are meant to address safety issues and risk determinations which could result in bridge closures. Missoula County engineers may later assess the structure for safe passing of pedestrians and bicyclists

Bridge Inspection Process

Why are bridges load posted?	Federal regulations and state statutes require bridge weight restrictions when the engineering analysis of a bridge, known as a load rating, indicates that it cannot carry standard, legal loads. Load ratings provide information about how much distributed weight can safely pass over a bridge. A bridge is load posted when a load rating indicates it cannot safely carry certain loads that would otherwise be legal in Montana.
Bridge inspections vs. load ratings	Certified team leaders typically inspect bridges on a 2-year cycle, unless there is a finding of concern which requires more frequent monitoring. Licensed professional engineers complete load ratings for all bridges in Montana. Load ratings include structural analysis of a bridge's capacity, in its current condition, to carry certain vehicles. MDT updates load ratings throughout the bridge life.



The New Bridge

<p>When will the new bridge be built?</p>	<p>Missoula County, in collaboration with MDT and the Federal Highway Administration (FHWA), is in the process of completing an environmental document (a categorical exclusion (CE)), required for construction of the proposed bridge. Missoula County submitted the draft CE to MDT and FHWA in November 2022.</p> <p>Section 106 of the National Historic Preservation Act (NHPA) guides federal agencies who propose or permit projects that may affect historic properties. The County is waiting to receive information about the effort required to receive Section 106 approval for adopting and keeping the Maclay Bridge in place as an historic structure.</p> <p>The County expects FHWA to sign the CE for the new bridge this summer. Once the Scope of Work is finalized, MDT, with input from Missoula County, will manage the bridge's final design and construction. Construction is tentatively planned for 2026, depending on completion of design and availability of funding.</p>
<p>Will the new bridge be fast-tracked now that the old bridge has been closed?</p>	<p>FHWA, MDT and Missoula County will follow the process required by the National Environmental Policy Act (NEPA) and NHPA.</p>
<p>Does the county and/or state have money to repair or replace this bridge?</p>	<p>Federal and state gas tax funds will, in part, pay for the new bridge, estimated to cost \$29 million including engineering, right-of-way acquisition, utility relocations, permitting, construction administration, and construction. The County estimates it will fund \$37,000 to provide the small local match required for project construction.</p>

THE STATE OF BRIDGES IN THE U.S.

There are more than 617,000 bridges across the United States. Currently, 42% of all bridges are at least 50 years old, and 7.5% of the nation's bridges are considered structurally deficient, meaning they are in poor or worse condition. A recent estimate for the nation's backlog of bridge repair needs is \$125 billion.

THE STATE OF BRIDGES IN MONTANA

There are more than 4,500 bridges* in Montana and about 10% are load posted, representing one of Montana's most significant infrastructure challenges. MDT owns about 2,500 bridges and is responsible for inspecting and load rating state as well as off-system, primarily county owned, bridges. Many of the nearly 2,000 county-owned bridges are approaching their intended service life or are in disrepair with about 400 of those being posted with weight restrictions. (*National Bridge Inventory)

Contacts

 **Lisa Gray:**
HDR Public Involvement

 **lisa.gray@hdrinc.com**

 **406-208-0551**

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