MnDOT, WisDOT study options for Blatnik Bridge

**Duluth, Minn.** – The Minnesota and Wisconsin departments of transportation have determined the Blatnik Bridge is approaching the end of its service time, and efforts are underway to determine the best course of action based on social, environmental and economic impacts to Twin Ports stakeholders and communities. While the process for this determination has begun, the timeline is highly dependent on multiple factors. Construction is estimated to begin in 2028.

The Blatnik Bridge opened in 1961, connecting Duluth, Minn., and Superior, Wis., over the St. Louis Bay. After 60 years of exposure to elements, the bridge has deteriorated and is nearing the end of its usable life. Deficiencies in primary trusses have resulted in load restrictions on the bridge, and the navigation channel piers are vulnerable to vessel impact. Design standards to account for vessel impact have changed over the years.

MnDOT and WisDOT have a management agreement in place to keep the bridge safe for its remaining life. Because of its age and condition and to ensure safety, the Blatnik Bridge is inspected annually. Preservation and strengthening projects are necessary approximately every four years to keep the bridge safe and minimize further deterioration. The next preservation project is scheduled for 2022.

MnDOT is leading the National Environmental Policy Act (NEPA) process to assess the project’s needs and alternative options and determine environmental impacts of those options. The result of the NEPA process will be identifying a preferred option for final design of the bridge. This process is expected to be completed in 2023, followed by preliminary design work in 2024-26 and construction in 2028-31.

If the main trusses are not replaced in the next 10-15 years, there will be more load restrictions, increased inspections and added maintenance, which means more lane closures. Eventually, this would lead to a reduction to single lane in each direction, then a full bridge closure and finally bridge demolition.

Based on the current schedule, the starting year of construction will be 2028. The planning estimate for total project cost is estimated to be up to $1.8 billion using inflation projections for the starting year of construction. The estimated project cost includes construction, engineering, right-of-way acquisition and other costs, which are unknown at this time. MnDOT and WisDOT will each pay 50 percent of the cost of a new bridge.
NEPA requires the states to assess all alternative options for replacing or rehabilitating the bridge. MnDOT and WisDOT have not yet reached any determinations about the feasibility of specific options. It has been determined that rehabilitation is not feasible. Currently, Minnesota cannot adequately fund this project. Without new funding, MnDOT may have to consider delays to other projects around the state. This construction cost estimate (greater than $150 million for the Wisconsin share) identifies the project as a “major interstate bridge” for Wisconsin and must be funded with statutory-specific funding requiring specific legislative action.

The states will work together to secure a majority of federal cost participation. The two departments of transportation have a comprehensive management study that indicates a complete replacement is the most economical option.

For more information on the project, visit mndot.gov/d1/projects/blatnik-bridge/.
The Minnesota Department of Transportation (MnDOT) and Wisconsin Department of Transportation (WisDOT) have initiated a planning and design study of the John A. Blatnik Bridge, which carries I-535 and US 53 traffic over the St. Louis Bay, to address concerns due to deteriorating bridge infrastructure and improve safety and traffic mobility. The other major bridge over the Duluth-Superior harbor connecting these two cities is the Richard I. Bong Memorial Bridge, which carries US 2 traffic and is about five miles southwest of the Blatnik Bridge. There are several reasons that two bridges are needed in the Duluth-Superior area:

1. Most cities separated by bodies of water have more than one crossing to carry traffic and provide for emergency services. Other cities include St. Paul and Minneapolis in MN as well as other major US port cities such as Chicago, New York, Los Angeles, Seattle and San Francisco.

2. Both bridges are needed for the Duluth-Superior area to accommodate interstate freight and port access. The Bong Bridge would not adequately serve those needs alone. However, only loads of 40 tons or less currently are allowed on the Blatnik Bridge.

3. Approximately 33,100 vehicles per day use the Blatnik Bridge. That traffic would be added to the Bong Bridge’s daily traffic of 16,100 vehicles if the Blatnik Bridge no longer was in operation and could cause traffic delays.

4. Periodic maintenance and bridge closures are required on the Blatnik and Bong bridges. If both the Bong and Blatnik bridges were closed for maintenance, then the next closest river crossing is the Oliver Bridge, which is approximately 26 miles round trip and only viable for passenger vehicle traffic. The Bong Bridge is currently the only bridge crossing that allows heavy and wide trucks to cross in the Duluth-Superior area. If heavy and wide trucks are unable to use the Bong Bridge to cross, they must travel south to cross the St. Croix River between Hinckley, MN, and Danbury, WI. That trip is about 75 miles on the MN side and 50 miles on the WI side.

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**WEBSITES**

- [www.dot.state.mn.us/d1/projects/blatnik-bridge/](http://www.dot.state.mn.us/d1/projects/blatnik-bridge/)
- [wisconsindot.gov/Pages/projects/by-region/nw/blatnikbridge](http://wisconsindot.gov/Pages/projects/by-region/nw/blatnikbridge)

**Project Map**

- **BLATNIK BRIDGE**  
- **BONG BRIDGE**  
- **OLIVER BRIDGE**

ADT = Average Daily Traffic

Locations where heavy and wide trucks are not allowed to cross

- 46,000 ADT
- 22,900 ADT
- 16,100 ADT
- 16,100 ADT
- 34,500 ADT
- 33,100 ADT
- 14,600 ADT
- 3,100 ADT
- 3,100 ADT
Fact Sheet

- Carries I-535/US 53 over the Duluth-Superior harbor between Minnesota and Wisconsin
- Totals 7,975 feet in length (1.5 miles)
- Stands 120 feet over the St. Louis Bay
- Carries more than 33,100 vehicles per day
- Opened for traffic in 1961
- Approaching end of usable life
- Load restricted due to condition
- Ranked No. 1 risk in MnDOT Bridge Inventory

Outdated Design

After 60 years of exposure to the environment, corrosion on the bridge’s truss sections is widespread and inaccessible to manage.

Loss of plate thickness from rust and age requires limiting the maximum vehicle to 80,000 lbs on the bridge (about half of a standard unrestricted vehicle size).

The pin and hanger system at each corner is non-redundant, prone to wear and does not meet current load standards.

Navigation channel piers do not meet modern standards and are vulnerable to vessel impact.

The existing ship protection devices (dolphins) are ineffective.

Plate girder approach spans have strength deficiencies that result in additional load restrictions.
Condition and Maintenance

Because of its age and condition and to ensure safety, the Blatnik Bridge is inspected annually and takes twice as long and four times the effort to inspect than the Bong Bridge.

- The bridge’s design makes many truss areas challenging or inaccessible to inspect.

Preservation and strengthening projects are necessary approximately every four years to keep the bridge safe for traffic and avoid further deterioration.

- Currently, about 33% of primary truss members have strength deficiencies, and the wire hanging ropes have corrosion that require frequent maintenance.

Without significant additional funding to address long-term needs, the Blatnik Bridge will continue to decay and eventually need to be closed.

Improving Mobility, Safety and Connectivity

The Blatnik Bridge is a vital regional connection between the Twin Ports Interchange and US 2/I-35. As one of two bay crossings, it provides necessary access for emergency response and bridge closures.

- Modern bridge design has evolved and improved since the Blatnik Bridge opened in 1961. Substandard shoulders, short deceleration lanes, a steep grade and a tight curve leaving the bridge in Superior contribute to higher-than-average crash rates.

- The bridge’s current design also has no ability to accommodate bikes or pedestrians, a critical need for connectivity, accessibility and mobility for Twin Ports residents.

Project Milestones

- **2020 to 2024**: Preferred Alternative and Environmental Documentation
- **2024 to 2026**: Preliminary Design
- **2026 to 2028**: Final Design
- **2028 to 2032**: Construction