

Check out
the video

Federal-aid Program Overview Bridge Program National Bridge Inspection Standards

www.fhwa.dot.gov/federal-aidessentials



This program requires inspection of all publicly owned highway bridges longer than 20 feet

As an integral part of our Nation's transportation system, bridges connect us and ensure that businesses can move their goods seamlessly throughout the country. Bridge inspection and maintenance activities ensure that our bridges remain safe for all users.



When agencies inspect and maintain their bridges, unsafe conditions can be addressed and the possibility of closure minimized.

A bridge failure in 1967 prompted Congress to pass legislation to ensure the safety of our Nation's bridges and the traveling public. The National Bridge Inspection Standards, or NBIS, is the result of this legislation. The NBIS requires inspection of all publicly owned highway bridges greater than 20 feet in length.

While State departments of transportation, or State DOTs, are ultimately responsible for

ensuring compliance with the NBIS, many States have delegated functions of this program to the bridge owner.

Even if your State DOT performs the functions required by the NBIS, **all bridge owners are responsible for understanding and complying with the NBIS requirements** and any additional State requirements.

The NBIS establishes minimum qualifications for inspection personnel, identifies which bridges to inspect, and defines the information to be collected and reported as part of the inspection process.

In most cases, routine inspections are required at least every 24 months.



Some low-risk bridges may be inspected at intervals up to 48 months if prior approval is received from the Federal Highway Administration, or FHWA.

In addition to routine inspections, bridge owners may have to perform other types of inspections.

This may include underwater inspections to verify the condition of bridge elements below the water surface and above the mud line; fracture critical inspections of steel bridge elements, whose failure may cause the bridge to collapse; damage inspections after a natural disaster or accident; and in-depth inspections.

Another important safety aspect of the NBIS is load rating. A load rating determines the safe load-carrying capacity of each bridge. After a bridge inspection, the load rating must be verified based upon the observed field conditions.

When it is determined that a bridge cannot safely carry State legal loads, the bridge must be load-restricted or strengthened.

Bridge owners are responsible for properly strengthening, load restricting, or closing bridges when necessary.

Inspections typically will identify maintenance items, which may need to be addressed to keep the bridge in good working order. In some cases, an inspection may identify a critical finding.



The NBIS defines a critical finding as a structural or safety-related deficiency that requires immediate follow-up inspection or action.

The bridge owner must immediately address any identified critical finding because the finding could have a direct impact on public safety.

Since the NBIS requires that each State have an established procedure to address and report critical findings, your State DOT can provide guidance on actions to take if a bridge inspection results in a critical finding.

All bridges over water require a scour assessment.



This assessment determines the bridge's vulnerability to erosion of material from around bridge supports to a depth that may cause instability or failure.

Development and implementation of a plan of action, or POA, is required for any bridge determined to be vulnerable to scour.

The POA details the steps to take if the bridge experiences a flood event.

Maintaining detailed records is an important component of a bridge inspection program.



Contact your State DOT for a detailed explanation of the bridge inspection program in your State and your responsibilities as a bridge owner.

Bridge owners need to maintain a file for each bridge that includes load ratings, flood history, relevant maintenance data and inspection reports documenting findings from each inspection.

The NBIS requires updates of bridge inspection data within 180 days of the inspection, but States may require this data in a shorter timeframe.

States report bridge inspection annually to FHWA, which stores the data in the National Bridge Inventory, or NBI.

The NBI contains information on more than 600,000 bridges nationwide. The FHWA uses the NBI data to track bridge conditions nationwide, monitor NBIS compliance, and prioritize funding decisions.

So you can see that as the bridge owner, understanding your role in meeting the NBIS requirements and performing the functions delegated to bridge owners by your State DOT is important. Working together with the State DOT will ensure that all of the requirements of the NBIS are met.

The bridge inspection program can save lives, minimize disruptions of vital services and prevent bigger problems before they develop.

Additional Resources

- Links to important NBIS issues
<http://www.fhwa.dot.gov/bridge/nbis.htm>
- National standards for proper safety inspection and evaluation of all highway bridges
<http://www.ecfr.gov/cgi/t/text/text-idx?c=ecfr&sid=370f47191998a86077876bcde37e49c3&rgn=div6&view=text&node=23:1.0.1.7.28.3&idno=23>
- The law establishing the NBIS
<http://www.gpo.gov/fdsys/pkg/USCODE-2010-title23/pdf/USCODE-2010-title23.pdf>
- Information on all current bridge-related training courses
http://www.nhi.fhwa.dot.gov/training/list_catalog.aspx?cat=&key=bridge&num=&loc=&sta=%&typ=&ava=&str=&end=&tit=&lev=&drl=
- Guide to recording and coding data within the National Bridge Inventory database
<http://www.fhwa.dot.gov/bridge/mtguide.pdf>

The content of this document is not a substitute for information obtained from State departments of transportation, appropriate FHWA Division Offices, and applicable laws. Scenarios have been simplified for emphasis and do not necessarily reflect the actual range of requirements applicable to the scenario or this topic. This document was created under contract number DTFH63-11-F-00026 by the Federal Highway Administration, U.S. Department of Transportation, and is offered to the public to heighten and focus awareness of Federal-aid requirements within the local public agencies community and reinforces the importance of these necessary policies, procedures, and practices.

This Companion Resource is the script content for the video production of the same name.