



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

DSME MEMORANDUM NUMBER 24-01

DATE: March 13, 2024

TO: District Structures Maintenance Engineers

FROM: Felix Padilla, P.E., State Structures Maintenance Engineer

DocuSigned by:
Felix Padilla
9B40BF042C1849E...

COPIES: Lance H. Grace, Scott Arnold, District Maintenance Engineers, Thomas Beitelman, Andrew DeVault, Bruno Vasconcelos, David Wagner, Rafiq Darji (FHWA)

SUBJECT: **Modifications to the Bridge and Other Structures Inspection and Reporting Procedure, Topic No. 850-010-030**

This memorandum implements modifications to Topic No. 850-010-030 in order to meet new requirements enacted by the Federal Highway Administration (FHWA) in their June 2022 update to Rule 23 CFR Part 650, National Bridge Inspection Standards (NBIS). The objectives in implementing these changes are to ensure the Department meets and exceeds these new requirements.

The requirements of this Memorandum are listed on the next page.

Modifications to the Bridge and Other Structures Inspection and Reporting Procedure, Topic No. 850-010-030

Description

Modifications to sections in the Bridge and Other Structures Inspection and Reporting procedure to meet FHWA's NBIS requirements.

Background

In June of 2022, the FHWA published revisions to their regulation on the National Bridge Inspection Standards (NBIS) for the first time since 2009. To comply with these new requirements, several sections of the Department's Inspection and Reporting procedure need to be added or updated.

Requirements

1. Add a new section to Chapter 1 as follows:

1.3 Structures Inspection Roles and Responsibilities

Bridge Inspection Program Manager - responsible for ensuring that the FDOT bridge inspection program meets NBIS requirements including bridge inspection team leader qualifications, National Bridge Inventory and Element Inspection data is submitted to FHWA, coordinate CBI Review Board meetings, and perform District Structures Maintenance Quality Assurance Reviews.

District Structures Maintenance Engineer – directs personnel and oversees the activities of all structure inspections, ensures quality control procedures are maintained and enforced, coordinate and participate in Feasible Action Review Committees to review and issue work orders from inspection report recommendations, consult and coordinate with local governments regarding their bridge conditions.

Bridge Inspection Team Leader – a person meeting the two qualifications FDOT accepts that are defined in the National Bridge Inspection Standards [§650.309(b)(i) and §650.309(b)(ii)]. Professional Engineer applications are reviewed as received and non-professional engineer applications are reviewed in April and October by the CBI Review Board to ensure each applicant meets the minimum qualifications.

Nonredundant Steel Tension Member Team Leader – a person who meets the minimum qualifications to be a Bridge Inspection Team Leader as well as completing an FHWA-approved training course as defined in §650.309(c)(2) and transmits the certificate of completion to the State Bridge Program Manager.

Underwater Bridge Inspection Team Leader – a person who meets the minimum qualifications to be a Bridge Inspection Team Leader as well as completing an FHWA-

approved training course as defined in §650.309(e) and transmits the certificate of completion to the State Bridge Program Manager.

Confirming Engineer – a professional engineer that meets the requirements to be considered a Bridge Inspection Team Leader and whose responsibility it is to sign and seal inspection reports.

2. Add a new section to Chapter 3.2 as follows:

3.2.14 Inspection of Temporary Bridges

For temporary bridges open to traffic for more than 24 months, a safety element-level inspection must be performed, inventory data collected and submitted to FHWA as part of the annual NBI data submittal. It is important to identify and communicate any defects so that they may be addressed by the contractor.

3. Replace Chapter 3.7.2.3 with the following:

3.7.2.3 Monthly Critical Bridge Deficiency Report to the FHWA

The National Bridge Inspection Standards require a statewide procedure to assure that critical findings are addressed in a timely manner and the FHWA is periodically notified of actions taken to resolve or monitor critical findings.

For reporting to the FHWA, a critical deficiency exists when any of the following occurs:

- A defect that results in a full or partial closure of any bridge
- A component with a nonredundant steel tension member with an NBI rating of 3 or less
- The deck, superstructure, substructure, or culvert NBI rating is 2 or less
- The channel or scour condition NBI rating is 2 or less
- A bridge that requires immediate load restriction or posting, or immediate repair work, including shoring, in order to remain open
- The discovery of flammable, explosive, or hazardous material under bridges
- The District Structures Maintenance Engineer determines that there is a critical finding

The Department has no direct authority over other bridge owners; however, if the bridge owner is not promptly addressing the critical findings and an imminent danger exists to the traveling public, the District shall immediately inform the bridge owner of the necessity to immediately close the bridge to traffic until the critical finding is addressed. The District shall notify the bridge owner of the need to post a bridge or change the posting level within one (1) week after a need for posting is identified.

The following procedure shall be used to report critical findings to the FWHA. For consistent reporting, a spreadsheet has been developed and it is available from the State Structures Maintenance Office.

- When a critical deficiency is discovered, notify the State Structures Maintenance Office within 24 hours. An action plan to address the critical deficiency shall be developed as soon as possible and a copy sent to the State Structures Maintenance Office. The State Structures Maintenance Office will then notify FHWA, within 24 hours of discovery of the deficiency, as required in the NBIS, copying the State Maintenance Engineer, the Director of Maintenance, and the Chief Engineer.
- At the start of each month, the district will email the FHWA Division Bridge Engineer and the State Bridge Inspection Engineer a list of the bridges that were identified the month before with critical findings. For each bridge, the district will include: the bridge number; facility carried; feature intersected; the date of the last inspection; a brief description of the critical finding; and what corrective action is proposed by the bridge owner. The status of the bridge will be updated in each monthly report until the corrective action is performed, or the bridge is closed to traffic.
- Monitoring of these bridges will continue until the critical finding has been corrected or the bridge has been closed to traffic.
- If there were no critical findings identified during the previous month and there are no critical findings being monitored, then the district will email the FHWA Division Bridge Engineer and the State Bridge Inspection Engineer that there are currently no critical findings in that district.

4. Replace Chapter 5.1.2.9 with the following:

5.1.2.9 Nonredundant Steel Tension Member (NSTM) Inspections

The inspectors should review the NSTM section of the bridge record file prior to the inspection. A qualified NSTM Team Leader shall be on site during the inspection of any non-redundant steel tension members. The Bridge Inspection Supervisor and/or the Structures Maintenance Engineer should occasionally visit the field during the inspection. These visits can be used as opportunities to provide guidance to the inspectors.

Implementation

These changes to the procedure are effective immediately.

Contact

Bruno R. Vasconcelos, P.E.
State Bridge Inspection Engineer
Phone (850) 410-5808
Bruno.Vasconcelos@dot.state.fl.us

FP/brv