



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N642-BR  
Indianapolis, Indiana 46204

PHONE: (317) 232-6776

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

## Bridge Inspection Memorandum No. 17-01

**TO:** All Inspection Personnel, Consultants

**FROM:** Merrill Dougherty, PE  
Bridge Inspection Manager  
Bridge Division

**DATE:** April 28, 2017

**SUBJECT:** Findings of the FHWA 23 Metrics Review

**EFFECTIVE:** Immediately

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The FHWA 23 Metrics Review found some areas for improvement in the bridge inspection program. The following list provides areas where improvements are needed, as well as recommendations and reminders to properly address these issues.

### **Metrics 6, 7 & 10 Frequency of Inspection**

Getting the bridges inspected on time has improved over previous years. However, some bridges are still not getting inspected at the proper frequency. The issue appears to be with getting contracts in place before the inspections are due. To address this issue LPAs need to monitor their inspection due dates and start the contracting process at least 12 month prior to the current contract expiration. Supplemental agreements need to be initiated as soon as the need is determined.

### **Metric 12 Inspection Procedures – Quality Inspections**

The conditions codes for items 58, 59, 60 and 62 were found to be within acceptable tolerance. However, the notable deficiencies that led to the given condition ratings were not always documented properly. Each notable deficiency must contain adequate justification for any given condition rating. These justifications include:

1. Narrative that clearly describe the deficiency
2. Photos with an appropriate labels
3. Sketches with all necessary dimensions

By using the above justification methods, the reader of the inspection report should be able to identify the location, the extent and severity of each deficiency in a particular structure.

### **Metric 21 Inspection Procedures – Critical Findings**

A critical finding is a structural or safety related deficiency that requires immediate follow-up inspection or action. A structure-related deficiency can interrupt the load path, not allowing the loads to be transferred as designed. This can cause surrounding elements to become overstressed or unstable, potentially leading to partial or total collapse of the structure. Critical findings may also be non-structural deficiencies



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which jeopardize the safety of motorists or pedestrians. Partially or full closure of a structure is NOT a requirement or the only reason for issuing a critical finding. The follow-up action may be a structural review to determine the strength or serviceability of an element or bridge. Refer to the Indiana Bridge Inspection Manual Part:1, Chapter 5 for a list of immediate actions that may take place in some instances.

The initial reporting of the potential critical finding is to the State Program Manager. The initial notification may be verbal or email. A written notification is required within 24 hours in BIAS. The critical findings form in BIAS will serve as the permanent written record for critical findings. It is available on the Maintenance Tab in BIAS. The notification will include complete identification of the structure, the structure location, and a plan of action indicating how the critical finding will be remedied. The electronically written notification serves to document the critical finding by describing the extent of the deficiency complete with notes, photographs, sketches and drawings, measurements, possible causes, and recommendations for repair. Temporary actions may also be taken to safeguard the public until repairs can be completed. Remember to fill out the information to close the critical finding once the deficiency has been addressed on the form in BIAS.

## **Metric 23 Inventory – Timely Updating of Data**

There were a few bridges in the review that did not get the data entered into BIAS in the required time. Inspectors need to review the requirements for getting the data into BIAS and make certain that the time frame in the Bridge Inspection Manual is followed.

For more details on the FHWA 23 Metrics review it is recommended that you review the presentation by Jose Ortiz from the bridge inspection conference. The presentation is available on the bridge inspection web page. If you have any questions please let me know.