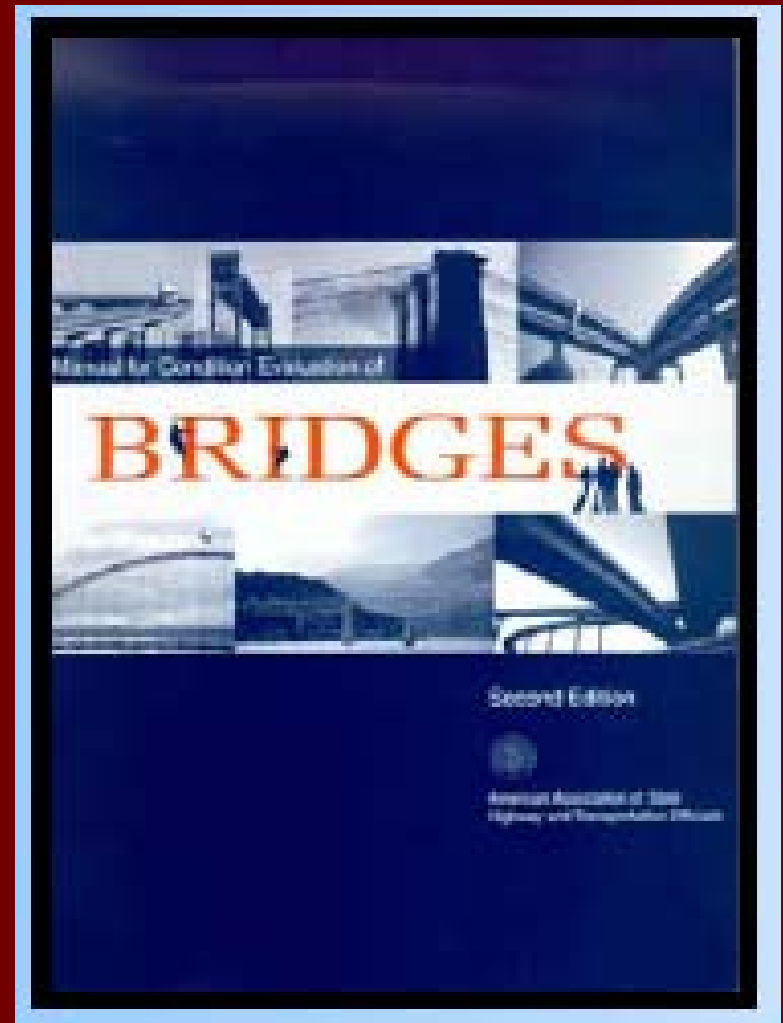


Bridge Inspection Procedures

April 5, 2007

Bridge Inspection Procedures

- Federal Rules and Regulations (CFR Part 650) now reference the Inspection Procedures as defined in the AASHTO Manual for the Condition Evaluation of Bridges



Bridge Inspection Procedures

- Qualified Team Leader Requirements
- Bridge Files
- Special Bridges must be uniquely identified
- Quality Control and Quality Assurance



Bridge Inspection Procedures

- Inspections must be conducted by a qualified Team Leader as defined in the NBIS
 - Be a registered Professional Engineer AND complete the 2 week NHI training course OR
 - Have 5 yrs bridge inspection experience AND complete the 2 week NHI training course OR
 - Be certified as a Level III or IV Bridge Safety Inspector under the National Certification in Engineering Technologies (NICET) AND complete the 2 week NHI training course OR

Bridge Inspection Procedures

- Team Leader as defined by the NBIS

Have all of the following:

- Bachelor's degree in engineering from an accredited college or university
- Passed the National Council of Examiners for Engineering and Surveying Fundamentals of Engineering examination (FE or EIT)
- 2 yrs of bridge inspection experience
- Completed the 2 week NHI training course

Bridge Inspection Procedures

- Team Leader as defined in the NBIS

Have all of the following:

- An associated degree in engineering or engineering technology from an accredited college or university
- 4 yrs of bridge inspection experience
- Completed the 2 week NHI training course

Bridge Inspection Procedures



- Bridge Files
 - Maintain relevant cumulative bridge information for the life of the bridge
 - Records can be paper and/or electronic
 - Include current and previous Inspection Reports, Design Plans, Shop Drawings, Correspondence, Photo's, Material Certs., Maintenance and Repair History Records, Posting and Rating Calculations, Traffic Data, Accident Records, Flood Data

Bridge Inspection Procedures

- Identify bridges in your inventory with Fracture Critical Members (FCM's)
 - Record the location of the FCM's and describe the FCM inspection frequency and procedures
- Identify bridges that are Scour Critical
 - Prepare a Plan of Action to monitor known and potential deficiencies and to address critical findings



Bridge Inspection Procedures



- Identify bridges that require Underwater Inspections
 - Identify the location of the underwater elements, the inspection frequency and the procedures

Bridge Inspection Procedures

- Quality Control (QC) and Quality Assurance (QA)
 - Assures that systematic quality control and quality assurance procedures are used to maintain a high degree of accuracy and consistency in the inspection program



Bridge Inspection Procedures



- Types of Quality Control Measures
 - Inspectors Credentials
 - Continued Bridge Inspection Refresher Training
 - Periodic Timeliness Review
 - Review of Inspection Reports

Bridge Inspection Procedures

- Quality Control Measures
 - Field Review of Selected Structures
 - Document procedures for identification and resolution of data errors, omissions and /or changes



Bridge Inspection Procedures



- Quality Assurance
 - The use of sampling and other measures to assure the adequacy of Quality Control Procedures in order to measure the quality level of the entire bridge inspection program

Bridge Inspection Procedures

- Types of Quality Assurance Procedures
 - Completing checklists that cover typical items to review for the
 - Bridge File
 - Field Inspection Report
 - Load Rating analysis
 - Sample a set of Bridges for “re-inspection” and compare with the original inspection

Bridge Inspection Procedures

- In May of 2006 MDOT created a User Group for the Michigan Bridge Inspection System (MBIS)
 - To communicate ideas for enhancing or improving the operation of MBIS or MBRS, please contact us using the following e-mail addresses:

Consultants: MBIS@glengineering.com

Owners/Inspectors: JohnsonTe@michigan.gov

