



Dave Heineman
Governor

STATE OF NEBRASKA

DEPARTMENT OF ROADS

Randall D. Peters, P.E., Director – State Engineer

1500 Highway 2 • PO Box 94759 • Lincoln NE 68509-4759

Phone (402) 471-4567 • FAX (402) 479-4325 • www.transportation.nebraska.gov

February 5, 2015

Dear Nebraska Bridge Owner:

RE: Bridge Inspection Program

The Quality Assurance (QA) Evaluation of the Bridge Inspection Program (BIP) has been completed for data entered into Bridge Management (BrM) inspection data base from April 1, 2013 to December 31, 2013. Several operations related to the BIP received a QA evaluation during 2014. These included:

- Qualifications of Personnel
- Inspection Frequency
- Inspection Procedures
- Bridge Load Rating
- Bridge Posting or Closure
- Owner Records
- Scour Assessments

Nebraska Department of Roads (NDOR) and Federal Highway Administration (FHWA) appreciate your cooperation in meeting the requirements of the National Bridge Inspection Standards (NBIS). Similar to recent years, the result of this year's review showed that while the overall quality of the BIP remains high, there are some areas in need of improvement. Some of those areas are detailed below:

- **Each bridge file must contain the latest inspection and load rating information for the structure.** These items include at minimum current Structure Inventory and Appraisal (SI&A) sheets, Load Rating Summary Sheets (LRSS) as well as POA and Critical Finding Reports, if applicable. Each bridge file should be a complete record of the bridge and should be stored either electronically or physically with the Bridge Owner. For example, this year approximately 25% of the files sampled during the QA review did not contain the current LRSS. Additionally, many files were missing the current SI&A sheet. Please review your bridge files to make certain current required information is being stored. Instructions for printing files from the ftp site as well as instructions for printing SI&A sheets from BrM are included as attachments to this memo.
- **Bridge Owners must maintain and regularly update Plans of Action (POA) and POA Monitoring Logs.** This cycle saw a 16% improvement over last year in owners completing POA Monitoring Logs for scour critical bridges. Your efforts to tackle this issue are paying off. Standard form DR385E is available for use when developing POA monitoring logs. It is included as an attachment to this memo for your use. As a reminder, updating the form should be done after each event as described in each structure's POA. As a best practice, a master list of structures requiring a POA monitoring log should be kept in one location in your office for easy access. When an event occurs that meets the trigger set forth in the POA, each structure identified as scour critical should be visited to verify the structure is safe for continued public use. It is the responsibility of each owner to complete a POA and POA monitoring log for each structure identified by NDOR as scour critical. Scour critical bridges have Item 113 equal to 3, 2, 1 or U.

- **Owners should track Maintenance and Repair Items.** Most owners are not tracking maintenance and repair items for their structures. This will become an increasing point of emphasis moving forward. Records on coatings or protective membranes should be included in these records. Any significant repairs made to the structure should also be included. These could include a new or repaired beam, reconstructed abutment, riprap placement, or a new deck. Included as an attachment to this memo are standard forms DR27 and DR321A which NDOR has created to track these items.
- **Owners and inspectors should review section 4.10.3 of the BIPM for the requirements of special inspections.** Special inspections are required when Item 59, 60 or 62 fall to levels outlined in Section 4.10.3. NDOR recommends that owners keep a master list of all bridges requiring a special inspection. Additionally the reason for the special inspection should also be recorded. Note that all special inspections required at fracture critical bridges are scheduled and completed by consultants working through NDOR's fracture critical bridge inspection program and not the responsibility of owners.
- **Inspectors should verify that each structure is posted at or below the load limits on the LRSS at each inspection.** If the inspector finds structures with load postings greater than what is shown on the LRSS, the Owner shall immediately be notified and the correct posting signs be placed at the bridge.
- **Inspectors should review the BIP manual on how to code NDOR Item 311, Bearings.** This continues to be one of the most miscoded items in the data. Nebraska Item 311 should only be coded if bearings are present at the bridge. Steel shims or plates are not considered bearings and Item 311 should be coded "N" for these structures. The BIP Manual has detailed guidance and photos for this item, please review this information.
- **Inspectors should verify Item 32 – Approach Roadway Width.** Most structures on gravel or minimum maintenance roads had incorrect coding for Item 32. Per the BIPM this number should represent the width of the usable roadway approaching the structure. This should include shoulders if they are maintained. Grass or turf shoulders should not be included.

The BIP Manual will soon be revised and available on the NDOR website for download by program participants. The manual revisions will include minor content changes to address errors as well as add additional guidance on coding some items.

As part of the QA Evaluation, individual Participant Reports are also sent to all 2014 QA program participants. Participant Reports, whether they are for Team Leaders or Bridge Owners, are intended to help improve the BIP and are confidential. Individual Participant Reports should **NOT** be filed in the Bridge Owner's files.

This memorandum is being sent to all local Bridge Owners and is intended to provide an update on the Nebraska BIP. Electronic copies of this and previous BIP memos, as well as other BIP information, can be found on the NDOR Bridge Division website at <http://www.transportation.nebraska.gov/design/bridge/bipm.htm>.

Sincerely,

Mark Traynowicz, PE
State Bridge Engineer

Enclosures: Attachment 1 – Forms DR27 and DR321A
Attachment 2 – How to print SI&A forms from BrM
Attachment 3 – How to print bridge record items from the ftp site
Attachment 4 – Coding Item 311