

MEMORANDUM

November 16, 2017

TO: ACEC-INDOT Bridge Inspection Committee Members

FROM: Michael Vereb, Lochmueller Group

RE: ACEC-INDOT Bridge Inspection Committee Meeting Minutes
(Meeting held November 3, 2017)

The following were in attendance:

Bill Dittrich, INDOT	Jose Ortiz, FHWA
Randy Strain, INDOT	Jeremy Hunter, INDOT
A.J. Wortkoetter, INDOT	Sean Hankins, INDOT
Craig Parks, Boone County	Bobby Chandler, Clark Dietz
Jon Clodfelter, United	Jonathan Olson, BF&S
John Lukac, BLN	Rob Coop, USI Consultants (by phone)
Michael Vereb, Lochmueller Group	

Item #1 - Late Inspection Reports

INDOT provided the attached DRAFT Bridge Inspection Memorandum No. 17-06, Quality Assurance, for discussion.

- Memo incorrectly refers to Metric 5 Inspection Frequency. Memo should instead reference Metric 6 Inspection Frequency - Lower Risk Bridges & Metric 7 Inspection Frequency - Higher Risk Bridges.
- New quality assurance measures will be implemented by INDOT to assure that inspections are being completed on time.
- Issue #1: Inspection Date Compliance
 - INDOT will run a BIAS query on the first day after the end of the Compliance Month to verify that an inspection report has been created, Item 90 is updated with the new inspection date, and the new inspection photos are uploaded.
- Issue #2: Inspection Report Approval Compliance
 - Inspector has 45 days after the end of the Compliance Month to complete and approve the inspection report.
 - INDOT will run a BIAS query following the report due date.
- Consequences
 - If Issue #1 or #2 late, INDOT will contact inspector and give one week to resolve.
 - If Issue #1 or #2 not resolved, INDOT will notify County ERC regarding non-compliance. Continued non-compliance will result in disciplinary action.
- Quality Assurance Review
 - Structures rated 4 or less will be subject to quality assurance review.

Discussion regarding Issue #1:

- Problem for FHWA is that status of inspection is unclear when BIAS indicates a report is "In Progress", but Item 90 has not been updated. Has the bridge been inspected yet? Was the inspection done on time?
- FHWA wants INDOT to be in Compliance rather than Substantial Compliance to end the cycle of needing a Plan of Corrective Action (PCA).

- o For Metric 6 & 7 Compliance, all bridges must be inspected within the required NTE 24 or 48-month interval, as applicable, unless documented unusual circumstances have caused a 1-month delay for any inspections.
- FHWA asked if the Item 90 query can be run sooner than the first day following the Compliance Month, because if Item 90 is not updated for one bridge, INDOT is in Substantial Compliance.
 - o INDOT stated that this would result in an overwhelming amount of coordination with the Consultant inspectors and the LPAs.
- INDOT will build the query and provide it to Consultants, so that Consultants can run the query on the county they are working on and check its compliance status prior to the deadline.
- To minimize the inspection status uncertainty associated with an "In Progress" report, FHWA suggested that there needs to be a procedure for when it is appropriate to create a new report.
- There are circumstances when Item 90 has been updated in BIAS, but after BIAS is refreshed immediately following, the Item 90 update is lost, and the field reverts back to the old data.
- One significant factor contributing to late inspections is not having LPA-Consulting Contract in place with issue of the purchase order (PO) and notice to proceed (NTP) in time.
 - o INDOT stated that Consultants need to help the County to get the contract in place in time.
 - o It takes 30-45 days for A.G. process to be complete once the signed contract is submitted to INDOT by the LPA.
 - o Boone County submitted their signed contract to INDOT in March 2017 and received the PO in August 2017.
 - From April to mid-May, INDOT can't request PO's due to fiscal year end process.
 - o INDOT is trying to get the PO to the LPA and Consultant 2 weeks prior to the start of Compliance Month.
 - o INDOT's goal is to get the PO to the LPA and Consultant 30 days prior to the start of Compliance Month.
 - o Once the PO and NTP are received, it takes a couple of weeks of office preparation time before the inspectors are ready to go in the field and begin inspections.

Resolution of Issue #1:

- Consultant will be required to create a new inspection report and update Item 90 for each bridge prior to the end of the Compliance Month.
- Photos will not be required to be uploaded by the end of the Compliance Month.
- INDOT will run Item 90 query on first day following Compliance Month.

Discussion regarding Issue #2:

- Memo suggests change from report approval within 60 days of inspection to report approval within 45 days following end of Compliance Month.
- LPA-Consulting Contract says Bridge Inspection Database file must be submitted and approved within 60 days of an inspection.

Resolution of Issue #2:

- Inspection report approval schedule will remain unchanged and continue to require that the Bridge Inspection Database file must be submitted and approved within 60 days of the inspection.

Item #2 - Extension of Schedule for Draft and Final Inspection Report Submittal for Counties Completed over 2 Compliance Months (>150 Bridges)

- Can one month be added to the schedule for when both the Draft and Final Written Reports must be submitted for counties where the inspections are to be completed within 2 Compliance Months?
 - The current schedule in the LPA - Consulting Contract requires the Draft Written Report be submitted within four (4) calendar months of initial inspection date of first bridge in Phase I and within twenty-seven (27) calendar months of initial inspection of first bridge in Phase I. The Final Report is due one month later in each Phase.
- A.J. will discuss with the Executive Office. Other changes to the LPA - Consulting Contract are currently under review with the Executive Office.

Item #3 - Load Rating Policy

- Status of updated load rating chapter (INDOT Bridge Inspection Manual Part 3)
 - Chapter completed by Sean Hankins, will be submitted to Jose Ortiz for review next week.
 - No significant updates were made in the current document from what has been shared with the committee to date.
 - Key changes to the load rating chapter are:
 - Removed language mentioning the use of CANDE and other proprietary software packages, except for AASHTOWare Bridge Rating (BrR).
 - CANDE is not actually a load rating software. It is cumbersome to build a model in CANDE, and building a model requires many assumptions.
 - For buried structures, other state DOT's (i.e. ODOT and MDOT) have developed reasonable load rating calculations in spreadsheet format. Appropriateness for use and results will need to be verified by the load rating engineer.
 - A list of programs that may be used to supplement BrR will be added to the bridge design website.
 - Tweaks were made to the legal load information.
 - Removed some of the engineering guidance (i.e. assumption for area of steel reinforcement in a concrete member for which the existing area can't be measured or read from plans)
 - Emergency vehicles are considered legal loads in Indiana.
 - INDOT suggests that if the emergency vehicle loads are controlling your Operating Rating, then you should talk with local agencies about their actual equipment inventory loads
- Status of BRADIN implementation
 - Waiting on software developers to implement coordinated changes.
 - INDOT will be testing out BRADIN on the state system in the next 1 to 2 weeks.
 - Until BRADIN is made available, INDOT strongly recommends Consultants catalogue the load rating data in a tabular format.

- o INDOT will provide a template tabular format for storing and importing load rating data. Schedule is TBD.
 - o Load ratings are being done now, so it would be helpful to have the template tabular format as soon as possible.
- Timeframe to complete BrR load ratings
 - o Deadline for completing and uploading load ratings in BrR is November 1, 2019.
 - o This deadline applies to all local bridges.
 - o The November 1, 2019 date is consistent with the PCA.
- Additional load rating discussion
 - o Prof. Mark Bowman, Purdue University, is currently working with INDOT to develop analysis tools for comparison of loading effects for various load rating vehicles.
 - o INDOT is preparing to add design and load rating support material and links to the INDOT Bridges & Structures website, including the following:
 - List of design topics with link to the corresponding IDM chapter for each topic
 - List of bridge design aides
 - Guidance for assessing deterioration of various members to assign reduced structural capacity for load rating consideration

Item #4 - Identifying Critical Findings for Existing Conditions

- INDOT stated there seems to be some reluctance among bridge inspectors to identify a condition as a critical finding.
- The immediate action in response to a critical finding, which addresses the safety problem, is what closes out the critical finding (i.e. Close shoulder off with barrels).
- INDOT and other BIAS users can query critical findings.
- Inspectors are uncertain if they should report a critical finding when it is clear from the inspection history that a condition has existed for several years without apparent incident.
 - o INDOT says report it! If you see a critical finding qualifying condition, identify it and treat it as a critical finding.
 - o There will be no repercussions if a condition is reported as a critical finding and you later determine, for example, that the condition was identified previously, the structure was load rated taking into account the condition, and the load posting was installed/updated accordingly. That is your close out.
- If you feel you need to close a bridge, close it! It is okay to tell the County that this is what INDOT wants me to do.

Item #5 - Status of Implementation of New Lump Sum Contracts

- Changes to the LPA - Consulting contract are under review at the Executive Office.
 - o One change submitted was to add one month to the Phase II Draft and Final Written Report submittal schedule.

Item #6 - Extended Frequency Review by FHWA

- The list of eligible bridges and the qualifying criteria for extended frequency inspections has been reviewed and approved by Jose Ortiz, and it has been submitted to FHWA.
- The initial list includes only concrete and steel structures. The total number of bridges is 6,000. 4,000 are LPA owned. 2,000 are INDOT owned.
- Once the list and criteria are approved by FHWA, it will be necessary to fill out a form in BIAS for each bridge and submit to FHWA for review and approval to extend the inspection frequency for that bridge.
- Eight other states have extended frequency inspections, including IL, OH, IA, CA, and others.

Item #7 - BIAS

- Updated iPad App
 - There is a new version 5.5.8.
 - Be sure to finish and submit any "In Progress" reports BEFORE you run the software update.
 - If encounter any problems, talk with Mona Davis immediately. She may be able to help avoid a loss of data. Don't wait, otherwise you might miss your window of opportunity.
- County Summary Reports
 - Mona might create a training video on how to create a County Summary Report and how to properly upload attachments.
 - Consultants are encountering problems with photos not showing up in reports.
 - This may be a result of the attachment procedure used. A Bridge Inspection Memo will be released soon regarding proper attachment upload procedures.
- Timely Resolution of BIAS Issues
 - INDOT meets with Bentley every Thursday, so if having issues, report them to Mona Davis via email. Can email Randy and Bill after trying Mona, if necessary.
- Report any BIAS issues to Mona Davis

Item #8 - Training Update

- NHI Courses
 - 130078 - Fracture Critical - 11/6/2017 to 11/9/2017
 - INDOT considering change to 5 yr interval
 - 130056 - One Week Class for PEs (Fall 2017)(manual change required)
 - 130055 - 2 Week Bridge Inspection Class - 1/22/2018 to 2/2/2018
 - 130053 - 3 Day Refresher Class - 2/27/2018 to 3/1/2018
 - Scour - Feedback from County Bridge Conference Session?
 - The information presented was similar to topics discussed and level of detail included in the 2 Week course.
 - Was expecting discussion about specific conditions an inspector might observe and how best to treat that condition.
- S-BRITE Certification - April 19-20, 2018
- Bridge Inspection Conference 2/6/2018
- Test Bridge Coming Spring 2018 (Possibly early May)

- o INDOT wants the bridge to have a steel superstructure
- o INDOT encouraged Consultants to recommend a county bridge
 - It was suggested that INDOT send an email to inspectors requesting they recommend a bridge

Item #9 - Other Topics

- Does INDOT have any training materials available for LPAs who want to learn more about using BIAS?
 - o Nothing has been prepared for this specific audience.
 - o Bentley has some on-line training that INDOT may be able to share, but it may not be what the LPAs need or are looking for.
 - o INDOT is working towards having Mona Davis create instructional videos to assist consultants and LPAs.
- Invoicing issues
 - o Final Report is not done until it is in ERMS.
 - o Special Report is not done until it is in BIAS. INDOT is having issues finding Special Reports in BIAS when looking for them after receiving an invoice for those services.
- Scour Assessments
 - o John Lukac asked, when working through the Scour Assessment Form, and I have design plans with hydraulic data, should this trigger the assumption that I don't need to develop a scour analysis model? Even if I do have scour data on design plans or I develop a hydraulic model for scour analysis, I often don't know what depth the piles are embedded, because I don't have pile driving records. This leads to assigning a value of 3 to Item 113 and requires a Bridge Scour Plan of Action (POA). Is this appropriate?
 - INDOT suggested that these questions should be run by Merrill Dougherty. John will talk with Merrill.
 - o The purpose of the scour assessment process is to determine a structure's susceptibility to scour.
- MAD Tab Updates
 - o The attached document shows updates that are being made to existing Miscellaneous Asset Data (MAD) fields and new data fields that are being added.
 - INDOT requires that these fields be filled out on INDOT bridges, but it is not required on LPA bridges.
 - It would be helpful if INDOT would issue a memorandum when fields are added to MAD tabs that indicates if it is, or is not, required to populate them.
 - Perhaps the data fields could be organized based on whether or not they are required to be filled out.

Item #10 - Next Meeting Date

The next committee meeting will be held on Friday, February 16, 2018 at 9:00am in INDOT N642 Conference Room