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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

INTRADEPARTMENTAL CORRESPONDENCE

January 18, 2024

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MEMORANDUM

TO: ASSISTANT DISTRICT ADMINISTRATOR - OPERATIONS

FROM: HAYLYE BROWN, P.E. ^{DS} *HB*
STRUCTURES & FACILITIES ENGINEER ADMINISTRATOR

RE: LOAD RATING DIRECTIVES

The purpose of this memorandum is to serve as notification of the new procedure for Bridge Load Rating. All directives, memoranda, or instructions issued heretofore in conflict with this directive are hereby rescinded.

The State Bridge Rating Engineer shall be responsible for the implementation of this policy to both the state maintained and non-state maintained public bridges.

For all bridges on public roads which are not located on the state-maintained highway system, the corresponding bridge owner is responsible for re-rating their bridges and complying with this policy and the LADOTD BIM. Annual certification is required from the parish bridge owners (as instructed by the LADOTD BIM Section 8.5: Off-System District Compliance) to satisfy the SNBI/NBIS/FHWA/LADOTD policy.

Re-rating shall consist of an engineer review of the existing bridge rating analysis and bridge inspection report. If the rating report and analysis do not match the present conditions, a new analysis shall be performed. For non-timber structures, when it is determined that no significant structural load carrying capacity changes have occurred due to the condition changes of the bridge or to new repairs, a re-rating analysis is not required; however, documentation of rating review must be provided.

For Guidelines for using Engineering Judgement for concrete culvert structures, please see the attached document.

As of 1/18/2024, all public bridges carrying vehicular traffic in Louisiana shall be re-rated or reviewed by an engineer at a frequency that ensures that the analysis accurately reflects the current condition of the bridge. The frequency of re-rating due to condition change is dependent upon the condition of the bridge as described in the latest bridge inspection reports and is as follows:

Structural Conditions		Re-Rating/Review Frequency
Lowest NBI Structural Condition Rating	Rating 0 (Closed)	Before opening to traffic and upon notification from Bridge Maintenance Section or District Bridge Engineer
	Rating 1-4	Within 90 days of notification of structural condition rating drop.
Other Conditions	Overlay	As part of the design project and upon request from project manager or district bridge engineer
	Structural Rehabilitation	As part of the design project and upon request by Project task manger or District bridge engineer
	Timber Structure	Upon finding significant changes during the inspection or every four (4) years.
	Primary Load Carrying Element in Condition State 4	Within 90 days of notification of structural condition rating drop.

If you would like to request a load rating based on the above criteria, please submit the “Bridge Structure Load Rating Request Form” found on the “DOTD Access Only” page of the Bridge Maintenance website: [link](#).

Should you have any questions, please contact Billy Metcalf at (225) 379-1741.

HGB: SSD

Cc: Mr. Kevin Reed
Mr. Todd Donmyer

Attachment

Guidelines for Engineering Judgment Load Ratings

This guidance addresses the appropriate use of engineering judgment load ratings for concrete culverts as a means of complying with the NBIS requirements for structures that cannot be load rated due to a lack of sufficient information.

Field Evaluation and Engineering Judgment

Engineering judgment load ratings for concrete culverts shall only be given to structures where a load rating analysis cannot be performed due to the absence of plans, design calculations or other information. In this case, the engineering judgment load rating will be based on "field evaluation and documented engineering judgment." For more information, see documents "Specifications for the National Bridge Inventory", Section 5.1-Loads and Load Rating, March 2022 and FHWA Memorandum "Revisions to the Recording and Coding Guide for the SI&A of the Nation's Bridges", February 2, 2011.

For the purposes of load rating, field evaluation and documented engineering judgment is the use and recording of information gathered by a qualified bridge inspector or qualified engineer as the basis to use professional judgment to determine the load rating. The load rating engineer must use the inspection information, available knowledge of the design live load, live load history, the current condition of the structure and any other available data to support the engineering judgment load rating. Plans from similar structures, with known details, designed or built during the same time period may also help provide the basis for this load rating.

Required Documentation for Structures Where Engineering Judgment Load Ratings Are Acceptable

Assign engineering judgment load ratings to concrete culvert structures using the below guidance.

In accordance with MBE 6.1.4, a concrete culvert with unknown details need not be load posted if it has been carrying normal traffic for an appreciable period and shows no distress.

Documentation required for load ratings based on field evaluation and engineering judgment includes, but is not limited to the following information:

1. Summary of the field evaluation noting the Bridge Inspector's condition ratings and comments on structural defects or signs of distress.
2. Summary of available information gathered concerning the design live load, live load history and the carrying of normal traffic for an appreciable period.
3. Conclusive statement that the load rating is based on "field evaluation and documented engineering judgment" to facilitate proper coding of NBI Items 63 and 65.

Attachment

Structures Applicability

1. Structure Types - concrete culverts of type CONBOX, COPBOX and CONPIP
absent of plans, design calculations or other information
2. Structure Condition - NBI rating of 5 or above (Item 62)

For the qualified concrete culverts, the following can be used in AssetWise:

Rating Assignment: Inventory – 1.0, Operating – 1.3, PV-Single – 44, PV-Comb – 44
Type Rating: EJ (engineering judgment) – Code 0 for NBI Items 63 and 65
Method of Analysis: RF
Load Posting Remarks: MBE 6.1.4 – Bridges with Unknown Structural Components