



**BRIDGE ADVISORY**  
**Construction & Technology Division**  
**Bridge Operations Section**

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**BRIDGE ADVISORY NUMBER: BA-2009-02**

**DATE:** April 10, 2009

**SUBJECT:** 2009 Interim Update for MDOT Bridge Analysis Guide

**ISSUED BY:** MDOT Bridge Load Rating Engineer

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The 2005 Edition of the Michigan Department of Transportation (MDOT) Bridge Analysis Guide has been updated with a 2009 Interim Update. The current MDOT Bridge Analysis Guide and/or the interim changes may be downloaded from the internet at:

[http://www.michigan.gov/mdot/0,1607,7-151-9625\\_24768\\_24773-132786--,00.html](http://www.michigan.gov/mdot/0,1607,7-151-9625_24768_24773-132786--,00.html)

The MDOT Bridge Analysis Guide has been updated to clarify and improve load rating procedures in Michigan. The following sections have been added or have significant modifications:

- Table of Contents
- Chapter 4a – General Analysis Procedures
  - Provides clarification on Load Factor Rating (LFR) and Load and Resistance Factor Rating (LRFR) for Michigan specific loadings
- Chapter 6 – Live Load Distribution
  - Clarifies live load distribution requirements for fascia girders in Load Factor Rating
- Chapter 7 – Posting Procedures
  - Clarifies procedure for posting routes with multiple posted bridges
- Chapter 9 – Calculation Examples
  - Generic examples of LFR and LRFR Michigan specific ratings including as designed, deteriorated, and posted cases

Additionally, AASHTO has completed publication of the AASHTO Manual for Bridge Evaluation which replaces the Manual for Condition Evaluation of Bridges and the Guide Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges. This manual is available for purchase from AASHTO at:

<https://bookstore.transportation.org/>

Bridges in Michigan are to be rated in accordance with the AASHTO Manual for Bridge Evaluation and the 2005 Edition MDOT Bridge Analysis Guide with 2009 Interim Update. Load ratings are to be reported in accordance with the FHWA Reporting and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, December 1995, the 2005 Edition MDOT Bridge Analysis Guide with 2009 Interim Update, and the MDOT SI&A Coding Guide.

The Federal Highway Administration (FHWA) provides policy regarding load-rating methods as follows:

FHWA Memorandum

Subject: Bridge Load Ratings for the National Bridge Inventory

Date: October 30, 2006.

<http://www.fhwa.dot.gov/BRIDGE/nbis/103006.cfm>

In addition to the FHWA memo referenced above, the following documents referenced above are available on the internet:

- FHWA Reporting and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, December 1995
  - <http://www.fhwa.dot.gov/BRIDGE/mtguide.pdf>
- Michigan Structure Inventory and Appraisal Coding Guide
  - [http://www.michigan.gov/documents/MDOT-Bridge-SIAMANUAL-2\\_87989\\_7.pdf](http://www.michigan.gov/documents/MDOT-Bridge-SIAMANUAL-2_87989_7.pdf)