

BRIDGE ADVISORY NUMBER: **BA-2014-01**

DATE: February 26, 2014

SUBJECT: **Railroad Structures, Bridge Safety Inspection Guidance**

ISSUED BY: Eric Burns, Structure Management Section Engineer

REVIEWED BY: Rich Kathrens, P.E., Bridge Safety Inspection Engineer

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PURPOSE

This bridge advisory is to provide guidance on safety requirements and inspection procedures for MDOT and Local Agency owned structures over active railroad right-of-way (R-Structures) and for Railroad Owned structures that cross MDOT and Local agency routes (X-Structures).

The inspection of bridges that carry or cross railroads requires attention to safety and compliance with the railroad owner's safety requirements. Inspectors will need to be familiar with the safety requirements of the railroads that are within their inspection area. For their own protection, inspectors are to use extreme caution when working near the railroad tracks, electrified lines, trains, and other railroad hazards or operations.

Bridges that carry or cross railroads typically have maintenance agreements between the railroad owner and the agency that has jurisdiction for roadway. These maintenance agreements vary from structure to structure and the detail to which agency is responsible for the maintenance of the structure will need to be reviewed. In some cases there may be joint responsibility for maintaining portions of the structure. For example, a railroad bridge crossing a roadway may have railroad owner responsible for the superstructure only, and the roadway owner may be responsible for the substructure.

Roadway Bridges Crossing over Railroads (R Structures)

When portions of a MDOT or Local Agency owned bridge is over a railroad, and needs to be inspected, the railroad owner will need to be notified to determine the minimum safety requirements for entering into the railroad right-of-way (ROW). Generally, each railroad company has their own specific safety procedures for working within their right-of-way and clear zones. Often the individuals entering the railroad ROW or clear zone may be required to complete a railroad safety course and wear certain safety gear. Typically when working within the railroad clear zone a railroad flagger is required and these requirements must be verified with each railroad owner before entering their ROW.

MDOT and Local Agency bridge owners are responsible to complete the notification to the railroad owner. The request to enter the railroad ROW should be completed as soon as possible as lead time to schedule flagging and/or resources may be required. Some railroads require to be notified a minimum of 20 work days prior to beginning work within the ROW. The notification to the railroad owner should contain the minimum information:

- Brief description of type of inspection to be completed (Routine, Detailed, Damage, etc.)
- Time and Duration of Inspection
- Number of Personnel who will be entering the railroad ROW
- Type of Access Equipment (Man Lift, Reachall, Ladders, etc.)

Railroad ROW and clear zone distance varies for each railroad. These distances are typically measured horizontally from the center of the nearest railroad track. The vertical limits of these zones are typically from the railroad to bottom of the structure above the railroad (See ‘R’ Structures Diagram). For example, an inspector walking on the roadway bridge above the railroad is considered to be in the “roadway” ROW and can complete inspection of those components using normal safety procedures. An inspector hanging from the side of the bridge or under the bridge near the railroad is typically within the railroad ROW and must follow the additional safety procedures provided by the railroad.

MDOT and Local Agency bridge owners should contact the owner of the railroad to verify each individual railroad owner’s ROW and clear zone area. A list of railroad contact information is attached.

Railroad Bridges Crossing over Roadways (X-Structures)

The Federal Railroad Administration (FRA) released rules for owners of railroad bridges on July 15, 2010. The rules found in 49 CFR Parts 213 and 237, Bridge Safety Standards, require all Railroad owners to inspect their bridges annually.

MDOT or Local Agencies with routes under a railroad bridge are responsible for the safety of the public traveling within ROW beneath the railroad structure. These structures are not in the Federal Highway Administration (FHWA) National Bridge Inventory (NBI), as they do not carry “highway” traffic. As stated above, these structures fall within the rules and regulations of the FRA.

However, it is highly recommended that MDOT and Local Agencies perform brief safety inspections for all structures that cross their routes, including railroads. Typically, these safety inspections should be limited to collecting condition information for the portions of the structure that can be inspected from within the road ROW below the structure and with no equipment touching the structure. If further details are needed and access to elements within the railroad ROW is required, arrangements with the railroad owner will be required.

The conditions for the portions of the structure that can be accessed from the roadway ROW should be rated using the NBI condition rating scale and data entered into the MiB^{RIDGE} web application. A comment should be placed on the report for those elements that were not inspected due to limited access requirements. If access is required for detailed inspections using ladders or bucket trucks, the railroad bridge owner should be notified to verify the safety requirements. The condition information collected in MiB^{RIDGE} for these non-NBI structures is not sent to FHWA.

- **Deficiencies Found During Safety Inspections of Railroad Structures**

Any potential safety issues or critical findings found during the inspection that require immediate attention shall be brought to the railroad owner’s attention. This information should be documented using the Request for Action (RFA) process.

Documentation sent to the railroad owner should include the following:

- i) RFA Form (either form 1887 for MDOT, or 1887LA for Local Agency). This form should describe the conditions that require immediate action.
- ii) Bridge Safety Inspection Report (BSIR), if completed. This form is generated from the data entered into the MiB^{RIDGE} web application and contains the inspection information for all the elements reviewed.
- iii) Photos of the Deficiencies or Potential Safety Issues

For MDOT owned routes this documentation should be sent to MDOT's Office of Rail who will initiate the contact with railroad bridge owner. Please send this documentation to:

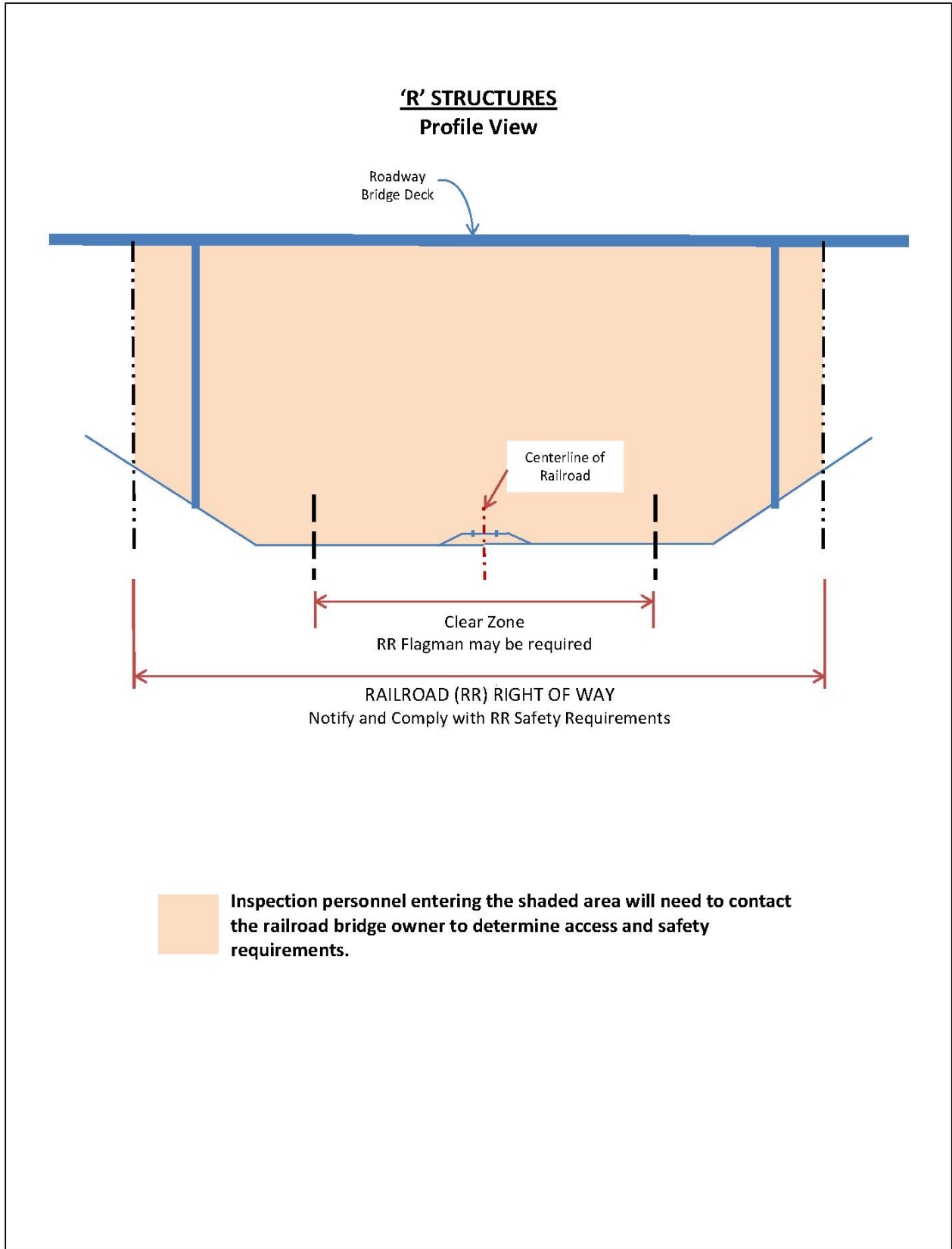
Steve Rapp, Trunkline Grade Separations Engineer
(517) 335-3043, RappS@michigan.gov

or

Jim D'Lamater, Infrastructure Development Manger
(517) 335-3577, DlamaterJ@michigan.gov

For Local Agency owned routes, this documentation should be sent directly to railroad bridge owner. A list of railroad contact information is attached. For additional assistance with contact information for railroad bridge owners, please contact MDOT's Office of Rail at the names listed above.

For questions regarding this bridge advisory please contact Rich Kathrens, MDOT Bridge Safety Inspection Engineer at (517) 749-4274 or by emailing MDOT-BridgeInspection@michigan.gov .



Operating Railroads (& Contacts) by MDOT Region
(Updated 2/26/2014)

Superior Region

Canadian National	Mary Ellen Carmody – flagging	248-740-6227	maryellen.carmody@cn.ca
	Jim Gasiiecki	248-431-0649	jim.gasiecki@cn.ca
	Eric Deksnis	920-579-6754	eric.deksnis@cn.ca

Escanaba & Lake Superior	Bob Anderson	906-280-2513	
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Lake Superior & Ishpeming	Darryl Babbitt	906-475-3101	darryl.babbitt@cliffsnr.com
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Mineral Range RR	Clint Jones, Jr.	906-485-1100	
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North Region

Great Lakes Central	Ray Robinson	989-666-8276	rjrobinson@glcrrailroad.com
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Lake State Railway	Vicky Chumra	989-757-2129	Chmurav@lsrc.com
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Marquette Rail	Rick Jany	231-845-9000	rick.jany@marquetterail.com
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Grand Region

Coopersville & Marne	Jeff DuPilka	616-291-0769	jdupilka@westshorefire.com
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CSX	Dave Clark – flagging	859-426-6914	David_Clark@csx.com
	Amanda DeCesare	859-426-6924	amanda_decesare@csx.com

Grand Rapids Eastern	Bob Dine	231-722-2686	bob.dine@gwrr.com
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Mid-Michigan RR and Michigan Shore RR	Scott Knight	616-293-0564	scott.knight@gwrr.com
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Bay Region

Canadian National	Mary Ellen Carmody – flagging	248-740-6227	maryellen.carmody@cn.ca
	Jim Gasiiecki	248-431-0649	jim.gasiecki@cn.ca

CSX	Dave Clark – flagging	859-426-6914	David_Clark@csx.com
	Amanda DeCesare	859-426-6924	amanda_decesare@csx.com

Great Lakes Central	Ray Robinson	989-666-8276	rjrobinson@glcrrailroad.com
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Huron & Eastern	Anthony Hall	989-797-5151	anthony.hall@gwrr.com
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Lake State Railway	Vicky Chumra	989-757-2129	Chmurav@lsrc.com
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Mid-Michigan RR	Bob Dine	231-722-2686	bob.dine@gwrr.com
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Operating Railroads (& Contacts) by MDOT Region (Updated 2/26/2014)

Southwest Region

Amtrak	Kate McGrath	215-349-1750	mcgratm@amtrak.com
Canadian National	Mary Ellen Carmody – flagging Jim Gasiiecki	248-740-6227 248-431-0649	maryellen.carmody@cn.ca jim.gasiecki@cn.ca
CSX	Dave Clark – flagging Amanda DeCesare	859-426-6914 859-426-6924	David_Clark@csx.com amanda_decasare@csx.com
Grand Elk RR	Mike Gillikin	616-291-3489	mgillikin@watcocompanies.com
Indiana Northeastern	Troy Strane	517-439-4677	troy_strane@sbcglobal.net
Michigan Southern RR and West Michigan RR	Frank May	309-697-1400 (x247)	fmay@pioneer-railcorp.com

University Region

Amtrak	Kate McGrath	215-349-1750	mcgratm@amtrak.com
Adrian & Blissfield	Mark Dobronski	517-265-3626	mdobronski@abrailroad.com
Ann Arbor RR	John Chlipala	517-548-3930	jchlipala@watcocompanies.com
Charlotte Southern RR	Mark Dobronski	517-265-3626	mdobronski@abrailroad.com
Canadian National	Mary Ellen Carmody – flagging Jim Gasiiecki	248-740-6227 248-431-0649	maryellen.carmody@cn.ca jim.gasiecki@cn.ca
CSX	Dave Clark – flagging Amanda DeCesare	859-426-6914 859-426-6924	David_Clark@csx.com amanda_decasare@csx.com
Conrail	Ed Statzer	313-297-5561	E.Statzer@conrail.com
Great Lakes Central	Ray Robinson	989-666-8276	rjrobinson@glcrrailroad.com
Huron & Eastern	Anthony Hall	989-797-5151	anthony.hall@gwrr.comonrail
Indiana Northeastern	Troy Strane	517-439-4677	troy_strane@sbcglobal.net
Indiana & Ohio Railway	Biff Konrad	513-860-1000 (x133)	biff.konrad@gwrr.com
Jackson & Lansing RR	Mark Dobronski	517-265-3626	mdobronski@abrailroad.com
Norfolk Southern	Douglas Shawn Starling	404-529-1436	douglas.starling@nscorp.com

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(Updated 2/26/2014)

Metro Region

Canadian National	Mary Ellen Carmody – flagging Jim Gasiiecki	248-740-6227 248-431-0649	maryellen.carmody@cn.ca jim.gasiiecki@cn.ca
Canadian Pacific	David Lukianow	905-803-5971	david_lukianow@cpr.ca
CSX	Dave Clark – flagging Amanda DeCesare	859-426-6914 859-426-6924	David_Clark@csx.com amanda_decasare@csx.com
Conrail	Ed Statzer	313-297-5561	E.Statzer@conrail.com
Delray Connecting	Sonny Sebastian	313-841-2851	sonny132@juno.com
Detroit Connecting	Mark Dobronski	517-265-3626	mdobronski@abrailroad.com
Norfolk Southern	Douglas Shawn Starling	404-529-1436	douglas.starling@nscorp.com

NOTE: Contact Cory Johnson, JohnsonC45@michigan.gov, 517-335-2931, to obtain a .pdf version of the Michigan Railroad Map with railroads lines identified.