MDOT Bridge RFA Coordination Committee
January 17, 2023 (DRAFT)

Purpose

The MDOT Bridge Request for Action (RFA) Coordination Committee is intended to be a sub-committee of the MDOT Bridge Committee.

The MDOT RFA Coordination Committee is responsible for reviewing, prioritizing, initiating action, monitoring, and ensuring resolution and/or following up all on bridge **RFAs statewide** for MDOT owned structures. The committee will also set goals and timeframes and identify resources **for addressing RFAs** based on the Priority Levels listed below, which may involve recommendations for partial or full bridge closure, emergency repairs, or contracting of work depending on current resource availability and situational urgency. The MDOT Bridge RFA Coordination Committee will also serve as the technical expertise for the development of any RFA Dashboard.

The MiSIM provides guidance on RFA creation. RFAs have varying degrees of urgency requiring ongoing prioritization and monitoring of implementation. The RFA originator will determine the initial priority level. **The goal of this committee is to manage the active RFAs,** review the priority level set, and work towards addressing the RFA within the timeframes prescribed based on their priority level.

The MDOT RFA Coordination Committee will assess and prioritize on matters such as:

- Temporary support installations
- Structural repairs/retrofit
- Diaphragm or cross frame repairs and removals
- Substructure repairs
- High load hit repairs/retrofit
- Load capacity evaluation
- Structural strengthening
- Detailed inspection
- Structural monitoring
- Scour assessment

RFAs may be addressed through internal resources or through contract work to ensure timely completion. Acceptable actions may include increasing the inspection frequency, or scheduling special inspections on short frequencies until repairs are made.

Priority Levels

The following priority levels describe the deficiencies common to each level, and the timeframe in which the deficiency is recommended to be addressed. Deficiencies not addressed within the prescribed timeframes are to be further discussed at any RFA meeting. Additional monitoring may be required until the deficiencies can be addressed. **The final schedule for repairs will be reviewed and determined by the RFA committee.**

Priority Level 1 – to be completed as soon as feasible and may require an emergency contract. Priority Level 1 may involve a critical finding requiring partial or full bridge closure and reporting to FHWA (see Chapter 10 of the Michigan Structure Inspection Manual, MiSIM).

Examples of Priority Level 1 items are as follows:

- Severe section loss, holes, or buckling in webs or flanges of curved steel girders
- Severe section loss, holes, or buckling in web or flanges of fracture critical members
- Severe section loss, holes, or buckling in webs or flanges on 50% or more of the beams, or H-bearings of redundant bridges
- Severe section loss, holes, or buckling in webs or flanges on multiple adjacent beams or H-bearings of redundant and non-redundant bridges
- Active or new structural crack(s) in primary load carrying members of redundant and non-redundant bridges
- Severe section loss in pin and hanger link plates
- Evidence of excessive deflection, or buckling
- Fracture, crack, or concrete spalling under bearings past position dowels at pier bearings
- Fracture, crack, or concrete spalling under bearings past position dowels on abutments with independent backwalls
- Incident resulting in moderate to severe structural damage (See MiSIM Chapter 9)
- Lateral torsional buckling at beam ends due to insufficient joint travel or pavement growth
- Concrete spalling resulting in multiple exposed strands on multiple adjacent prestressed beams
- Bridge sign connection failure resulting in possible instability to the support
- Bridge underclearance (UC) reductions due to impact damage where UC is less than or equal to 14’-6” and the structure is the lowest of the route (see Underclearance Guidance Tree)
- Significant scour holes or undermining of the footing resulting in potential instability of the bridge
- Loose concrete over travelled lane
- Loose bracing over travelled lane
- Required structural strengthening or posting for reduced load resulting from load rating evaluation
- Significant rocker tilt in a majority of the expansion rocker bearings (see Rocker Bearing Realignment Summary for additional guidance).

Priority Level 2 – to be scheduled, and/or monitored, within 90 days

This priority level requires constant review and assessment of the active RFA list to ensure the items are scheduled within 90 days. These items may be appropriate for the Bridge Urgent Needs (BUN) design process.

Examples of Priority Level 2 items are as follows:

- Severe section loss, or holes in webs and flanges of moderately skewed steel girders
- Severe section loss or buckling of single or non-adjacent beams of redundant bridges
- Structural cracks in welded connections that could propagate into primary members of redundant bridges
- Severe section loss or cracks in H-bearing assemblies
- Fracture, crack, or concrete spalling under bearings at piers, no position dowels exposed
- Fracture, crack, or concrete spalling under bearings past position dowels on abutments with dependent backwalls
- Incident resulting in moderate structural damage (See MiSIM Chapter 9)
- Concrete spalling resulting in exposed strands on non-adjacent prestressed beams
- Prestressed beam end block cracking and spalling resulting in exposed strands
- Scour holes or undermining of the footing of a scour critical structure
- Excessive rocker tilt in a majority of the expansion rocker bearings (see Rocker Bearing Realignment Summary for additional guidance).

Priority Level 3 – to be scheduled and/or monitored within 12 to 18 months.

This priority level is also subject to prioritization to ensure deficiencies are addressed or monitored within the timeframe referenced above. The fixes for these deficiencies can be performed using internal resources or through contract work.

Examples of Priority Level 3 items are as follows:

- Cracks in Diaphragm Connections that are not active
- Evidence of scour holes, footing undermining, or significant damage to required scour countermeasures
- Fracture, crack, or concrete spalling under bearings at abutments, no position dowels exposed.
- Missing bolts or damage to cross frames and diaphragms
- Bearing stiffener section loss in excess of 50%
- Beam End with active corrosion and 10% or more section loss
- Rocker tilt in a majority of the expansion rocker bearings at or beyond the limits in the Rocker Offset Table shown below (see Rocker Bearing Realignment Summary for additional guidance).

Priority Level 4 - the Bridge RFA committee determines that actions have been taken to address and/or monitor immediate structural needs, distress is non-critical, and repairs should be programmed, or addressed via routine maintenance.

- Load rating supplemental checks for local web yielding and crippling These are identified locations the bridge owner should consider for repair based on evaluation of the bridge's life cycle, condition of protective coating system, deck joints, etc., and coordination with road or bridge corridor work.

Rocker Offset Table *(see Rocker Bearing Realignment Summary)*

Rocker Plate Width (in)	Max. Rocker Offset (in)	Max. Rocker Rotation (degrees)
6	1 ½	10
7	1 ¾	12
8	2	14
9	2 ¼	10
10	2 ½	12
11	2 ¾	13
12	3	14
13	3 ¼	15
14	3 ½	16
15	3 ¾	18

Meetings

RFA Coordination Committee meetings are scheduled monthly, pre-meetings between Committee co-chairs, specialty areas and each Region will be held in advance of the monthly RFA Coordination Committee meetings as necessary.

The monthly meetings will consist of discussing general discussion topics, reviewing, and prioritizing the RFAs flagged for review through the pre-meetings, reviewing other open RFAs walked on by other committee members, and reviewing and updating the Bridge RFA Coordination Committee Draft White Paper.

The RFA process should continue to progress independent of the RFA Coordination Committee meetings and may require separate discussions with individuals assigned to intermediate actions.

Timeframes for additional structural monitoring may be reviewed and agreed upon by the RFA committee.

Pre-meetings are meant to review which RFAs should be discussed at the Committee meeting, ensure priority levels are assigned to intermediate actions, follow up on progress in closing out RFAs and provide for statewide consistency and alignment in executing the MDOT Bridge RFA process.

Annual review and/or approval of RFA Call for Projects submittals.

Members

The following MDOT staff comprises the RFA Coordination Committee:

- Structure Program Division Administrator
- Bridge Management Engineer (Committee Co-Chair)
- Structure Preservation Engineer (Committee Co-Chair)
- Load Rating Program Manager
- Load Rating Engineer
- Bridge Inspection Program Manager
- Emergency Coordination Engineer
- Bridge Fracture Critical Inspection Engineer
- Big Bridge and Fatigue Inspection Engineer
- BOBS Scour Specialist
- Bridge Systems Engineer
- Priority Preservation Engineer
- Railroad Grade Separation Engineer (As-Needed)
- Hydraulic Unit Supervisor (As-Needed)
- Big Bridge Scoping Engineer (As-Needed)
- Geotechnical Unit Supervisor (As-Needed)

Region Bridge Engineers will have standing invites to participate in the RFA Coordination Committee meetings via conference call, or in person, and will be solicited for agenda items as well. The FHWA Division Bridge Engineer will also have a standing invite.

Sponsors of the RFA Coordination Committee:

- Director of the Bureau of Bridges and Structures