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Memorandum

From:	Tim Welter, E.I.T., Bridge Maintenance Engineer
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Date:	August 8, 2022
Subject:	Special Inspection Guidance

This document is intended to provide guidance to determine when a Special inspection may be required, how to add them, and the process for modifying a Special inspection schedule.

When Special Inspections may be required

MDT Policy is to use the Standard inspection intervals for Routine (24 months), Underwater (60 months), and Fracture Critical (24months) inspections. Special inspections should be used when a bridge requires an inspection interval that is less than the standard inspection intervals. The reason for adding a Special inspection will generally fall into two different categories: Condition Based Defect or Design detail. The Bridge Inspection Engineer has the final say on when a Special inspection is required and the interval on which it should be performed.

Condition Based Defects

Condition based defects are defects that affect the safety, serviceability, or structural integrity of a bridge. Some examples of these defects may include, but are not limited to: decay in timber elements (caps & piles), cracks in structural steel elements or connections, corrosion section loss, buckling, or distortion in steel elements, culvert defects (cracking, corrosion, section loss, distortions, etc…), scour, settlement, severe concrete (or reinforcement) deterioration, external non-bridge related items posing a constant but uncertain risk that may impact (literally or figuratively) our structures, and any other miscellaneous structural defects. If an inspector finds something they believe warrants a Special inspection, they need to contact the Bridge Inspection Engineer to determine Special inspection needs. The Bridge Inspection Engineer will determine if the Special inspection is required and the inspection frequency.

Design Details

Design details that require a Special inspection are determined by Bridge Management. Currently, these details only include Pin and Hanger NDT, which is completed on a 48-month frequency.

Adding Special Inspections

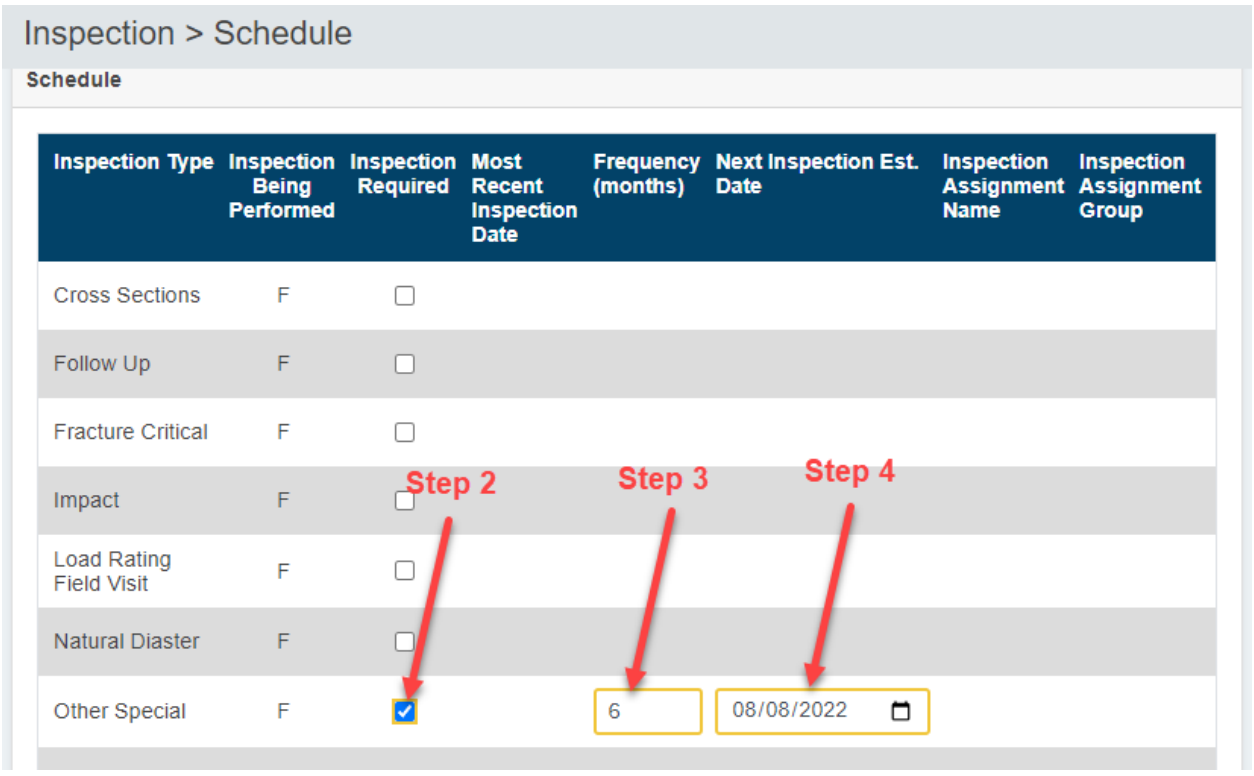
Once it is determined that a Special inspection is required, it needs to be scheduled in BrM and have an inspection procedure written.

Scheduling and Procedures

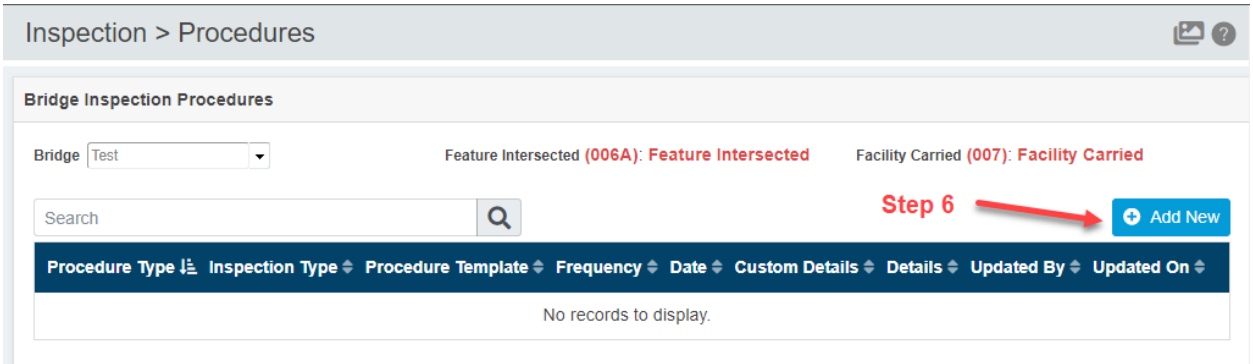
There are 6 types of Special inspections you can choose from. Other Special (numbered 0 to 3), Underwater Special, and Pin and Hanger NDT. All of these inspection types roll up into the NBI Other Special inspection dates and frequency. Underwater special should be used to schedule Special underwater inspections that require diving inspectors. Pin and Hanger NDT should be used to schedule Pin and Hanger NDT inspections that require specialized NDT equipment. Other Special (0 to 3) should be used for all other cases where a special inspection is required. When scheduling Special inspections, the inspections will show up in the inspection assignments module to be added to an assignment.

Steps for Scheduling and adding Procedures:

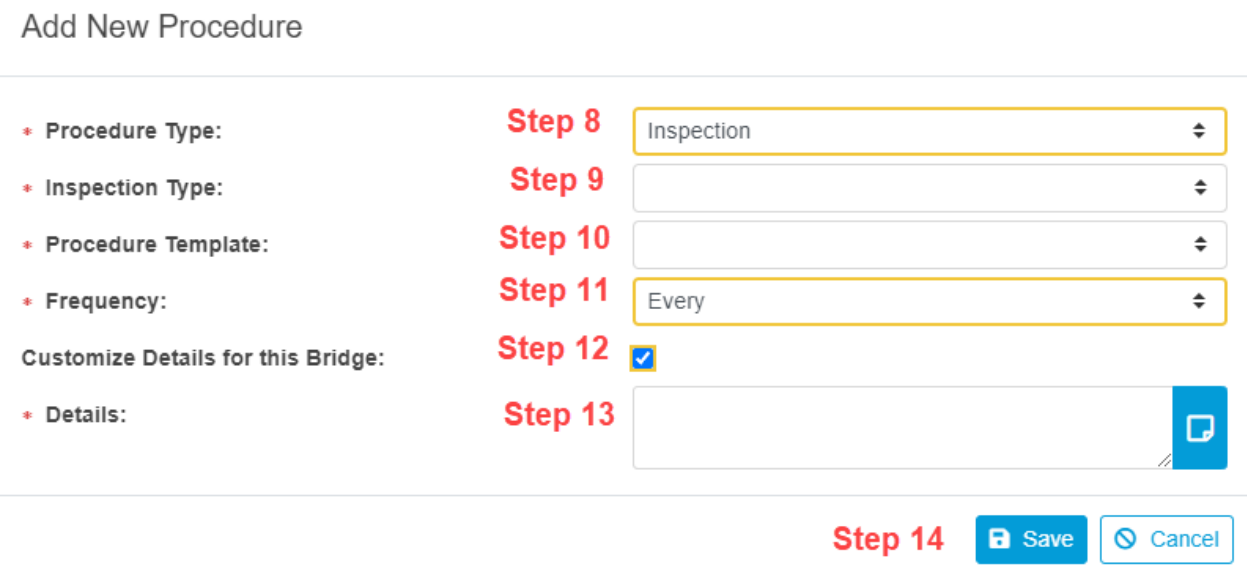
1. With the bridge selected go to the schedule page. Inspection > Schedule
2. Click on the inspection required check box for the appropriate Special inspection type. (Other Special (0 to3), Underwater Special, and Pin and Hanger NDT)
3. Enter in special inspection frequency in Months
4. Enter in the estimated next date and click save.



5. Go to Inspection > Procedures



6. Click on Add New in the Top Right Corner
7. After you Click on Add New the window below pops up with options for Procedure Type, Inspection type, Procedure Template, Frequency, Customize details for this bridge, and details.
8. Procedure Type will always be inspection.
9. Inspection Type will be the inspection type you selected when scheduling the inspection.
10. Procedure Template will only have one option with the same name as the inspection type.
11. Frequency will be “Every”
12. Check the Customize details box for this bridge to allow editing of the details section.
13. Describe what the special inspection is for and any specific procedures that need to be included.
14. Click on Save



Modification to Special Inspection Schedule

An Inspector may request a change in the frequency (increase or decrease) of a Special Inspection due to repairs, deterioration to a worse condition, or no change in condition for an extended amount of time. Requests may also be made to remove a Special inspection and return to a Routine inspection only. This request needs to be sent to the Bridge Inspection Engineer via email. The Bridge Inspection Engineer will have the final say on modifying or removing the Special inspection interval or process.