



VISION ZERO

zero deaths
zero serious injuries

Montana Department of Transportation

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MEMORANDUM

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Subject: Interim Guidance for New Bridge Asset Process

In the past, common business practice has been to overwrite asset information in SMS when existing structures are replaced. This new process requires a unique asset record for each structure. Requiring a unique asset record for each structure will prevent historic bridge data from being overwritten and improve data integrity in new bridge records. This document is intended to provide MDT Inspectors with guidance about the general process and associated SMS procedures for creating new asset records, and archiving existing assets that are replaced. This is applicable not only to bridge replacements, but also for “new” structures (including newly constructed structures and existing structures that are new to the inventory). This interim guidance will stay in effect until a new version of the Manual is published, or until otherwise superseded.

Overview of NBI and MTSID Numbers

NBI	National Bridge Inventory	(15 digits long)
MTSID	Montana Structure Identification	(5 digits long)

Each structure has two main identifiers: its NBI and MTSID number. The MTSID number is an agency-assigned identification number that indicates the spatial location of a structure crossing. The NBI structure number is the official identification number that’s reported to Federal Highways. Each bridge is required to have a unique NBI structure number, and once it’s established it should never change over the life of the bridge. To summarize the comparison, MTSID is site specific and NBI number is structure specific. One structure that replaces another in the same location will have the same MTSID, but must have a unique NBI number.

Use the flow chart below to determine NBI and MTSID numbers for a new structure. To avoid potential duplication, do not delay in creating a new asset in SMS once NBI and MTSID numbers are determined (refer to SMS checklist).

Active vs. Archived Assets

In following current practices, assets that meet **all** of the following criteria should be active assets. NBI Item 41 should be coded to indicate the operational status of the structure (i.e. open with or without restrictions, closed to traffic, new structure not yet opened to traffic). For any “*K – Closed to All Traffic*” or “*G – New structure not yet open to traffic*” coding, best practice is to include a comment with further detail (i.e. anticipated demolition/removal date, anticipated completion date for construction).

Active Asset Criteria

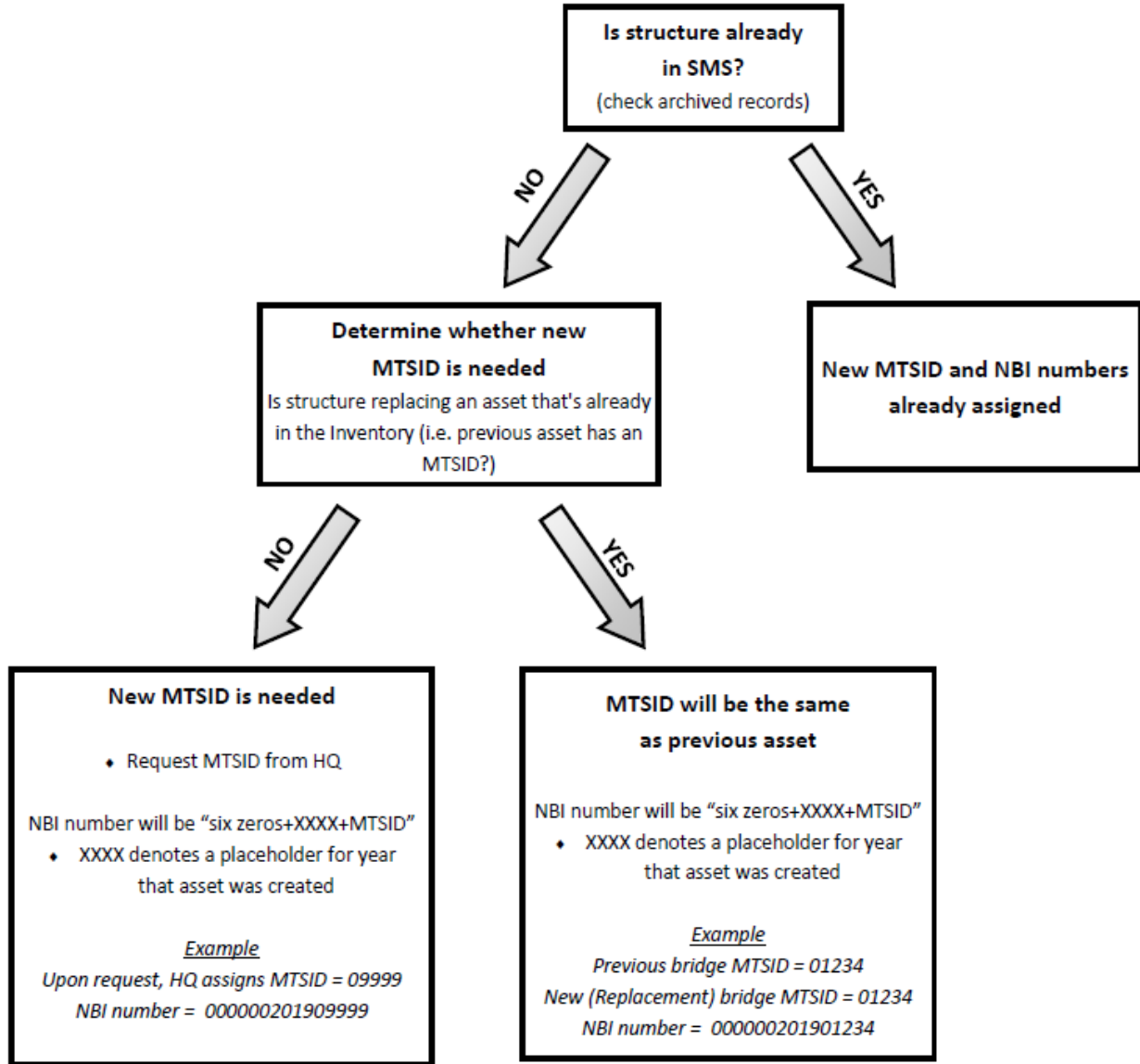
- Physically exist (including if under construction)
- Meet requirement for inspection per MDT Inspection Manual Section 1.2
- Owner (NBI 21) or Maintenance Responsibility (NBI 22) is one of the following:
 - State Highway Agency
 - County Highway Agency
 - Town or Township Highway Agency
 - City or Municipal Highway Agency
 - Other State Agency
 - Railroad

Any assets that do not meet the above criteria should be archived. Common examples include structures that have been removed, structures that are not long enough to require inspection (per section 1.2.3 and 1.2.4 of the *MDT Bridge Inspection and Load Rating Manual*), and new structures planned by Bridge Design that are still in the preconstruction phase.

Archive Guidance

- A completed and signed ‘Archived Bridge Statement’ must be uploaded under *Inventory – Asset - Documents* before the asset is archived
- A note stating why the bridge was archived must be entered in comments field under *Inventory – Asset – Location* for quick reference as to the reasons a bridge is archived. This note should be short and include a date. Example: “Replaced with new bridge 2019”.
- All asset information (i.e. attributes, location photo) should remain unchanged, to retain historical data and to provide a “snapshot” of information at time of archiving. Photos of a replacement structure (i.e. culvert) may be uploaded to the location referenced in the Archived Bridge Statement.
- If a structure is slated for removal, archive of the asset should be done once the structure has been physically removed. If it has been closed to traffic but not yet demolished, the asset should stay active and NBI 41 should be coded “*K – Closed to All Traffic,*” with a comment about the anticipated demolition date.
- If a structure does not require inspection per sections 1.2.3 and 1.2.4 of the *MDT Bridge Inspection and Load Rating Manual*, archive the asset immediately after uploading the signed Archived Bridge Statement and entering the note described in bullet 2.
- Bridge Design Area Engineers have been encouraged to request NBI and MTSID numbers during preconstruction so that the info on the plans matches the SMS database. In such cases, a new asset is created and archived. Once construction begins on the bridge, the asset should be un-archived with NBI 41 coded “*G – New structure not yet open to traffic,*” with a comment about anticipated completion date.

Determining New NBI and MTSID Numbers – Flow Chart



Creating a New Asset – SMS Checklist

1. Check SMS for archived new record
 - i. Checkmark the *Archived* box in Filters in SMS and click Apply.
 - ii. Go to *Inventory – Map* and zoom into the location of the bridge to determine if the record has already been created and stored in the database. *Note: the archived bridge may not be in the exact location of the new structure. Design only has a vague idea of where new structures will be when IDs are assigned, so you will have to check the general area.*
 - iii. If the record already exists, un-archive the record and review the data in the record for completeness as compared to this checklist.
 - a. To un-archive the asset record, un-check the “Archive” box (under the *Comments* section) in *Inventory – Assets – Location* tab
2. Archive old structure (*if applicable*)
 - i. Download Archive Bridge Statement document from Reference Documents.
 - a. Type “doc” in the *Quick Search* box in SMS. Then go to *Inventory – Assets – Documents*.
 - b. Two versions of the document exist. Either can be edited for specific situations.
 - ii. Fill out the Archive Bridge Statement, print, sign, and scan back in
 - iii. Upload signed Archive Bridge Statement to *Inventory – Assets – Documents* of the specific bridge being archived.
 - iv. Edit the *Inventory - Assets – Location* tab and enter comments, then check the “Archive” box (under the *Comments* section)
3. Create a new asset in SMS for the new structure (*if applicable*)
 - i. Make sure that new NBI number and MTSID have been determined (see flow chart above)
 - ii. *Inventory – Create new asset*
 - a. Make sure Type is Bridge. If it isn’t, choose Bridge from the dropdown box.
 - b. Enter 15-digit NBI number in *Name (or ID)* text box.
 - c. Enter 5-digit MTSID in *MDT Structure ID* text box.
 - d. Type any General Bridge Notes into the *Comment* box.
 - e. Zoom into bridge location in map view and click on center of bridge to autofill Latitude and Longitude values and set the location pin. If the pin doesn’t quite end up in the spot you wanted, just click the map again closer to where you wanted the pin. If you have general Latitude and Longitude values from a gps, you can enter them into the Latitude and Longitude fields, click Save (you will get an error – just click OK), click Edit, and click on the exact location of the bridge from there.
4. Request creation of *Roadway Chapters* (Chapters M, O, P, and Q)
 - i. Email the Bridge Management Engineer and provide the following information:
 - a. MTSID
 - b. NBI ID
 - c. Number of Roadways on structure
 - d. Number of Roadways under the structure
 - ii. Populate attributes once Bridge Management Engineer creates Roadway Chapters (Chapters M, O, P, and Q). The Bridge Management Engineer will populate NBI items 5A, 5C, 5D, 5E, 12, 13A, 13B, 104, 20, 100, 105 and 110 and MDT007 when creating roadway chapters.
5. Complete data entry
 - i. Attribute Entry
 - ii. Create Inspection Masters

- iii. Upload Documents
 - a. Request shop drawings and plans from local agencies. Perform site measurements and fill out the appropriate forms if no plans are available.
 - iv. Upload Profile Photo in *Location* tab (if available)
- 6. Once previous steps are complete, email HQ and request that Chapter Z attributes be updated and the inspection be scheduled (best practice is to include only one person in the To: line)