Activity 162
Bridge Repair

Description

Activity 162 involves repairing bridges, major culverts, tunnels, and other structures classed as bridges to retain or restore design integrity.

General Information

Refer to discussion in the General Instructions section preceding Activity 160 in this section of the *Maintenance Guide* for additional information including environmental and traffic control recommendations and other important considerations.

A major culvert is a culvert, pipe, box culvert, or other drainage structure that is 6 feet or more in width or diameter.

Refer to Activity 123 for repairing culverts, box culverts, or other drainage structures that are less than 6 feet in width or diameter.

Refer to Activity 142, 143, 144, 145, 146, 151, 153, or other appropriate activity for maintaining or repairing other features that are located on bridges including guardrail and barrier transition ends and attachments. Features under these activities are considered part of the highway and not part of the structure.

Refer to Activity 160 for maintaining bridges or major structures.

Refer to Activity 165 for costs involved in operating moveable bridges.

Refer to Activity 304 if the work will upgrade the structure or add new features.

Refer to Activity 305 when assisting with elements of the bridge inspection program.

Refer to the General Instructions section preceding Activity 160 in this section of this Guide and:

- If a repair requires changes to structural elements, obtain approval of the Bridge Section for the methods and materials to be used. A Professional Engineer must approve many repairs; refer to *Policy DES 05-02.*
- Perform the repairs according to the priority listing and strategy developed for all bridge repair work in the District.
- Record needed information about each repair. Share with the Region Bridge Inspector.
- Notify the Bridge Preservation Engineer when each major structural repair is completed.

Refer to the:

- "As Constructed" plans for each structure, including incorporated materials.
- *Oregon Standard Specifications for Construction.*
- *Qualified Products List*.

Equipment

Select equipment suitable for the work and situation.

Materials

Select materials needed to perform the work. Use products from ODOT's *Qualified Products List* or seek Bridge Maintenance Engineer approval to try new products.

Work Method

1. Identify the work to be performed and obtain needed resources.
2. Implement appropriate traffic control.
3. Implement appropriate methods to control erosion, sediment and pollutants or contaminants, including removed or waste products.
4. Perform the repair operation.
5. Remove traffic control.
6. Dispose of waste or excess material at an appropriate location.

Measurement of Accomplishment, Expenditure Account, and Charge Activity

If another entity must be billed for some incurred costs, record information as required for the agreement related to the structure, for example the states of Washington or Idaho for structures over the Columbia or Snake Rivers.

Measurement is number of worker hours involved. Expenditure account type is Bridge EA; use a sub job appropriate for the crew performing the work.

Use a sub job within the 800 series if the work involves bicycle path facilities. These sub jobs are assigned by the Maintenance Management System (MMS) Unit based on the type of work performed.

- Charge work to Activity 162 in MMS
- Use the following activities in TEAMS as applicable:
  - Charge Activity 213 for repairing or replacing timber caps and sills.
  - Charge Activity 214 for repairing or replacing steel caps and sills.
  - Charge Activity 215 for repairing or replacing concrete caps and sills.
  - Charge Activity 216 for repairing or replacing concrete superstructure members.
  - Charge Activity 217 for repairing or replacing steel superstructure members.
  - Charge Activity 218 for repairing or replacing timber superstructure members.
  - Charge Activity 221 for repairing or replacing concrete decks.
  - Charge Activity 223 for repairing or replacing wood decking.
  - Charge Activity 225 for repairing or replacing wood, steel, or concrete curbs, bridge rail, and felloe guards.

- Charge Activity 226 for repairing or replacing timber piling and posts.
- Charge Activity 227 for repairing or replacing concrete piling and posts.
- Charge Activity 228 for repairing or replacing steel piling and posts.
- Charge Activity 229 for repairing or replacing wood or steel bracing.
- Charge Activity 231 for repairing or replacing metal decking or metal decking inlaid with concrete.
- Charge Activity 233 for repairs at the abutment and bridge end panels.
- Charge Activity 235 for repairing or replacing deck joints and paving dams.
- Charge Activity 237 for diving and related underwater work needed to plan and perform bridge repairs. When performing or assisting with diving or other underwater work involved with the bridge inspection program, perform the work under MMS Activity 305 with the expenditure information provided by the bridge inspection program.
- Charge Activity 238 for sounding work to measure water depth at required locations, except for work involved with the bridge inspection program.
- Charge Activity 239 for performing other structure repairs not listed as or included in a separate activity.
- Charge Activity 340 for repairing or replacing bearings or seats.
- Charge Activity 341 for repairing or replacing rivets or bolts when the work is not part of another activity.
- Charge Activity 342 for repairing or replacing elements of the structure's storm water drainage system.
- Charge Activity 343 for repositioning or replacing riprap, bioremediation, or similar material at these structures.
- Charge Activity 344 for repairing or replacing slope paving at these structures.
- Charge Activity 345 for repairing or replacing major culverts.
- Charge Activity 348 for repairing or replacing bridge fender systems.
- Charge Activity 359 for repairs or replacement of fish restoration items.