

## **Activities 160 through 169 Structures General Instructions**

Activities covered under this section include:

- Activity 160-Bridge Maintenance.
- Activity 161-Bridge Protective Screening.
- Activity 162-Bridge Repair.
- Activity 163-Structure Painting.
- Activity 165-Drawbridge Operations.
- Activity 168-Graffiti Removal.
- Activity 169-Other Structure Maintenance.

When working on a bridge, charge costs to the appropriate Bridge EA so the costs of maintaining or repairing each bridge are recorded. When performing work on an interstate bridge where ODOT will recover part of the costs from another agency, charge the appropriate EA to allow that cost recovery.

The Region Bridge Inspector, providing information to and working under the guidance of the Bridge Preservation Engineer in the ODOT Bridge Section:

- Regularly inspects each bridge and major culvert on the State Highway system. A major culvert is a culvert, pipe, box culvert, or other drainage structure that is 6 feet or more in width or diameter.
- Inspects each bridge and major culvert at least once every two years. The Region Bridge Inspector may inspect a bridge or major culvert, or a component, more often if the structure or component exhibits signs of increasing deterioration or other need for more frequent inspection.
- Inspects each bridge and major culvert in accordance with National Bridge Inspection Standards and prepares and sends each Bridge Inspection Report to the Bridge Preservation Engineer with a copy to the District Manager. Access the Bridge Inspection Reports, as well as related information, on the ODOT Bridge Section website.

The District Manager and each Manager responsible for maintaining bridges should also be alert for other indications that a bridge or major culvert may need maintenance or repair. Indications include, but are not limited to:

- Increasing sag in the roadway.
- Accumulation of drift, particularly during periods of high water.
- Erosion of the stream banks or changes in the current patterns of the waterway at the structure site.
- Spalling or loosening of concrete.
- Loose connections.
- Damage from traffic or other operations.
- Concerns of motorists or adjacent residents.

Seek guidance and assistance from the Region Bridge Inspector as necessary.

The District Manager and Manager responsible for bridge maintenance must also assure that required advance signs, warning of restricted clearance under a bridge or its superstructure, remain in place and in acceptable condition, including any associated flashers. Modify the sign accordingly if any maintenance or construction operation changes the clearance dimension and notify the Over-Dimensional Permits Unit in the Motor Carrier Transportation Division as discussed in the Public Relations section of this Guide.

With information from the inspection reports and assistance from the Region Bridge Inspector and the Bridge Preservation Engineer, the District Manager and the Manager responsible for bridge maintenance must:

- Develop a priority listing of, and a strategy for, all bridge maintenance and repair work in the District. See further discussion below. This would involve the work identified in the inspection reports as well as normal maintenance that should be performed at specified intervals.
- Identify resources and funding for bridge maintenance work to be performed by forces within the District.
- Work with the Region Manager and other District Managers to identify maintenance work that can be accomplished with the assistance of resources from other Districts.
- Identify projects that are beyond the capability of available resources and that should be included in the list of projects in the Bridge Contract Maintenance or Major Bridge Maintenance plan that is developed twice each year by the ODOT Bridge Section. Such projects would be performed by contract methods.
- Identify bridge repair, rehabilitation, or replacement projects for inclusion in the ODOT Statewide Transportation Improvement Program (STIP).

The strategy, in the first bullet above, may include several options regarding the desired performance for each bridge or major culvert:

- Maintain the current condition.
- Improve the condition, either by repairing, restoring to previous condition, or incorporating new or improved components.
- Allow the condition to degrade to a lower level. This option applies if a component may be allowed to deteriorate further before maintenance or repair is needed or if ODOT has decided to rehabilitate or replace the structure in the near future.

Be sure to obtain required environmental permits, especially for work within the high water lines, before beginning the work. Seek guidance and assistance from the Region Environmental Coordinator.

An Underground Work Permit may be necessary for work in mined tunnels, culverts, and rigid forms. Refer to the Underground Work Permit Standard, STD99002, in the ODOT *Safety and Health Manual*.

Before beginning any excavation work in areas where utility or other non-ODOT facilities could be buried, contact the Oregon Utility Notification Center (OUNC) so the facility owners can mark the location of their facilities.

A Professional Engineer must approve some repairs and all structural modifications. Refer to ODOT *Policy DES 05-02*. Seek guidance and assistance from the ODOT Bridge Section, including its Bridge Preservation Engineer and the Region Technical Center.

The District Manager should have “As Constructed” plans for each bridge or major culvert in the District. Note any changes or modifications on the “As Constructed” plans, including additional drawings or other information as appropriate.

The District Manager and the Manager responsible for bridge maintenance should also maintain information about each non-routine maintenance operation or repair that is performed. Share this information with the Bridge Preservation Engineer as appropriate.

If a utility company or other entity requests to attach facilities to ODOT bridges or major culverts, submit the plans for the attachment to the ODOT Bridge Engineer for review and approval before granting a permit for the work.

Obtain assistance as needed from the District Manager, Region Bridge Inspector, and the Bridge Preservation Engineer.