

Activity 144 Traffic Signal Maintenance

Description

Activity 144 involves repairing and maintaining traffic signals, controllers, wiring, poles and bases, pedestrian signal heads, interior illuminated signs (neon, fiber optic, and LED), and all other components of a signalized intersection, including ramp metering installations, to preserve and maintain proper operation of the signal facility. It includes payment for power and telephone service to operate traffic signals and other equipment, including illumination or flashers, included in the signal installation.

General Instructions

Perform this activity to maintain traffic signal installations at the level allowed by the performance budget and as described in the *Desired Conditions of Maintenance Features on State Highways*.

Refer to Activity L18 for variable message signs and L16 for roadside cameras.

Maintain roadway illumination under Activity 145.

Maintain flashers and beacons under Activity 146.

Charge Activity 165 for work involving signals that are needed only for operation of moveable bridges.

Refer to Activity 305 when performing work on construction projects or for other jurisdictions or entities. Obtain proper approval before performing any of this work.

The owner of each railroad facility is responsible for maintenance of railroad crossing signals and gates. ODOT, however, is responsible to maintain the railroad interconnect signs that are mounted on ODOT signal or luminaire installations and that warn motorists when the railroad crossing is closed to vehicle access.

Some cities are responsible for maintenance of traffic signals within the cities. Also, some private entities may be responsible for maintenance of traffic signals installed under a permit from ODOT.

The Manager responsible for maintenance of ODOT traffic signals must be aware of responsibilities for maintenance of all traffic signals on the State Highway system. Do not perform any work on traffic signals or other installations, that are the responsibility of cities or other entities, without proper request and approval. Refer to the *Policy Statement for Cooperative Traffic Control Projects* or other specific agreements to determine the process for maintaining these signals.

Assure that local jurisdictions or private entities are properly billed for their share of the cost of maintenance and energy, as defined in the agreement for each installation.

The ODOT Traffic Signal Services Unit (TSSU) establishes maintenance standards for traffic signals. TSSU and the District Manager responsible for maintaining traffic signals in the District or Region, with the Manager responsible for signal maintenance, should develop a maintenance schedule and identify responsibilities for maintenance for each traffic signal in the District or Region. Items could include:

- Ownership of the traffic signal, if not ODOT, including the responsibility for costs of maintaining and operating the signal installation.
- Frequency of inspection, responsible party to perform inspection, and listing of items to inspect.
- Responsibility for maintenance of components of the traffic signal, including frequency of regular specific maintenance work.
- Priority to respond to problems with or malfunction of the signal, including the process to notify the specified responsible ODOT person about a problem and the responsible party to respond.
- Personnel who are qualified to inspect or maintain the signal.
- Responsibility for adjusting timing of signal operation.
- Records to be maintained for each signal installation.

The Manager should have a copy of the "As Constructed" plans for each traffic signal installation and should note, on those drawings, any changes that are made to the installation.

Controlling Erosion, Sedimentation, and Pollutants or Contaminants

Plan and implement methods to control erosion, sedimentation, and pollutants or contaminants, including those discussed in the Control of Erosion, Sedimentation, and Pollutants or Contaminants section of this Guide and the ODOT *Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices*.

As appropriate, implement and maintain devices and processes including those described in the *Field Manual for Erosion and Sediment Control*.

Temporary Protection and Direction of Traffic

Plan, implement, and maintain traffic control as addressed in the *Traffic Control on State Highways for Short Term Work Zones* handbook.

Equipment

Select equipment suited for the work and situation, which may include a truck with elevated bucket to service overhead devices.

Materials

Materials may include:

- Replacement parts identified in the maintenance schedule or during inspections.
- Miscellaneous supplies for electrical and other repairs.

Work Method

1. Identify work to be accomplished.
2. Implement appropriate traffic control.
3. If the work may cause erosion, sedimentation, or may release pollutants or contaminants, implement appropriate methods to control them.
4. Perform work as needed.
5. Observe operation of the signal to assure proper operation.
6. Remove traffic control.
7. Dispose of waste or excess material at an appropriate location.

Measurement of Accomplishment, Expenditure Account, and Charge Activity

Measurement is number of worker hours involved. Expenditure account type is Highway Electrical EA (use a subjob of 043 or 045 appropriate for the responsible crew).

- Charge work to TEAMS Activity 144 except for the following:
 - Charge TEAMS Activity 334 for maintenance on traffic signal heads, including replacing or cleaning lamps or lenses and assuring proper alignment of each head.
 - Charge TEAMS Activity 335 for maintenance and repair of all components of a ramp metering system, including related costs of power and telephone service.
 - Charge TEAMS Activity 336 for maintenance and repair of traffic signal loops or other vehicle detection devices and related control equipment.
 - Charge TEAMS Activity 410 for inspection of traffic signals and related equipment.