Activity 104
Pavement Sealing

Description

Activity 104 involves applying liquid asphalt by hand or mechanical means, with or without aggregate cover, on sections of bituminous pavement to seal, rejuvenate lean bituminous pavement, seal cracks, and improve friction and to prolong the life of the surface. It includes:

- Fog seals
- Chip seals
- Sanding of bleeding or flush surfaces

This activity includes the installation of temporary pavement markers or markings.

General Information

Refer to discussion in the General Instructions section preceding Activity 100 in this section of the *Maintenance Guide* for additional information including environmental and traffic control recommendations and other important considerations.

The Transportation Maintenance Manager and the District Manager should plan to perform this work at routine intervals, as appropriate, and to include appropriate funding and work in the performance budget process. The Low and High Volume Preservation programs are another source of funding for this type of work.

If significant amounts of Activity 104 are needed, consider having the work performed by contract methods. Refer to discussion in the Purchase and Acquisition of Goods and Services section of this Guide. The District Manager may also request the Region Manager to include a project in ODOT's Statewide Transportation Improvement Program to perform the work.

Before performing Activity 104, perform needed work under Activities 100, 101, 107, and 110. It is a good practice to perform these activities a year in advance of the chip seal to minimize the risk of the chip seal not adhering to the new asphalt and to avoid problems with crack seal material during chip application.

Also implement appropriate practices to control or contain waste material from the sealing operation and from cleanup of tools and equipment. Use only approved release agents in truck beds, on tires, and on tools. Do not use diesel for this purpose.

Equipment

Equipment may include:

- Device to apply liquid asphalt (the supplier of the liquid asphalt may furnish this service as well).
- Water truck or other method to dampen cover aggregate in the stockpile.
- Trucks to haul cover aggregate.
- Chip spreader to distribute cover aggregate.
- Roller(s), preferably pneumatic, to compact cover aggregate.
- Sweeper.
- Pilot vehicle(s).
- Loaders to load aggregate.

Materials

Materials may include:

- Liquid asphalt.
- Aggregate cover material for a chip seal.
- Sand or other material to blot a fog seal, or bleeding, flush surface.
- Building paper for joints.
- Temporary traffic markers and other appropriate marking material.

Work Method

1. Implement appropriate traffic control, including pilot cars.
2. Implement appropriate methods of erosion, sediment control, or pollutants and contaminants control.
3. Sweep, or otherwise remove, loose or unacceptable material.
4. Place temporary pavement markers with removable covers.
5. As needed, place building paper at construction joints to prevent additional buildup of seal material.
6. Apply liquid asphalt. For a chip seal, ensure that the operation to place cover aggregate follows closely.
7. Apply cover aggregate, removing any excess to prevent rough areas.
8. Compact cover aggregate with at least two (2) coverages of the roller.
9. Repeat steps 5 through 8 as appropriate to place additional lifts.
10. Until liquid asphalt has properly cured, control traffic speed. Sweep periodically to remove loose aggregate. For a fog seal, apply sand or other material to blot liquid asphalt if it is sticking to vehicle tires.
11. Remove covers from temporary pavement markers.
12. Remove traffic control.
13. To prevent environmental damage, clean tools and equipments using Best Management Practices,
14. Schedule replacement of the permanent pavement markers and markings. Maintain and replace the temporary markers and markings until the permanent markers or markings are in place.
15. Remove the temporary pavement markers.
16. Dispose of waste or excess material properly.

Measurement of Accomplishment, Expenditure Account, and Charge Activity
Measurement is tons of liquid asphalt placed. Expenditure account type is Highway EA; use a sub job appropriate for the crew performing the work.

Record the mile point locations of work performed, for use by the Pavement Management System.

If preparing a Betterment Order for this Activity, note as many details as possible on the form to help track costs, location, and other relevant details.

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 all pavement sealing work to Activity 104.