

Activity 100 Minor Surface Repair

Description

Activity 100 involves hand patching with asphalt concrete or products designed for patching asphalt concrete of intermittent potholes, small depressions, and edge breaks on bituminous surfaces and shoulders to repair damage and to restore smoothness. It may also include deep base repair, which is removing and replacing deteriorated surface and base materials to restore a structurally sound riding surface.

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.

If conditions are not appropriate to perform permanent repairs, perform temporary repairs. Remove unacceptable or unstable material before performing permanent repairs.

If the underlying material is unstable or involves undrained subsurface water, perform deep base repair.

If appropriate or needed, plan and schedule to perform Major Surface Repair under Activity 101.

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

Equipment

Equipment may include:

- Truck.
- Backhoe, with hauling vehicle, for removing larger areas of damaged surface (may also use a small cold planer, pavement miller for appropriate locations).
- Jackhammer or similar device (including power or air supply) to “square” edges of area of repair.
- Device to haul, heat if needed, and apply tack coat.
- Roller, whacker, or appropriate compaction device.

Material

Materials may include:

- Asphalt concrete or patching material (hot mixture or cold patch mixture as appropriate). If conditions are not suitable for use of normal asphalt concrete, consider use of mixture that is specially produced for use in adverse conditions. Remove unstable or unacceptable mixture before performing permanent repairs.
- Liquid asphalt cement for tack.
- Material to clean tools and equipment.
- Additional considerations for deep base repairs:
 - Geo-synthetic material to separate new base material from underlying material.
 - Aggregate base or other base material.

Work Method

1. Locate or identify areas for repair.
2. Implement appropriate traffic control.
3. Implement appropriate methods to control erosion, sediment control or pollutants and contaminants control.
4. Remove damaged material to stable, acceptable surfacing. If underlying material is unstable, perform deep base repair.
5. "Square up" the sides of the repair area to provide smooth, vertical edges for replacement of asphalt concrete. Remove all loose material.

Use steps 6-8 only if performing deep base repairs.

6. If needed, install pipe or open graded drain rock to drain subsurface water.
7. Place geo-synthetic material if appropriate.
8. Place and compact base material.
9. Apply tack coat and allow it to properly cure or break before placing asphalt concrete.
10. Place the asphalt concrete in lifts of 2 inches or less and compact properly. Ensure that the finished surface is acceptably smooth for good "rideability".
11. If the surface joint between new and existing material is not well sealed, apply tack to that joint and apply sand or other material on the tack to prevent vehicles from damaging it.
12. Remove traffic control.
13. To prevent environmental damage, clean tools and equipment using Best Management Practices.
14. Dispose of removed material in an appropriate location.

Measurement of Accomplishment, Expenditure Account, and Charge Activity

Measurement is the number of worker hours involved. 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.

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 Activity 100 for all minor surface repair