

**MEMORANDUM OF AGREEMENT  
FOR  
FEDERAL-AID PREVENTIVE MAINTENANCE PROJECTS**

**May 2015**

**Introduction**

Preventive maintenance is a planned strategy of cost-effective treatments to extend the service life of pavements, bridges, and essential highway appurtenances without significantly increasing structural capacity. Preventive maintenance activities are eligible for federal assistance so long as the activities are shown to be a cost-effective means to extend the useful life of the highway and are located within a defined corridor with logical termini. The following guidance shall apply for preventive maintenance on all Federal-aid highway funded projects.

**Eligible Preventive Maintenance Activities**

**Asphalt Pavement**

1. Asphalt crack sealing and patching
2. Surface Treatments
  - a. Chip Seals
  - b. Cape Seals
  - c. Micro-surfacing
  - d. Slurry Seals
  - e. Fog Seals
3. Thin and ultra-thin hot mix asphalt overlay
4. Mill and Fill
  - a. No more than 2 inches of the existing pavement structure; exclusive of open graded friction course
5. Resurfacing
  - a. No more than 2 inches of additional layers; exclusive of open graded friction course and any necessary build-up to achieve proper cross slope
6. Rejuvenators
7. Diamond Grinding

**PCC Pavement**

1. Concrete joint/crack sealing
2. Diamond grinding
3. Dowel bar retrofit
4. Isolated, partial, and/or full depth patch concrete repairs to restore the functionality of the slab
5. Slab replacement, not exceeding 50% of the total area
6. Thin concrete overlay
7. Slab stabilization and jacking

## Eligible Preventive Maintenance Activities (continued)

### Traffic Control Devices

1. Traffic sign installation and restoration
2. Pavement marking/markers installation and replacement
3. Signal rebuilds and upgrades

### Drainage Facilities

1. Ditch restoration
2. Storm drainage restoration
3. Pipe culvert and box culvert restoration
4. Pipe culvert liners
5. Cleaning closed drainage systems

### Roadside/Median

1. Shoulder restoration
2. Shoulder paving
  - a. No more than 2 feet of existing shoulder can be paved
3. Mow strips (paving under guardrail)
4. Removal of vegetation within the clear zone
5. Upgrading guardrail and/or barrier components
6. Removal or shielding of obstacles
7. Installation of rumble strips/stripes

### Bridges

1. Deck overlays
  - a. Overlay must be rigid and composite with deck
2. Deck rehabilitation
  - a. Full and partial depth patching
3. Partial and full steel painting
  - a. Paint condition index must be 70 or less
4. Joint seal replacement
  - a. Condition state must be 2, 3, or 4
5. Scour mitigation
  - a. NBI scour code must be 3 or less
6. Mechanical and electrical components
7. Superstructure strengthening
  - a. Load carrying capacity to demand ratios must be less than 1.0 at operating level
  - b. Contingent on completion of current load capacity analysis
8. Mitigation of fatigue cracking in primary structural members
9. Cathodic Protection Systems for decks, substructure, and superstructure
10. Washing joints, drains, bearing assemblies, and other key structural components to remove chemical de-icing solutions
11. Removal of debris from channels
12. Application of concrete sealants, coatings, and membranes for surface protection of the concrete
13. Installation or restoration/upgrade of bridge protection systems

### **Roadside Safety Enhancements**

All preventive maintenance activities shall maintain or enhance the current level of safety within the project limits. While safety enhancements may be included in preventive maintenance projects, it is not a requirement; since safety enhancements can be deferred and included in an operative safety management system or in a future project identified in the current STIP. However, roadside safety should be evaluated for improvement within the scope of the preventive maintenance project.

### **Design Criteria**

No formal design exceptions to the established 13 controlling criteria will be needed for the retention of existing substandard conditions (exclusions are noted below for projects on the Interstate System). In effect, SCDOT will be maintaining the project as built and as it was agreed upon in the original project agreement. However, any new substandard feature created, or existing ones made worse, must be covered by a design exception since such action in effect changes the project as built.

In addition, it is agreed that the following controlling criteria will be addressed as follows on the Interstate System:

- Vertical clearance: the substandard vertical clearance to an overpass, within the limits of preventive maintenance projects involving any listed pavement techniques on the Interstate System, shall be corrected as part of the project, or documented with a design exception.
- Cross Slope / Superelevation: the existing cross slopes/superelevation may be retained without a documented design exception as part of a mill and fill project as defined within this agreement. Any resurfacing beyond mill and fill (excluding open graded friction course) shall require correction of the cross slopes/superelevation, or documentation with a design exception.

### **ADA Accessibility**

All preventive maintenance activities shall comply with the SCDOT ADA Transition Plan.

### **Highway-Rail Grade Crossings**

Signal and gates shall be in place or installed and functioning properly for highway-rail grade crossings within the project limits or near the terminus of the project before opening to unrestricted use by traffic unless other warning devices are evaluated and considered adequate by the SCDOT Traffic Safety Office.

### **Environmental Documentation**

Projects shall have an appropriate environmental document to satisfy the National Environmental Policy Act (NEPA). This is generally accomplished with a Categorical Exclusion (CE).

### **Authorization of Federal-aid Preventive Maintenance Projects**

Authorization of projects shall comply with the FHWA/SCDOT Stewardship and Oversight Plan. The project description must indicate that the scope of work is preventive maintenance, identify the specific strategy, location, and termini, and indicate that the project will be completed in accordance with this agreement.

**Conclusion**

This agreement shall constitute a commitment by the South Carolina Department of Transportation (SCDOT) and the South Carolina Division of Federal Highway Administration (FHWA) to develop and administer a preventive maintenance program using sound engineering judgment and economic evaluation resulting in cost-effective strategies to extend the service life of pavements, bridges, and essential highway appurtenances on Federal-aid highways.

This agreement is intended to be a living document that can be modified when needed to incorporate additional legislation or changes to improve the program and/or project delivery. The FHWA South Carolina Division Administrator or the SCDOT Deputy Secretary for Engineering may initiate amendments to this Preventive Maintenance Agreement should essential modification become apparent to either party.

*Robert Thomas*

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Robert Thomas, Acting Division Administrator, FHWA SC Division

Date: 5-29-15

*Christy A. Hall P.E.*

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Christy A. Hall, P.E., Deputy Secretary for Engineering, SCDOT

Date: 5-27-15