



## COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION  
1401 EAST BROAD STREET  
RICHMOND, VIRGINIA 23219-2000

David S. Ekern, P.E.  
COMMISSIONER

April 23, 2009

Mr. Roberto Fonseca-Martinez  
Division Administrator  
Federal Highway Administration (FHWA)  
400 N. 8<sup>th</sup> Street, Room 750  
Richmond, Virginia 23240-0249

Attn: Mr. Mike Canavan

Re: Agreement for Maintenance Projects on the National Highway System

Dear Mr. Fonseca-Martinez:

Over the course of the past few months, the Federal Highway Administration (FHWA) and the Virginia Department of Transportation (VDOT) have been in discussions relevant to utilizing federal funding to perform maintenance/resurfacing, restoration, and rehabilitation (RRR) type work on the National Highway System (NHS). A number of meetings were held between FHWA and VDOT's Location and Design and Maintenance Divisions to discuss the Scope for these type projects, establish a process for the development of these type projects, and to agree upon the level of involvement/oversight that the FHWA will provide. FHWA and VDOT recognize the fact that the intent of these projects is to preserve the existing infrastructure and provide additional service life for the roadway and/or bridges through a particular corridor with the appropriate level of Preliminary Engineering expenses and a short design/construction time period. FHWA and VDOT agree that by developing guidelines that will provide clarification, flexibility and structure to the use of maintenance/RRR criteria, it will reduce inefficiencies in preliminary engineering and improve these types of projects across the Commonwealth.

The guardrail for both RRR and Preventive Maintenance (PM) projects shall be reviewed for proper height. In cases where the guardrail height is less than 26 inches, it shall be reset as part of the RRR project. The guardrail in preventive maintenance projects will be reset if the paving operations resulted in a reduction of guardrail height.

It is agreed that FHWA will be invited to briefing/scoping meetings for all PM and RRR projects on the Interstate. Since many of these projects will not meet the thresholds for "Full Oversight", FHWA will maintain a programmatic review of the process.



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It is the intent of this letter to identify the characteristics and document procedures to be used in the development of projects within each of the following two categories:

Category 1: Preventative Maintenance and Resurfacing.

Category 2: Heavy Maintenance and RRR.

**Category 1: Preventative Maintenance and Resurfacing:** The activities must be clearly of a preventative measure as opposed to reacting once a corrective action is required. Projects that address deficiencies in pavement structure or increase capacity of the facility are not considered preventive maintenance. All preventative maintenance projects shall maintain and preserve the current level of safety and accessibility and consider additional low cost safety improvements. See Attachment A for types of projects that are included in this category.

Procedural steps for the development of Category 1 projects:

- Identify high crash locations throughout the proposed corridor and conduct a field review to determine isolated or obvious deficiencies that should be addressed as part of a future project.
- Determine whether additional safety improvements such as upgrading guardrail and end treatments, installation of traffic signs and pavement markings, and edge line rumble strips should be included in the proposed project where they are determined to be a cost effective way to improve safety. In no way shall preventative maintenance type projects adversely impact the safety of the traveled way or its users.
- It is agreed that to maintain program flexibility, and in accordance with 23 U.S.C. 109(q), safety improvements for preventative maintenance projects can be deferred and included in future projects in the Statewide Transportation Improvement Program (STIP). It is expected that safety improvements would be programmed within 2 years of the preventative maintenance project. However, extensions beyond the two years can be made with the approval of FHWA. Roadside hardware upgrades will be implemented in accordance with VDOT's Location and Design Division, Instructional and Informational Memorandum, IIM-LD-220.2 (or any subsequent revisions to the IIM).
- Projects shall have an appropriate environmental document to satisfy the National Environmental Policy Act (NEPA), generally a Programmatic Categorical Exclusion (PCE) prepared by the VDOT District Environmental Unit.



**Category 2: Heavy Maintenance and RRR:** The purpose for this category project is to restore and rehabilitate the pavement structure to extend the service life of the corridor by 15 to 20 years. Projects will typically involve variable depth milling and pavement build up, minimal changes to the vertical and horizontal alignment, include guardrail and roadside hardware improvements and will stay within the existing right of way. The pavement structure may be removed and replaced in its entirety for up to 50% of the project length. Projects will not provide for additional capacity through the corridor. This work is not considered preventive maintenance because of the improvements to the pavement structure.

Procedural steps for the development of Category 2 projects:

- VDOT will review the proposed project to validate that the scope and purpose meets the intent of a RRR project as outlined in this letter.
- Engineering design and analysis will be done to ascertain locations of existing or potential congestion and safety concerns. This analysis will be conducted with the following in mind:
  - (1) Early in the project development phase, VDOT will analyze the proposed project location to establish the applicable controlling design criteria. Any existing geometric features that are not brought up to current standards but meet the design standard during original construction/reconstruction will be documented by VDOT in the project files and copies sent to FHWA for their concurrence. The documentation will be in accordance with VDOT's Road Design Manual, Section A-4, Guidelines for RRR Projects (or any subsequent revisions to the guidelines).
  - (2) The controlling design criteria for Interstate projects are the design criteria used in the original construction or most recent reconstruction. For example, if a project was constructed in 1964, the standards in place at that time and any design exceptions approved at that time would be the allowable design criteria for the RRR project. This is allowed per AASHTO's *A Policy on Design Standards Interstate System*.
  - (3) VDOT will provide formal design exceptions only for those instances where an existing geometric feature is made worse. In these instances, VDOT will provide the same level of engineering and documentation and follow the normal steps associated with processing a design exception for FHWA approval. However, every effort will be made to bring these substandard geometric features to existing AASHTO design standards.



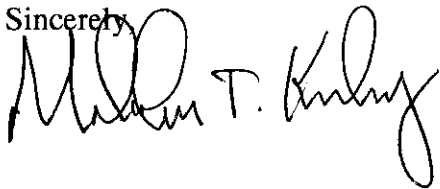
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- Road Safety Audits will be conducted to identify low cost safety countermeasures such as Rumble Strips, Median Barriers, Safety Edges, Left and Right Turn Lanes at Stop-controlled Intersections, Yellow Change Intervals, Medians and Pedestrian Refuge areas and Walkways and will be included in the proposed project where they are determined to be cost effective by the project manager and agreed to by the project team.
- Projects shall have an appropriate environmental document to satisfy NEPA, generally a Programmatic Categorical Exclusion (PCE) prepared by the VDOT District Environmental Unit.

We request your concurrence for this document to become the guidelines between VDOT and FHWA for all pavement rehabilitation and "heavy maintenance" projects across the Commonwealth. Providing clear and concise instructions on this subject matter will better ensure that both VDOT and FHWA personnel are consistent in their application of the subject matter.

If you have any questions or comments, please contact Mr. Terry Knouse at (804) 371 - 2792.

Sincerely,



Malcolm T. Kerley, P. E.  
Chief Engineer

Approved:

 Date: 4/28/09

Attachment (Attachment A)

cc: Mrs. Constance Sorrell  
Mr. Mohammad Mirshahi, P. E.  
Mr. Byron Coburn, P. E.  
Mr. Robert Prezioso, P. E.  
Mr. Kendal Walus, P. E.

ATTACHMENT A



**Examples of eligible activities under the Preventive Maintenance and Resurfacing Category:**

- Corrosion protection activities (Area wide program)
- Highway sign face cleaning (Area wide program)
- Any corrective, restorative or rehabilitative/reconstruction of highway pavement, which extends the service life of pavement for 5 – 15 years
- Milling and replacement of pavement materials
- Addition of a layer or layers of paving materials. (<2.0")
- Replacing surface treatment materials with plant mix asphalt
- Concrete joint sealing
- Diamond grinding of concrete surface
- Thin concrete overlay
- Crack sealing of mainline asphalt pavement or shoulders
- Applying surface treatments to mainline asphalt pavement or shoulders (example: chip seals, slurry seals, latex/micro-surfacing, thin friction course, etc)
- Thin hot mix asphalt overlay (<2.0")
- Grouting, mud jacking and under sealing
- Retro fitting of dowel bars
- Shoulder pulling and wedging for pavement edge drop-off mitigation

**Eligible bridge related activities:**

- Seal or replace leaking joints, reconstruction of joint areas during joint replacement or elimination of deck joints.
- Deck overlays. (Thin bonded overlays, rigid overlays, and asphalt overlays with waterproof membranes).
- Spot and zone painting/coating of structural steel to include bearings for pre-stressed concrete members.
- Painting/coating of structural steel.
- Cathodic Protection (CP) Systems for Bridge Decks.
- Cathodic Protection Systems for Substructure Elements.
- Cathodic Protection Systems for Superstructure Elements other than decks.
- Electrochemical Chloride Extraction (ECE) Treatment for decks.
- Electrochemical Chloride Extraction Treatment for substructure elements.
- Scour countermeasures installation.
- Removing large debris from channels.
- Retrofit of fracture critical members.
- Retrofit of fatigue prone details. (Methods to increase the fatigue life of fatigue prone details, like using ultrasonic impact treatment on welds at ends of cover plates or connection plate welds not positively connected to flanges.)
- Concrete deck repairs in conjunction with installation of deck overlays, CP systems, or ECE treatment.
- Substructure concrete repairs in conjunction with installation of CP systems, ECE treatment, or galvanic anodes (when there are several sources or experimental basis when only one source). (Includes substructure units with cathodic protection jackets.)
- Application of sealants, coatings, and membranes for surface protection of the concrete.
- Bridge cleaning and/or washing service. (Decks, joints, drains, superstructure and substructure horizontal elements.)
- Place concrete mat along the flow line of steel pipe culverts.

**NOTE: When eligible substructure work and/or painting/coating of ends of girders under joint locations are leaking, then it is required to have a contract for the work during the same year or the following year to seal the joints.**

