



U.S. Department of Transportation  
Federal Highway Administration

# PRODUCT BRIEF

## Manuals Provide Information for Pavement Maintenance and Repair

### Introduction

The Strategic Highway Research Program (SHRP) H-106, Innovative Materials Development and Testing, and the Federal Highway Administration (FHWA) Long-Term Monitoring of Pavement Maintenance Materials Test Sites projects studied materials and procedures for cost-effective maintenance of pavements.

In SHRP project H-106, many different test sections were installed and evaluated to determine the cost-effectiveness of maintenance materials and procedures. Test sections were installed at 22 sites throughout the United States and Canada between March 1991 and February 1992 under the supervision of SHRP representatives. The researchers collected installation and productivity information at each site and periodically evaluated the experimental repairs and treatments through the end of 1992. Based on the results of these efforts, SHRP produced a set of manuals on concrete repair practices.

Following the conclusion of SHRP H-106 in 1993, FHWA sponsored the Long-Term Monitoring of Pavement Maintenance Materials Test Sites study

to continue monitoring the performance of the experimental repairs and treatments. The project, which began in October 1993, annually evaluated treatments and repairs through the end of 1997 under the Long Term Pavement Performance (LTPP) program.

To provide highway managers and practitioners with the latest information on pavement maintenance and repair, LTPP revised and updated the original SHRP manuals with pertinent long-term performance and cost-effectiveness information generated by its continued monitoring of the test sections.

### Pavement Maintenance and Repair Manuals

- *Materials and Procedures for Sealing and Filling Cracks in Asphalt-Surfaced Pavements—Manual of Practice*

This manual of practice is an updated version of the 1993 SHRP *Crack Sealing and Filling Manual*. It contains the latest information pertaining to the performance of treatment materials and methods; the availability and relative costs of sealant/filler materi-

als; and the proper ways of planning, designing, constructing, and monitoring the performance of crack treatment projects. It also provides an updated partial listing of materials and equipment manufacturers.

- *Materials and Procedures for Repair of Joint Seals in Portland Cement Concrete Pavements—Manual of Practice*

This manual is an updated version of the 1993 SHRP *Joint Seal Repair Manual*. It contains the latest information pertaining to the performance of sealants and resealing methods; the availability and relative costs of sealant materials; and the proper ways of planning, designing, and monitoring the performance of joint resealing projects. It also provides an updated partial listing of materials and equipment manufacturers.

- *Materials and Procedures for Rapid Repair of Partial-Depth Spalls in Concrete Pavements—Manual of Practice*

This manual of practice is an updated version of the 1993 SHRP *Spall Repair Manual*. It contains the latest informa-



tion pertaining to the performance of repair materials and methods; the availability and relative costs of repair materials; and the proper ways of planning, designing, and monitoring the performance of partial-depth spall repair projects. It also provides an updated partial listing of materials and equipment manufacturers.

- *Materials and Procedures for Repair of Potholes in Asphalt-Surfaced Pavements—Manual of Practice*

This manual of practice is an updated version of the 1993 SHRP *Pothole Repair Manual*. It contains the latest informa-

tion pertaining to the types and performance characteristics of repair materials and methods, as well as the proper ways of planning, designing, constructing, and monitoring the performance of pothole repair projects. It also details how the cost-effectiveness of pothole patch types can be determined and it provides an updated partial listing of materials and equipment manufacturers.

#### Who Can Benefit From the Manuals?

The manuals are intended for field and office personnel within highway maintenance agencies

and contracted maintenance firms. It contains valuable information for supervisors and foremen in charge of repair operations, engineers in charge of planning and overseeing repair operations, and managers in charge of establishing repair policies and standards.

#### For More Information

The manuals are available from FHWA's LTPP website (<http://www.tfsrc.gov>). They are in pdf format and are located in the Library section under Reports. Hard copies are also available from the National Technical Information Service (NTIS), (703) 605-6000.

#### Research, Development, and Technology

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