

# **Pavement Preservation Technology Transfer Among Southeast States**

## **Expanded Supporting Documentation**

### **Background:**

Public infrastructure, such as highways, streets, and bridges has not been traditionally regarded as assets in a formal accounting sense. The public operators of these facilities have been more concerned with physical conditions and capabilities than with book cost and replacement value and they reported their financial information using fund and modified accrual accounting methods. But in the future, these operators will be required to treat such capital infrastructure as assets, the value of which they must periodically report using full accrual accounting methods as is presently required for vehicles and equipment.

To guide and assist state and local government agencies in preparing the required reports, the Governmental Accounting Standards Board (GASB) has developed a detailed specification known as Statement 34 (GASB 34). This specification allows agencies to use either traditional depreciation accounting or a potentially more attractive modified approach which presumes that roadway assets will be preserved at predetermined acceptable condition levels.

Preserving roadways at predetermined condition levels will require the careful use of established pavement preservation techniques. Materials, methods and specifications for new construction, reconstruction, and rehabilitation of roads have been highly developed by years of peer-reviewed research and discussion by the Transportation Research Board (TRB), the American Society for the Testing of Materials (ASTM), and the American Association of State Highway and Transportation Officials (AASHTO). Unfortunately, the same is not true for pavement preservation techniques, which seriously lag behind the demand for such knowledge. The use of pavement preservation techniques varies throughout the United States. In some cases, techniques that were applied for years are no longer used because of poor performance caused by inadequate design, materials, specifications, construction, performance criteria, or quality control and quality assurance.

Developing national protocols for pavement preservation and publishing them as AASHTO standards would improve overall quality and treatment performance. But developing such standards will take time. Meanwhile many state, county and local highway agencies are building experience and developing knowledge in design, materials, specifications, and performance criteria in the area of preservation. Exchanging this information is invaluable to highway agencies.

### **Organization:**

In April 2001, a group of midwestern pavement practitioners met to exchange information about successful preservation approaches. The group, comprising government, industry and academic representation, developed a unified and realistic approach to address important preservation issues in an expeditious manner. Combining regional knowledge is a low cost mechanism and an ideal platform from which to address specific issues affecting all the state agencies. The group has come to be known as the Midwestern Pavement Preservation Partnership (MPPP).

The approach followed by the midwestern states would also be applicable to other regions of the country. For example, in the southeastern region, the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia may find that they share common pavement issues, including the need to enhance their pavement preservation practices. These states could derive substantial benefits from a formal collaborative effort between state highway and other public agencies, contractors, suppliers, academia, local and federal government officials with the common purpose of improving the benefits of pavement preservation. Substantial pavement preservation benefits could be realized by achieving the following goals:

- Uniformity of regional guidelines for pavement preservation treatments.
- Use of improved materials, equipment, and processes among the member agencies.
- Implementation of a comprehensive information sharing process.
- Establishment of a coordinated regional research effort.
- Adoption of policies that integrate system preservation activities.
- Publication of pavement preservation findings at the national level.
- Adoption of a common terminology and definitions.

### **Objectives:**

1. Assist states in developing sound pavement investment programs to gain infrastructure and operational efficiencies and also satisfy the new reporting requirements of GASB 34.
2. Develop a partnership in the southeastern region to share experiences with pavement preservation treatment. Information exchange would include treatment design, construction practices, performance measures, specifications, as well as research needs.
3. An annual workshop meeting would highlight common successes, problems, identify, research needs, assemble best practices, and allow for a general transfer of knowledge. A regional exchange of thinking and expertise would solve common issues among the states much more effectively. The success of the partnership depends on its ability to create a forum where states may meet as a group.

While some of the southeastern states have developed preventive maintenance programs as a key step in preserving their pavement investment and extending their serviceability with cost effective preservation treatments, other states could benefit from a sharing of the knowledge gained from this experience. Such a partnership would develop sound preservation practices by a beneficial sharing of information on treatment designs, construction practices, performance measures, and research needs. Specific funding is needed to:

1. Assure participation and collaboration among the states at an annual workshop meeting;
2. Implement task operations identified by state agency representatives; and,
3. Managing the consortium's operations to include an annual meeting, reporting, and developing and maintaining an informational web-site.

A pooled-fund project could appropriately serve these needs. An annual workshop meeting would highlight common successes and problems, identify research needs, assemble best practices, and allow for a general transfer of knowledge. A regional exchange of thinking and expertise would solve common issues among the states much more effectively. The success of the partnership depends on its ability to create a forum where states may meet as a group.

### **Scope of Work:**

The National Center for Pavement Preservation (NCP) would be retained collectively by the 13 states above to provide expert assistance in the principle tasks listed below:

1. Facilitate funds for a multi-day annual workshop for discussion and exchange of information and knowledge about each state's pavement preservation program.
2. Provide a forum to identify and showcase technology of mutual interest.
3. Establish and maintain a web site that would display meeting reports, state guidelines, specifications, and allow users to post help questions.
4. Administer funds for formal training presentations during the annual workshop.
5. Manage support of the consortium through the NCP at Michigan State University.

### **Sponsor Benefits:**

The following benefits are expected to be derived from this project:

1. More timely solutions for common issues from shared experiences, technology transfer, and research initiatives resulting from collaboration.
2. Minimal effort duplication and wasted resources resulting from an ability to focus on common objectives.
3. Increased learning from group training with timely discussion and consensus on the value of the material presented.
4. Identification of common research needs, funding mechanisms, and priorities for the work studies.
5. Reduction of the states' program costs as a result of adopting common procedures, materials, and treatment specifications.

### **Deliverables:**

Proceedings from an annual workshop and task group meetings would be documented by a report. An annual report of the consortium's affairs and events would be prepared by the National Center for Pavement Preservation (NCP). NCP would provide oversight and a web-site for the consortium as determined by the states' representatives and any formal arrangements they wished to make.

### **Comments:**

This would be a three-year project with likely renewal. Additional meetings, besides the annual workshop and task groups, would be possible. The proposed budget would cover the cost of meeting arrangements, state travel, and a meeting report. Each state would provide funding of \$15,000 for a three-year level of effort.