

Pavement Preservation Concepts and Techniques

Problem: “Worst First” is Not Good Asset Management

The investment in our Nation’s highway system is over 1.75 trillion dollars. State, city and county departments of transportation must manage this asset with ever more limited resources in comparison to the need. Their traditional approach has been to fix the worst pavements first. Only a few agencies are realizing the cost benefits of a sound pavement preservation program that includes preventive and corrective maintenance practices.

Solution: Pavement Preservation Concepts and Techniques

The ISTEA and TEA-21 facilitated the use of Federal-aid highway funds for preventive maintenance activities, and several departments of transportation now have some type of pavement preservation program. While in the past, agencies had been reactive in their maintenance activities, some are now becoming increasingly proactive in preservation initiatives. The potential benefits are numerous, including improved pavement performance, safer roads, higher user satisfaction and reduced overall life-cycle costs.

Division offices are being encouraged to work closely with their partners to develop pavement preservation programs. They have a key role because of their close day-to-day working relationship with their SHA. The ultimate determination of the preservation program’s content should be the result of collaboration between the FHWA Division and the SHA.

To be most successful, the program should provide for a broad policy covering all aspects of pavement management that involves consideration of planning and programming concerns as well as construction and maintenance engineering details. It should incorporate the principles of asset management: data collection and management, economic analysis tools, and engineering applications.

Transportation system preservation supports the FHWA’s Vital Few initiatives by providing positive impacts on congestion and safety — use of a preservation strategy

prolongs service life, putting off the time at which major repairs are necessary. The result is less construction-related congestion and risk.

Deployment Process:

The FHWA’s Pavement Preservation has formed an expert task group (ETG) to assure the wide spread adoption by SHAs of pavement preservation and preventive maintenance practices. Their main role has been to foster the development of training and promotional materials, interact cooperatively with trade associations and industry groups, obtain SHA input, and assure that the FHWA field offices are provided with the needed tools.

In addition, an FHWA task force is consolidating and updating past Federal-aid eligibility guidance and drafting technical resource materials. These resources should be available by midsummer 2004.

Finally, four NHI training courses on the preventive maintenance concept, selecting projects for preventive maintenance, design and construction of quality pavement preventive maintenance treatments and integration with pavement management systems are available.

Additional Resources

For more information about preventive maintenance and pavement preservation, visit: www.fhwa.dot.gov/preservation

For more information, contact:

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