

# Office of Pavement Technology

## Looking to the Future of Pavement Technology

To achieve smoother, durable, and more cost-effective asphalt and concrete pavements is a foremost goal of the Federal Highway Administration's (FHWA) Office of Pavement Technology as it works nationwide with State, local, and industry partners.

The Office of Pavement Technology is a leader in the development and deployment of innovative materials, processes, and technologies for the design, construction, and rehabilitation of pavements. As a member of FHWA's Pavement and Materials Forum, the Office of Pavement Technology provides overall pavement technology direction and guidance for the agency. The Forum includes representatives from all FHWA field and headquarters offices involved in delivering pavement technology. Forum members

meet twice a year to define technology focus areas and goals and assess progress.

PROVIDING FOR AMERICA'S MOBILITY

FACT SHEET

FHWA Infrastructure

### PAVEMENT SURFACE CHARACTERISTICS

As part of our ongoing initiative to improve pavement smoothness across the country, we are working with individual States to hold workshops addressing such areas as pavement smoothness specifications, design/construction techniques, and the use of road profilers to measure smoothness when paving. We have sponsored a road profiler comparison and verification study to improve analysis methods and testing procedures used for profiler verification.

### OPTIMIZE PAVEMENT PERFORMANCE

The *Mechanistic-Empirical Pavement Design Guide* will bring a new dimension to pavement design. The Guide will provide a uniform basis for the analysis of flexible, rigid, and composite pavements using mechanistic-empirical approaches that more realistically characterize in-service pavement performance. FHWA's Design Guide Implementation Team (DGIT) introduces engineers from State highway agencies and FHWA to the Guide through a series of workshops presented around the country that detail how participants can get ready to use the Guide.

### ADVANCED QUALITY SYSTEMS

Also changing the way highway agencies do business today is the increasing use of longer-term pavement performance warranties to guarantee the integrity of the product and the contractor's responsibility to repair or replace defects for a defined period.

FHWA has reinitiated "quality assurance stewardship reviews" of State pavement construction to ensure proper State/contractor procedures for sampling and testing of constructed pavements.

#### MISSION

Advance safe, cost-effective, long-lasting pavements that meet customer needs and can be effectively maintained.

## ENVIRONMENTAL STEWARDSHIP

Today's pavement technology reflects an emphasis on environmental stewardship as well. FHWA's Pavement Recycling Team works with partners to sponsor regional workshops aimed at increasing the highway industry's overall use of recycled materials.

## LTPP PRODUCTS

The Office of Pavement Technology also works with FHWA's Long-Term Pavement Performance (LTPP) program to promote the implementation of the many LTPP products. Products include the online DataPave program, which contains all of the pavement data released by the LTPP program, and the LTPPBind software program, which provides users with the ability to apply regional temperature and traffic conditions to select Superpave performance-grade asphalt binders.

## CONCRETE PAVEMENT TECHNOLOGY PROGRAM

To advance the country's concrete pavement technology, FHWA launched the Concrete Pavement Technology Program (CPTP) in partnership with States, industry, and academia. More than 30 CPTP projects are now underway, ranging from high-performance pavements to performance-related specifications to the use of precast concrete panels for rapid repair and rehabilitation.

## WORKFORCE TRAINING

Key to successfully implementing today's new pavement technology is a well-trained workforce. To train FHWA and State highway agency staff, we sponsor a 6-week pavement materials course every year in Reno, Nevada. And a national workshop is held every year to keep FHWA's engineers up-to-date on advances and issues in pavement technology.

## MOBILE TESTING LABS

The Office of Pavement Technology also operates two fully equipped pavement materials mobile testing laboratories. These labs, one for asphalt and one for portland cement concrete, visit 8 to 10 States and actual project sites each year, participating in materials design, construction testing, training, and equipment demonstrations.

## A ROADMAP FOR THE FUTURE

As pavement technology continues to change and advance, a major emphasis of the Office of Pavement Technology will be determining the status of the Nation's pavements. We will be working with other FHWA offices to perform a comprehensive study and evaluation. Better determining the current condition of the country's pavements will serve as a roadmap for where we go next in continuing to advance and implement today's array of pavement technology, and in achieving our ultimate goal of better and longer-lasting pavements.

### FOCUS AREAS

- Optimize Pavement Performance
- Advanced Quality Systems
- Pavement Surface Characteristics
- Environmental Stewardship

### MORE INFORMATION

#### Web site

[www.fhwa.dot.gov/pavement/index.cfm](http://www.fhwa.dot.gov/pavement/index.cfm)

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