

# FOCUS

July  
2006

## INSIDE

FHWA introduces  
Innovative Bridge  
Research and  
Deployment Program

FHWA to host  
life-cycle cost analysis  
peer exchange

Visit the new  
LTPP Community  
of Practice

New NHI course  
presents strategies  
for managing  
construction  
workmanship

Highway technology  
calendar



## Get to Know the New M-E Pavement Design Guide

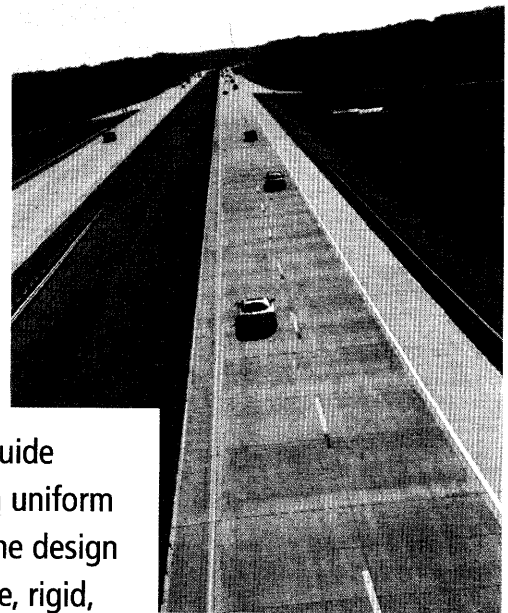
An ongoing series of Federal Highway Administration (FHWA) workshops is introducing State pavement design, traffic, and materials engineers and others across the country to the new *Mechanistic-Empirical (M-E) Pavement Design Guide* and its accompanying software. Developed under National Cooperative Highway Research Program (NCHRP) Project 1-37A, the guide provides a uniform basis for the design of flexible, rigid, and composite pavements, using M-E approaches that more realistically characterize inservice pavements and improve the reliability of designs.

The new guide was developed as a tool to support and eventually replace the 1993 *American Association of State Highway and Transportation Officials Guide for Design of Pavement Structures*, which was based on empirical equations derived from the road test conducted by the then American Association of State Highway Officials between 1958 and 1960. The road test used a limited number of pavement sections at one location, with traffic levels far below those of today.

A primary benefit of the new guide is that it uses M-E numerical models to analyze input data for traffic, climate, materials, and other factors and to then estimate damage accumulation over the pavement's service life. Analysis can be done on designs for new, reconstructed, and rehabilitated pavements.

In 2003, FHWA created a Design Guide Implementation Team (DGIT) to focus on supporting implementation efforts by States and industry through technology transfer and development. The team is currently presenting the Climatic Inputs for M-E Pavement Design workshop, which aims to familiarize participants with modeling climatic effects on pavement performance using the

continued on page 2 >



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U.S. Department  
of Transportation  
**Federal Highway  
Administration**

### **New M-E Pavement Design Lead States Group**

A new Lead States Group is providing guidance and support to the implementation of the *M-E Pavement Design Guide*. The group, which includes representatives from 19 States and liaisons from FHWA and NCHRP, was established through FHWA to promote and facilitate the refinement, implementation, and evolution of M-E pavement design procedures. The Lead States Group will develop a model implementation plan, share information and lessons learned, identify gaps in the knowledge base and new research needs, and serve as a resource to other States, among other activities. Current group initiatives include developing technical briefs that will highlight different aspects of the design guide such as the guide's climatic models and its use of Long Term Pavement Performance program data. For more information on the Lead States Group, including a list of contact names for each Lead State, visit [www.fhwa.dot.gov/pavement/dgit/leadstates/index.cfm](http://www.fhwa.dot.gov/pavement/dgit/leadstates/index.cfm).

design guide, reducing climatic effects through materials selection and design, and analyzing current State design methods for climatic effects. The free 1-day workshop includes discussions of the Enhanced Integrated Climatic Model used in the design guide, environmental effects on material properties, and pavement performance. Also featured is a demonstration of the M-E design guide software. The target audience includes State materials, pavement design, and geotechnical engineers and industry or academic consultants involved in pavement design. The workshop has been presented in seven States this year, with four more sessions scheduled for August and September (see sidebar).

"The workshops have been very successful, with an average of 30 attendees at

each session and usually at least 3 States represented. There is a lot of interest in learning about implementation of the new design system," says Leslie Myers of FHWA's Office of Pavement Technology. For those unable to attend a workshop, the September 19 session in Rocky Hill, Connecticut, will be Webcast live over the Internet at [www.ct.gov/dot/fhwa-webcast](http://www.ct.gov/dot/fhwa-webcast). "Viewers can submit questions during the Webcast, and they will be answered by FHWA DGIT team members in real time," says Myers.

"Sharing the information through the Webcast will allow many other States to participate and learn more about the design guide," says Donald Larsen, Transportation Supervising Engineer for the Connecticut Department of Transportation's (ConnDOT) Division of Research.

The Webcast will be recorded and will then become available online for on-demand viewing a few months after the workshop. ConnDOT previously hosted Webcasts of an August 2004 FHWA workshop that provided a general introduction to the design guide and a March 2005 workshop on materials-related input needs for using the design guide. In addition to the 30 onsite participants for each workshop in Rocky Hill, Connecticut, FHWA estimates that the previous Webcasts reached approximately 1,000 people at over 100 locations, including participants from Canada, China, the United Kingdom, South America, and Australia.

FHWA's Office of Asset Management and the DGIT will host a one-time workshop this fall on the Use of Pavement Management System Data to Calibrate

continued on page 7 >

### **Upcoming M-E Pavement Design Guide Workshops**

#### **Climatic Inputs for M-E Pavement Design**

August 1, 2006, Fayetteville, AR

August 15, 2006, Phoenix, AZ

September 6, 2006, Minneapolis, MN

September 19, 2006, Rocky Hill, CT

#### **Use of Pavement Management System Data to Calibrate M-E Pavement Design**

September 20, 2006, Rocky Hill, CT

#### **Traffic Inputs for M-E Pavement Design Guide**

September 18, 2006, Rocky Hill, CT

### **FHWA Design Guide Implementation Team**

**Gary Crawford**, Office of Pavement Technology, 202-366-1286

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**Chris Wagner**, Resource Center, 404-562-3693

**Eric Weaver**, Office of Research, Development, and Technology, 202-493-3153

**Jim Sherwood**, Office of Research, Development, and Technology, 202-493-3150

**John Sullivan**, Division Administrator, North Carolina Division Office, 919-856-4346

*Team members can also be contacted via email at [DGIT@fhwa.dot.gov](mailto:DGIT@fhwa.dot.gov).*

# FHWA Introduces Innovative Bridge Research and Deployment Program

uilding better bridges today for a stronger transportation future is the goal of the Federal Highway Administration's (FHWA) new Innovative Bridge Research and Deployment (IBRD) program. The IBRD program is an expansion of FHWA's previous Innovative Bridge Research and Construction program, which was established under the Transportation Equity Act for the 21st Century. As defined by Congress in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the focus of the IBRD program is to promote, demonstrate, evaluate, and document the application of innovative designs, materials, and construction methods in constructing, repairing, and rehabilitating bridges and other highway structures. "The intent is to promote and demonstrate innovation in its broadest sense to move market-ready technologies into conventional practice," says Benjamin Tang of FHWA's Office of Bridge Technology. FHWA is now soliciting applications from States for candidate IBRD projects.

For fiscal year (FY) 2006, approximately \$2.2 million is available from funds carried over from the IBRC program and approximately \$5.1 million is available for the IBRD program, which will be combined into one fund for the FY 2006 IBRD projects. It is anticipated that qualified individual projects that are selected will be funded up to \$250,000 each.

Qualified candidate projects for funding should meet one or more of the eight IBRD program goals:

- Development of new, cost-effective, innovative highway bridge applications.
- Development of construction techniques to increase safety and reduce construction time and traffic congestion.
- Development of engineering design criteria for innovative projects, materials, and structural systems for use in highway bridges and structures.
- Reduction of maintenance and life-cycle costs of bridges, including the costs of new construction, replacement, or rehabilitation of deficient bridges.
- Development of highway bridges and structures that will withstand natural disasters.
- Documentation and wide dissemination of objective evaluations of the performance and benefits of the innovative designs, materials, and construction methods.
- Effective transfer of resulting information and technology.
- Development of improved methods to detect bridge scour and economical bridge foundation designs that will withstand bridge scour.

Candidate projects may be located on any public roadway. Funds can be used for preliminary engineering, repair, rehabilitation, or construction of bridges or other highway structures. Funding can also be applied to project performance evaluation, including instrumentation and performance monitoring of the structure following construction.

**"The intent is to promote and demonstrate innovation in its broadest sense to move market-ready technologies into conventional practice."**

State departments of transportation should coordinate with local and Federal agencies, universities, private sector entities, and nonprofit organizations within their State to develop candidate projects. Applications should be submitted to the local FHWA division office. The State should rank each candidate project when more than one application is to be submitted. After review and consultation with the State transportation department, the FHWA division office will send applications that meet the submission criteria to FHWA's Office of Bridge Technology for evaluation. Applications are due to the Office of Bridge Technology by August 31, 2006. FHWA anticipates announcing the selected projects by December 2006.

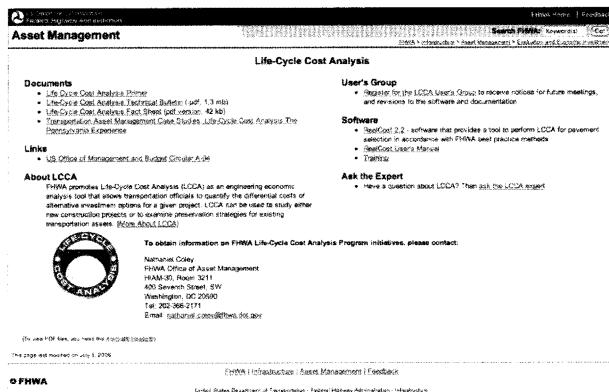
The selection criteria for evaluating State applications will include such factors as projects that incorporate innovative materials and/or products that are readily available; use designs, materials, and construction methods that have broad application; already have funding commitments for design and construction or rehabilitation; or are part of a large right-of-way improvement project. Projects that leverage Federal funds with other public or private resources will be given preference, as well as projects that will be let for construction or rehabilitation by the target date of September 30, 2007.

For more information on submitting an IBRD project application, contact your local FHWA division office. Information on the IBRD program is also available from Chien-Tan Chang in FHWA's Office of Bridge Technology, 202-366-6749 (fax: 202-366-3077; email: [chien-tan.chang@fhwa.dot.gov](mailto:chien-tan.chang@fhwa.dot.gov)), or online at [www.fhwa.dot.gov/bridge/ibrd](http://www.fhwa.dot.gov/bridge/ibrd).

## FHWA To Host Life-Cycle Cost Analysis Peer Exchange

The Federal Highway Administration (FHWA) will host a peer exchange on life-cycle cost analysis (LCCA) in early November in Kansas City, Missouri. As transportation agencies are faced with reduced funding streams, many agencies are now investigating economic tools that will help them choose the most cost-effective project alternatives. LCCA is a tool available to assist transportation agencies in assessing their investment choices.

The peer exchange workshop will provide practitioners with a venue to share their ideas and experiences and discuss issues associated with using LCCA for highway assets. FHWA's LCCA software will also be demonstrated at the meeting. State design and financial personnel who are interested in attending the peer exchange and reporting on their successes and challenges in using LCCA should contact Nathaniel Coley in FHWA's Office of Asset Management, 202-366-2171 (fax: 202-366-9981; email: [nathaniel.coley@fhwa.dot.gov](mailto:nathaniel.coley@fhwa.dot.gov)). FHWA will announce final details on the peer exchange later this summer.



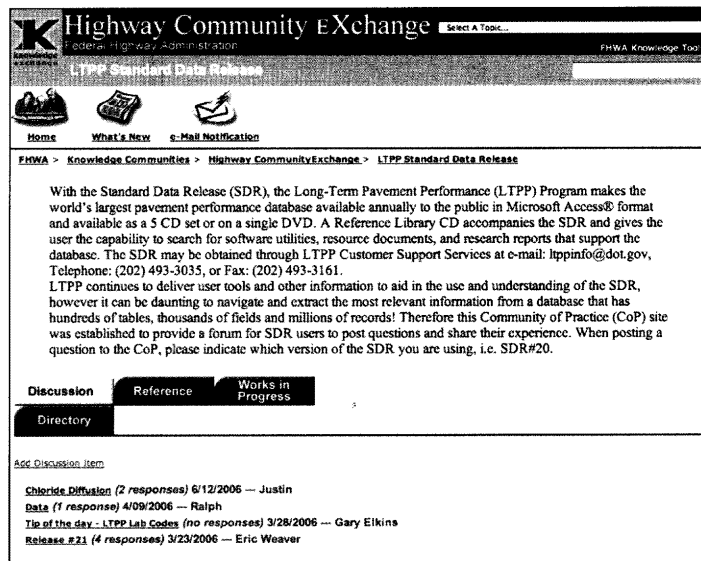
The screenshot shows the FHWA Asset Management website. The main heading is "Life-Cycle Cost Analysis". Under "Documents", there are links to "Life Cycle Cost Analysis Primer", "Life Cycle Cost Analysis Technical Bulletin (vol. 1 & 2)", "Life Cycle Cost Analysis Fact Sheet (vol. 1 & 2)", "Transportation Asset Management Cycle Studies", and "Life Cycle Cost Analysis: The Transportation Experience". Under "Links", there is a link to "US Office of Management and Budget Circular A-94". Under "About LCCA", there is a paragraph explaining that LCCA is an engineering economic analysis tool that helps transportation officials quantify the differential costs of alternative investment options for a given project. LCCA can be used to study, among other things, new construction projects or to evaluate preservation strategies for existing transportation assets. Below this is a circular logo with the text "LIFE-CYCLE COST ANALYSIS". To the right of the logo, contact information for Nathaniel Coley is provided: "Nathaniel Coley, Federal Office of Asset Management, HAA-35, Room 3211, 400 Seventh Street, SW, Washington, DC 20590, Tel: 202-366-2171, Email: [nathaniel.coley@fhwa.dot.gov](mailto:nathaniel.coley@fhwa.dot.gov)". At the bottom, there is a small text: "This page was hosted on July 1, 2006".

More information on life-cycle cost analysis is available online at [www.fhwa.dot.gov/infrastructure/asstmgmt/lcca.htm](http://www.fhwa.dot.gov/infrastructure/asstmgmt/lcca.htm).

## Visit the New LTPP Community of Practice

To assist users of the Long Term Pavement Performance (LTPP) program's Standard Data Release (SDR), the LTPP program has introduced a new Community of Practice Web site. The Community of Practice provides SDR users with a forum to post questions and share experiences in using the LTPP database, which contains millions of records of data collected by the LTPP program. The latest edition of the database available is SDR 20, which can be obtained as a six-CD set or as a single DVD and one CD. The SDR is in Microsoft Access® format. New features on the latest release include a Reference Library CD, which gives users the capability to search for software utilities, resource documents, and research reports that support the database.

To visit the Community of Practice online, go to [knowledge.fhwa.dot.gov](http://knowledge.fhwa.dot.gov) (under "Highway Community Exchange," select "LTPP Standard Data Release"). If posting a question or comment, site visitors should indicate which version of the SDR they are using. To obtain a copy of the SDR, contact LTPP Customer Support Services at 202-493-3035 (fax: 202-493-3161; email: [ltppinfo@dot.gov](mailto:ltppinfo@dot.gov)).



The screenshot shows the Highway Community EXchange website. The main heading is "Highway Community EXchange". Below this is a navigation bar with links: "Home", "What's New", "e-Mail Notification", "Discussion", "Reference", "Works in Progress", and "Directory". The main content area is titled "LTPP Standard Data Release". It contains a paragraph explaining that the LTPP Standard Data Release (SDR) is the Long-Term Pavement Performance (LTPP) Program's largest pavement performance database available annually to the public in Microsoft Access® format and available as a 5 CD set or on a single DVD. A Reference Library CD accompanies the SDR and gives the user the capability to search for software utilities, resource documents, and research reports that support the database. The SDR may be obtained through LTPP Customer Support Services at e-mail: [ltppinfo@dot.gov](mailto:ltppinfo@dot.gov), Telephone: (202) 493-3035, or Fax: (202) 493-3161. LTPP continues to deliver user tools and other information to aid in the use and understanding of the SDR, however it can be daunting to navigate and extract the most relevant information from a database that has hundreds of tables, thousands of fields and millions of records! Therefore this Community of Practice (CoP) site was established to provide a forum for SDR users to post questions and share their experience. When posting a question to the CoP, please indicate which version of the SDR you are using, i.e. SDR#20. Below this is a section titled "Add Discussion Item" with a list of recent discussions: "Chloride Diffusion (2 responses) 6/12/2006 — Justin", "Data (1 response) 4/09/2006 — Ralph", "Tip of the day - LTPP Lab Codes (no responses) 3/28/2006 — Gary Elkins", and "Release #21 (4 responses) 3/23/2006 — Eric Weaver".

# New NHI Course Presents Strategies for Managing Construction Workmanship

he many factors involved in constructing and inspecting a highway project to ensure the desired quality of the finished product, including legal liability, risk, and quality assurance issues, are the focus of a new 2-day course now available from the Federal Highway Administration's (FHWA) National Highway Institute (NHI). Using real-life examples, "Managing Construction Workmanship" (Course No. FHWA-NHI-134055) looks at approaches that will help improve the quality of field decisions, with the goal of enhancing overall product quality and improving long-term system performance.

"With States facing serious attrition among their inspection forces, it's crucial to bring up new inspectors among the ranks to give them the confidence and skills they need to do the job to the best of their ability," says Christopher Newman of FHWA's Office of Asset Management. "While there is little substitute for on-the-job experience, this course educates field personnel in regard to the roles and responsibilities of inspectors, the acceptance of materials and what constitutes proper workmanship, and the concepts and factors involved in risk and engineering analysis."

On completion of the course, participants will be able to:

- (1) Identify the components of workmanship as they relate to highway and bridge construction and assess their own inspection skills.
- (2) Describe the construction team (owners, engineers, contractors, suppliers, and inspectors) and the roles of each team member in achieving good communication and quality workmanship.
- (3) Link different types of specifications to the associated roles and responsibilities of the inspector, contractor, engineer, and owner.

- (4) Identify situations in which legal issues related to inspection and inspector duties affect the performance of their assignments.
- (5) Apply the basic concepts of risk assessment to case studies from construction inspections.

Participants will also learn about various successful State training and certification programs that lead to improved construction workmanship and quality, as well as how to locate training and certification programs in their own jurisdictions.

"The course allows participants to understand the nature of construction inspection as well as the expectations of both the department of transportation inspection staff and the contractor's staff in completing a quality construction project," says Bill Beuter of the Virginia Department of Transportation, which hosted the course in Thornburg, Virginia, in October 2005. "The course is very powerful in that it allows discussions about what constitutes a quality project."

The course is designed for field personnel, from engineers to technicians, who are involved in all aspects of highway construction. "The ideal audience for the course will have a mix of experience and responsibility levels so that agency-specific practices can be shared by more experienced participants with those who are newer to the field," says Newman. Course



**"With States facing serious attrition among their inspection forces, it's crucial to bring up new inspectors among the ranks to give them the confidence and skills they need to do the job to the best of their ability."**

NHI's new course on "Managing Construction Workmanship" covers the many factors involved in constructing and inspecting a highway project, including legal liability, risk, and quality assurance issues.

materials are also appropriate for project managers or resident engineers. The cost of the course is \$270 per participant, with a minimum class size of 20

and a maximum of 30. Participants can earn 1.2 continuing education units.

For more information on the course content, contact Christopher Newman at FHWA, 202-366-2023 (email: [christopher.newman@fhwa.dot.gov](mailto:christopher.newman@fhwa.dot.gov)). To schedule the course, contact your local FHWA division office or the NHI Training Team at 703-235-0534 (email: [nhitraining@fhwa.dot.gov](mailto:nhitraining@fhwa.dot.gov)), or visit the NHI Web site at [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov).

# Highway Technology Calendar

*The following events provide opportunities to learn more about products and technologies for accelerating infrastructure innovations.*

## **Climatic Inputs for Mechanistic-Empirical Pavement Design Workshop**

August 1, 2006, Fayetteville, AR

August 15, 2006, Phoenix, AZ

September 6, 2006, Minneapolis, MN

September 19, 2006, Rocky Hill, CT\*

\*(The September 19 workshop will also be Webcast at [www.ct.gov/dot/fhwa-webcast](http://www.ct.gov/dot/fhwa-webcast))

This Federal Highway Administration (FHWA) workshop aims to familiarize participants with modeling climatic effects on pavement performance using the *Mechanistic-Empirical Pavement Design Guide*, reducing climatic effects through materials selection and design, and analyzing current State design methods for climatic effects. There is no charge for the workshop. The target audience includes State materials engineers, pavement design engineers, and industry or academic consultants who support transportation departments' pavement design.

**Contact:** Gary Crawford at FHWA, 202-366-1286 ([gary.crawford@fhwa.dot.gov](mailto:gary.crawford@fhwa.dot.gov)), or visit [www.fhwa.dot.gov/pavement/dgit/climatic.cfm](http://www.fhwa.dot.gov/pavement/dgit/climatic.cfm).

## **Eleventh Annual Eastern Winter Road Maintenance Symposium and Equipment Expo**

September 6-7, 2006,

Atlantic City, NJ

The symposium is designed for winter maintenance managers and other public works practitioners. Topics will cover safety, operations, and environmental issues. The event is sponsored by FHWA, the American Association

of State Highway and Transportation Officials (AASHTO), and the New Jersey Department of Transportation.

**Contact:** For registration information, contact Trindal Stanke at AASHTO, 202-624-3696 (email: [tstanke@aaashto.org](mailto:tstanke@aaashto.org)). For additional information, contact Paul Pisano at FHWA, 202-366-1301 (email: [paul.pisano@fhwa.dot.gov](mailto:paul.pisano@fhwa.dot.gov)).

## **International Conference on Perpetual Pavement**

September 13-15, 2006,

Columbus, OH

The conference will highlight issues related to designing, constructing, and monitoring perpetual pavements. Topics will include design verification and calibration, modeling, instrumentation, durability, and mechanical properties of materials. Conference sponsors include the Ohio Department of Transportation, National Asphalt Pavement Association, National Center for Asphalt Technology, and FHWA.

**Contact:** Nancy Covington at the Ohio Research Institute for Transportation and the Environment, 740-593-2476 (email: [orite@bobcat.ent.ohiou.edu](mailto:orite@bobcat.ent.ohiou.edu)), or John D'Angelo at FHWA, 202-366-0121 (email: [john.d'angelo@fhwa.dot.gov](mailto:john.d'angelo@fhwa.dot.gov)).

## **Traffic Inputs for Mechanistic-Empirical Pavement Design Guide**

September 18, 2006, Rocky Hill, CT

(The workshop will also be Webcast at [www.ct.gov/dot/fhwa-webcast](http://www.ct.gov/dot/fhwa-webcast))

The workshop will share best practices for collecting the traffic data required for successful use of the *Mechanistic-Empirical Pavement Design Guide*.

**Contact:** Gary Crawford at FHWA, 202-366-1286 (email: [gary.crawford@fhwa.dot.gov](mailto:gary.crawford@fhwa.dot.gov)), or visit [www.fhwa.dot.gov/pavement/dgit/index.cfm](http://www.fhwa.dot.gov/pavement/dgit/index.cfm).

## **Fifth National Seismic Conference on Bridges and Highways**

September 18-20, 2006,

San Francisco, CA

The conference is the fifth in a series of biennial events sponsored by FHWA. Caltrans, the Transportation Research Board (TRB), and the Multidisciplinary Center for Earthquake Engineering Research are cosponsors. The conference is designed to increase awareness of seismic and geological hazards and enhance the technical expertise of engineering professionals, so that they can mitigate the risk of failure or damage to bridges and highways.

**Contact:** Phillip Yen at FHWA, 202-493-3056 (fax: 202-493-3442; email: [wen-huei.yen@fhwa.dot.gov](mailto:wen-huei.yen@fhwa.dot.gov)), or Mike Keever at Caltrans, 916-227-8806 (fax: 916-227-8242; email: [mike\\_keevee@dot.ca.gov](mailto:mike_keevee@dot.ca.gov)). Information is available online at [www.mceer.buffalo.edu/meetings/5nsc](http://www.mceer.buffalo.edu/meetings/5nsc).

**Use of Pavement Management System Data to Calibrate Mechanistic-Empirical Pavement Design**  
September 20, 2006, Rocky Hill, CT  
(The workshop will also be Webcast at [www.ct.gov/dot/fhwa-webcast](http://www.ct.gov/dot/fhwa-webcast))

This FHWA workshop will help pavement design and pavement management engineers better understand how data from pavement management systems can be incorporated in the new *Mechanistic-Empirical Pavement Design Guide* software.

**Contact:** Gary Crawford at FHWA, 202-366-1286 (email: gary.crawford@fhwa.dot.gov), or visit [www.fhwa.dot.gov/pavement/dgit/index.cfm](http://www.fhwa.dot.gov/pavement/dgit/index.cfm).

### **International Conference on Long-Life Concrete Pavements** October 25-27, 2006, Chicago, IL

The conference will focus on implementable design, construction, and repair techniques that result in long-lasting concrete pavements. It is targeted at pavement engineering and construction professionals who are involved in various aspects of pavement design, construction, testing and evaluation, and rehabilitation.

**Contact:** Shiraz Tayabji at Construction Technology Laboratories, Inc., 410-997-0400 (fax: 410-997-8480; email: stayabji@ctlgroupp.com), or Sam Tyson at FHWA, 202-366-1326 (email: sam.tyson@fhwa.dot.gov). Information can be found online at [www.fhwa.dot.gov/pavement/concrete/2006conf.cfm](http://www.fhwa.dot.gov/pavement/concrete/2006conf.cfm).

### **National Quality Conference** November 14-15, 2006, New Orleans, LA

Sponsored by the National Partnership for Highway Quality (NPHQ), the conference will highlight advances in State Quality Partnerships, the winners of the 2006 NPHQ Making a Difference Awards, and the Louisiana Department of Transportation and Development's Quality Improvement Program.

**Contact:** Bob Templeton at NPHQ, 512-301-9899 (email: btemplenphq@aol.com), or visit [www.nphq.org](http://www.nphq.org).

**TRB 86th Annual Meeting**  
January 21-25, 2007, Washington, DC  
Transportation professionals from around the world will gather at the meeting to share their knowledge and perspectives on current developments in transportation research, policy, and practice. The spotlight theme for 2007 is "Transportation Institutions, Finance, and Workforce: Meeting the Needs of the 21st Century."

**Contact:** For information, visit the TRB Annual Meeting Web site at [www.trb.org/meeting](http://www.trb.org/meeting). Questions about the meeting can be emailed to [TRBMeetings@NAS.edu](mailto:TRBMeetings@NAS.edu).

### **National Conference on Pavement Management** May 6-9, 2007, Norfolk, VA

Conference topics will include the history and development of pavement management, engineering applications of pavement management data, integrating pavement management systems (PMS) and pavement preservation programs, and using PMS data to calibrate the new *Mechanistic-Empirical Pavement Design Guide*. The conference is sponsored by FHWA, the Virginia Department of Transportation, Virginia Transportation Research Council, and the Virginia Tech Transportation Institute.

**Contact:** Thomas Van at FHWA, 202-366-1341 (email: thomas.van@fhwa.dot.gov).

M-E Pavement Design. "This workshop is intended to help pavement design engineers and pavement management engineers better understand how data from pavement management systems can be incorporated in the new *Mechanistic-Empirical Pavement Design Guide* software," says Myers. The workshop will be held September 20, 2006, in Rocky Hill, Connecticut, and will also be Webcast simultaneously.

Another workshop that will be presented and Webcast in 2006 is Traffic Inputs for M-E Pavement Design Guide. The workshop will share best practices, identify concerns, and develop solutions for the traffic data collection required for successful use of the M-E design guide. ConnDOT will host the workshop and conduct a simultaneous Webcast in Rocky Hill, Connecticut, on September 18, 2006.

For more information on the M-E design guide workshops or to register for a workshop or Webcast, visit [www.fhwa.dot.gov/pavement/dgit/index.cfm](http://www.fhwa.dot.gov/pavement/dgit/index.cfm). Information is also available from FHWA's Design Guide Implementation Team (see sidebar on page 2).

### **NHI Launches New Web Site**

Visit the new National Highway Institute (NHI) Web site at [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov). The updated site features simplified navigation and such new features as online course enrollment and payment. Visitors can browse the NHI training catalog for course information and scheduled sessions. In addition to searching by key word, title, and course number, visitors can also look for courses by location, course level, session date ranges, and delivery type (such as whether it is instructor led or Web-based). Customers can also visit the new NHI store to purchase copies of course materials.

# FOCUS

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Its primary mission is twofold: (1) to serve the providers of highway infrastructure with innovations and support to improve the quality, safety, and service of our roads and bridges; and (2) to help promote and market programs and projects of the various offices of FHWA's Office of Infrastructure.

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**Federal Highway  
Administration**

6300 Georgetown Pike  
McLean, VA 22101

Official Business  
Penalty for Private Use \$300

FIRST CLASS MAIL  
**POSTAGE AND FEES PAID**  
FEDERAL HIGHWAY  
ADMINISTRATION  
PERMIT NO. G-66