IOWA DEPARTMENT OF TRANSPORTATION
RESEARCH news
BUREAU OF RESEARCH AND TECHNOLOGY ◆ Spring 2003

# Dial 511 for travel information

The first phase of the Iowa 511 pilot program has been up and running since November 2002. It is allowing travelers to check statewide winter road conditions by phone and on the Web. Public response has been positive and enthusiastic. The media has played an active role in informing the public about this service, especially during winter storm events.

The second phase, to be implemented in the spring of 2003, expands the system to include information about Iowa DOT road construction and maintenance activities that may affect travel times.

511 Travel Info Dial 511

The CARS/511 Traveler Information System was developed through a pooled-fund project led by Iowa. The Iowa State Patrol has partnered with the Iowa DOT to provide this service to the public.

Dial 511 in Iowa or see our Web site, www.511ia.org.

# *Director's Corner*

We are pleased to announce the fourth biennial Mid-Continent Transportation Research Symposium, which will be held in Ames, Iowa, Aug. 21-22, 2003.

John Horsley, AASHTO executive director, will be the evening banquet speaker for the symposium. Dennis Judycki, FHWA associate administrator for research, development, and technology, will open the symposium.

The event will provide attendees an opportunity to hear about cutting edge research and practical solutions from regional and national researchers. It is co-sponsored by the Iowa Department of Transportation, Iowa State University's Center for Transportation Research and Education, and the Midwest Transportation Consortium. For more information, go to www.ctre.iastate.edu.

Sandra Larson, Director
Research and Technology Bureau

# Iowa leads exciting new pooled-fund project

Specifications regarding portland cement concrete (PCC) paving are not much different from 40 years ago, although modern concrete mixes have become very complex chemical systems. That may soon change.

The Iowa DOT is leading a national effort to evaluate and develop a suite of tests that will examine concrete mixture materials and mix interactions. These tests will evaluate characteristics that produce durable concrete mixtures for long-term performance. Those characteristics include workability, consistency, shrinkage, strength, air voids and permeability. The tests will be field-verified and will be used to monitor quality during production.

The project will also look at field placement problems and how to adjust concrete mixes under various weather conditions. It is officially known as TPF-5(066) Material and Construction Optimization for Prevention of Premature Pavement Distress in PCC Pavements. The problem statement can be viewed at www.ctre.iastate.edu/pccpoolfund. The goal of the project is longer lasting pavements.

The study was initiated by the Midwest Concrete Consortium, an organization of DOTs, universities and industry in 10 upper Midwest states and FHWA. At least 12 states will participate in the project. State participation will include providing information about best practices and innovative techniques currently being used, identifying problems and projects for investigation using the new tests, and using demonstration projects to field evaluate the new tests and ideas. Problem-solving (SWAT) teams will help states when mix problems arise on projects, using the proposed tests and lessons learned.

When new practices or tests are identified, researchers with strong experience in this area will be asked to help with test development and implementation. This will ensure partnerships on a national level, while taking advantage of the best talent available.

Other participants in this pooled-fund project include the Iowa Highway Research Board, the Center for Portland Cement Concrete Pavement Technology at Iowa State University, and the Iowa Concrete Paving Association.

For more information,contact
Sandra Larson, P.E.
515-239-1205
sandra.larson@dot.state.ia.us

# Unique partnership benefits highway research for 54 years

**Safety requirements were considerably different when IHRB members inspected this proposed project in 1951.**

Iowa has been a transportation research powerhouse for more than 50 years, thanks to a visionary act of the Iowa Legislature in 1949 that resulted in the formation of the Iowa Highway Research Board (IHRB). The IHRB has provided a distinctive partnership for the Iowa highway community with a collaboration of city, county, state and university research expertise and oversight. Pooling research funds provides benefits to all levels of the Iowa highway community.

In 1949 the Iowa General Assembly designated a percentage of Iowa's farm-to-market highway funds for secondary road research. The Iowa State Highway Commission (now the Iowa Department of Transportation) established the IHRB to provide oversight for this research program. In 1989 the Iowa Legislature established a direct allocation of municipal funds in support of research, as well. The Iowa DOT also allocates funding to support the board's research program.

Board membership includes representatives of Iowa's city and county governmental highway agencies, the Iowa DOT, and Iowa's public universities with civil engineering programs. Staff assistance comes from the Iowa DOT.

The IHRB assists the Iowa DOT in the development and continuation of an effective program of research and development in highway transportation. Each year it oversees some 40 projects on transportation issues in Iowa. Most projects are conducted by one of the state universities.

The board supports engineering research studies and projects on topics ranging from soils and structures to pavements, markings and winter maintenance. All are designed to find more efficient uses of funds and materials for the construction and maintenance of Iowa's highway system.

Some research has set national standards. Slipform concrete paving was developed in Iowa. A 1952 project, Scour in Stream Beds at Highway River Crossings, has prevented the loss of numerous bridges and formed the basis for nearly all subsequent scour research. A 1983 study of Iowa fly ash in concrete resulted in specification changes allowing for the partial replacement of the more expensive cement with the less expensive fly ash in PCC pavement. The cost of the research has been returned to Iowa taxpayers many times over in savings through innovation resulting from this collaborative research board.

To read more about the program and the projects, see dot.state.ia.us/research/ihrb/iowa highway research board.html.

# WWW Check the Web!

## Transportation Research Web Sites

The *Transportation Research Board Publication Index* contains more than 22,000 annotated citations for all TRB and Strategic Highway Research Program (SHRP) publications. See http://www4.nationalacademies.org/trb/onlinepubs.nsf/web/index.

The *TRIS* (Transportation Research Information Services) contains 45,000 records of completed transportation research projects. See http://ntl.brs.gov/tris.

The *RIP* database contains descriptions on current Research in Progress administered by state DOT's. See http://tris.trb.org.

The *California PATH* database contains references to all aspects of intelligent transportation systems. See http://www4.nationalacademies.org/trb/tris.nsf/web/path.

The Wisconsin DOT has designed a major research Web site with completed and in-progress research reports, a large section on transportation law, and access to WisDOT publications. See http://www.dot.wisconsin.gov/library/.

For more information, contact
Mark Dunn
Research Engineer
515-239-1447
Mark.Dunn@dot.state.ia.us

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The Bureau of Research and Technology enhances Iowa DOT's ability to deliver efficient and effective transportation services by actively promoting research partnerships, knowledge and technology transfer, Intelligent Transportation Systems and information technology.

For more information, see www.dot.state.ia.us/research/index.html or call Carol Culver at 515-239-1208.

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

PM 864 3-24-03