

Bell, Tammi [DOT]

From: Bell, Tammi [DOT]
Sent: Tuesday, April 07, 2009 3:05 PM
To: Bell, Tammi [DOT]
Subject: Pavement Management Systems for Local Governments

TO: County Engineers, City Representatives, and Consultants
Tammi Bell Iowa DOT - Local Systems tammi.bell@dot.iowa.gov

CC: District Local Systems Engineers, Service Bureau,
Omar Smadi, and Office of Local Systems

FROM: Office of Local Systems

SUBJECT: Pavement Management Systems for Local Governments

DATE: April 7, 2009

The following is being sent on behalf Center for Transportation Research and Education (CTRE), Iowa State University Institute for Transportation and ISG Pavements, LLC. If you have any questions, please do not reply to this note. Instead, you may contact the person shown below.

Please do not hit the reply option in your e-mail note.

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The following web site address is for Pavement Management Systems for Local Governments information

http://www.iowadot.gov/local_systems/mailing/2009/april/pavement_management-2009.pdf

The contacts for this information: Omar Smadi, Center for Transportation Research and Education, Iowa State University 515-294-7110 e-mail smadi@iastate.edu or Brian McWaters, ISG Pavements, LLC 918-369-8181 e-mail bmcwaters@isgpavements.com .

Thank you,

Tammi Bell
Office of Local Systems
515-239-1529
tammi.bell@dot.iowa.gov

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Note: Documents are in Adobe Acrobat's pdf format. If you do not have the Adobe Acrobat Reader software, you can download it free of charge at <http://www.adobe.com/products/acrobat/readstep.html>.

Mailings are available at the Local Systems Weekly Mailing web address http://www.iowadot.gov/local_systems/mailing/main_mailing.htm

A university-business partnership:

PAVEMENT MANAGEMENT SYSTEMS

FOR LOCAL GOVERNMENTS

A pavement management system (PMS) is a systematic, objective method that agencies can use to help them decide what, where, when, why, and how to implement specific pavement maintenance or repair strategies to maintain the serviceability of their street and road networks most cost effectively. An efficient PMS can help agencies of all sizes spend their pavement maintenance dollars more strategically and productively.

Many small jurisdictions, however, do not have the financial resources or staff to develop and operate an in-house PMS with the most desirable capabilities. To fill this need, the Center for Transportation Research and Education (CTRE) at Iowa State University and ISG Pavements, LLC (ISG) are partnering to provide affordable, professional PMS services for Iowa's local agencies.

ISG

Pavements, LLC

ctre

Center for Transportation
Research and Education

IOWA STATE UNIVERSITY

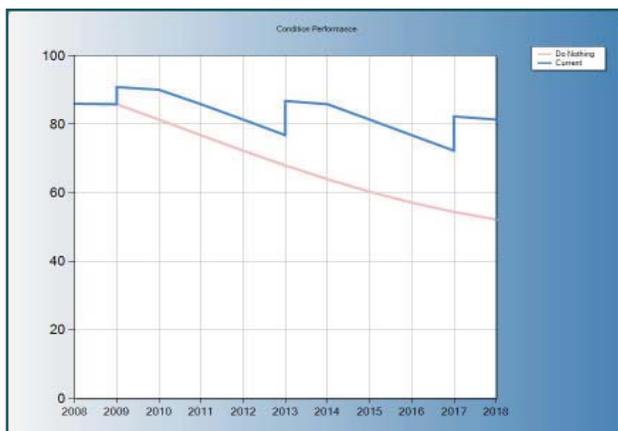
Institute for Transportation

How can CTRE and ISG help local agencies manage pavement maintenance?

CTRE's role: collecting and processing pavement condition data

For more than 12 years, CTRE has coordinated pavement condition surveys for interested cities and counties. CTRE provides the engineering services and expertise, collecting, processing, formatting, and distributing data to local agencies every six months.

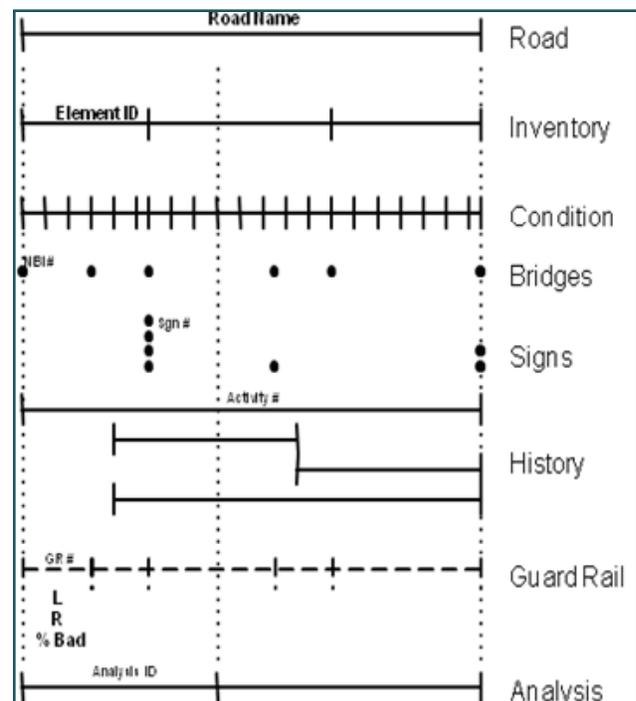
Using these data alone, agencies can evaluate past and current pavement conditions and predict future performance based on projected traffic levels and loads. Such evaluations and predictions can help agencies plan future pavement maintenance.



ISG's role: analyzing data to support decision-making

ISG can provide PMS data analysis services to local agencies. Using the same software as CTRE (dTIMS CT Pavement Management System from Deighton Associates), ISG will load data collected by CTRE into its databases and tables.

ISG's software can support network- or project-level analyses, and its staff will provide data management expertise, partnering with CTRE as needed for special activities or analyses.



Agencies' role

ISG will guide agencies through the PMS process to answer questions like these:

- What assets are in my network?
- What condition are they in?
- When do I need to fix them?
- How do I fix them?
- How much will it cost?
- What if I do this or that?
- How much money is required to maintain or improve the network?
- How much of the budget should be allocated to each asset?

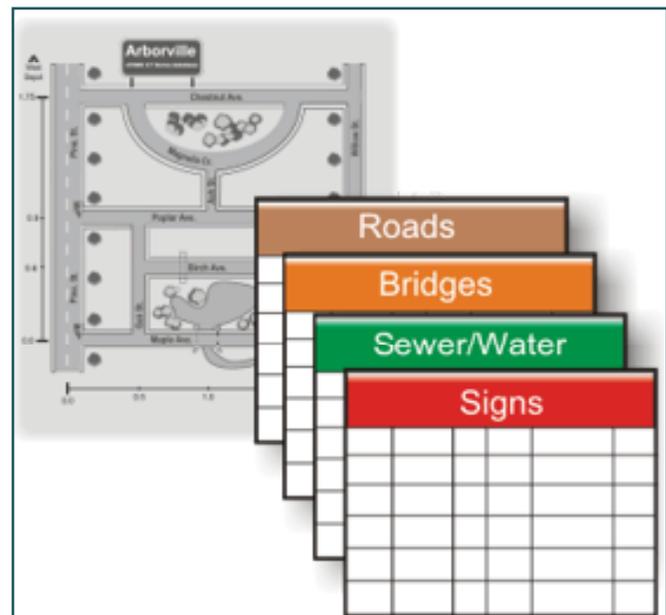
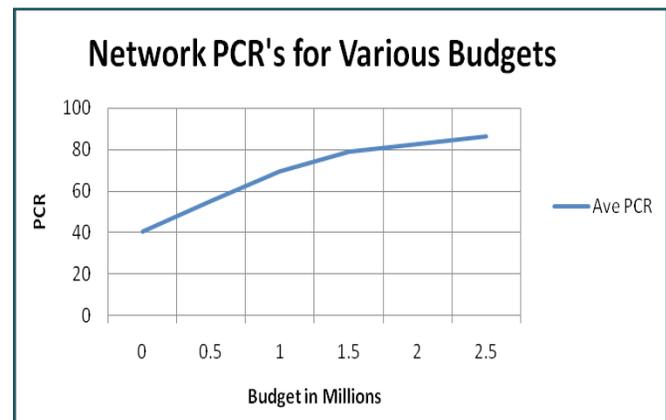
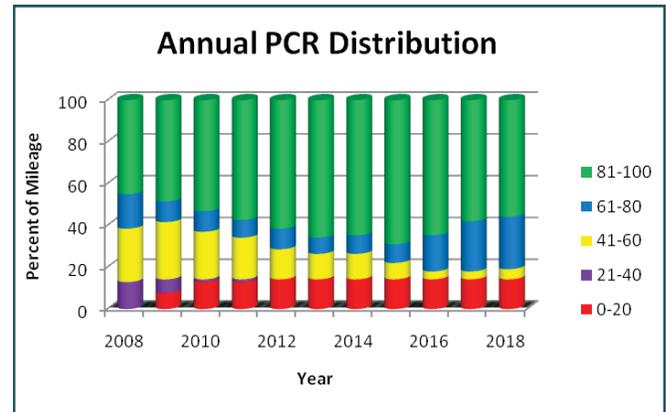
ISG can tailor a PMS to every agency, regardless of its network size or condition, operating budget, and staff capabilities.

The dTIMS software is robust and flexible, allowing multiple assets in varying location types to be managed and analyzed in one system. The software uses performance trends to estimate future performance, then calculates a benefit/cost ratio for all treatment options to determine the optimum time of application.

Programs for all agency assets can be combined to show total annual cost and then optimized to meet the agency's priorities. Program outcomes can be displayed in data tables, charts, graphics, and GIS-based maps.

Data and analyses can be summarized by many subcategories (subdivisions,

townships, political districts, etc.). Information will be accessible via a designated, protected website.



Contacts

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ISG Pavements, LLC, provides next-generation civil engineering services in pavement-related technologies. Brian McWaters and Brandon Jameson handle PMS services for clients across the Midwest.

For 10 years before joining the precursor company to ISG Pavements, LLC, Brian was Koch Performance's warranty engineer, leading development of warranty cost performance criteria and limits and administering long-term warranties. Before that, Brian had a 24-year career with the Iowa Department of Transportation, the last 10 years of which he was the pavement engineer responsible for the state of Iowa's pavement management and design.

Brandon has more than 8 years' experience in information technology, including installing and troubleshooting both data and voice communication networks. He has a broad knowledge of relational database design, GIS mapping using ESRI applications, and dTIMS CT Pavement Management System developed by Deighton and Associates.

The Center for Transportation Research and Education (CTRE) at Iowa State University's Institute for Transportation administers several research and technology transfer programs. Since the Intermodal Surface Transportation Equity Act of 1991 provided that state highway agencies deploy management systems, CTRE has been the Iowa Department of Transportation's major resource for developing and administering the state's certified PMS. As part of its work with Iowa's PMS, CTRE collects condition data for local agencies that want to participate.

Omar Smadi has led CTRE's pavement and bridge management efforts for the Iowa DOT since 1994 and participates in CTRE's activities related to pavement markings management. He also is an adjunct professor in the Department of Civil, Construction, and Environmental Engineering and leads or participates in a portfolio of nationally recognized research projects related primarily to transportation management and safety.