

July 1994

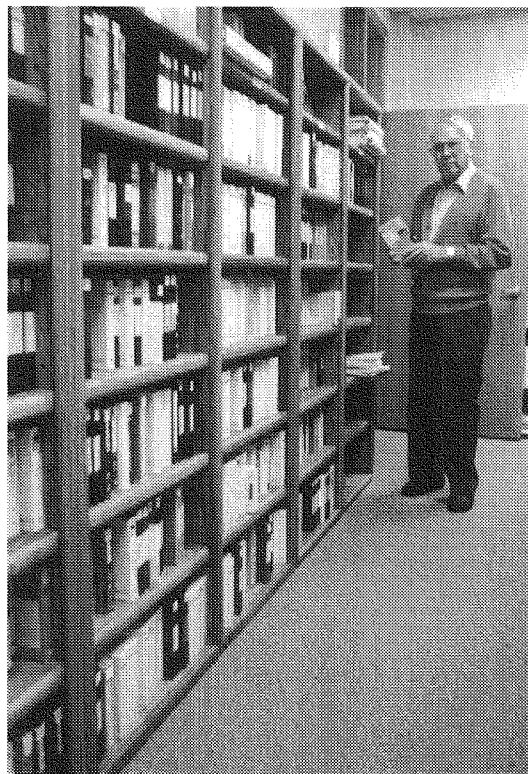
## ITC changes and grows

The Iowa Transportation Center's move into new offices last summer was only one of many recent changes at ITC. During the last year the ITC has expanded and updated its lending library, broadened its conference and workshop offerings, fine-tuned the on-line bulletin board system (see the Microtechnology column in this issue), and welcomed new staff.

### Library

ITC's primary goal continues to be to share the latest transportation-related information in ways that will be useful to the daily operations of professionals at all levels of the industry. Our lending library is one of our most effective means for sharing this information. The library carries more than 350 videotapes, nearly 1000 print publications, and 16 sets of slide presentations, ranging from training materials to compliance manuals to research reports.

Although most of the library's holdings are available on a loan basis only, many materials are yours free of charge and some videotapes can be copied. A few, like the newly revised Part VI of the Manual on Uniform Traffic Control Devices, can be purchased.



**Stan Ring, ITC's library coordinator, checks out a new videotape for a client.**

The majority of our materials are produced by the FHWA. Others are produced by associations like the American Traffic and Safety Association, the Concrete Paving Association, the Asphalt Paving Association, and the National Association of County Engineers. We also carry many Iowa Highway Research Board publications,

AASHTO manuals, and a collection of Strategic Highway Research Program (SHRP) publications.

The results of *Technology News's* most recent reader survey indicate that nearly a third of the respondents use ITC's lending library. We would like to encourage the rest of you to take advantage of this source of current and diverse information. Library coordinator Stan Ring can help you find the materials you need or can provide a catalog of library holdings. He also appreciates suggestions for new acquisitions. Call Stan at 515/294-9481.

### ITC courses

ITC has also expanded its extension workshops and in-house training programs. For example, ITC recently sponsored its first national satellite program, the Advanced Traffic Signal Systems Technology Workshop. Also, at a new hands-on computer workshop more than 20 transportation planners learned to use the Tranplan software.

In addition, the ITC has offered two new traffic control workshops this year. A Traffic Studies for Engineers and Technicians

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# Iowa to coordinate GIS activity

**By David J. Plazak**  
**Executive Director, Iowa Rural**  
**Development Council**

Geographic information system (GIS) technology is a potentially powerful tool for businesses and government agencies in Iowa. GIS combines computerized mapping with databases, so that information about places can be seen in graphic form. GIS is being used in Iowa for such diverse projects as mapping, flood plain and levee management, groundwater protection, transportation project design, and precision farming.

Both the Iowa Transportation Center and the Iowa Rural Development Council recognize the importance of GIS technology for rural Iowa, but also see that the lack of coordination of intergovernmental GIS activities in this state is a critical barrier to its further development and use. Many federal, state, and local agencies and private firms want to have the capabilities GIS offers but do not know how to begin developing a system.

Other states, such as Kansas and Wisconsin, have put GIS coordination initiatives in place to help set standards and share data and information among government

agencies and private firms. A similar initiative is now underway in Iowa to develop a coordination mechanism for the state.

Harold Jensen, Black Hawk County Engineer; Bernie Hoyer of the Iowa Department of Natural Resources/Iowa Geological Survey; and Reg Souleyrette of the Iowa Transportation Center have been key players in starting a GIS coordination initiative in Iowa. The Iowa initiative builds on a coordinating group of state agencies that has already been meeting regularly. Michael Audino of the Iowa DOT (a member of the Iowa Rural Development Council) agreed to host an initial meeting to assess interest in a GIS coordination initiative.

The initial meeting was held on April 26, 1994. Various federal, state, local, university, and private sector individuals known to be interested in GIS technology were invited. The response was overwhelming. Over 30 people from all of the invited organizations attended. Some attendees were walk-ins who heard about the meeting and wanted to get involved.

At the April 26 meeting, an inter-agency steering committee was created to begin developing a GIS

coordination initiative in Iowa. The emphasis of the Iowa initiative will be to foster cooperation and the sharing of data and information. Areas the committee might be expected to work on are

- Encouraging data sharing to reduce redundant activities and spending,
- Exploring and setting standards for GIS in Iowa so that activities are compatible,
- Developing an outreach effort so that awareness and support for GIS are built at the state and local levels,
- Developing a GIS data file depository for Iowa coverages,
- Drawing additional federal dollars to Iowa for GIS development,
- Fully utilizing the Iowa Communications Network to support the development of GIS in Iowa, and
- Coordinating activities with organizations and firms using global positioning system (GPS) technology.

The steering committee represents an intergovernmental network of expertise on GIS development and GIS data. The expected bottom line is more rapid development of GIS capabilities at all levels of government and in the private sector in Iowa. Some organizations

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Director — Tom Maze; Assistant to the Director — Jan Graham; Associate Director of Outreach — Duane Smith; Safety Circuit Rider — Ed Bigelow; Communication Specialist — Marcia Brink; Program Coordinator — Sharon Prochnow; Library Coordinator — Stan Ring; Account Clerk — Diane Love; Secretary — Margaret Hammer

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The opinions, findings, or recommendations expressed here are those of the Iowa Transportation Center and do not necessarily reflect the views of the Federal Highway Administration or the Iowa Department of Transportation.



**Iowa Transportation Center**

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## ITC changes continued from page 1

Workshop, held last spring in three locations, was attended by more than 60 transportation professionals. It will be followed on August 15–16 by a Traffic Signal Timing Workshop. This course will train participants to time traffic signals using PasserII-90 and the Highway Capacity Manual software.

ITC's first Snow Management Conference will be held in September and October in three locations around the state. The workshop is intended for public works officials and county engineers.

In the latest *Technology News* reader survey, "safety" was the subject most often requested for workshops. Not surprisingly, Ed Bigelow's Safety Circuit Rider series continues to be popular in counties and cities throughout the state. This series, which includes the Accident Location and Analysis Program and the Professional Flagging Work Zone Safety Program, takes transportation safety training directly to the field.

Last year ITC offered a new safety program, the Excavation Safety Workshop, at six locations across the state. Attended by more than 435 backhoe, dragline, and excavator operators, as well as administrators, county engineers, and safety officers, the course explained excavation and trenching hazards, potential accident situations, and alternative protective measures.

Another new program was the Equipment Safety Workshop, where instructors from John Deere Co. taught participants about the safe operation of various pieces of heavy equipment.

This year ITC expanded its popular Motor Grader Operator Program by offering a Motor Grader Program for County Engineers. The new program helps engineers better understand the grader operator's job. It also helps engineers understand the differences among grading equipment sold by different manufacturers.

For more information about ITC's workshops and courses, contact Ed Bigelow, safety circuit rider, or Sharon Prochnow, program coordinator, at 515/294-8103.

### Newsletter

*Technology News* continues to be another of ITC's primary avenues for disseminating information. Most respondents to the most recent reader survey rated the newsletter useful to very useful.

Survey respondents generally appreciated the newsletter's current balance of articles regarding technical subjects, general information, and regulatory requirements. However, readers also suggested specific subjects they would like to see addressed in more depth, and the editor will be investigating some of those subjects for future issues.

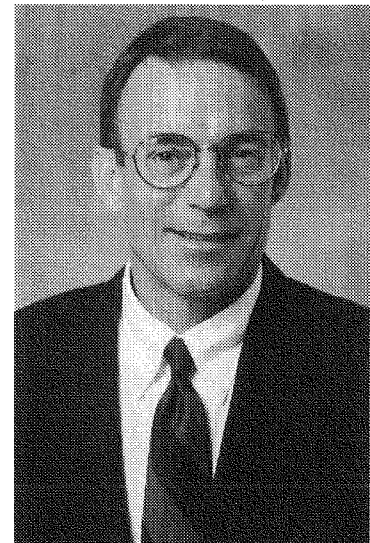
Our thanks to those readers who responded to the survey. Thanks, also, to those of you who have contributed to "Tips from the Field," one of the newsletter's most popular regular features.

### Staff

Recent changes at ITC have brought new faces to the office, as well as new responsibilities for some staff members:

The newest member of our team is Duane Smith, who will join ITC on August 1 as associate director of outreach. Duane comes to us from the Iowa DOT where he was the state deputy director of maintenance programs. Duane brings a wide range of experience in the public and private transportation industry to ITC.

Sharon Prochnow, program coordinator, coordinates ITC's workshops



Duane Smith



Sharon Prochnow

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# ITCBBS keeps on growing

Two years ago Wayne Chizek (assistant to the engineer, Marshall County) first logged on to the Iowa transportation community's new electronic bulletin board service. Today Chizek uses the ITCBBS regularly to check meeting schedules around the state, download AutoCAD drawings contributed by other users, and exchange messages with other transportation professionals.

"The bulletin board has become an important communications tool for me," Chizek said.

More than 250 users currently subscribe to the ITCBBS. In addition to county engineers and Iowa Transportation Center staff, users include Iowa DOT personnel and other transportation professionals. About 100 calls are made to the service each week.

Jon Burgstrum (assistant to the engineer, Clinton County) uses the

## Microtechnology

By Marcia Brink  
Editor, *Technology News*

ITCBBS a couple times a week to check his messages and look for new files. Burgstrum especially likes to look at AutoCAD drawings and specifications for computers and other equipment.

Doug Miller (registered assistant, Kossuth County) uses the ITCBBS to look for files from other county offices, like job description files, that he can use as templates in his own office. Dennis Neff (assistant to the engineer, Mahaska County) likes to find program files he can adapt to his own use.

Chizek often attaches, or tags, other files to the messages he sends. "If someone asks about a drawing, I just tag that file to my

return message," Chizek said. "Sharing files, like AutoCAD drawings, among counties saves duplication of effort."

Since it came on-line two years ago, the ITCBBS has added services and expanded options. According to system operator ("sysop") Mike Bugenhagen, one of the most significant additions has been the "On-line Reader Door" option on the file menu.

The On-Line Reader allows users to browse and search through on-line files before downloading them. Users can check the Transportation Events Calendar, read the latest *Technology News*, find an address in the Points of Contact List, read the agenda for an upcoming meeting, and review ADA Job Description templates—all without downloading any files.

Another helpful addition to the file

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### What is the ITCBBS?

A bulletin board service (BBS) is an on-line information resource accessed from distant locations via dial-up modems. A BBS facilitates services like file sharing and e-mail for both PC and Macintosh users. The ITCBBS is a free bulletin board service especially for transportation professionals.

### How do I access the ITCBBS?

If you have not used the ITCBBS, now is the time to call it up and see what services and information are available. You need a computer with communications software installed. Bugenhagen recommends Procom Plus for WINDOWS or DOS; version 2.0 is the latest version and includes fax software. You also need a modem connected to your computer and a telephone line.

Set the communications software parameters as follows:

**Emulation:** Use "VT100" with ANSI.  
(If your software does not offer ANSI, add the following line to your config.sys file and re-boot:  
DEVICE=C:\DOS\ANSI.SYS.)  
**Data bits:** Set to "8"  
**Stop Bits:** Set to "1"  
**Parity:** Set to "none" or "n"  
**Baud rate:** The ITCBBS will self-adjust to your rate, from 300 to 57.6 K Baud. Set at "full" if requested by your program.

To call the ITCBBS, using your computer and modem, dial 1-515-294-9784. Two phone lines are available seven days a week, 24 hours a day. If the lines are busy, try again later. (A watts line is available to local governments.)

You will have to type in your first and last name and a password of your choosing. (Remember your password; you will need it each time you call.)

The ITCBBS main menu will appear, and you can begin exploring the service. Don't be afraid to experiment; you can't hurt the bulletin board.

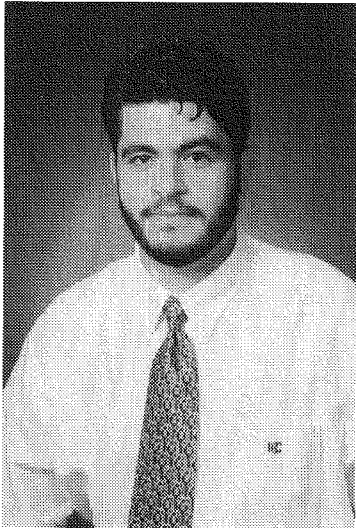
### How do I use the ITCBBS?

A user guide is available for downloading. From the main menu, select "View Bulletin." Then select "Bulletin 1."

The sysop contacts all new users to assign them to one of six user groups, or access levels. New users will be in the public group, which has limited access to ITCBBS options, until the sysop reassigns them.

## ITC changes continued from page 3

and conferences. Sharon is also the primary contact for external inquiries and requests. Prior to assuming these responsibilities, Sharon was secretary to the director.



Omar Smadi

Omar Smadi is ITC's new pavement management specialist. In addition to his research projects and teaching commitments, Omar is currently providing support for an intergovernmental committee developing a statewide pavement management system for Iowa.

Marcia Brink, communication specialist, is the new editor of *Technology News*. She replaces Larry Mendenhall, who recently moved to Cedar Rapids. Marcia plans to continue Larry's tradition of balancing technical and regulatory news with hands-on, practical information.

Next time you're in Ames, we hope you can stop in at the ITC to use the library or meet the staff. We are in our new offices next to the Gateway Center, just south of Highway 30 on Elwood Drive.



Marcia Brink

For more information about the ITC, call 515/294-8103. ♦

## Iowa coordinates GIS continued from page 2

developing GIS will realize significant cost savings because they will be able to learn from others' experiences and will be able to use data and base maps that have already been collected by other agencies.

The steering committee is made up of two representatives from federal agencies, two from state agencies, two from local governments, and two from universities—a true intergovernmental partnership. While not included on the steering committee at this point, private sector vendors (such as software developers and aerial photography services) who attended the initial meeting are very supportive of this initiative.

Members of the steering committee are

- Gregg Schellentreger, USDA/Soil Conservation Service
- Dave Miller, Iowa Department of Public Defense/Office of Emergency Management
- Kevin Kane, Iowa Department of Natural Resources
- Don Callender, City of West Des Moines
- Dave Sielkin, Upper Explorerland Regional Planning Commission
- Harold Jensen, Black Hawk County Engineer
- Jerry Musser, Johnson County Assessor
- Joyce Baker, University of Iowa/Iowa Social Science Institute
- Jim Majure, Iowa State University
- Tom DeWitt, Army Corps of Engineers

Peggi Knight of the Iowa DOT and Gary Rudicil of the Legislative

Service Bureau will serve as alternates for the steering committee.

A meeting of the steering committee was held on June 15, 1994, to begin drafting a mission statement and strategic plan for the Iowa GIS initiative. At that meeting, the name "Iowa Geographic Information Council" was selected as the formal name for the Iowa GIS initiative. The steering committee will meet again in August. The Iowa Rural Development Council and the Iowa Transportation Center will continue to provide support for the new Iowa Geographic Information Council as it gets started.

*The Iowa Rural Development Council is a partnership of federal, state, local, nonprofit, and private*

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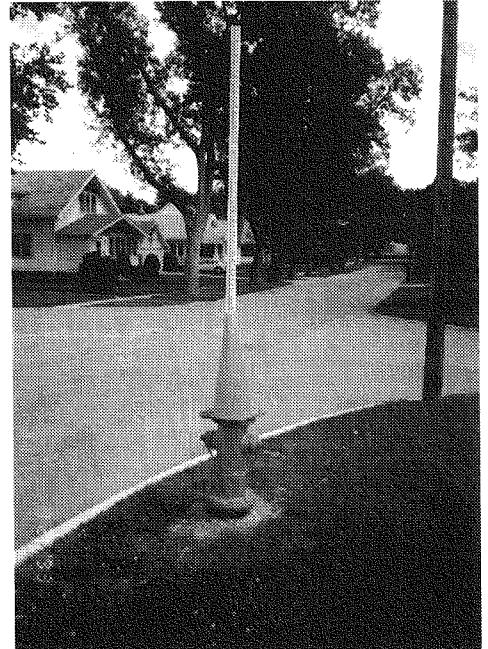
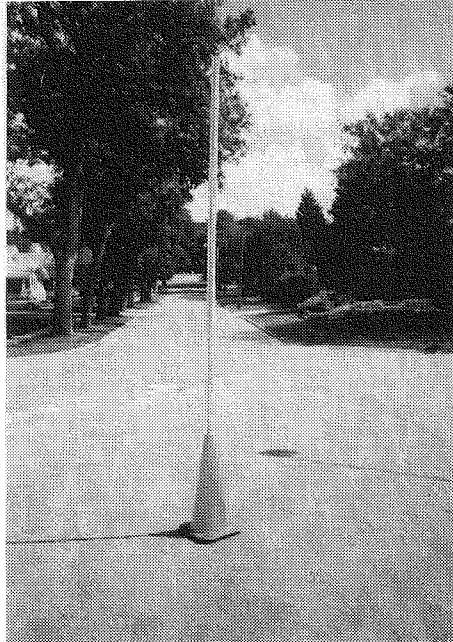
## Tips from the Field

# Tool helps lone surveyor

If you ever find yourself alone when you need to do some surveying, you might appreciate the services of this "surveyor helper." Made by cutting the top reinforcement out of a 28-inch traffic cone and inserting a leveling rod into the cone, the device is easy to carry with you.

Myron Daringer, engineering technician for the City of Carroll, developed this simple but effective tool and dubbed it the surveyor helper. He uses a fiberglass leveling rod, removing the rod sections he doesn't need so it won't be too top heavy. On a still day, the cone will support an eight- to ten-foot fiberglass rod.

While the surveyor helper is not the most effective way to survey, it does eliminate the need for another individual when you have to do a "two-shot survey."



The surveyor helper can be used with a street-level bench mark or a fire hydrant bench mark.

For more information contact Myron Daringer, engineering technician,

City of Carroll, phone 712/792-1000. ♦

## ITCBBS grows continued from page 4

menu is the "CD-ROM Door" option. Selecting this door allows users to peruse and download more than 4,300 shareware files—scheduling programs, bitmapped files, spreadsheets, telecommunications programs, even games.

An exciting addition is coming soon to the ITCBBS: Internet e-mail access. "With Internet e-mail, ITCBBS users will be able to share information with transportation professionals from all over the globe," Bugenhagen said.

Other improvements—a "fax-back" service for novice users, interfaces with the Iowa DOT mainframe, methods for updating files, and expanded training aids for new users—are being investigated.

The ITCBBS is a joint project of the Iowa Transportation Center and the Computer Program and Information Coordinating Committee of the Iowa County Engineers Association. It is supported by the Iowa Highway Research Board (HR345). ♦

## Iowa coordinates GIS

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sector organizations involved in rural development in Iowa. With over 60 member organizations, the council is dedicated to creating partnerships that foster the development of rural Iowa. The council's activities are supported by a grant from the U.S. Department of Agriculture and by funds from the Iowa Department of Economic Development. For more information about the Rural Development Council, contact David Plazak at 515/242-4875. ♦

## For More Information

Videotapes and publications are available by contacting Stan Ring, Iowa State University, Iowa Transportation Center, 2521 Elwood Drive, Suite 125, Ames, Iowa 50010-8263, or by calling 515/294-9481 Monday, Wednesday, and Friday mornings.

### Publications

**Impacts on Safety of Left-Turn Treatment at High Speed Signalized Intersections: Iowa HRB-HR347** Left-turning traffic is a major source of conflicts at intersections. Although a small percent of traffic, left-turning vehicles are involved in a large percent of accidents. This research quantifies the relationship between traffic and intersection characteristics and accident potentials. **Request #P970**

**Part VI of the MUTCD** This new publication is available on loan, or a copy may be purchased for \$7. **Request #P952**

**SPILE: A Microcomputer Program for Determining Pile Capacity – User's Manual.** Loan copy. **Request #P980**

**EMBANK: A Microcomputer Program to Determine Compression Settlement – User's Manual.** Loan copy. **Request #P981**  
(Note: The ITC does not have the SPILE or EMBANK microcomputer programs. The user's manuals are available to anyone interested in learning more about the programs.)

**Planning Design and Maintenance of Pedestrian Facilities – 1989 Publication** This handbook consolidates state-of-the-art information pertaining to pedestrian facilities. Loan copy. **Request #P994**

**Confined Space Pocket Guide.** **Request #P995**  
**Blood Borne Pathogens in the Work Place Pocket Guide.** **Request #P996**  
**Right to Know Pocket Guide for Construction Workers.** **Request #P997**  
**Lock Out Tag Out Pocket Guide.** **Request #P998**  
**MSDS Pocket Dictionary.** **Request #P999**

A limited number of these pocket guides are available. They address OSHA's employee information requirements regarding safety.

### Videotapes

**Excavation Safety** This videotape provides an overview of OSHA requirements in trench excavation based on 29CFR1926 subpart P. **Request #V344**

**New Research into Cost-Effective Pavement Repair** This SHRP research studied combinations of materials and procedures for pot-hole repair, crack sealing, and joint filling in terms of cost-effectiveness. **Request #V345**

**Snow and Ice Control** This SHRP videotape presents advanced techniques for using weather reporting information for anti-icing procedures, snow fences, and snow plowing. The tape also presents the economic, environmental, and safety benefits of these techniques. **Request #V341**

**Weather and Loads: The Effect They Have on Roads** Produced in Minnesota, this videotape is a non-technical overview of the effects of weather and heavy loads on pavement structure. **Request #V332**

### Publication order form

To obtain the materials listed from the ITC, return this form to the Iowa Transportation Center, Iowa State University, 2521 Elwood Drive, Suite 125, Ames, Iowa 50010-8263. (Please limit your request to four items. Thank you.)

Name _____	Book/Video Title _____	Index No. _____	No. of Copies _____
Address _____	_____	_____	_____
City/state/zip _____	_____	_____	_____
Phone (____) _____	_____	_____	_____

Please send a complete listing of all publications from your office.

Please send a complete listing of all audio visual materials available.

# Conference Calendar

**American Public Works Association—Iowa Fall Conference August 10–12—Carrollton Inn, Carroll, Iowa** The conference will emphasize administrative and management issues. Contact Jim Cable at 515/294-2862.

**Traffic Signal Timing Using PasserII-90 August 15–16—Marston Building, Iowa State University** This workshop instructs traffic engineers in the fundamentals of signal timing and will cover applications using PasserII-90 signal timing software. Contact Sharon Prochnow at 515/294-8103.

**American Society of Civil Engineers Iowa Section Annual Meeting and Technical Session September 8–10—Iowa Memorial Union, The University of Iowa** The technical session will address geo-technical, water, and environmental issues. Contact Lisa Barnes at 319/335-3231.

**Snow Management Conference September 21 and 22 and October 6—Ames, Waterloo, and Atlantic, Iowa** This program focuses on snow management strategies and is intended for public works officials and county engineers. Contact Sharon Prochnow at 515/294-8103.

**Iowa's First Statewide Conference on Highway Safety Information Systems September 21–22—Starlite Village, Waterloo, Iowa** Presentations, panels, and workshops will focus on new developments in Safety Management Systems, data sharing, and new information technology for law enforcement personnel and engineers, and linkage of EMS and hospital data with accident reports. Contact Joyce Emery at 515/239-1016.

**Federal Highway Administration Region 7 County Road Engineers Meeting (tentative: October—**

**Council Bluffs)** Contact Del Jespersen at 515/382-6581.

**American Society of Civil Engineers—Iowa County Engineers Association Surveying Conference October 19–20—Scheman, Iowa State University** Contact Don Wall at 515/294-3811.

**American Society of Civil Engineers Transportation Conference November 9—Gateway Holiday Inn, Ames, Iowa** Contact Don Wall at 515/294-3811.

**Iowa Traffic and Safety Control Association and Missouri Valley Institute of Traffic Engineers November 9–11—Savery Hotel, Des Moines, Iowa** Contact Gerald Brickell at 515/274-4731.

**And justice for all**

Appointment, promotion, admission, and programs of extension at Iowa State University are administered to all without regard to race, color, creed, sex, national origin, disability, or age. Call the Affirmative Action Office at 515/294-7612 to report discrimination.

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