It’s almost winter!

As you finish up the last construction projects of the fair-weather season, it’s time to haul out winter maintenance equipment and plan your winter road strategies. The following tips will help you keep sand stockpiles from crusting over, prevent snow windows at the end of driveways when you plow snow, and—perhaps your most important winter strategy—receive nearly real-time weather and road condition information.

To receive the forecasts and road weather information, local agencies must subscribe to the DTN “Weather Center.” The Weather Center provides satellite-delivered weather information, including national and regional radar (updated every 15 minutes); temperatures; wind speeds and directions; humidity; cloud cover; severe weather watches and warnings; and much more national and regional weather information.

During the winter (October 15–April 15), local agencies can also subscribe to the following premium services being provided by the Iowa DOT and delivered through the Weather Center:

1. Twice a day (4:00 a.m. and 1:00 p.m.) a frost forecast for 24 regions in the state will be posted. At the same time, 20 site-specific forecasts from around the state will also be available. These provide a detailed 24-hour forecast of a variety of weather conditions for a specific site. The cost for this service is $20 a month ($120/year).

2. Pavement temperatures, bridge deck temperatures, and pavement conditions (wet, dry, ice, etc.) from 20 of the Iowa DOT’s Roadway Weather Information System (RWIS) sites will be displayed on a map of Iowa and updated hourly. The cost for this information is $15 a month ($90/year).

The Iowa DOT estimates that the Weather Center pays for itself relatively quickly. With access to more information on approaching winter storms than ever before, supervisors can use maintenance equipment and chemicals more efficiently, wasting a minimum of time, equipment, and materials.

During the other three seasons of the year, Weather Center information is helpful for planning weed spraying, painting, mowing, or road repair work.

For more information contact Dennis Burkheimer, winter operations administrator at the Iowa DOT, 515-239-1355.
Don’t let your sand stockpiles freeze!

Josh Murphy, Editorial Assistant

Information sharing between maintenance personnel from the Iowa and Minnesota departments of transportation leads to a cost-saving idea for winter road maintenance.

BEGINNING THIS WINTER, many Iowa DOT maintenance garages will add sodium chloride (salt) instead of calcium chloride to their sand stockpiles to prevent freezing.

Scott Loge, Iowa DOT highway maintenance supervisor in Algona, obtained the idea from personnel at the Albert Lea, Minnesota DOT (MnDOT) shop.

Loge visited Albert Lea in August 1995 after hearing that MnDOT had been using a salt mixture to prevent freezing of sand stockpiles for the past 10 years.

"The idea has been around for some time, but no one has taken it and run with it like we have," Loge said. Loge added that he regularly exchanges information on new techniques with other highway maintenance workers.

Last winter, Loge and his personnel tested the idea by adding 10 percent salt to their sand stockpiles and using the mixture on five snow runs in Kossuth County. Loge says that depending on the situation, he may add more salt to the mixture just before applying it to roads.

Salt provides several advantages over calcium chloride. In addition to preventing "caking" (freezing) of sand stockpiles, salt costs only $26 per ton compared to $265 per ton for calcium chloride.

Another advantage is that only one person is needed to mix the stockpile. Two people are required to mix a calcium chloride stockpile—one in protective clothing to break open and dump the chloride, and one in a loader to mix the sand.

According to Tom Donahay, director of maintenance programs at the Iowa DOT, this season’s anticipated use of calcium chloride will be half the amount used last winter. Donahay says this means that many more Iowa DOT garages plan to experiment with the salt/sand mixture.

Although last winter’s results show salt may be a viable alternative to calcium chloride, this winter will be critical to assessing salt’s effectiveness. "It worked well for us last year. Whether it will work well for us this year remains to be seen," Loge said.

For more information, contact Scott Loge, 515-295-5218, or Leland Smithson, deputy director of maintenance at the Iowa DOT, 515-239-1519.

Attachment eliminates snow plow windrows

Josh Murphy, Editorial Assistant

AFTER A HEAVY SNOWFALL, travelers watch eagerly for snow plows to clear the streets and roads—and then curse the operators for leaving piles of packed snow at the end of their driveways.

Snow windrows left by snow plows are not only difficult to shovel or snow-blow but are also hazardous at intersections, bridges, and ramps. Some midwestern jurisdictions are eliminating these hazards with a simple motor grader attachment.

Leland Smithson, P.E., deputy director of the maintenance division for the Iowa Department of Transportation, saw Japanese maintenance officials using a special end gate on a motor grader for snow removal operations. Smithson visited Sapporo, Japan, in March 1994 as part of an FHWA-sponsored international winter scanning tour.

"You go on a tour like this to see what road maintenance people around the world are doing so you don’t reinvent the wheel," Smithson says. The Japanese end gate fits on the blade end of a motor grader. When not in use, the end gate is raised.

As the motor-grader operator approaches a drive or intersection, he or she activates a hydraulic unit that lowers the end gate. The end gate holds snow against the blade until the operator passes the driveaway or intersection. The operator then re-activates the hydraulic unit, raising the end gate and releasing the snow against the curb.

The end gate requires little or no maintenance. Two hydraulic connections and two pins hold it on the blade, making installation and removal simple.

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The Minnesota Department of Transportation (MnDOT) tested three American-made versions of the end gates in the Windom and Oakdale areas during the 1995–96 winter season. Motor grader operators in both areas reported positive results.

Duane Pingeon, district maintenance superintendent for Windom, purchased two motor grader end gates manufactured by American Grader Gate ($1,975 each) after residents complained about snow windrows. Pingeon said residents were delighted to have snow windrows eliminated.

The attachment can be used for other applications, too, like grading gravel shoulders. The end gate prevents excess gravel from spilling into ditches.

Mike Woulfe, former senior highway maintenance worker for MnDOT in Oakdale, used an end gate to spread gravel and blacktop across shoulders. Woulfe liked the end gate because operators had to make only one pass, cutting work time in half.

After years of listening to homeowners complain about snow windrows, Larry W. Frevert, P.E., deputy director of public works for Kansas City, Missouri, purchased three John Deere motor grader end gates ($3,675 each) when he returned from Japan with Smithson.

Frevert’s department evaluated the end gates on city snow removal operations during the 1994–95 and 1995–96 winters. Although the end gates pleased Kansas City residents, Frevert says his department will be looking for improvements to the end gates before purchasing more.

For example, the attachments lug down the motor grader in heavy, wet snow over four inches. Also, raising and lowering the end gate is burdensome and distracting to operators in urban areas with many driveways and intersections.

Still, Frevert believes the end-gate concept is solid and that the attachments will be improved to be more convenient in urban areas.

For more information, contact Leland Smithson, 515-239-1519; Larry Frevert, 816-274-2364; or Duane Pingeon, 507-831-1203.

To prevent snow windrows from forming, this end gate for a motor grader blade (right) is lowered when the operator passes intersections and driveways. The gate is raised (above) for normal snow removal operations.

Photos courtesy of Larry Frevert, deputy director of public works, Kansas City, Missouri.
Crack sealing ACC

Michele Regenold, Editorial Assistant

This is the third article in a series on pavement maintenance strategies.

Sealing cracks in pavement may not capture your imagination like building a new bridge or resurfacing a rough stretch of roadway. But, done properly, sealing cracks in asphalt cement concrete (ACC) can extend pavement life significantly, helping your department save the money it may need for those other, more provocative projects.

The Strategic Highway Research Program (SHRP) devoted a long-term field study to crack sealing at sites in Iowa, Kansas, Texas, Washington, and Ontario, Canada. Researchers discovered that proper and timely crack sealing and filling can extend pavement life two to six years, making it a cost-effective procedure. A timely application means sealing cracks two or three years after a new ACC overlay is constructed, and applying a surface treatment five to seven years after that. The SHRP Asphalt Pavement Repair Manuals of Practice contains recommendations based on the results of the study.

Seal it. Fill it. What’s the difference?

Knowing the difference between working and non-working cracks can save money, because fillers are less expensive and less specialized than sealants. The main criterion for deciding whether to seal or fill a crack is the amount of the crack’s annual horizontal movement.

Candidates for sealing are working cracks, which show 0.1 inch of movement or more in a year. Working cracks are typically transverse in orientation, but some longitudinal and diagonal cracks meet the movement criterion.

Candidates for filling are nonworking cracks, which move less than 0.1 inch annually and are usually diagonal and longitudinal in orientation.

The objectives of sealing and filling are different, too. According to the SHRP Asphalt Pavement Repair Manuals of Practice, the purpose of crack sealing is to "prevent the intrusion of water and incompressibles" by placing specialized materials into working cracks. In comparison, the purposes of crack filling are to "substantially reduce" water infiltration and to reinforce the adjacent pavement. Sealing has tougher objectives than filling and consequently requires more specialized and expensive materials.

Material matters

Sealant and filler materials have different desirable properties. Sealants should have the rubberlike properties of elasticity and flexibility. Significant traits for fillers are short preparation time and easy installation.

In Iowa, standard and low-modulus rubberized asphalt sealants have performed the best after three and a half years at the SHRP test site on I-35 north of Des Moines. Filler materials were only tested in Ontario, which has a similar wet-freeze climate as Iowa. After three years, asphalt rubber filler in a flush-fill configuration was the most effective, while asphalt cement showed good performance.

In an average annual cost comparison at SHRP’s Kansas (ideal-conditions) site, the most cost-effective sealants were the standard rubberized asphalts. With a service life of about five years and 90 percent effectiveness, one sealant averaged $161 per 100 linear meters and the other $151 per 100 linear meters.

The low-modulus rubberized asphalts were slightly more expensive at $177 and $184 per 100 linear meters, with service lives of four and one-half years. The self-leveling silicone was about three times more costly and the fiberized asphalt about seven times more costly than the standard rubberized asphalts, with service lives of about four years.

Filler materials generally lasted from one to four years. Asphalt cements and asphalt emulsions were least expensive, ranging between $0.08 and $0.15 per pound. Asphalt rubber (also used for sealing) was $0.20 to $0.30 per pound. Polymer-modified emulsion was considerably more expensive at $0.40 to $0.55 per pound. (Note: all prices are based on 1991 and 1992 costs.)

Placement

The two most effective placement configurations at the Iowa test site were the standard recessed band-aid and the shallow recessed band-aid. The "band-aid" is the sealant that's been squeezed flat over the crack. Current Iowa Department of Transportation

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specifications prohibit the sealant from extending more than 13 mm beyond each side of the crack edge. This is in contrast to the 75 to 127 mm band-aid described in the SHRP manual. The basic explanation for the difference is that the Iowa DOT doesn’t want to waste sealant by creating a wider band than may be necessary. (Also, see the “Safety Short” on the next page about motorcycle safety.)

Based on the SHRP research, however, the Iowa DOT specifications may be changed. Iowa has been selected as a lead state in the Midwest to help other states implement the SHRP guidelines for crack sealing.

Following a regular crack treatment program will save your agency money and effort in the long run. The Asphalt Pavement Repair Manuals of Practice, SHRP-H-348, recommends specific equipment and materials for crack sealing, including a comparison of brand names. To borrow this publication, contact Stan Ring, CTRE librarian, 515-294-9481. For more information about the implications of SHRP research on Iowa DOT specifications for crack sealing, contact John Selmer, director of maintenance operations, Iowa DOT, 515-239-1589.

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**Road work got your constituents down?**

Sealing cracks is one of those mundane maintenance jobs that inconvenience motorists without giving them any concrete (if you’ll pardon the pun) benefits. The traveling public, in fact, may be frustrated that you’re “wasting your time” on what looks like a perfectly good road when that county road only a mile away needs major reconstruction.

Working with the public can be a transportation professional’s biggest challenge. An effective public relations program, however, can turn this challenge into a real asset.

Editorial assistant Michele Regenold has put together some valuable PR tips for transportation organizations. Her series starts on page 9 of this issue.
Motorcycle safety and crack sealant

Michele Regenold, Editorial Assistant

CRACK SEALANT is a safety problem for motorcyclists. This heads-up comes from the Federal Highway Administration’s Office of Highway Safety Director Frederick Wright, Jr.

Wright met with representatives of the American Motorcyclist Association after they received numerous complaints from members about losing control of their motorcycles when crossing sealed joints and cracks. Longitudinal cracks on curves and wet sealants are especially problematic for motorcyclists.

Wright believes that both the sealant and the blotting material (or the lack of it) may contribute to motorcyclists’ handling problems. But too much sealant, he says, is probably the most significant hazard.

He urges local governments doing road maintenance to "review their sealing practices and the sealant material used with the purpose of reducing the slipperiness and width of sealant band on the pavement surface."

We hope your agency will follow Wright’s suggestion and help make Iowa’s roads safe for all drivers.

Safety Circuit Rider Ed Bigelow retires...

In 1989, CTRE—then the Iowa Transportation Center—was fortunate to snag Ed Bigelow for the new position of Safety Circuit Rider. After an already illustrious career as a county engineer and private consultant, Ed brought his energy and expertise—and his dedication to transportation safety—to develop an award-winning Safety Circuit Rider program for Iowa.

After seven years with CTRE during which he built a statewide reputation as a hard-working, hard-hitting promoter of roadway safety, Ed retired on October 3, 1996.

Ed’s training programs have included flagger training, accident analysis, sign and safety management systems, excavation safety, pavement markings, and county engineers’ safety policies. In addition, he serves in a number of state and regional professional safety organizations, including Iowa’s Statewide Traffic Records Advisory Committee.

Everyone who has worked with Ed or participated in one of his workshops appreciates his tireless and practical approach to promoting safety on our roads.

After November 1, Ed and his wife Trudie will be settled in their retirement home at 123 Larsen Lane, Twin Coves–Lake Cypress Springs, Scroggins, TX 75480.

Thank you, Ed, for your hard work on behalf of Iowans. Health and happiness to you and Trudie in your retirement. We’ll miss you!

... and we have to try to replace him!

ED BIGELOW has established a very important and strong Safety Circuit Rider program, and CTRE is seeking an engineer to continue it.

The Safety Circuit Rider performs the following functions:
• conducts transportation safety training programs throughout Iowa.
• develops and presents traffic safety programs to city, county, and state staffs; public and private utilities; and contractors.
• interacts with local, state, and federal transportation officials in traffic-safety-related issues.
• represents CTRE on professional committees and as a member of several state, regional, and national professional transportation-related organizations.

A critical requirement for this position is a dedication to improving the safety of Iowa’s highways and the safety of employees of agencies and firms that work in and around transportation facilities. Additional requirements include a bachelor’s degree in civil engineering or a related field, professional registration as a civil or highway engineer in Iowa (or the ability to become registered), and three years as a professional engineer working in government or consulting in highway transportation. Good written communications and excellent presentation and verbal communication skills are essential.

For more information, contact Duane Smith: (voice) 515-294-8103; (e-mail) desmith@ctre.iastate.edu
Black Hawk County discourages drivers from running red lights

Josh Murphy, Editorial Assistant

On June 21, a Black Hawk County traffic safety group kicked off a local version of a national public education campaign. The purpose of the six-month campaign is to reduce traffic crashes by increasing awareness of the hazards of running red lights.

Have you ever thought about running a red light? The thought has probably crossed the minds of most people, especially when no other cars are in sight and it seems as if the light just won’t change color.

Next time you think about running a red light, consider these statistics: Twenty-two percent of crashes in urban areas are caused by people disregarding traffic control devices, including red lights. Forty-five percent of vehicle occupants involved in red-light-running accidents are injured. These crashes cause an annual economic impact of approximately $7 billion in medical costs, time off from work, insurance hikes, and property damage (source: the Insurance Institute for Highway Safety).

To enhance safety for the traveling public, the Federal Highway Administration (FHWA) has formed a comprehensive public education initiative, coupled with aggressive enforcement, known as the Red Light Running campaign. The campaign consists of public service announcements (PSAs) for television, radio, and print, as well as technical assistance from the FHWA.

The goals of the campaign are to make roadways safer and decrease serious injury and economic costs to communities. Officials hope to accomplish these goals by increasing public awareness of the hazards of running red lights and re-establishing respect for traffic control devices.

Black Hawk County was one of only 32 communities nationwide (and the only one in Iowa) to receive a $15,000 grant from the FHWA to implement the campaign. In all, the FHWA allocated $600,000 among the top 32 community applicants.

A Black Hawk County traffic safety group, Arrive Alive, oversees the campaign. Arrive Alive consists of more than 40 law enforcement professionals, traffic engineers, educators, traffic safety advocates, and private sector individuals who address common traffic safety concerns.

Since Black Hawk County’s Red Light Running campaign started in June, Arrive Alive has run radio and television ads that equate running red lights with injury.

Cheryl Wheaton, program coordinator for the Black Hawk County campaign, says Arrive Alive will also advertise the campaign on milk cartons, billboards, posters at local grocery stores, and sack stuffers at local fast food restaurants this fall.

Communities selected by the FHWA to receive the grant had to meet four criteria: The community must have a documented red-light-running problem, the support of local law enforcement agencies, operational traffic signal systems that meet federal guidelines, and a community structure equipped to handle safety outreach programs.

When Arrive Alive applied for the grant, Black Hawk County had a high proportion of crashes caused by motorists who run red lights: 12 percent compared to 6.7 percent for the entire state. Also, a pre-campaign survey of 500 Black Hawk County residents revealed that 26 percent of respondents run red lights while 31 percent said they have witnessed other drivers run red lights.

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Work zone safety study underway

The Iowa Legislature's action last May to authorize higher speed limits on certain four-lane highways got a lot of media attention. The same bill, however, also contained a generally overlooked (at least by the media) mandate to the Iowa departments of transportation and public safety.

The departments are to study the issue of work zone safety in Iowa and report to the general assembly by January 1, 1997.

This mandate may not be considered headliner material, but the two state departments are taking it very seriously. Work zone safety is of vital concern to both organizations, and the latest news is disturbing:

In 1994, the last year for which the National Traffic Safety Administration has statistics, an all-time high of 833 people died in work zone accidents nationwide. Compared to 647 work zone fatalities in 1992, this was a significant—and disturbing—increase. More people are being killed in work zones despite unprecedented efforts and technologies designed to make work zones safer.

1994 was also a bad year for Iowa, with a record high of 13 work zone fatalities. The situation is improving, however; 1995 saw six deaths, and so far in 1996, two.

But, of course, even one work zone death is one too many to the family and co-workers who have lost a loved one and friend.

The Iowa DOT and the Iowa Department of Public Safety are co-chairing the Construction Area Safety Study (CASS) working group, formed specifically to conduct the Iowa study. In addition, the working group is comprised of representatives from the construction industry through the Associated General Contractors of Iowa staff, and members of the AGC safety committee.

The group anticipates that people with specific expertise will be asked to serve on special task forces. For example, task forces may deal with public information and education, technology, data, traffic management, etc.

The Iowa legislation is directed primarily to speed-related issues in construction areas. However, the working group has decided to take a broad perspective regarding all motorist interactions with workers in contractor operations, maintenance operations by highway authorities, and utility work in public roadway rights of way.

Given the early deadline, the study will focus on primary and interstate highway work. However, the findings of this study may be applicable to work zones in local jurisdictions.

The working group is interested in hearing perspectives on any issue pertaining to work zone safety. Direct your comments to one of the co-chairs:

Captain James K. Ehresman
CASS Working Group Co-chair
Iowa State Patrol
Wallace State Office Building
Des Moines, IA 50319

C.I. MacGillivray, P.E.
CASS Working Group Co-chair
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RED LIGHT RUNNING . . . continued from page 7

Wheaton says increased business development on the west side of Waterloo and the expansion of Highway 63 may be factors that contributed to the high number of red-light-running incidents.

Prior to national implementation, the campaign was pilot-tested in Charleston, South Carolina, in 1995. Officials say the campaign was extremely successful: Forty-eight percent of people surveyed recognized the PSAs, while 22 percent indicated that they either had changed or intended to change their driving behavior. Based on this experience, the FHWA proceeded with national implementation.

Black Hawk County’s campaign will conclude in December. To determine campaign success, Arrive Alive will conduct surveys of public awareness of the campaign, and the Waterloo and Cedar Falls police departments and the Black Hawk County Sheriff’s Department will provide enforcement and data on accidents and citations. After all 32 communities complete the campaign, the FHWA will summarize the findings in a national report, which will be available through CTR’s library.

For more information, contact Cheryl Wheaton, 319-291-2413, or Mila Plosky, Federal Highway Administration, 202-366-6902.
Developing a public support program

Michele Regenold, Editorial Assistant

Public relations. Just a buzz word, or a significant tool for communicating with the public?

Solid public relations skills may not be explicitly mentioned in the job descriptions of county engineers or city public works directors and their staffs, but the reality is that good public relations is central to these positions. And good PR is a lot more than just running a friendly sort of agency. It involves working effectively with the media, elected officials, and private and public partners; keeping your constituents informed about your projects and policies; and handling complaints effectively.

Simply showing consideration for the public is probably the single most important way to focus your public relations strategies.

The following article on writing press releases launches a series of articles about building a public support program. In the next issue look for tips about working with elected officials. The rest of the series will deal with public speaking, cultivating media coverage, and handling customer complaints.

Writing effective press releases

Have you been underutilizing a valuable tool? You may already use press releases for practical reasons like notifying the public of the summer road construction schedule or reminding drivers of snow route locations. Try thinking bigger. Once you get the hang of writing them, press releases are quick, easy ways for you to inform the news media, and ultimately the public, about interesting transportation issues in your city or county.

Blowing your own horn

Use a press release to point out the good job your department is doing in the community. For example, if you have a winter preparedness day that helps snow plow drivers refresh their skills, announce that fact. It assures the public that your department will be well prepared for winter.

Make an "event" of opening a new bridge or completing a long-term road construction project. Invite a prominent person to speak. You'll make points with your elected officials and may be more likely to get press coverage.

Drawing attention to the positive work your department is doing in your community is just one facet of press releases. Bad news can be an opportunity to promote your department, too. For example, you could point out how quickly your employees responded to a record snow fall. The Iowa DOT gets a good deal of press for their snow removal and deicing of interstate highways. Why shouldn't your city and county workers get similar recognition?

Press releases can also help you garner public support for specific projects. Advertise public meetings in advance and then show slides or video of the problem. If the public understands the problem, they may be more willing to listen to your solutions.

Worth a thousand words

Whenever possible, send a photo with your press release. Candid action shots, rather than posed shots, work well. Provide the newspaper editor with several angles so he or she can choose. For example, if your employees participate in a snow plow rodeo, take photos of the drivers maneuvering through the course and send them along with the press release. Tape captions to the back of photos, naming all the people from left to right and briefly describing the activity. Make sure you also refer to your department in the caption in case your photo gets printed without your story. Maps or diagrams can be effective graphics, too.

Making media contacts

If you haven't developed personal contacts with reporters, now is a good time to start. Find out who covers the city hall beat or the government beat. Send your press releases to the same person each time, and to just one person at each newspaper. Mark your press release "for immediate release" or the appropriate release time.

Send the press release three to five days before the activity or event if you want the reporter to cover it. Then follow up by phone, once you're sure the release has been received, especially if you have new information to add.

Basic writing tips

Grab your reader's attention from the very first sentence. A colorful quote or visually descriptive language generates reader interest. Be certain, however, that your "hook" also provides important information to readers.

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This abbreviated sample news release from Tama County demonstrates the essential information that should be included in a press, or news, release.

### Letterhead

**ROBERT L. GUMBERT, PP.**
County Engineer

Dwight Mercer, C.E.T.
Road Assistant
To The Engineer

**TAMA COUNTY ENGINEER**

Office Of

1002 East 5th Street
Tama, Iowa 52339
PHONE 515-484-3341
FAX 515-484-4628

**NEWS RELEASE**

May 1, 1996

**CONTACT:**
Bob Gumbert, 515-484-3341

**FOR IMMEDIATE RELEASE**

**Restricted Access Roads**

TAMA, Iowa -- Governor Branstad has signed a bill passed during the 1996 legislative session which allows counties, in cooperation with landowners, to restrict public access to certain Level B (dirt) roads.

This legislation had been sought by the Iowa County Engineers Association and the Iowa State Association.

End of news release notation

To help you decide what you should include in the press release, answer the journalist’s questions of who, what, where, when, and why in the first two paragraphs. After that information, provide supporting details in their order of importance: additional but not critical information followed by background and peripheral information. That way editors can cut from the bottom if necessary.

Don’t go overboard on the details. Press releases should be brief; aim for two pages or less. Present your information objectively. Press releases are factual pieces, not editorials. Opinions should be in quotation marks and clearly attributed to someone specific.

Compare the following sentences. “Passive voice is to be avoided.” “Avoid passive voice.” The second example uses an active verb. Active verbs create more interest, especially if they help readers form a picture in their minds. Avoid technical jargon, too. You may want to ask someone unfamiliar with the jargon to read your press release before you send it to make sure you’re being clear.

**Formatting the press release**

Your press release should be typed on 8-1/2 x 11-inch paper. Use your office letterhead to lend your release the appropriate authority. Include the date and time the material should be released for publication in the upper left-hand corner, along with the name and phone number of the person to contact for more information. State the place of origin at the beginning of the text. (See the example above.)

Start the text of the press release about one-third of the way down the page. This gives the editor room to write comments. Double space the text and use wide margins. If the release runs more than one page, type “MORE” at the bottom of each page and “-30-” or “###” on the last page. Type a brief headline to identify the subject matter at the top of every subsequent page as well.

Building public support for your department and the important work you do requires mastering handy tools like press releases. For more information on using press releases, see the Public Works Communication Manual published by APWA and the NACE Action Guide: 1-8 Public Support. Both publications are available through CTRE’s library. Contact Stan Ring, 515-294-9481.
FOLLOWING IS A SAMPLING of new or popular materials available from the CTRE library. To obtain materials or a catalog of library materials, contact Stan Ring, library coordinator, Monday, Wednesday, and Friday mornings at 515-294-9481. Or use this page as an order form. Check the box next to the materials you want and return this form to the Center for Transportation Research and Education, ISU Research Park, 2625 N. Loop Drive, Suite 2100, Ames, Iowa 50010-8615. (Please limit your request to four items.)

**Publications**

**Snow and Ice Control: A Best Practices Review** (State of Minnesota, 1995) 148 pages. This report supplements videotape V469. It identifies best practices for snow and ice control in Minnesota as presented in a national teleconference. Loan copies. Request #P1189


**Left Turn Treatments at Intersections** (NCHRP-Syn-225, 1996) 86 pages. This publication describes the traffic conditions, signalization, signing, and geometric design issues associated with accommodating left-turning vehicles at intersections. Loan copies. Request #P1192

**Traffic Control Systems Handbooks** (USDOT-FHWA-SA-95-032) 684 pages. This handbook updates the 1985 edition and includes ITS technology. It serves as a basis for planning, designing, and implementing effective traffic control systems. Loan copies. Request #P1198

**Videotapes**

**Motor Grader Operations Parts I, II, and III** (Utah DOT, 1989) 53:30 min. This videotape consists of three parts: basic information on controls, blade positioning and maneuvering, and operating techniques in actual work conditions. Request #V470

**Workers Enemy Number One** (Safety Shorts, 1996) 5:00 min. This short videotape discusses how back problems occur and offers methods to reduce risk of back injury in lifting. Request #V471

**Back to Basics** (Safety Shorts, 1996) 5:00 min. Back injuries may affect one out of five workers. This videotape gives a description of the back structure, tips on how to exercise and strengthen the back, and methods to reduce back strain. Request #V472

**Back Care and Safety** (Long Island Productions, 1989) 15:00 min. This videotape presents detailed instructions on how to prevent back injuries, perform back exercises, look for potential dangers in the workplace, and use proper lifting techniques. Request #V473

**Snow and Ice Control: A Review of Innovative Practices** (State of Minnesota, 1995) Part I: 2:00 min.; Part II 2:00 min. This two-volume videotape documents a national satellite workshop. Part I reviews the best practices and policies relating to snow and ice control. Part II covers materials and equipment and reviews worldwide practices. See also P1189, above. Request #V474

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**Name**
**Address**
**City/State/Zip**
**Phone**

☐ Please send a complete catalog of all publications and audiovisual materials available from your office.
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<td>Jerri Noboa, 515-244-7181</td>
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