

Crossroads

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TRANSPORTATION Information Center — LTAP

University of Wisconsin—Madison

Making streets and highways safer



Who is responsible for reviewing signing and markings in your shop? Do they know what to look for and what to do? The T.I.C. is offering

Highway Safety workshops around the state in February to help update and inform staff about signing and roadside safety hazards (see *Calendar*, page 3, for details). Following are some timely signing and safety topics.

Court rules negligence in obscured Stop sign case

Signs are important roadway safety tools for guiding driver behavior. Your responsibility for them has been further defined in recent Wisconsin Appeals Court decision. The Court found a county, a town, and a property owner all negligent in an auto crash where a driver ran a Stop sign that was obscured by an overgrown tree (see photo below).

In the case, *Physicians Plus vs. Midwest Mutual Insurance et. al.*, the Court ruled that all three were guilty of maintaining a public nuisance, saying that the condition had existed long enough that



they should have known about it and removed it. A public nuisance is defined by the court as “anything that encroaches on the safe use of a public space.”

The Court rejected the County’s three defense arguments: 1) although the county had erected the sign, they were not responsible because the road was maintained by the town, 2) the tree was on private property and the County had no right to trim it, and 3) the County did not know there was a problem.

“This decision puts towns, villages, cities, and counties on notice that **they are all responsible** for sign safety,” says Deborah Garrett, claims manager at Wisconsin Municipal Mutual Insurance Company which supplies liability coverage for many local municipalities. By applying the concept of public nuisance the Appeals Court made it difficult if not impossible for defendants to claim municipal immunity, she notes.

“On the up side, it has also given these entities the ability to remove private encroachments on the right of way, which they’ve been reluctant to do,” she says. The concern is that this ruling may also apply to equipment and vehicles parked in the right of way, political signs, and other encroachments, she states.

How can local agencies keep signs and roadsides safe and prevent liability claims? Garrett recommends developing a way for workers who are out on the roads every day to document safety hazards and to correct the condition. Records should also be kept of the corrective action taken. In addition, they need a system for notifying others who might also be responsible: the private property owner or another unit of government.



Sign vandalism

Sign vandalism and theft can be costly, both in replacement and inconvenience or hazard to drivers. Special hardware and anti-graffiti sheeting can help.

Vandals seem to prefer some signs and locations. “We have trouble with parking lot signs and with large arrows because they are low to the ground,” says Dick Jerdee, City of Madison Traffic Operations Manager. “Where we really have a problem is stealing of street name signs, especially the intersection of “Hooker Avenue” and “Pleasure Drive,” he says.

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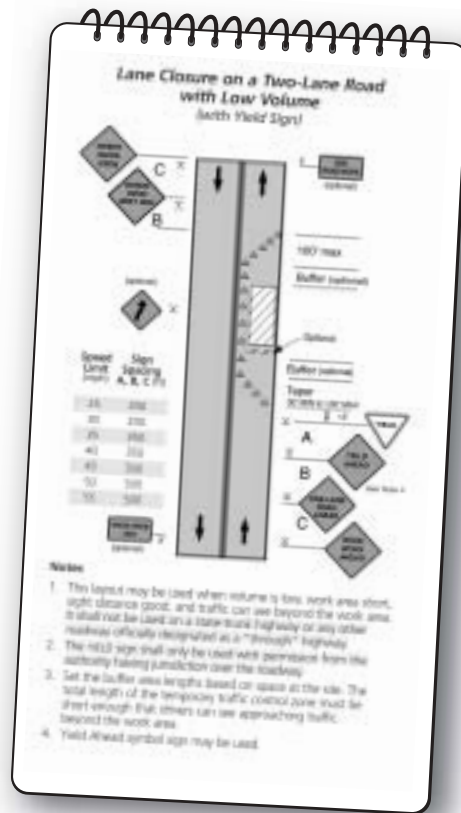
Work zone signing

Setting up work zones is a special challenge. The signs, arrow panels, drums, and other traffic control devices you put out should be designed to protect workers by safely guiding drivers through an unfamiliar roadway situation.

The T.I.C. has revised and expanded the **Work Zone Safety** flip book to include new guidance from the 2000 **MUTCD**, and the **Wisconsin Supplement**. Specific standards from the Manual are highlighted in yellow in the text so users can see clearly what is required. Also, there is new information on reducing speeds in work zone areas.

Several typical diagrams have been modified to reflect **MUTCD** changes and others have been added to show more situations including:

- Closing one lane of a 2-lane road, a common situation when paving or patching roads in rural areas.
- Working near railroad/highway grade crossings.
- Surveyors working in the roadway.



Copies of the book will be distributed in the T.I.C.'s January Work Zone Safety workshops (see Calendar on page 3 for details).

Idea Exchange

Phone system speeds snow removal

An automated telephone system helped get cars off the streets during snow emergencies in the City of Beloit, according to Chris Walsh, Director of Operations and Transit. The software runs on a PC and delivers an automated message via telephone to residents in a designated area.

"It's slick," she says. "We targeted three areas in the city where we have a lot of cars parking. The system started making calls in the morning and by the time we called a snow emergency at 6:00 p.m. most of the cars were off the street." It cut out most of the extra time and manpower needed to ticket and tow parked vehicles and plow again.

Beloit bought the commercial system about three years ago with grant money and has used it about 100 times since

then. It can be used for a variety of municipal communication needs from meeting announcements for street reconstruction to hazardous material spill evacuations, says Captain Bill Tyler of the Beloit Police Department. It cost about \$25,000 to buy and set up the system and the city pays for each local call. They can make about 500 calls an hour with it. Bigger systems could make more.

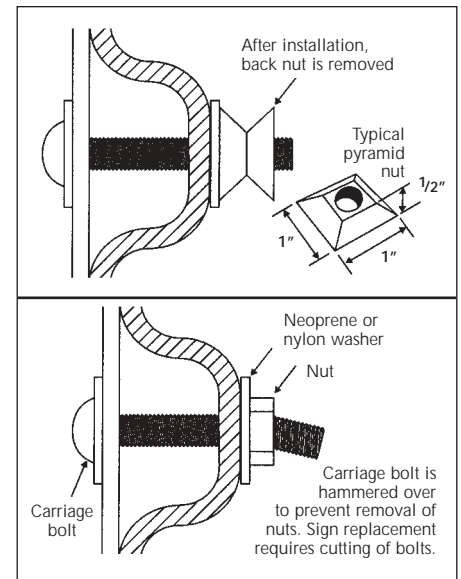
"The accuracy rate for telephone numbers is about 75%–80%," says Tyler. The Department uses a variety of sources to build up the database, including tax role information and purchased number lists. The 911 database would be more accurate but is not available to them, he says.

For more information contact Chris Walsh at 608/364-2929, walschc@ci.beloit.wi.us or Capt. Tyler at: tylerw@ci.beloit.wi.us

Sign vandalism

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A different street name might help, but meanwhile the city uses vandal resistant hardware such as breakaway nuts, expanding aluminum rivets, and double pyramid nuts. Even hammering over the end of a carriage bolt can prevent removal of the nut.



Madison also uses a square channel post inserted in the round post along with double street name plates that are wrapped around the channel post, riveted together, welded, and bolted with extra hardware down through the round post. They also weld the bottom of the steel post to the steel insert in the concrete base.

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Crossroads

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Calendar

"That slows them down," says Jerdee. "But if they really want the sign bad enough, they'll come out with a pipe cutter. Or a group of them can pick up the whole thing. It weighs about 200 pounds with the base."

Putting special sheeting over signs helps with sprayed-on graffiti. The technician can clean the sign on its post using solvent or graffiti remover and not damage the underlying reflective sheeting or ink. "We restrict it mostly to critical signs like Stop, Do Not Enter, and yield, and use it on signs with more expensive high intensity or VIP grade sheeting," says Jerdee.

"The special sheeting saves labor and time because the person can clean off the graffiti in the field instead of having to bring the sign back to the shop," says Jerdee. Another trick is to squeegee transfer tape onto the protected sign then pull it off. It will remove the graffiti without any chemicals and doesn't harm the sign. The city uses 3M 1160 Transparent Protective Overlay film which also has protection against UV light to help prevent fading of sign colors, especially red.

Bullet holes and shotgun blasts are common sign damage in rural areas. The holes can be pounded flat and the sign left in place if it is still legible. You should check it for night time retro-reflectivity, however.

Leaving damaged signs in place is what City of Milwaukee mostly does. "We've tried all the solutions and there's really nothing better or worse than anything else," says Paul Piotrowski, Traffic Services Manager, City of Milwaukee DPW. "More often than not, we replace them and in a couple weeks they're covered again. So we generally leave them unless it's a Stop sign that's so marked up it is obscured."

Leaving a damaged sign in place may encourage more gun shots and other vandalism, says an FHWA publication on sign maintenance. They are difficult to read and do not demand the respect and attention of a driver.

*The FHWA booklet **Maintenance of Signs and Sign Supports for Local Roads and Streets: A Guide for Street and Highway Maintenance Personnel**, FHWA-RT-00-00, is available on the Web at: http://www.fhwa.dot.gov/safety/media/pdf/sign_support.pdf or from the T.I.C. if you don't have Web access.*

T.I.C. workshops

Specific details, locations and registration forms are sent to all Crossroads recipients nearer the date of each workshop. Registration begins after announcements are sent.

Basic Work Zone Traffic Control

For road supervisors and maintenance personnel who plan and set up work zones. Covers traffic control devices, the parts of a work zone, and a variety of work zone set-ups including mobile operations, plus pedestrian, worker and flagger safety. Participants will set up work zones using the Wisconsin Pocket Guide to Work Zone Safety.

<u>Jan 13 Tomah</u>	<u>Jan 17 Green Bay</u>
<u>Jan 14 Eau Claire</u>	<u>Jan 22 Barneveld</u>
<u>Jan 15 Cable</u>	<u>Jan 23 Brookfield</u>
<u>Jan 16 Rhinelander</u>	<u>Jan 24 Brookfield</u>

Highway Safety

This workshop reviews the basics of signing and marking, highlighting good sign installation and maintenance practices on local roads. It will help you identify roadside safety hazards and understand and use crash information to improve the safety of local roads.

<u>Feb 10 DePere</u>	<u>Feb 14 Tomah</u>
<u>Feb 11 Rhinelander</u>	<u>Feb 17 Brookfield</u>
<u>Feb 12 Hayward</u>	<u>Feb 18 Barneveld</u>
<u>Feb 13 Eau Claire</u>	

Road Maintenance

This workshop presents maintenance, repair and reconstruction options for your local roads and streets, including asphalt, concrete and gravel pavements. It will also emphasize good practices for maintaining and improving drainage to extend pavement life.

<u>Mar 13 Mineral Point</u>	<u>Mar 19 Hayward</u>
<u>Mar 14 Brookfield</u>	<u>Mar 20 Eau Claire</u>
<u>Mar 17 DePere</u>	<u>Mar 21 Tomah</u>
<u>Mar 18 Rhinelander</u>	

Local Transportation Issues (ETN)

The T.I.C. and UW Local Government Center present a series on transportation over ETN, Thursdays 10:30 a.m. to 12:20 p.m. Call 608/262-9960 for details.

Road Design Standards – Jan 16 Review Federal and Local Road Improvement Program (LRIP) standards for road cross-sections. Learn when exceptions to the standards may be appropriate and how to seek them. Discuss how narrow streets and traditional neighborhood ordinances can coexist with the standards.

Local Transportation Funding – Feb 13

Get the latest information on state and federal funding programs for local projects. Review funding programs, hear about recent changes and discuss funding issues.

Solving Subgrade Problems – March 13

Often pavement problems are caused by poor subgrades. There are a variety of solutions, but selecting the most cost-effective one requires an understanding of soil mechanics and the options available. Learn basic soils concepts and review several methods to solve subgrade problems, including soils stabilizers, undercutting and back filling with select material, geotextiles, and improving the drainage.

Pesticide Applicator Training Two sessions for Right-of-Way Applicators from 8:00 a.m.–2:00 p.m. followed by exam:

<u>Jan 29 Milwaukee</u>	<u>(Pre-registration deadline Jan 15)</u>
<u>Jan 30 Wausau</u>	<u>(Pre-registration deadline Jan 16)</u>

Pre-registration and \$25 fee (new this year) are required. The training manual is \$45. Self-study and videotapes are also options. Information and pre-registration available online at <http://ipcm.wisc.edu/PAT/> or call Rose Scott at 608/262-7588, or e-mail PAT-program@facstaff.wisc.edu

UW-Madison Seminars

Local government officials are eligible for a limited number of scholarships for the following Engineering Professional Development courses, held in Madison unless otherwise noted.

Fleet Maintenance Management
Dec 16-17

Maintaining Asphalt Pavements
Jan 7-8

Improving Public Works Construction Inspection Skills, Jan 9-10

Implementing a Sidewalk Management System, Jan 22-23

Municipal Engineering Fundamentals for Non-Engineers, Feb 6-7

Minimizing the Impact of Utilities on Streets and Right-of-Ways, Feb 10-11

Railroad-Highway Crossings: Planning/Design/Construction to Improve Safety and Eliminate Accidents, Mar 3-4

Culvert Construction and Repair
Mar 26-28