

Wisconsin adopts sign rules



The state Department of Transportation has completed the *Wisconsin Supplement* to the federal millennium edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*. The Supplement will be on the

WisDOT website and available in hard copy by mid-March. Adoption officially implements the MUTCD in the state.

Here is an update for local officials on some of the changes that affect your community. In most cases communities have a reasonable time period to implement signing changes. (See the Web site: <http://www.mutcd.fhwa.dot.gov/kno-compliance.htm>.) This information, supplied by WisDOT District 2 Signing Traffic Operations Engineer Tom Heydel, was reviewed in the T.I.C.'s Highway Safety workshops held in February.

All Way plaque At intersections where all approaches have stop signs, a supplemental *All Way* (preferred) or *4 Way* plaque is now required. Street and highway signing units should have a method for systematically adding the plaques, installing them at the most critical intersections first.

Down arrow Most drivers did not understand the old crosswalk symbol, parallel lines, on pedestrian crossing and school zone signs. A symbol sign, plus a sign plaque containing an arrow on a 45 degree angle pointing to the crosswalk, is now required for sign assemblies at the crossing. You may install the arrow sign plaque under the existing crosswalk sign if it is still in good condition.

Fluorescent yellow-green signs This color may only be used for school, pedestrian, bicycle, and school bus signs and not for any other regulatory or warning signs. Local communities have the option to stay with the standard yellow for these signs.

Centerline pavement markings

Centerline pavement marking is now required on higher volume roads (6000 ADT or greater). It is recommended for roads with 4000 ADT or greater.

Edgeline markings Edgelines may now be used without centerline markings, except where the Wisconsin Statutes have other requirements, as on freeways or state highways, for example.

Street name signs The Wisconsin Supplement recommends using Upper and Lower Case Letters on street names signs. Mixed case letters are more readable according to research done at Marquette University for the Transportation Research Record. Signs with all CAPITAL letters can continue to be used.

Reduced Speed Ahead The Wisconsin Supplement specifies that Reduced Speed Ahead signs must have a speed plaque under them. This modifies MUTCD guidelines which allow the signs with no speed plaque.

Warning sign placement The new Wisconsin Supplement includes a table showing how far in advance of the intersection to place warning signs such as Side Road and Stop Ahead, based on the speed limit of the road. It also has recommendations for when these signs are needed based on visibility distance.

continued on page 7

Calendar

T.I.C. workshops

Details and locations are in announcements sent to all Crossroads recipients. For more information or additional copies, call the T.I.C. at 800/442-4615. Registration starts after announcements are distributed.

Road Maintenance

Review the basics of good road maintenance and important spring maintenance activities in this workshop. It will help you identify the best methods to maintain your roads and the best repair and reconstruction techniques to solve problems on them.

Mar 25 Tomah	April 2 Brookfield
Mar 26 Eau Claire	April 3 Barneveld
Mar 27 Cable	April 4 Green Bay
Mar 28 Rhinelander	

Local Transportation Issues: Liability and Legal Issues (ETN) – Apr 11, 10:30 am to 12:20 pm. Improve your understanding of modern risk management practices and legal obligations relating to road, sidewalk, and bridge maintenance. \$15. Sponsored by the T.I.C. and the UW Local Government Center. Call 608/262-9960 to register.

Understanding and Using Portland Cement Concrete Learn the basics of Portland Cement Concrete and what factors affect its quality, strength, and durability. Concrete materials, proper construction, and maintenance techniques are covered. Highlights include: basic ingredients and

admixtures; proper procedures for mixing and delivery; preparing the subgrade; placing, finishing, and curing concrete; reinforcement and jointing to control random cracking; routine maintenance and repairs.

Apr 23 Tomah	Apr 29 Green Bay
Apr 24 Eau Claire	Apr 30 Brookfield
Apr 25 Hayward	May 1 Barneveld
Apr 26 Rhinelander	

UW–Madison Seminars

Local government officials are eligible for a limited number of scholarships for the following engineering courses. For details, use the form on pg 7, call 800/442-4615, or e-mail tic@epd.engr.wisc.edu. Courses are in Madison unless otherwise noted.

Improving Public Works Construction Inspection Skills, Mar 18-19

Municipal Engineering Fundamentals for Non-Engineers, Mar 19-20

Maintaining Asphalt Pavements, Mar 20-21

Effective Roadway Lighting, Apr 22-24

Trenchless Technology for Sewer and Water Projects, Apr 9-11

Upgrading Your Sanitary Sewer Maintenance Program, Apr 10-12

Designing Best Management Practices for Stormwater Quality Improvement
Apr 22-24

Effective Parking Lot and Site Design
Apr 24-26, Milwaukee

Grader Operator Training If you e-mailed Bruce Higgins about on-site grader operator training (*Crossroads*, Fall 2001) and didn't get a response, please try him by fax or phone. All his e-mails were lost. Phone: 810/730-7698. Fax: 810/732-3489.

Wisconsin sign rules *from page 6*

Narrow Bridge sign The Supplement clarifies that this sign should be used where the driving lane on the bridge is at least 16 feet but less than 24 feet wide. (A driving lane less than 16 feet wide is a one-lane bridge.)

Low volume road signs There is a new Part V in the MUTCD for low volume roads. It permits communities to use certain smaller signs on roads with fewer than 400 ADT. A table gives sign sizes.

In addition, the Supplement adopts the MUTCD's new terminology describing sign requirements as: standard (shall), guidance (should), or option (may), and support. It also better defines "engineering study" and "engineering judgement" and describes when each applies. Engineering judgment is used, for example, to decide whether to use a curve or a turn sign where the road bends. Engineering study, which requires a study and documentation, would be used to decide whether to install a stop sign at a railroad crossing where there are no gates or flashers.

For copies of the Wisconsin Supplement go to: <http://www.dot.state.wi.us> or contact Matt Rauch, 608/266-0150, e-mail: matt.rauch@dot.state.wi.us. If you have signing questions contact your WisDOT District office or Tom Heydel at 262/548-5902, e-mail: tom.heydel@dot.state.wi.us

Resources

A Walkable Community is Much More Than Just Sidewalks, FHWA, 2000. Includes a chart listing typical pedestrian/vehicle conflicts and crash types along with suggested remedies. Unfolds into a color poster illustrating 22 measures that can improve pedestrian safety. Includes illustrations of traffic calming measures.

Guide for Development of Bicycle Facilities, 3rd edition, AASHTO, 1999, \$40. Information to help accommodate bicycle traffic in most riding environments. Presents guidelines for designs that are sensitive to the needs of bicyclists and other highway users. AASHTO Publications, P.O. Box 96716, Washington, DC 20090-6716, 800/231-3475, <http://www.transportation.org>

Videotapes

The following videos are new to the T.I.C. collection. Videotapes are loaned free from UW-Extension county offices.

Why Skid? Winter Driving Techniques, #18519, Bridgestone Tire, 18 min, 2001. Reviews basic winter driving skills for car drivers: preparation, wheel grip, weight transfer, over- and under-steer, braking, and trajectory. Has a short product commercial.

Bridge Maintenance for Local Road Crews, #18524, Vermont Local Roads, 14 min. Reviews maintenance practices for bridges on low volume local roads. Includes a discussion of bridges on gravel roads.

It's About Time: Traffic Signal Management, Cost Effective Street Capacity and Safety, #18525, FHWA, 13 min, 2001. Discusses low cost improvements to traffic signal equipment and timing that can increase street capacity. Tells how to set up a program to evaluate existing signals and describes typical time and costs involved in implementing improvements.

Paving Practices for Quality Series, #18526, National Asphalt Pavement Association, 30 min. Three 10-minute segments introduce paving crew member responsibilities, paver operation and roller operation. A good introduction for paving crew workers emphasizing techniques for good ride quality. In English and Spanish.

Websites

The Transportation Information Center tic.engr.wisc.edu provides information about the T.I.C., workshop schedules, publications, the video catalog, and links to other transportation-related websites.

Maintenance of Signs and Sign Supports for Local Roads and Streets. An FHWA booklet with good basic information on maintaining, repairing and replacing signs. Available at http://safety.fhwa.dot.gov/media/sign_support.htm. To view it as an Acrobat PDF, or print it in a format that can be assembled into a glove compartment-sized handbook, go to: http://safety.fhwa.dot.gov/media/pdf/sign_support.pdf

Reader Response

If you have a comment on a **Crossroads** story, a question about roadways or equipment, an item for the *Idea Exchange*, a request for workshop information or resources, or a name for our mailing list, fill in this form and mail *in an envelope* to:

Crossroads

Transportation Information Center
University of Wisconsin-Madison
432 North Lake Street
Madison, WI 53706

Or call, fax, or email us:

phone 800/442-4615
fax 608/263-3160
email tic@epd.engr.wisc.edu

Please put me on your **Crossroads** mailing list.

Please send me information on _____

My idea, comment or question is _____

(We'll contact you to get more details or answer your question.)

Name _____ Title/Agency _____

Address _____ City _____ State _____ Zip _____

Phone () _____ fax () _____ email _____

