Bikeways are bustin’ out all over

From Beloit to Land o’ Lakes, Wisconsin communities small and large are going multi-modal. Bicycle friendly streets, bridges, and paths are sprouting everywhere. Encouraged by citizens, facilitated by route plans, and supported by matching funds from state and federal transportation budgets, local governments are building more bikeways than ever before.

“We started four or five years ago,” says Chris Haese, City of Neenah principal planner. “Our comprehensive planning told us that the community wanted bicycle facilities. Also, the city ranked fairly high in bicycle accidents compared to other communities of similar size.”

A Neenah Trails task force identified 25 on-street miles and 5 off-street miles. The goal was to connect residential areas to popular destinations like parks, job centers, the downtown, libraries, schools, and public swimming pools.

Most of the on-street system is now in place through signing and striped bike lanes. “It was a challenge trying to retrofit existing streets and there was a fair amount of objection early on,” says Haese. One issue was the challenge of learning to drive next to bikes. The city responded with an extensive educational program in the first couple years.

“I think we’ve gotten through that and the majority of people are happy, both users and people driving next to them,” says Haese. “The system is used extensively.” With the plan in place, the city has been routinely adding bicycle facilities during reconstruction projects, like the new railroad overpass that now has both a sidewalk and a striped bike lane.

Last year they connected a new neighborhood without sidewalks to a nearby school by building an off-street trail as part of a street reconstruction project.

“Having a plan is definitely important,” says Haese. “It puts everyone involved with street reconstruction on notice. It helps make sure bike and pedestrian facilities don’t get overlooked in the design phase.”

A practical way to get around

Bike paths and sidewalks are not just for Sunday outings. More and more people routinely ride or walk to work, and in some unexpected places. Up north the Wisconsin River Trail links paper mills and downtown commercial areas in Wisconsin Rapids and several nearby communities. The 25 mile loop is about half completed.

“It’s a big commuting trail,” says Gary Popelka, Wood County planner. “We’re actually getting a number of pedestrians and quite a few bicyclists commuting to paper mills and other areas.”

In Marshfield, the state DOT is building a trail as part of a Hwy 13 reconstruction. The city will pay to extend the trail into its new Mill Creek business park.

“Citizens are asking for it,” says Popelka. Building bikeways to schools reduces parent and student car trips. In Waupaca, a trail opened last summer connecting a new high school and outdoor sports complex on the westerly edge of the city to the major residential and commercial areas. “It lets high school students bike or walk and provides safe passage under Highway 10 using an existing highway under-pass,” says Greg Stelmacher, Wis-

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Diversity is the way to go with mowing equipment

"What we want is diversified types of mowing equipment," says Tom Dahlke, Waushara County Highway Commissioner. "We have 2 and 4-wheel drive tractors; two-gang, side and rear mount mowers, flail-type and rotary-type. They all have different advantages." Dahlke was formerly a shop foreman before becoming commis- sioner so he appreciates good equipment. Here is a summary of what he’s chosen for managing roadside vegetation.

Tractors

"We use all John Deere tractors," Dahlke says. "Parts and service are available nearby and they have been very reliable over the years." The county has eight tractors with mowers to maintain 499 miles of county and state roads.

All tractors have seatbelts, canopies and rollover protection structures but no cabs. Cabs drive the cost up and the glass and rollover protection structures but no cabs. The work is done in-house and they have been very reliable over the years. The county uses both 4-wheel drive and 2-wheel drive tractors. The 4WDs do better in wet or uneven ground, but they cost more Initially.

Mowers take a beating on the road-side, so they need frequent maintenance to blades, bearings, axles, PTO shafts, etc. The work is done in-house and they keep the mowers 10-15 years.

The county also has a “brush hog” that mounts on their back hoe for cutting bigger brush. "We use it in the winter," says Dahlke. "The brush cuts a lot easier when it’s frozen.

You can reach Tom Dahlke at 920/787-3128 for more information.

Mowing short, especially when the ground is frozen, can help prevent damage to fragile roadside slopes, especially sandy ones. If slope damage is a problem, consider whether they really need mowing at all. Staying off steep slopes protects the vegetation and prevents erosion, and it helps keep operators safer, too.

Weed control

Mowing short, especially when it exposes bare ground, lets invasive species gain a foothold. Healthy plant roots and tops discourage weeds, and keeping weeds out is a lot more effective than trying to get rid of them later. In most cases, mowing will not be effective at controlling weeds. It can even make them worse in some cases that can grow out from the roots.

On DOT’s roadides, native grasses and wildflowers have grown up in un-mowed areas," says Stark. "They are more robust because they’re best adapted to local conditions, and do a good job of warding off weedy invaders where they’re well established.

Clear zone

Keep the area next to the road free of larger vegetation (trunks over 4 inches in diameter) so errant vehicles don’t hit them and keep the mowers 10-300 feet long on the approach road and about 300 feet long on the crossing road. This area is below grade and vegetation won’t block the view, you can skip mowing.

Healthy turf

Tight budgets mean you will likely mow your roadides just once or twice a season. It’s tempting to give the grass a “buzz cut” so it stays trim-looking longer. However, mowing short can work against you by reducing root systems and weakening the entire plant. Mowing to 6 inches or longer will keep plants stronger and control erosion more effectively. Another advantage of mowing long is that the turf will actually grow bigger and the ground will be more compact than short mowing.

You can reach Tom Dahlke at 920/787-3128 for more information.

The growing season will be here soon. What’s your policy about managing vegetation? Have you reviewed it lately for yourself and with your crew? Often we don’t realize that how we maintain the roadside is just as important as fixing potholes or replacing guardrails, and maintaining the shoulders in the protecting facility and providing a safe, pleasant experience for drivers," says Dick Stark, WisDOT landscape architect. A growing policy should address driver safety, vegetation management and health, and operator safety. Here are some recommenda- tions and reminders from Stark:

Sight lines

Cut vegetation so drivers can see traffic signs and on-coming traffic at intersections. As a rule of thumb, mow out a triangle with sides 150-300 feet long on the approach road and about 300 feet long on the crossing road. This area is below grade and vegetation won’t block the view, you can skip mowing.

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Superpave use now common

Many communities around the state are now routinely using Superpave for all their asphalt pavement projects. "We've been using Superpave on all contracted paving for the last three years," says Ken Pesch, Washington County Highway Commissioner. "It's working just fine as far as we're concerned."

Superpave is an asphalt mix design method that uses design equipment and techniques that better simulate actual traffic. It also specifies asphalt binder that is better suited to specific temperature zones. Superpave is now the standard for WisDOT construction projects.

"Everybody is getting on board," agrees Gerry Waelti, executive director of WAPA (the Wisconsin Asphalt Pavement Association). "We just need to get the knowledge out."

"We did it the first time in 2000," says Mike Lynett, Village of Fox Point public works director. "We were concerned whether local asphalt plants could produce this type of mix design, but we had good competition—three or four bidders—so that's not a concern any more." Lynett learned about the new specs at asphalt conferences he attended in the Milwaukee area. The paving was laid on 12 street sections in Fox Point last year, including rural cross-section roads, residential roads, and collectors.

"It's getting pretty routine," says Washington County's Highway Commissioner. "It's working just fine as far as the last three years," says Ken Pesch, Washington County Highway Commissioner. "It's working just fine as far as we're concerned."

Superpave specs and information are available on the WAPA Web page: http://www.wispave.org. Also, the T.I.C.'s Road Maintenance Workshops in late March will discuss the benefits of Superpave and show participants how to include it in bid documents.
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.

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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.

Videotapes

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


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.

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.

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

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.

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.


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.)
Bikeways from page 1

DOT District 4 local programs manager. “It’s a real improvement in safety.”

In the Village of McFarland, near Madison, a new path has saved money for the school district. The school board was able to end busing to an isolated subdivision once the children had a safe route to the nearby elementary school.

Public support grows, opposition melts

Getting a bicycle system started can be an uphill battle at times, especially in rural areas. Local officials are cost-conscious and landowners are concerned about litter, vandalism, and invasion of privacy.

“The hardest part of the trail to get done is the first mile,” says Gary Popelka. “When we proposed a trail near Wisconsin Rapids, one county supervisor was literally hollering against it. ‘We don’t need it. It’s a waste of money. Nobody rides bicycles any more.’ Now he’s on the finance committee and one of our supporters.” These days landowners near the Wisconsin River Trail promote the fact in ads when they sell their homes.

Down south in the City of Jefferson, citizens helped raise money for a new bike/ped bridge across the Rock River into the downtown commercial district. The city engineer secured a WisDOT Enhancement Grant to pay for 80% of the bridge’s $500,000 cost. The city had agreed to finance the other 20%, but the Council later pulled back, saying they could only pay for 10%.

“Business people and citizens sold bricks to raise the other $50,000!” says Dave McCosh, enhancements coordinator in WisDOT District 1. “When I pass through town, I drive down just to look at it. It’s the prettiest bridge you ever saw.”

There are many resources to help communities plan, design, and install bicycle and pedestrian facilities. The state budget provides $7 million per year for transportation enhancement projects. Most goes to bike/ped projects. WisDOT invests at a similar level in bike-related improvements and sidewalks as part of highway and bridge construction projects. April 12, 2002, is the deadline for enhancement grant proposals for 2004 and 2005 projects.

AASHTO has updated the Guide for Development of Bicycle Facilities which has useful planning, design and construction information for bike facilities. WisDOT expects to complete guides for both bicycle and pedestrian facilities this year.

For information on enhancement grant proposals, contact your WisDOT District office or Tom Huber, State Bicycle and Pedestrian Safety Coordinator, 608/267-7757. Check the WisDOT web page www.dot.state.wi.us under “Programs and Services” for information and useful links. Various resources are also available through the Wisconsin Department of Natural Resources for the development of recreational trails. Many knowledgeable people in county and city planning departments are also willing to advise and assist.