Idea Exchange

Plastic better for temporary signs

Municipalities need temporary No PARKING signs for everything from special events to construction. Most use cardboard but the City of Milwaukee uses corrugated plastic.

"I like it. It's easy to screen print messages on. Vinyl letters can also be easily applied. Plastic signs have been in the field for up to three years," says Paul Piotrowski who manages the City of Milwaukee Traffic Sign Shop.

The 18x24 inch white plastic sign blanks come from several distributors. The cost of the material varies depending on quantities purchased. Milwaukee generally purchases in quantities of 4000 or more, at about 50 cents apiece. The material also comes in yellow and orange and in 4x8 foot sheets that can be cut to size.

"The sign crews like working with the product because it is easy to install," says Piotrowski. "It can be fastened with wire to trees or light posts or bolted directly over existing signs." Frames are available as well.

For information on plastic temporary signs, contact Paul Piotrowski at 414/286-5965.

Culvert end markers save lives



Last summer an employee of a Dodge County highway contractor died when his tractor overturned after a wheel dropped over a culvert endwall. All highway workers mowing grass, cutting brush, collecting trash and doing other roadside maintenance work are at risk from unmarked culvert ends.

To help keep workers safer, all municipalities should make sure that crossdrain culverts are identified with end markers. Markers should be

flexible and made of fiberglass, thermoplastic or coextruded polyethylene. They should not be reflective to avoid distracting driver attention from the roadway and prevent confusion with delineators. WisDOT now specifies culvert end markers on all new construction.

Marker posts are relatively inexpensive, \$8 to \$10 each when bought in quantity. Dane County Highway Department has used two types for about 10 years. The Safe-hit, two-piece system, has an 18-inch base and two-inch diameter posts four feet high, at \$10 each. The Carsonite Survivor is an integral post and base costing \$7.88 each. Both prices are based on quantities of 5000-6000 units.

"We have found them effective and cost efficient," says Steve Haag, Dane County Highway Superintendent.

WisDOT has a standard detail drawing and specification. Contact Tom Lorfeld, 608/267-3149 for more information.



Yellow-green vests more visible in work zones

A number of new studies show that fluorescent yellow-green is the preferred vest color for roadway visibility. This is true in twilight or hazy conditions as well as normal situations. One study, done for FHWA, ranked them in terms of perceived safety value.

Fluorescent orange-red is also an adequate safety garment color, according to this same study. However, the orange-red vest may tend to blend in with the surroundings when there is a lot of orange workzone machinery and equipment on the site.

Wisconsin is one of a few states which provide yellowgreen safety clothing as an option for state employees exposed to traffic. Others include Minnesota, Michigan, Massachusetts, and Arizona. "It's an option for state employees," says Tom Notbohm, traffic operations engineer with WisDOT. "However for private sector employees doing flagging under the jurisdiction of OSHA regulations, only orange colored clothing is acceptable."

According to a study in Minnesota, when two workers stood side by side, one in an orange vest and the other in a high-visibility yellow vest, drivers could see the second worker from a distance twice as far away as the first.

"There are some concerns about wearing the yellow green when there is a lot of greenery in the background or a lot of yellow or green-colored equipment," says Notbohm. "It won't stand out as well under those conditions."

MnDOT now uses primarily a tight weave high-visibility yellow vest made of Supplex, with stripes in double retroflective orange. The orange stripes were added for contrast against spring vegetation which is yellower. Supplex fabric is hot to wear in warm weather, so MnDOT is testing a looser weave nylon fabric. Mesh vests in high-visibility yellow are not effective because there is not enough surface area to maintain high visibility.

For information related to work zone safety in Wisconsin, contact Tom Notbohm at 608/266- 0982, e-mail: thomas.notbohm@ dot.state.wi.us. Portions of this story were adapted from a December 1998 article in the **Alabama Technology Transfer Center** newsletter.

- Crossroads -

This newsletter provides information on roads and bridges to local officials and is published quarterly by the Wisconsin Transportation Information Center, part of the nationwide Local Technical Assistance Program (LTAP). *Crossroads* is produced with assistance from the Federal Highway Administration, the Wisconsin Department of Transportation, and the University of Wisconsin-Extension. Non-profit organizations are welcome to reproduce articles appearing here. Please contact us first for any updates or corrections.

Wisconsin Transportation Information Center, UW-Madison Department of Engineering Professional Development, 432 N. Lake St., Madison, WI 53706 Phone: 800/442-4615 Fax: 608/263-3160, or e-mail to individuals below.

Don Walker, *director* Steve Pudloski, *staff* Mercy Ranum, *program assistant* Lynn Entine, *writer and editor* Susan Kummer, *graphic artist* e-mail to individuals below. donald@engr.wisc.edu pudloski@engr.wisc.edu ranum@engr.wisc.edu Lynn Entine Writing & Editing Artifax