Crossroads

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TRANSPORTATION Information Center — LTAP

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Safety in mobile and short-term stationary work zones

Mobile and short term stationary road maintenance operations produce some of the biggest headaches for work zone safety. You want to protect crews and the traveling public and stay efficient too. A handy new booklet, *Work Zone Safety: Guidelines for Construction, Maintenance, and Utility Operations,* just published by the T.I.C. and WisDOT, can help.

Based on the *MUTCD* and modified to reflect Wisconsin practices, it shows how to lay out traffic control for work zones in a variety of common situations. The booklet emphasizes short term work sites and gives explicit guidelines for mobile operations. It also provides guidance for short duration operations which can last up to an hour. More than 30 readable diagrams show work zone signing and setup for shoulder work, lane closures, and intersection projects for various traffic speeds and highway types.

"We tried to reach consensus on the best practices for some common situations and put them in a booklet that is easy to use in the field," says Steve Pudloski of the T.I.C. "The *MUTCD* covers everything but it's pretty bulky to lug along in the truck." Pudloski worked with a team of WisDOT, FHWA, county highway, and utility representatives, along with experienced construction contractors, to produce the booklet.

"People have a lot of questions about where to put signs in relation to the work area, when to use arrow boards, when they need a flagger, et cetera," says Pudloski. The *Work Zone Safety* booklet is designed to help answer such questions quickly and clearly.

The pothole "patch and dash"

Scene: *It's mid-afternoon and you're driving 65 mph on a rural 4-lane highway. Topping a rise you see a highway maintenance truck about a quarter-mile ahead, parked on the right shoulder, dome light flashing. Suddenly you spot two men in the right lane patching a pothole. A third is on the shoulder watching traffic. No work zone signs, no lane closure cones, no protective vehicle.*

Reasonable maintenance behavior or unnecessary risk-taking?

"It's a dilemma. Safety should be the number one priority for these folks. Still, you can't sign an entire work-zone for what may end up being a 30-second patch," says Dan Fedderley, St. Croix County highway commissioner and president of the Wisconsin County Highways Association (WCHA).

"It really is not appropriate," says Tom Heydel, WisDOT District 2 traffic operations engineer. "If the task took less than 15 minutes, then it's a mobile operation. They should have advance signs, either stationary or mounted on a vehicle moving on the shoulder behind the work, and they should have a protection vehicle with an arrow board protecting the workers."

"We call this the 'pothole patch and dash,'" says Bob Fasick, WisDOT highway operations engineer, "and it's been a problem. We have to establish reasonable and safe methods to perform this type of work but within our available budget. One man and one truck may be okay on a rural, 55 mph, 2-lane highway, or local street, but not on the interstate. We have been operating the same way for a long time now. It has to change."

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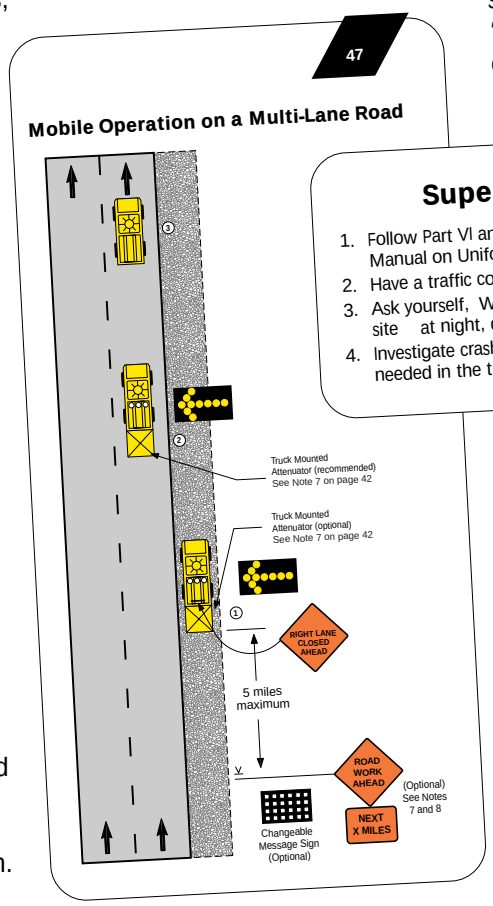
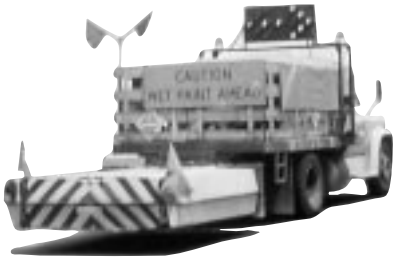
Pothole patching, shouldering, and similar short term activities are some of the biggest work zone safety challenges. You have to give motorists the proper advance warning within a reasonable distance of the work area. Unlike stationary work zones, though, there are typically no barricades, drums or cones to outline the area.

For mobile situations, the *Work Zone Safety* booklet has four basic diagrams: shoulder work on a 2-lane road, lane work on a 2-lane road, using flaggers on a 2-lane road, and lane work on a multi-lane road. With the first situation, you may only need one vehicle with a "shoulder work" sign mounted in back if traffic volumes are low. With the last situation, as many as three vehicles may be needed – most equipped with arrow boards and truck mounted attenuators, if available. To help address the many variables associated with mobile operations, the booklet also has notes associated with each diagram.





"This is an issue that the WCHA's safety committee is currently discussing," says Fedderley. "Whatever we come up with, we need to implement it uniformly and consistently across the state. The biggest benefit will be that drivers will become familiar with the situation and react appropriately."

Supervisor's Checklist

1. Follow Part VI and the Wisconsin Supplement of the Manual on Uniform Traffic Control Devices.
2. Have a traffic control plan before going to the work site.
3. Ask yourself, What is the driver s view of the work site at night, during peak hours, etc.
4. Investigate crashes/incidents to identify if changes are needed in the traffic contr

Supervisors are responsible for making sure that crews take safety seriously and set up work zones correctly, says the T.I.C.'s Pudloski. Encouraging workers and supervisors to do it, and to do it uniformly, is a major goal of the *Work Zone Safety* handbook and training programs offered by the T.I.C.

"We'd like to see a booklet in every patrol truck," says Pudloski. "Supervisors should request enough copies for everyone who works on their roads and streets."

Copies of ***Work Zone Safety: Guidelines for Construction, Maintenance, and Utility Operations*** *are available free from the T.I.C. Call, fax, e-mail, or write TODAY for the number of copies you need.*

Anticipating Y2K for roadway operations

Fortunately, Y2K computer glitches are expected to be a relatively minor problem for streets and highway operations.

One of the three major vendors of ground speed controllers, the Gresen Hydraulics Division of Dana Corporation will be issuing a procedure for resetting the current date on its GRS-32, GRS-31 models after January 1, 2000. When not reset, the printed data sheet will record the wrong year. Raven and the Component Technology Division, Certified Power Inc. have reported to WisDOT that they are Year 2000 compatible, according to Tom Martinelli, WisDOT maintenance engineer.

Traffic signal controllers first started incorporating clocks with specific dates in the mid-1980s, according to Bill Gilding, WisDOT electronics unit shop superintendent. Of the three types WisDOT uses, one manufacturer, Eagle, reports that its DP-9000 controller is not compliant. The EPAC-300 should be compliant, but may need a software upgrade. Traffic Control reports that its LC8000 signal is compliant. "We've checked our signal controllers on the bench, running them through year 2000 and not seen anything that causes concern,"says Gilding. "They may jump off by a day. In that case, there are 'work arounds' like resetting to 1994 when the days and dates were the same as 2000." Gilding's section has focused mostly on preparing in case Y2K problems cause a power outage that knocks signals out of service.

Radio and communication systems, street lighting controls, overhead signs and freeway ramp meters are other equipment that may be affected. The general advice is to contact the supplier and ask if your equipment and models are Y2K compliant.