



Winter maintenance ideas from workshop participants

Maintaining highways and streets in winter is hard work. It takes planning, innovation, training, and good management to meet the challenges of citizen expectations and tight budgets.

Fortunately, a lot of good ideas for better policies and better methods have been developed and used around Wisconsin. Attending the T.I.C.'s fall Winter Maintenance Workshops puts you in touch with some of those ideas, from speakers and from other participants.

Here's a summary of ideas gathered this year. For even more good ideas, see last year's winter **Crossroads**. (If you can't find yours, contact the T.I.C. for a copy.)

Policies and publicity

- ❄ Combining local newsletter articles with an ordinance prohibiting private snow removal operators from pushing snow onto the roadway has helped curb the problem in Town of Washington, says Administrator Michael Peterson.
- ❄ Appearing live on a local radio show, Richland County Highway Commissioner John Huth informs citizens about safety around snow plows, timing of plowing operations, and how to make good winter driving decisions. The county's patrol superintendent and one of the patrol truck operators join Huth on the radio.
- ❄ Having a clear written policy has saved time for office staff who now receive fewer calls and complaints, says Charles Smrcka, streets foreman for the City of Rice Lake. Staff also can answer questions better and elected officials understand what's happening.
- ❄ Policies needn't be elaborate. Richland County's is just two pages. In it are hours of operation (4:00 a.m. to 10:00 p.m.) and the statement, for liability purposes, that crews will cover all the roads in the county.
- ❄ Leave the shoulders white (with a small residue of snow) is in Adams County's policy. Highway Superintendent Donald York says this helps protect gravel shoulders, especially in the fall and spring before the ground freezes.
- ❄ Owners of unsafe mailboxes routinely get notifications from Adams County, and City of West Bend refuses to

replace mailboxes that were not installed according to guidelines in a local ordinance.

- ❄ Prohibiting county equipment from towing private vehicles, and having a copy of the policy in the truck, lets drivers blame "the bosses" for not helping friends or acquaintances in stranded vehicles. Towing is unsafe, says Portage County Patrol Superintendent Dale Peterson. Patrol trucks are not equipped to tow vehicles. Besides, their primary mission is to open the roads.

Equipment and methods

- ❄ Don't skimp when you order patrol trucks, says Micheal Peterson, Town of Washington administrator. A plow driver himself, he knows firsthand the safety benefits of such items as right-side power windows, and heated mirrors and wipers that clear fog quickly and prevent snow and ice buildup. On tri-axels he also specs engine "Jake" brakes and a steerable pusher axel.

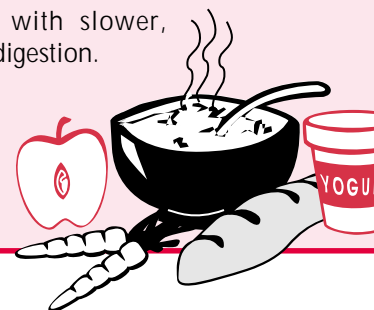
Interiors with fabric headliners cut down on noise and keep the cab warmer, and air ride seats provide comfort and support to the driver during those 16 to 20 hour plowing days. Air conditioning and stereo radios with tape decks are also standard equipment on patrol trucks. "These items added about \$4000 to the \$94,000 cost of the newly ordered Ford L9000 Tri-Axel, 13-speed trucks," says Peterson. "The additions also bring greater trade-in value."

Watch what you eat on snow-plowing nights

Road crews often battle snow and sleet throughout the night, but usually for only a night or two. That means they are also battling sleepiness since their bodies are adjusted to the usual daytime shift. Sleepiness can be dangerous. At least 10,000 accidental deaths a year are sleep-related and 200,000 traffic accidents annually are due to driver fatigue.

Recent research on sleep deprivation shows that what you eat before and during nighttime work can affect sleepiness. Since the body slows down at night, it does not want to digest a donut, a "Big Mac", or most other fast foods. Greasy, heavy, protein foods bring on sleep according to information in *The Shiftworker's Handbook*.

Drivers can still enjoy eating, though. Take light, well-balanced meals and eat snacks that are compatible with slower, nighttime digestion.



- ❄️ Contracting out for graders and operators saves on capital costs and fringe benefits, says Jack La Plant, Green Bay's streets superintendent. Some graders stay in the city equipment yard all winter while others stand by at the contractors. Payment is for actual hours worked, plus \$150 a month for equipment parked on site. All contract operators have a CDL. They are paid to attend an evening safety and how-to session and to drive the route once in daylight before the first snowfall.
- ❄️ Rental trucks haul snow from downtown areas in West Bend, says Street Superintendent Richard Heisler. Cul-de-sac plowing is also under contract, and drivers from other city departments help extend operations during continuing snowstorms.
- ❄️ Naming each plow route after its regular driver promotes pride and ownership, says Stevens Point Street Superintendent Howard Kriewski.
- ❄️ A written form for each plowing event records the equipment, driver and route when a backup driver plows a Stevens Point route. If someone complains, Kriewski checks the form and sends the responsible driver back to fix the problem.
- ❄️ Snow plow "roadeos" help train drivers in Adams and Portage Counties, and they promote good public relations.
- ❄️ Carbide tips on grader moldboards really cut into the ice, say Patrick Bonney, Ashland County's Patrol Superintendent and James Harer of St. Croix County. The "stingers" are individual tips costing about \$11 each which fit into holders on a steel strip bolted on the moldboard in place of the blade. "We space them four inches apart for compacted snow and ice," says Harer. "They also work to recycle old blacktop in summer." The initial system costs about \$3000 for a 14 foot moldboard. "It ends up being cheaper than blades," Harer says.
- ❄️ Prewetting sand with calcium chloride helps anchor it to ice, says Portage County's Dale Peterson.
- ❄️ Prewetting salt with regular salt brine (23% solution) saves money and makes it easy to ensure a constant supply, according to Columbia County Assistant Commissioner Wayne Cornford. It doesn't work as well as calcium chloride in colder temperatures, however.
- ❄️ Dumping snow from downtown areas at approved sites keeps debris and contaminants out of waterways, says Rice Lake Streets Foreman Charles Smrcka. West Bend's Richard Heisler reports they will be building a new snow dump site next year that was designed with the help of non-point source pollution specialists from DNR.

- ✓ **Main meal before night work (5:00-7:00 pm)**
Eat light protein foods like chicken, turkey, fish, or cooked beans and peas. Vegetables, fruits, breads, pasta and potatoes are good, as are low-fat milk, cheeses, and yogurt. If you're planning to sleep before work, make this a lighter and smaller meal.
- ✓ **Meals during breaks**
Eat soup and salad, soup and a light sandwich, or light protein foods and vegetables.
- ✓ **Snacks before and during work**
Good snacks include low-fat dairy products, fresh and dried fruit, popcorn, cereal, plain cookies, pretzels, and baked crackers.
- ✓ **Avoid caffeine and nicotine**
Coffee and tea contain caffeine; smoking and chewing tobacco contain nicotine. These are stimulants at first but soon become depressants. They make the heart beat slower.
- ✓ **Do not consume alcohol before or during snow plowing operations.**

Adapted from *Road Business*, Fall 1994, University of New Hampshire T2 Center. *The Shiftworker's Handbook* is by Marty Klein, PhD, SynchroTech, Lincoln, Nebraska.

P L O W I N G D O N ' T S

Don't make these common mistakes when plowing:

Plow too fast

Throw snow over bridges onto traffic below

Leave snow along center line, in intersections, on railroad tracks, or in places where it can melt back onto pavement

Assume traffic knows what you are going to do

Plow a false shoulder

Plow off gravel

Plow off salt before it works

Plow against flow of traffic if it can be avoided