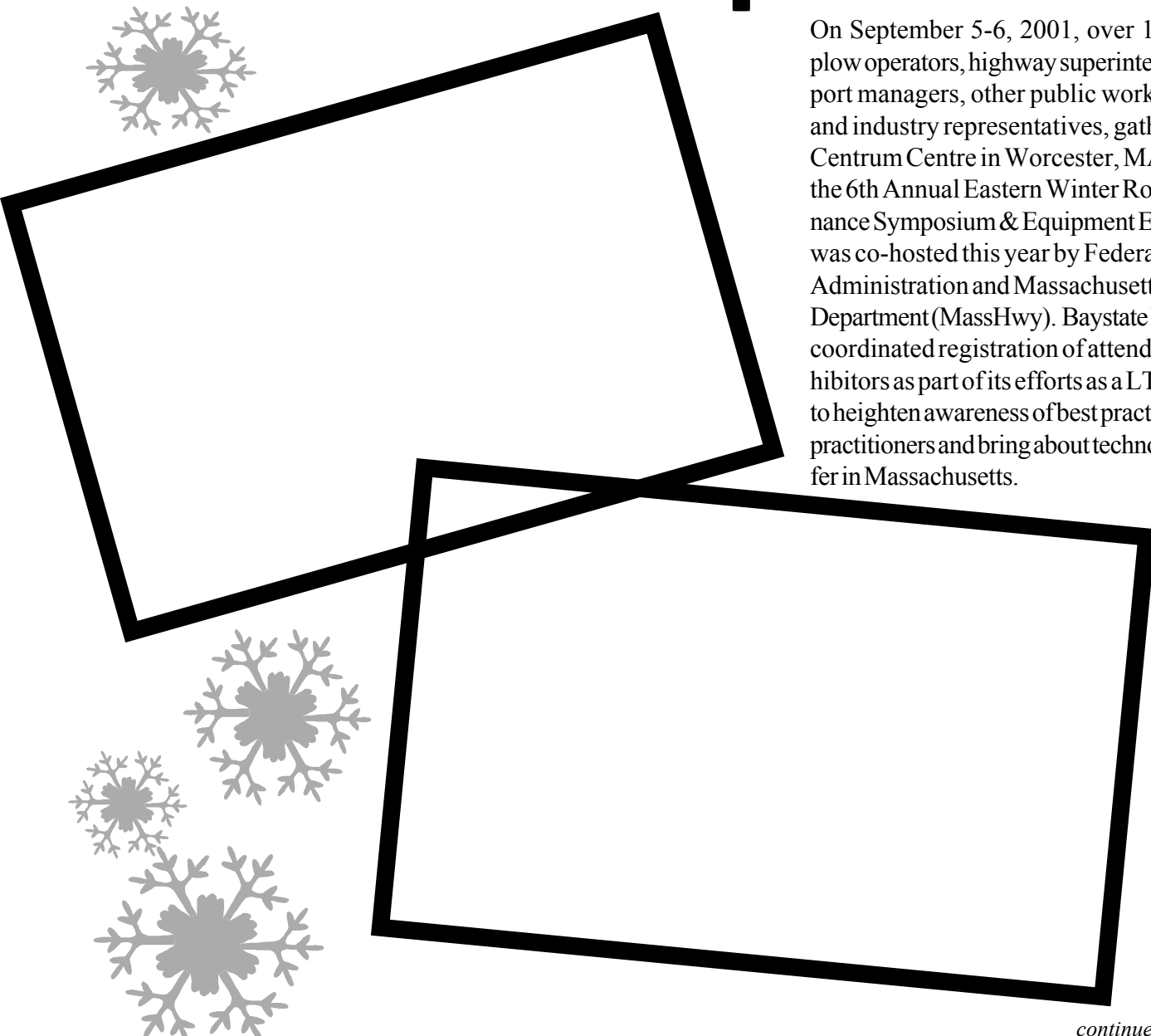


M A S S I N T E R C H A N G E

Volume 15, Number 4

Fall 2001

MassHighway and FHWA Co-Host Snow Expo-Worcester



On September 5-6, 2001, over 1,650 snow plow operators, highway superintendents, airport managers, other public works officials, and industry representatives, gathered at the Centrum Centre in Worcester, MA, to attend the 6th Annual Eastern Winter Road Maintenance Symposium & Equipment Expo, which was co-hosted this year by Federal Highway Administration and Massachusetts Highway Department (MassHwy). Baystate Roads' staff coordinated registration of attendees and exhibitors as part of its efforts as a LTAP Center to heighten awareness of best practices among practitioners and bring about technology transfer in Massachusetts.

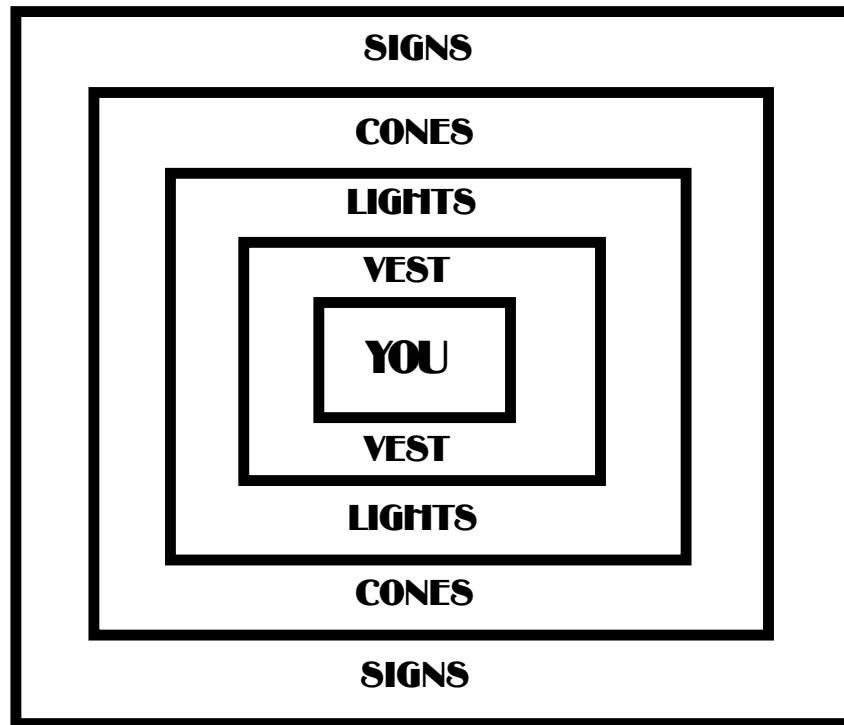
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LTAP Local Technical Assistance Program

(413) 545-2604 http://www.ecs.umass.edu/baystate_roads

WORK ZONE RAP

Chris Ahmadjian, program manager of the Massachusetts LTAP Center, has developed what he calls Work Zone RAP. In this case RAP is not music, but shorthand for RINGS ARE PROTECTION. RAP is a stylized layout of a work zone focusing on the rings of safety features with you in the center protected by these rings. Each of these rings is there to protect you and always needs to be in place to keep you safe.



- * **Signs**, the "Construction Ahead" or the graphic sign for road narrows is on the outside. Make sure they are legible and in good shape-don't put the road narrows sign upside down and tell motorists that the roadway widens. I've seen it done and it confuses drivers.
- * **Cones**, as well as other road markers, are there to guide motorists safely through the work zone. If they go safely through the work zone, you'll be safe too.
- * **Lights** can range from overhead lights for night work to flashing lights on police or service vehicles. These lights help define the work zone area.
- * **Your vest** is worn to make people aware of where you are; not only for motorists outside the work zone but for your co-workers inside the work zone. The equipment operator, the person moving 10 foot rebar and the person throwing the dirt out of the hole all need to be aware of where you are.
- * **Your hard hat** also helps to make you more visible. A dark blue or black hard hat may be cool but it does not show up as well as white or yellow. Your hard hat will help protect your head from that person with the rebar or the 2x4's.
- * **So there you are; protected by all the rings. But it's not that simple. You have to take an active part in the whole process. Know where you are in relation to everything else-don't let your mind wander along with your body out of the work zone or into some moving equipment.**

"Children at Play"

Signs Can Cause Confusion

Road signs give messages to drivers. If the messages are unclear, unnecessary, or confusing they can cause danger to motorists and others. *The Manual on Uniform Traffic Control Devices (MUTCD)* is the standard for placing traffic signs and markings to give clear messages to motorists.

According to the report *Maintenance Management of Street and Highway Signs* by the Transportation Research Board, improvements in traffic signing have the highest benefit-cost ratio of any highway safety improvement. About 29% of tort liability lawsuits against highway departments are related to traffic signing. For these reasons alone it is worthwhile to install road signs according to the MUTCD.

Citizens often demand that the town erect Children at Play signs on their street to reduce the risk of automobile-pedestrian accidents. Officials ask, "What does the MUTCD say about Children at Play signs? If we erect a sign on one street, won't we get requests from other neighborhoods in town to do the same? What's the town's liability?"

The short answer is: "Do not erect Children at Play signs." The long answer is a bit more complicated.



First, the Children at Play sign is unclear and unnecessary. It suggests to the driver that, if no such sign is present on another street, children are not playing there, and it is OK to speed or to be less careful. Another driver might interpret the sign to mean that children are playing in the road. "Always? What time of day?"

Second, it gives the parents and children a false sense of security. By relying on the sign, parents might monitor their children less closely and children might interpret the sign to mean it is acceptable to play in the street.



Third, one Children at Play sign leads to a proliferation of signs throughout the town. Since nearly every block has children living on it, there would have to be signs on each one. The effect of too many signs is that they become ineffective. The proliferation of signs breeds disrespect, not only for the specific signs, but for all signs.

Fourth, to erect Children at Play signs in response to one request usually generates similar requests, thereby

basing sign placement on political reasons rather than on sound engineering judgement.



Fifth, because they are confusing and do not meet specific criteria for good signing, placing Children at Play signs opens a municipality to tort liability.

Sixth, since all signs need to be maintained to be effective, the proliferation of unnecessary signs places an undue burden on maintenance crews. Purchasing, erecting, and keeping these signs in good order is expensive.

For these reasons, the MUTCD discourages the use of Children at Play signs. However, municipalities can and should post signs for school zones, pedestrian crossings, and playgrounds. The MUTCD makes specific reference to these situations. Signing such areas gives clear messages to drivers about the kind of zone they are entering. Children at Play signs, on the other hand, do not meet a specific criteria.

(Reprinted with permission from the Vermont LTAP Center's Local Road News, June 1994.)

New England EPA Audit Policy for Municipal Vehicle Maintenance Facilities

The US Environmental Protection Agency (EPA) is working to make municipalities aware of their Audit Policy. The Audit Policy encourages facilities, both public and private, to:

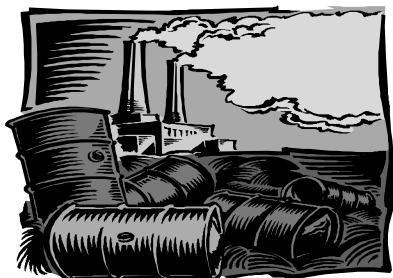
- > Conduct an environmental compliance audit; and
- > Disclose and correct any violations that are found during the audit.

Anyone in the public or private sector can use EPA's Audit Policy at any facility at any time.

Added Incentive for Municipal Vehicle Maintenance Facilities

EPA New England, in cooperation with the New England Chapter of the American Public Works Association (APWA), has developed an additional incentive program specifically for municipal vehicle maintenance facilities that is designed to increase environmental compliance, eliminate or minimize fines, and provide time to comply.

Municipal vehicle maintenance facilities participating in the program will be the lowest inspection priority for EPA New England from the sign-up date through September 30, 2002. This means that they are unlikely to be inspected during this period unless EPA receives a citizen complaint or believes an imminent environmental threat exists.



How to Sign Up

* Submit a letter of intent to EPA that states that you intend to conduct an audit of your facility and disclose potential violations to EPA under the audit policy.

* Identify a contact person at your facility.

* Tell them which facility (ies) and include each facility's street address.

* Have the letter signed.

* Send the letter to EPA:

Nancy Barmakian
Regional Municipal Coordinator
US EPA
1 Congress Street
Boston, MA 02114
(phone: 617-918-1016)

* Send a copy to the Connecticut Department of Environmental Protection:

Paul T. Balavendor
Manager, Office of Enforcement
Policy and Coordination
Connecticut DEP
79 Elm Street
Hartford, CT 06106-5127
(phone: 860-424-3049)

Who Should Conduct the Audit?

The EPA Audit Policy specifies that the audit be an independent review of the facility's compliance status. EPA New England encourages the use of a qualified third party, such as a professional auditor to conduct the audit.



What to Do with the Audit Report?

You need not send EPA the completed audit report. The report is prepared to help you discover and correct any violations of environmental requirements.

Following Up with EPA

If violations are found during the audit, you must inform EPA of the violations in writing within 21 days of discovering the violation. They have a good form for making disclosures on their audit web site at <http://es.epa.gov/oeca/ore/checklist.pdf>. You must correct the violation within 60 days of discovering the violation. If you cannot correct the violation within 60 days, write to EPA to request an extension. If you inform EPA that no violations were discovered during the audit, your facility will remain a low inspection priority through September 30, 2002. If EPA does not hear from you within 60 days of completing your audit, your facility will return to normal inspection priority.

To Obtain the Audit Policy

Copies of the policy are available on the US EPA's Audit Policy web site at www.epa.gov/oeca/ore/apolguid.html or on the New England EPA's Compliance web site at www.epa.gov/region01/steward/neeat/compliance.html. You may also request copies by calling the EPA New England Customer Call Center at 1-888-372-7341 (toll free within New England) or the CTI Technology Center at 1-860-486-5400.

From information provided by New England EPA.

First Master Roads Scholar at Baystate Roads Program

For four years he listened to our speakers, dined on the hotel lunches, and smiled every time Chris told a bad joke or yet another story about one of his cars; but it has finally paid off. Lyn Gauthier, Highway Superintendent at Hubbardston, is our very first Master Roads Scholar with the completion of over 22 Baystate Roads classes since 1995.

Lyn has been with the Town of Hubbardston for 8 years and Highway Superintendent for the past 5 years. He previously held the position of Highway Superintendent for the Town of Oakham, MA. Hubbardston is located north and slightly west of Worcester and has 85 miles of road and 4,000 citizens. The department has 6 full-time employees, 1 part-time secretary and 3 seasonal hires for snow operations.

In recognition of Lyn's achievement, we have sent the Hubbardston Board of Selectmen a congratulatory letter outlining his accomplishment. In addition, Mr. Gauthier has received an engraved brass plaque certifying his award and a (first ever) Master Roads Scholar jacket.

The Baystate Roads Program has also awarded Mr. Gauthier an honorary chair at the Advisory Board's table (this comes with continental breakfast and delicious lunch at each meeting). Because of Lyn's continued interest in improving operations for his town, his participation will be a valuable asset in planning future activities at your LTAP center.

Congratulations to Lyn for his effort and to the Town of Hubbardston for employing such a dedicated individual.

Chris Ahmadjian, program manager at Baystate Roads, presented a WearGuard jacket and an engraved award to Lyn Gauthier at a recent Advisory Board Meeting in Worcester.

MUTCD Compliance Dates

Below is a list of compliance dates for your information. Please consult the Federal Register for detailed information regarding the sections you are interested in.

Section 2B.04--STOP Sign

Compliance period of 3 years-January 17, 2004

Section 2B.16--Reduced Speed Ahead Sign

Compliance period of 7 years-January 17, 2008

Section 2B.32--ONE WAY Sign

Compliance period of 7 years-January 17, 2008

Section 2B.49--High Occupancy Vehicle Lanes

Compliance period of 6 years-January 17, 2007

Section 2B.50--High Occupancy Vehicle Sign

Applications and placement

Compliance period of 6 years-January 17, 2007

Section 2C.02--Application of Warning Signs

Compliance period of 7 years-January 17, 2008

Section 2C.24--Shoulder Signs

Compliance period of 10 years-January 17, 2011

Section 2C.37--Crossing Signs

Compliance period of 10 years-January 17, 2001

Section 2D.38--Letter Size of Street Name Signs

Compliance period of 15 years from Jan. 9, 1997 to January 9, 2012

Section 2E.29--Interchange Exit Numbering

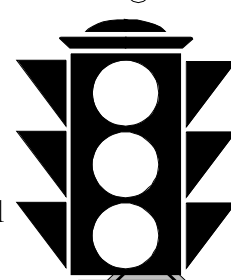
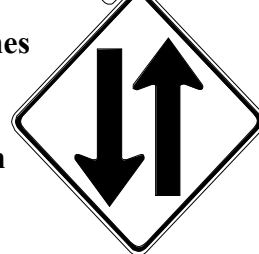
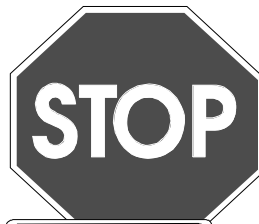
Compliance period of 7 years-January 17, 2008

Section 2E.31--Advance Guide Signs

Compliance period of 7 years-January 17, 2008

Section 2F.05--Size of Lettering

Compliance period of 10 years-January 17, 2011



Section 3B.01--Yellow Centerline and Left Edge

Line Pavement Markings and Warrants

Compliance Date: January 3, 2003

Section 3B.07--Warrants for Use of Edge Lines

Compliance Date-January 3, 2003

Section 4E.06--Accessible Pedestrian Signals

Compliance period of 4 years-January 17, 2005

Section 4E.08--Accessible Pedestrian Signal Detectors

Compliance period of 4 years-January 17, 2005

Section 8B.02--Highway-Rail Grade Crossing (Crossbuck) Sign

Compliance period of 10 years-January 17, 2011

Section 9B.04--Bicycle Lane Signs

Compliance period of 5 years-January 17, 2006

Section 9B.15--Bicycle Crossing Warning Signs

Compliance period of 7 years-January 17, 2008

Section 9--Deletion of preferential lane symbol (diamond) for bicycles and pavement markings

Compliance period of 6 years-January 17, 2007

Section 10--Automatic gates, flashing-light signals, and blank-out signs

Compliance period of 5 years-January 17, 2006

Section 10C.11--Highway-Rail Advance Warning

Signs: Removal of existing W10-6 series signs

Compliance period of 5 years-January 17, 2006

Congratulations to the newest Baystate Roads Scholars on your achievement. Keep saving those certificates and you, too, could be listed here.



David Loring
Almer Huntley, Jr. and Assoc., Inc.
John Morelli
Mount Washington DPW

While they last, Baystate Roads offers extra copies of the following:

- | | |
|-----------|--|
| CD-ROM-29 | Earthstopping Solutions from SI |
| DRA-53 | Storm Water BMPs (Structured Best Management Practices for Watershed Management) |
| D&C-79 | Design Scope Guidebook for Municipal Projects Constructed by the MHD |

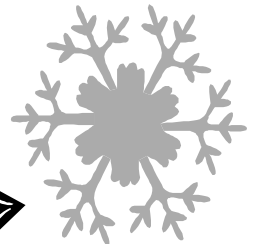


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With 17 different government agencies showcasing advancements in technology and innovations made in this field and more than 32 exhibitors (with wares ranging from heated windshield wiper blades to revolutionary ice melting materials and devices, as well as robotic pot hole patching machinery) and 35 pieces of large-scale snow/ice control equipment on display, attendees met in Worcester to learn how best they could keep America's transportation users safe and mobile during inclement winter weather. They compared "war stories" about their efforts to battle winter's wrath in the past, attended educational sessions offered by some of the most notable experts in the field from Nevada to New York, from Iowa to Maine; networked with their colleagues from other jurisdictions; and reviewed state-of-the-art equipment--all the while gaining insight on the latest technologies and methods available to maintain highway mobility and safety in the winter months.

Representatives from all levels of government (city, county, township, State, and Federal) were on hand from 30 States (including attendees from as far away as Alaska), the District of Columbia, and Canada to participate in some 18 breakout sessions on a variety of technical topics including the popular areas of "Automated Bridge Deck Deicing," "RWIS Technology," "Route Optimization Systems & Thermal Mapping," and "Automated Vehicle Location Sys-

tems." In addition, sessions on "How to Keep the Green Green," "Developing a National Road Weather System," a "New England State Panel" (where State Maintenance Engineers from RI, MA, ME, and NH shared experiences with all in a roundtable format) and cooperative projects conducted by the FHWA and State DOT's and the National Weather Service were also featured. *(Excerpted from an article prepared by Deborah Vocke, Marketing Specialist, Eastern Resource Center, FHWA.)*



Vendor Showcase for

Pavement Preservation

Baystate Roads held it's first vendor showcase at the Holiday Inn, Worcester, MA, on May 15, 2001 to assist cities and towns in making important financial decisions on the repair and preservation of pavements. Over 100 attendees were able to discuss their specific problems with five experts. Based on the success of this interactive venture, annual showcases will be held on different topics.

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The Baystate Roads Program, which publishes *Mass Interchange* each quarter, is a Technology Transfer (T2) Center created under the Federal Highway Administration's (FHWA) Local Technical Assistance Program (LTAP). FHWA is joined by the Massachusetts Highway Department, the College of Engineering at the University of Massachusetts/Amherst, and local public works departments in an effort to share and apply the best in transportation technologies.

In addition to publishing *Mass Interchange*, the Baystate Roads Program facilitates information exchange by conducting workshops, providing reports and publications and videotapes on request, and offering one-to-one technical assistance on specific roadway issues. The program relies on input from many sources; inquiries, articles, and ideas are encouraged.

LTAP Local Technical Assistance Program

To contact the Baystate Roads Program call (413) 545-2604 or FAX 413-545-6471.

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