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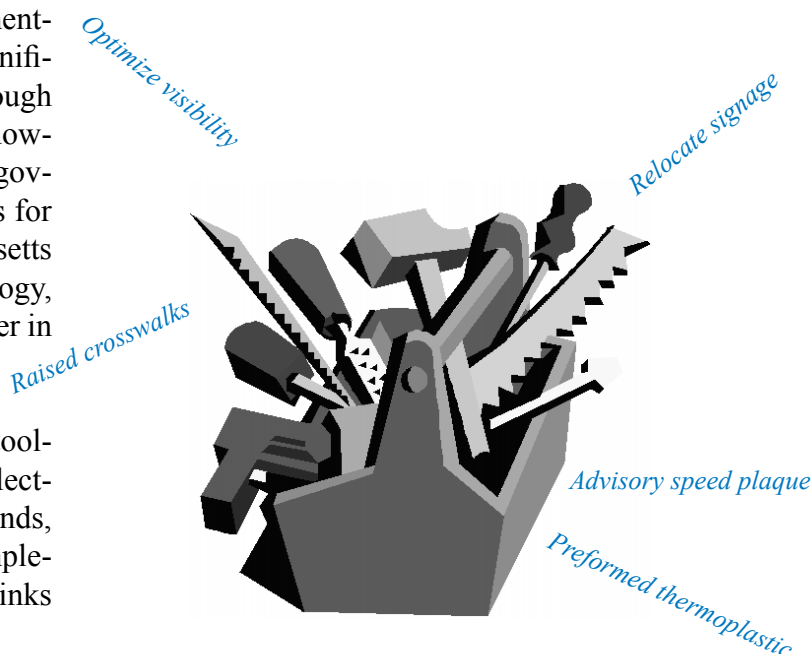
YOUR MASSACHUSETTS TRAFFIC SAFETY TOOLBOX HAS ARRIVED

Providing a safe driving environment and implementing safer pavements at the local level can pose significant challenges for municipal governments. Through an applied research program in Massachusetts, however, information is now available to help local governments identify options and develop action plans for implementing safety initiatives. The Massachusetts Research Program strives to bring this new technology, such as the Traffic Safety Toolbox, to the practitioner in a timely manner.

Specifically, the series of fact sheets found in the toolbox provide guidance and information regarding selected traffic safety and engineering topics. Backgrounds, problem areas, possible countermeasures and implementation considerations are presented as well as links to valuable resources and web pages.

The initially developed toolbox contains thirteen fact sheets on:

1. General Traffic Safety
2. Warning Signs
3. Crosswalks
4. Low Cost Intersection Safety Improvements
5. Low Cost Non-Intersection Safety Improvements
6. Pavement Markings -- Centerlines & Edgelines
7. Pavement Markings -- Other
8. Road Safety Audits
9. Retroreflectivity
10. Sight Distance
11. Speed Limits & Speed Limit Setting
12. Stop Sign Installation
13. Work Zone Safety



The series was prepared by Dr. Michael A. Knodler and Dr. John Collura at the University of Massachusetts through the Massachusetts Cooperative Research Program. The Executive Office of Transportation and Public Works sponsors this program. Funding was provided through Federal Highway Administration's Statewide Planning and Research (SPR) Program. Baystate Roads Program took the toolbox to a series of workshops held in Sterling, Northampton, Falmouth, and Marlborough during June.

Fact sheets will be added to this topical toolbox on a regular basis and can be downloaded for your reference at: www.mass.gov/mhd/safetytoolbox/

PROFESSIONAL COMMUNICATION LESSONS



At a recent workshop presented by the Vermont LTAP, the following discussion on the importance of good communication skills was reinforced. Upset people who are protecting their egos are letting go of adrenaline when they speak (OR SHOUT). It's usually not personal. When people are talking **to** you versus **at** you, you can more easily control the situation. Below are the do's and don'ts of good communication in the work place and at home.



5 LESSONS IN COMMUNICATING YOUR MESSAGE

1. Control: To be in control of the situation you must be in control of yourself.
2. Ego: It's all about yours and the other person's. Always respect the other person.
3. Tone: The tone can say it all. It can be dangerous because it conveys your real attitude.
4. Pace: The speed at which you talk.
5. Pitch: How loud or soft you speak, modulation, rhythm and inflection.

11 THINGS NOT TO SAY AT WORK OR HOME

1. "Come here." If you shout, the other person's reaction is to want to leave or be defensive.
2. "You wouldn't understand." What people hear is: "You wouldn't understand, YOU DUMMY."
3. "Because those are the rules." This is a way of telling people that you are at the end of your rope. You can't think of anything else to say.

4. "It's none of your business." This is a veiled attack on the ego because you imply that you have some information that the other person need not or should not know.
5. "What do you want me to do about it?" It's frustrating not being able to fix things. People may simply be blowing off steam.
6. "Calm Down!" People tend to mirror what they see or experience.
7. "What's your problem?" This typical reaction is defensive.
8. "You never. . . ." or "You always. . . ." These are absolutes, and are usually untrue. Unconditional words show limited ability to think, talk or listen at the same time. Your reaction is to disprove the lie and you stop listening.
9. "I'm not going to say this again." A lie, because you follow up by saying it again. Demonstrates that you can't think of anything else to say.
10. "I'm doing this for your own good." Guaranteed to turn the listener into an instant critic. It begs the sarcastic response: "Oh, sure. I bet you are."
11. "Why can't you be reasonable?" People never think they are unreasonable so the statement invites conflict.



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GREEN HIGHWAYS:

PARTNERING TO BUILD MORE ENVIRONMENTALLY SUSTAINABLE ROADWAYS



Going green is an everyday goal of the members of the Green Highways Partnership (GHP), a collaborative effort among the Federal Highway Administration (FHWA), U.S. Environmental Protection Agency (EPA), State transportation offices, environmental agencies, members of academia, and contractors to encourage environmentally friendly road building. These green practices include using recycled materials in highway construction, improving stormwater management to prevent toxins from leaching into streams and rivers, and protecting critical habitats and ecosystems during the planning and construction of highway infrastructure.

The GHP held a forum in 2005 that brought together more than 400 transportation and environmental professionals involved in the planning, design, construction, maintenance, and regulation of transportation projects. It has grown to include new partners and initiatives and formed three teams focusing on Watershed-Driven Stormwater Management, Recycling and Reuse, and Conservation and Ecosystem Protection. The stated goal of Green Highways is to promote innovation, stewardship, streamlining, and regulatory consistency and flexibility.

GHP initiatives within the past year included a workshop held in August 2007 on “Conserving Resources and Building Infrastructure with Recycled Materials.” The workshop highlighted protocols for use of recycled materials in highway applications in Pennsylvania, Maryland and Virginia. Over 80 attendees exchanged information on recycled material applications and performance as well as environmental and cost issues at this Baltimore seminar. Discussion of materials included foundry sand, coal combustion products, steel slag, tire-derived aggregates, slag cement, mulch, recycled concrete aggregate, asphalt shingles and reclaimed as-

phalt pavement. Some of these material applications include using them for embankments and structural fill, as a roadway base, and as stormwater mitigation materials.

Pennsylvania has used a range of recycled products including fly ash as structural fill, scrap tires as lightweight embankment fill, and crumb rubber to modify the asphalt binder for HMA. Virginia reported using fly ash as a cementitious material in portland cement concrete, as a mineral filler in hot-mix asphalt (HMA) and in embankment construction.

Initiatives resulting from the recycled materials workshop include a new GHP effort to better align various State specifications for using recycled materials. In response to participants’ calls for more demonstration sites of successful, real-world applications of recycled materials in highway construction, the GHP is working with the Virginia DOT to incorporate these into multiple projects in 2009. Recycled materials under consideration include shredded tires, steel slag, asphalt shingles, and foundry sand. Additional materials that will be considered in the future are coal ash and paper mill sludge compost. Once projects have been selected, the GHP plans to showcase them in a workshop for the mid-Atlantic States.

For more information or to view presentations from the recycled materials workshop, visit:

www.greenhighways.org



RESOURCE FOR PLANNING TRANSPORTATION SAFETY IMPROVEMENTS

NEW

- Identifying appropriate countermeasures to address these crashes.
- Creating goals, objectives, and performance measures to manage a transportation system's safety performance.

The *Desk Reference* also provides information and advice on 17 safety emphasis areas, ranging from older drivers and aggressive driving to collisions with trees or distracted driving. Each of these areas features a description of the problems including statistical data followed by strategies that address problems that can be incorporated into planning.

The *Desk Reference* is available for download at the TSPWG web site: <http://tsp.trb.org>. This web site is a great resource in itself: You can learn about the program and its goals, post a question on their Q & A Forum, and check out the Noteworthy Practices section. This section features reports from around the country that have successfully integrated safety concerns into transportation planning. It also helps planners meet the requirements of SAFETEA-LU which elevated the importance of safety in the planning process.

The goals for transportation planning are simple -- moving people and goods safely. However, the actual planning process is highly complex, due to the many factors involved. To address this complexity, the Transportation Safety Planning Working Group (TSPWG), made up of transportation and safety representatives from multiple federal agencies and national organizations, has developed the *Transportation Planner's Safety Desk Reference*. This article will describe this guide and also a helpful web site at which it is found.

The *Desk Reference* project was supported by the FHWA and provides strategies for transportation planners based on materials from the popular National Cooperative Highway Research Program (NCHRP) Report 500 series making the information in those materials useful in practice. It is divided into three major sections, one of which specifically deals with integrating safety concerns and issues into current planning processes at the state, regional and local levels.

Using the *Desk Reference*, planners can learn how to analyze crash and other data to identify safety problems, and develop strategies for preparing documents and facilitating discussions in the planning process. Some suggested basic steps include:

- Determining high crash locations, types, and contributing crash causes.

TOP 10 REASONS YOU NEED TO VISIT WWW.BAYSTATEROADS.ORG Today

10. Check your Roads Scholar progress
9. Sign up for a great new workshop
8. Verify you have registered for that exciting new workshop
7. Print copies of lost seminar flyers
6. Borrow a DVD or video tape
5. Find a link to transportation websites
4. Request a free technical publication
3. Refer to prior newsletter articles
2. Switch from YouTube to valuable info
1. Find a phone # or e-mail address for Chris Ahmadjian to contact him

DAVID CAPELLE MASTER ROADS SCHOLAR



Baystate Roads is proud to congratulate David Capelle as a new Master Roads Scholar. Dave has worked for the Town of Shrewsbury for over 37 years and is currently operations manager. After working his way up through the ranks, he is now able to apply an accumulated wealth of knowledge to improving roadways in his town.

Shrewsbury is located east of Worcester and has a population of approximately 33,000. Dave oversees 12 employees who take care of 160 miles of roads. Typical challenges involve chip sealing, paving, road reconstruction, and drainage improvements.

Dave's goal is to constantly improve the public's image of the DPW taskforce and what it can accomplish. In this regard, he has provided an annual opportunity for residents to visit the DPW facility where they can learn about their public works agency. For the last seven years, The Kids Equipment Show has allowed children to try out equipment, enjoy rides in the "big" trucks and meet the people who keep them safe and their roads in good repair.

Professional affiliations include the Massachusetts Highway Association from which he recently stepped down as president. Dave is a member of the New England Chapter of APWA and the Worcester County Highway Association where he also served as president. He has organized many Snow Plow Rodeos and equipment shows.

In his spare time, Dave enjoys golfing, fishing and lots of travel.

2008 NEEDS SURVEY

Thanks to all who completed the annual Baystate Roads Customer Satisfaction Survey which provided valuable input for the program's planning purposes. Home Depot certificates went out to these five lucky winners selected at random:

TIM BARBER

Dartmouth DPW

RICHARD CARNEVALE

Peabody DPW

CHRISTINE SORDILLO

Framingham DPW

RICH STINSON

Wakefield DPW

TERENCE SULLIVAN

Fall River DPW



The Sixth Annual Massachusetts Construction Career Days were held at the New England Laborers Training Facility in Hopkinton on May 7-9, 2008. This event keeps getting bigger and better each year. Over 1,800 high school students arrived ready to learn about exciting opportunities in the industry. They were able to test their operating skills on large equipment and their engineering aptitudes at work stations. Students were also able to win money for their schools through the competitive engineering contest sponsored by the Boston Society of Civil Engineers.

The Massachusetts CCD was created to help address the shortage of young, qualified workers in the industry. Many volunteers, teachers, vendors, and professional organizations contributed time and expertise to make this another successful event. Please join us next year.



SEASONAL MAINTENANCE



SIGN DAMAGE

Check for signs damaged by vehicle accidents and snow plowing operations. Repair or replace signs and signposts that are missing, broken or bent. Make sure all street identification signs are in place. Refer to [Maintaining Traffic Sign Retroreflectivity revisions in Section 2A.09](#) of the [MUTCD](#) in order to comply with new requirements.



POTHOLES

Make those permanent repairs as soon as possible. To reduce repatching, use the best materials available. The cost of patching the same potholes continuously with poor-quality materials quickly offsets any savings from the purchase of a less expensive cold mix. Consider safety and user delay costs in calculating operation costs. Refer to Baystate Roads Tech Note 22 on pothole repair.



GUARDRAIL DAMAGE

Repair or replace guardrails that fell victim to winter driving and plowing operations.



BLOCKED CULVERTS, DITCHES, CATCH BASINS, STORM SEWERS, AND INLETS

Clear debris to help avoid flooding on roads and deterioration of road structure that comes from water saturation.



SHOULDER DROP-OFFS

Check for places where plowing operations and vehicle traffic removed material from gravel shoulders. Check for drop-offs between pavement and shoulder; anything more than two inches is a safety hazard. A driver who weaves onto the shoulder may catch a tire on the drop-off and run off the road or overcorrect and steer into oncoming traffic.



MAILBOX, CURB and LANDSCAPE DAMAGE

Catch up on any remaining mailbox repair or replacement. Prepare a written mailbox damage policy to have in place for next winter if your town does not have one. Resource: American Association of State Highway and Transportation Officials' manual, [A Guide for Erecting Mailboxes on Highways](#).



ROAD MAINTENANCE ACTIVITIES

Review and revise plans for ongoing road maintenance based on problems encountered last winter and spring. Refresh all faded pavement markings. Check out "Marking Your Roads" article in [Mass Interchange Winter 2007](#) for choice of paint. Follow all regulations regarding disposal and handling of paint according to MA Department of Environmental Protection: <http://www.mass.gov/dep/recycle/hazardous/paint.htm>

NEW OSHA RULE ON PPE

The Occupational Safety and Health Administration (OSHA) published a new rule clarifying the employer/employee responsibilities for payment of **Personal Protective Equipment (PPE)**. The rulemaking affects most of OSHA's PPE standards and includes regulatory text tailored for Part 1910, Part 1926, Part 1915, Part 1917, and Part 1918.

The OSHA website includes a new release on the PPE rule, Ed Foulke's (OSHA Assistant Secretary of Labor) remarks, and the fact sheet: <http://osha.gov/briefing.html>.

The final rule requires employers to pay for almost all personal protective equipment that is required by OSHA's general industry, construction and maritime standards. If the PPE is not required, then the employer is not required to pay for it. The final rule does not create new requirements regarding what PPE employers must provide. It does not require payment for uniforms, items worn to keep clean, or other items that are not PPE.

The rule contains several exceptions for ordinary safety-toe footwear and prescription safety eyewear, logging boots, ordinary clothing, and ordinary weather-related gear.

The rule only addresses the issue of who pays for PPE, not the types of PPE an employer must provide. The employer is not required to pay for non-specialty, safety-toe protective footwear (including steel-toe boots) and non-specialty prescription safety eyewear, provided that the employer permits such items to be worn off the job site. The employer must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.

The employer may allow the employee to use agency-owned equipment and is not required to reimburse the employee for that equipment. The enforcement deadline is six months from the date of publication (November 15, 2007) to allow employers time to change their existing PPE payment policies to comply with the final rule which became effective May 15, 2008.

BAYSTATE MEDIA NEWS

VIDEO LIBRARY

Baystate Roads has begun the process of transferring certain library tapes from VHS to DVD format in order to provide better viewing quality. The old VHS will continue to be available for loans while agencies update their viewing capacities.

PUBLICATION LIBRARY (free)

ASP-174 Guide to Full-Depth Reclamation (FDR) with Cement

Asphalt Recycling & Reclamation Assn.

ASP-175 Pocket Guide to Asphalt Recycling

Asphalt Recycling & Reclamation Assn.

ASP-176 Future in Pavement Rehabilitation

Asphalt Recycling & Reclamation Assn.

D&C-170 Durability of Segmental Retaining Wall Blocks

FHWA-HRT-07-021

MAI-54 Roadside Weed Management

FHWA-HEP-07-017 (Textbook for loan)

TRA-120 Traffic Detector Handbook, Vol. I

FHWA-HRT-06-108

TRA-121 Traffic Detector Handbook, Vol. II

FHWA-HRT-06-139

WEBSITE

The revamped site offers a number of improvements including:

- **Roads Scholars update.** Please check to see that you are listed and let us know if you have attended at least 7 workshops (or 22 for Master level status) since 1995. Provide your T-shirt size, your mailing address, and your supervisor's name and address. Attendance can be checked on our database or you can mail hard copies of certificates.
- **Easier search for VHS/DVDs.** You can now click on the name, description or topic.

All requests for library materials or recognition of Roads Scholar status can be made to:

baystateroads@hotmail.com

BAYSTATE ROADS SCHOLARS

Congratulations to the newest Baystate Roads Scholars on their fine achievement. Keep saving those certificates and you could also be listed here.

Robert L. Bersin, P.E.

Brewster DPW

Marguerite Clifford

MassHighway, District 3

Joseph Lynch

Shirley DPW

Brooks McCarty

Framingham DPW



Please provide T-shirt size, your address and your supervisor's name, title, and address when notifying Baystate Roads Program of your status. Our workshop database will confirm your attendance. Notify BRP by FAX: 413-545-6471 or email: baystateroads@hotmail.com

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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). This newsletter is prepared in cooperation with The Executive Office of Transportation (EOT) and the United States Department of Transportation Federal Highway Administration. FHWA is joined by EOT, UMass Transportation Center 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. Because 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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