technotes

Winter 2009 | Volume 26, No. 4

MARYLAND TRANSPORTATION TECHNOLOGY TRANSFER CENTER

Local Technical Assistance Program (LTAP)
University of Maryland at College Park

www.mdt2center.umd.edu

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Happy New Year!

State Highway Administration Gears Up To "Beet" Old Man Winter

Environmentally-Friendly Sugar Beet Molasses Adds to Bridge De-icing Arsenal in Frederick and Howard Counties

The Maryland Department of Transportation's State Highway Administration (SHA) is using something a bit unorthodox to pre-treat some highways this winter season – sugar beet molasses. As a pilot project, SHA will use sugar beet molasses mixed with salt brine on roadways in Frederick and Howard counties. In addition to being environmentally-friendly, sugar beet molasses, known as Ice Bite, is not corrosive to salt spreaders, reduces salt scatter, and helps salt brine adhere to the pavement over a longer period. The cost for sugar beet molasses is $2.17 per gallon.

"Using renewable resources as part of our winter operations is not only good for the environment, but helps SHA continue to move in the direction of creating and maintaining a greener highway system," said SHA Administrator Neil J. Pedersen. "We will evaluate the effectiveness of the new product and may expand its use in future winter seasons."

SHA has more than 332,000 tons of salt for fiscal year 2009-2010 and eight salt brine machines in strategic locations across the State. To tackle especially challenging snow levels in the rural parts of the State, the fleet includes nearly 80 "wing plows." This extra "wing" allows crews to move more snow in one pass, expediting snow removal and enhancing safety. SHA added a salt brine machine to the Hagerstown Maintenance Facility in Washington County that will serve Western Maryland's snow fighting capacity.

Salt brine is widely used to pre-treat roads that are higher in elevation, such as bridges and overpasses. Pre-treating these areas that freeze before the remainder of the highways enables SHA to get a head start on fighting winter storms. Additionally, SHA will apply salt or pre-moistened salt in advance of sleet or freezing rain storms. Pre-treatments are cost-effective because less salt will be required during actual precipitation.

At a recent press conference, plow drivers and technical experts assembled at SHA's Statewide Operations Center (SOC) in Hanover to demonstrate the equipment and advanced technology used to combat winter weather. During a winter storm, SHA personnel monitor a bank of more than 100 SHA-maintained roadway cameras throughout the State. SHA also has access to additional regional camera networks in Maryland. At this location, SHA will also monitor pavement temperatures, a key to effective and efficient re-deployment during winter storms.

When a winter weather emergency occurs, the SOC doubles as the Emergency Operations Center, the command center for winter storm operations. From here operators monitor traffic, collect information from roadway sensors, and deploy equipment such as snow plows and salt trucks.

Travelers can plan ahead before hitting the pavement by logging onto the cyber highway at www.roads.maryland.gov and clicking on "CHART", which stands for the Coordinated Highways Action Response Team. The CHART web site offers a treasure trove of travel information, snow emergency plans, real-time traffic camera views, weather information, average travel speed maps and incident-related road closure reports. Motorists can also call the Winter Storm Hotline at 1.800.327.3125 for winter weather road closures.

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This fact sheet focuses on the older population in the United States which includes all people age 65 and older. In 2008, 13 percent of the total U.S. resident population (34 million) were people age 65 and older.

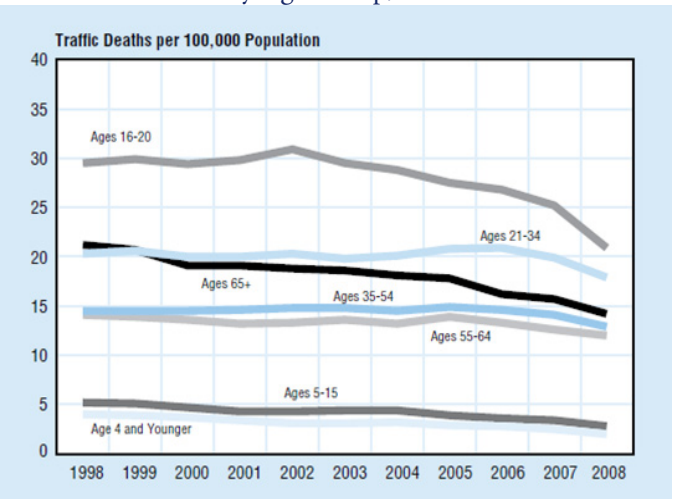
There were 31 million older licensed drivers in 2007 — an 19-percent increase from 1997. In contrast, the total number of licensed drivers increased by only 13 percent from 1997 to 2007. Older drivers made up 15 percent of all licensed drivers in 2007, compared with 14 percent in 1997.

In 2008, 183,000 older individuals were injured in traffic crashes, accounting for 8 percent of all the people injured in traffic crashes during the year. These older individuals made up 15 percent of all traffic fatalities, 14 percent of all vehicle occupant fatalities, and 18 percent of all pedestrian fatalities.

"In 2008, older people accounted for 14 percent of all traffic fatalities and 18 percent of all pedestrian fatalities."

Most traffic fatalities involving older drivers in 2008 occurred during the daytime (80%), occurred on weekdays (72%), and involved other vehicles (69%).

Figure 1. Motor Vehicle Traffic Fatalities Rates by Age Group, 1998-2008



"Older drivers involved in fatal crashes in 2008 had the lowest proportion of intoxication of all adult drivers."

Of all adult drivers, older drivers involved in fatal crashes had the lowest proportion of total drivers with blood alcohol concentration (BAC) of .08 grams per deciliter (g/dL) or higher. Among all fatally injured adult pedestrians, older pedestrians also had the lowest proportion of total pedestrians with BAC of .08 g/dL or higher.

Over three-fourths (77%) of all older occupants of passenger vehicles involved in fatal crashes were using restraints at the time of the crash, compared to 63 percent for other adult occupants (18 to 64 years old).

For older people, 64 percent of pedestrian fatalities in 2008 occurred at non-intersection locations. For other pedestrians, 79 percent of fatalities occurred at non-intersection locations. In two-vehicle fatal crashes involving an older driver and a younger driver, the vehicle driven by the older person was nearly twice as likely to be the one that was struck (58% and 35%, respectively). In 48 percent of these crashes, both vehicles were proceeding straight at the time of the collision. In 22 percent, the older driver was turning left — 4 times more often than the younger driver.

Table 1. Age and Alcohol, 2008

Age Group (Years)	Drivers Involved in Fatal Crashes			Pedestrian Fatalities		
		BAC= .08+			BAC= .08+	
	Total	Number	Percent of Total	Total	Number	Percent of Total
<16	213	21	10	316	14	4
16-20	5,729	996	17	286	85	30
21-34	15,057	4,826	32	852	427	50
35-54	17,075	3,945	23	1,542	751	49
55-64	5,695	708	12	547	191	35
65+	5,569	304	5	803	66	8
Total	***50,186**	**10,946**	**22**	****4,378**	**1,551**	**35**

Continued on Page 3

Table 2. Involvement of the Older Population in Traffic Fatalities by Sex, 1998 and 2008

	1998			2008			Percentage Change, 1998-2008	
	Total	Age 65+	Percentage of Total	Total	Age 65+	Percentage of Total	Total	Age 65+
Population (thousands)								
Total	270,248	34,385	12.7	304,060	38,870	12.8	13	13
Male	132,030	14,194	10.8	149,925	16,465	11.0	14	16
Female	138,218	20,191	14.6	154,135	22,405	14.5	12	11
Drivers Involved in Fatal Crashes								
Total	56,604	6,690	11.8	50,186	5,569	11.1	-11	-17
Male	40,816	4,535	11.1	36,881	3,901	10.6	-10	-14
Female	15,089	2,154	14.3	12,568	1,666	13.3	-17	-23
Driver Fatalities								
Total	24,743	4,188	16.9	24,175	3,458	14.3	-2	-17
Male	17,992	2,789	15.5	18,694	2,422	13.0	4	-13
Female	6,750	1,399	20.7	5,473	1,035	18.9	-19	-26
Total Traffic Fatalities								
Total	41,501	7,288	17.6	37,261	5,533	14.8	-10	-24
Male	27,608	4,022	14.6	26,616	3,383	12.7	-4	-16
Female	13,885	3,266	23.5	10,631	2,149	20.2	-23	-34
Occupant Fatalities								
Total	35,382	6,035	17.1	31,979	4,618	14.4	-10	-23
Male	23,302	3,285	14.1	22,794	2,798	12.3	-2	-15
Female	12,072	2,750	22.8	9,175	1,819	19.8	-24	-34
Pedestrian Fatalities								
Total	5,228	1,176	22.5	4,378	803	18.3	-16	-32
Male	3,558	677	19.0	3,053	487	16.0	-14	-28
Female	1,670	499	29.9	1,321	316	23.9	-21	-37

The fact sheets and annual Traffic Safety Facts report can be accessed online at www-nrd.nhtsa.dot.gov/CATS/index.aspx.

For more information:
Information on traffic fatalities is available from the National Center for Statistics and Analysis. NCSA can be contacted at 800.934.8517. General information on highway traffic safety can be accessed at www.nhtsa.gov/portal/site/nhtsa/ncsa. Other fact sheets available from the National Center for Statistics and Analysis are Overview, Alcohol, African American, Bicyclists and Other Cyclists, Children, Hispanic, Large Trucks, Motorcycles, Occupant Protection, Pedestrians, Race and Ethnicity, Rural/Urban Comparisons, School Transportation-Related Crashes, Speeding, State Alcohol Estimates, State Traffic Data, and Young Drivers.

SHA Gears Up To "Beet" Old Man Winter

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Additional Tips in the Event of Snow:

- If you do not need to drive while is it snowing, please do not.
- NEVER pass a snow plow. If driving behind a snow plow or salt truck, provide plenty of space (at least 7-8 car lengths) behind the truck.
- Remember – bridges, ramps and overpasses freeze first. Use caution when driving across them.
- Four-wheel drive vehicles are just as vulnerable to slipping on ice as regular two-wheel drive vehicles.
- Pack a winter driving survival kit – including a shovel, blanket, water, jumper cables, flares, snacks and a flash light.
- Before taking to the road, log onto www. roads.maryland.gov, click on the CHART icon and view traffic cameras.
- Obtain a copy of the SHA "Winter Weather Brochure" and keep it in your glove compartment. Brochures are available at Maryland welcome centers and SHA offices.
- Clear snow from your vehicle's headlights, roof and from other places that may obstruct vision or become a danger to other motorists.
- When shoveling snow, please do not place it in the street/roadway. Plow trucks push snow to the right. When facing your driveway, pile snow to your left, off the road. This reminder will save you additional hours of shoveling!

More Tips to keep travelers safe all year long:

- Buckle up! It's the law and your number one defense in a crash.
- Check your vehicle's lights, tires, windshield wipers and battery for proper operation.
- Slow down and pay attention, avoiding distractions such as cell-phone use.
- Observe all posted speed limits.
- Do not drink and drive! Designate a driver in advance.
- In case of emergency, drivers with cellular phones can dial #77 to reach the Maryland State Police.
- Wet road surfaces are not ideal and require alert driving attention. Remember wet leaves can be as slippery as ice.
- Slow down, increase your distance between vehicles in front of you, avoid distractions and drive defensively.
- See and be seen. Remember that Maryland State Law requires the use of headlights while windshield wipers are in use.
- Always buckle children and use proper safety seats. For details log onto www.nhtsa.dot.gov or www.mdkiss.org.

For more information visit the Maryland Department of Transportation, State Highway Administration at www.marylandroads.com

Stimulus Funds Improve Pedestrian Mobility in Local Communities

State Highway Administration Enhances Pedestrian Safety in Dorchester, Somerset, and Worcester Counties

During the month of October the Maryland Department of Transportation's State Highway Administration (SHA) began upgrading sidewalk ramps and driveway entrances along MD 528 (Coastal Highway) between 30th Street and the Delaware State Line in Ocean City. This is one of four projects to take place in Worcester, Dorchester and Somerset counties, enhancing pedestrian access and achieving compliancy with the Americans with Disabilities Act of 1990 (ADA). These projects, totaling $2.7 million, are funded by the American Recovery and Reinvestment Act. Weather permitting, the project will be complete by spring 2010.

Construction along Coastal Highway also includes installing audible and countdown pedestrian signals, replacing curbs and gutters and replacing of sidewalks at various locations. Crews will work Monday through Friday from sunrise to sunset. Portions of the southbound and northbound bus routes may be temporarily closed and bus stops may be slightly shifted. Pedestrians may encounter alternating sidewalk closures. SHA crews will use arrow panels, traffic barrels, traffic cones and signs to guide motorists, bus drivers and pedestrians through the work zone.

During the year, SHA will perform similar work at the following locations:
- MD 343 (Washington Street) from St. Clair Avenue to Pine Street in Cambridge, Dorchester County;
- MD 675 (Somerset Avenue) from South Street to Antioch Avenue and from Front Street to Cemetery Lane in Princess Anne, Somerset County; and
- MD 12 (Church Street) from W. Market Street to South Drive in Snow Hill, Worcester County.

This project is part of SHA's ongoing effort to bring all sidewalks and facilities into compliance with the Americans with Disabilities Act (ADA) of 1990. Currently the state's highway system features more than 56 percent compliance with a total of 2.83 million linear feet of complaint sidewalk throughout Maryland.

SHA awarded this contract to Image Asphalt Maintenance of Pasadena. SHA encourages all motorists and pedestrians to remain alert, Choose Safety for Life and "Think Orange" while traveling through work zones. Learn more about work zone safety and the Choose Safety for Life campaign at www.choosesafetyforlife.com.

Those who have questions about MD 528, MD 343, MD 675, MD 12 or any other state-numbered roadway in Dorchester, Somerset, Wicomico or Worcester counties should call SHA's District 1 office at 1.800.825.4742.

For more information visit the Maryland Department of Transportation, State Highway Administration at www.marylandroads.com

Delaware and Maryland T² Centers Hold Asset Management Conference

Every government agency that has responsibilities for streets and highways is struggling to maintain its facilities in this recession. Funds are scarce and workforces are shrinking, but no town, county, or state can take shortcuts when it comes to public's safety or mobility. To use resources most effectively, transportation agencies should adopt sound asset management systems.

MD T² Center

To learn more about these systems and to hear success stories from those who have already adopted them, sixty municipal, county, state, and federal officials from Delaware and Maryland met on November 5, 2009, and the University of Delaware for an Asset Management Conference. The Maryland and Delaware T² Centers sponsored this event.

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New Maryland Law Prohibits Texting While Driving

New Law Prohibits Using a Text Messaging Device While Operating a Motor Vehicle

Texting while driving can not only cause crashes, but as of October 1, 2009, it can cost drivers a fine of up to $500. As one of several new laws passed by the 2009 Maryland General Assembly, the goal of Senate Bill 98/House Bill 72 is to prevent crashes and save lives.

The law, also known as the Delegate John Arnick Electronic Communications Traffic Safety Act, prohibits a person from using a text messaging device to write or send a text message while operating a motor vehicle in motion or in the travel portion of a roadway. The law makes the activity a misdemeanor crime with the potential of a civil penalty to be imposed and a fine of not more than $500 if convicted.

"Safe driving can reduce the number of crashes, injuries and fatalities on our roads," said SHA Administrator and the Governor's Highway Safety Representative, Neil J. Pedersen. "Every one of us has a responsibility to drive safely and taking your eyes off of the road to text is a recipe for disaster."

In a recent Zogby International poll, 66 percent of 18 to 24-year-olds said they have driven while text messaging. More specific to Maryland, nearly 20,000 people are injured annually in crashes related to inattentive driving and 38 percent of all traffic injuries in Maryland involve an inattentive driver. Research indicates texting while driving can have a similar effect on reaction time as driving impaired with a .16 percent Blood Alcohol Content.

Senate Bill 098/House Bill 0072 was sponsored by Senators Norman R. Stone, Jennie M. Forehand, Jamie Raskin and Mike Lenett and Delegates Frank S. Turner and Jeff Waldstreicher.

Text messaging has become increasingly popular in the past several years. While there had been little information about the connection between text messaging and crashes, new studies are linking the two, primarily through driver distraction. Text messaging shares many of the same mental functions and causes similar distractions as those associated with the use of cell phones, though the need to focus on typing and reading is greater than talking on a phone and therefore equally, if not more, unsafe.

For more information visit the Maryland Department of Transportation, State Highway Administration at www.marylandroads.com

Delaware and Maryland T² Centers Hold Asset Management Conference,

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The conference opened with a general introduction to asset management systems. Discussions on more specific systems for pavements, signs, drainage facilities, and data collection techniques followed. The conference concluded with a series of "success stories" from Pinellas County, Florida; Montgomery County, Maryland; and Fenwick Island, Delaware.

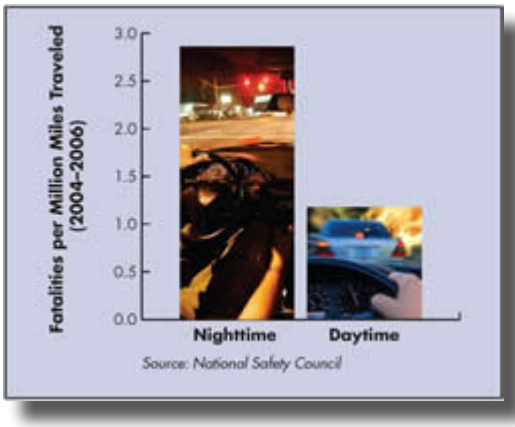
The conference proceedings and presentations are posted on the Delaware T² Center's web page which can be viewed at www.ce.udel.edu/dct/t2/t2htm. Click on "Asset Management Conference at the bottom of the page.

Missed the conference but want to know more about Asset Management?
Request our Asset Management For Local Governments course, for more information or to request this course visit: http://www.mdt2center.umd.edu/courses/course-catalog.html

Nighttime Visibility... New Sign Retroreflectivity Requirements

Know Your RETRO!
Sign up now for our Traffic Signs course, see page 10 for more details!

About half of traffic fatalities occur at night, although only about one quarter of travel occurs after dark. Although intoxication and fatigue contribute to the high rate of nighttime crashes, nighttime driving is inherently hazardous because of decreased driver visibility.



Adequately maintained retroreflective signs and pavement markings improve highway safety and prevent roadway departure crashes by bouncing light from vehicle headlights back toward the vehicle and the driver's eyes, making the signs and markings appear brighter and easier to see and read.

Because the retroreflective properties of traffic control devices deteriorate over time, highway agencies need to actively manage the maintenance of signs and pavement markings in order to ensure that they are clearly visible at night.

One of the Federal Highway Administration's (FHWA's) primary missions is to improve safety on the nation's roadways. Approximately 42,000 people have been killed on American roads during the last decade. While only one-quarter of all travel occurs at night, about half of the traffic fatalities occur during nighttime hours. To address this disparity, the FHWA has adopted new traffic sign retroreflectivity requirements that are included as Revision 2 of the 2003 MUTCD.

To comply with the new requirements, public agencies will have until January 2012 to implement and then continue to use an assessment or management method that is designed to maintain traffic sign retroreflectivity at or above the minimum levels specified. Five assessment or management methods are defined in the MUTCD as acceptable maintenance methods for traffic signs. Agencies are also permitted to develop and use other methods based on engineering studies.

Public agencies will have until January 2015 to replace any regulatory, warning, or post-mounted guide (except street name) signs and until January 2018 to replace any street name signs and overhead guide signs that are identified by the assessment or management method as failing to meet the minimum retroreflectivity levels.

If an assessment or management method were being used, an agency would comply with the requirements of the new provisions even if there were some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time. Because of the seven to 10-year compliance period adopted for replacing signs that have insufficient retroreflectivity, highway departments will be able to implement improved sign inspection and management procedures and subsequently replace the signs in a period that is consistent with the typical sign replacement cycle.

Sheeting types (as defined in ASTM D4956) that can be used according to the new requirements are as follows:

- All prismatic sheeting materials may be used for all signs.
- High Intensity Beaded (Type III) and Super Engineer Grade (Type II) may be used for all signs except for the white legend on overhead guide signs.
- Engineer Grade (Type I) may be used for all signs except for:
  - The white legend on guide signs,
  - The white legend on street name signs, and
  - All yellow and orange warning signs.

Even though a particular type of sheeting might initially meet the minimum retroreflectivity levels when new, it might quickly degrade to below the minimum retroreflectivity levels.

For additional information on this rule making and sign retroreflectivity, please visit the FHWA retroreflectivity web site www.fhwa.dot.gov/retro.

MD SHA Pilots State-of-the-Art Variable Speed Advisory Technology

Advisory Signs Part of Five-Week Study Along Westbound MD 100 in Anne Arundel County

Taking a proactive step toward heightened safety and reduced travel delays, the Maryland Department of Transportation's State Highway Administration (SHA) is piloting a system that will help guide motorists to a smoother, safer transition to reduced lanes, especially in highly congested areas and in work zones.

Starting in December, SHA began a five-week study of Variable Speed Advisory technology, a new traffic management tool that allows for gradual lane merges and changes without sudden stops or backups. The $70,000 project is a partnership effort with the University of Maryland's Traffic Safety and Operations lab.

SHA is testing this technology on two miles of westbound MD 100 between MD 713 (Ridge Road) and Coca Cola Drive. Using roadside sensors, speed trailers and vehicle recognition software, SHA will collect real-time and historical data to determine if providing advisory speeds and travel time information to drivers ultimately helps reduce congestion along heavily-traveled corridors. No work is scheduled within or prior to the test area. Motorists may see messages related to speed reduction, followed by speed advisory signs indicating the recommended travel speed.

"We are constantly seeking new ways to use innovative advances in technology to improve safety along Maryland's roads," SHA Administrator Neil J. Pedersen. "We can use this new technology not only to relieve congestion, but impact driver behavior, ultimately creating a safer driving environment for everyone."

This section of westbound MD 100 was selected due to its significant traffic demand during evening rush hours, rapid drops in vehicle speed when congestion occurs, and varying changes in road geometry. MD 100 serves as a major commuter route between Howard and Anne Arundel counties. The introduction of variable speed advisories demonstrates SHA's commitment to creating better ways to keep motorists and highway crews protected from injuries and death. Other state departments of transportation have used this type of technology in varying forms, including Arizona, Michigan, Nevada, New Jersey, Oregon, and Washington.

For more information visit the Maryland Department of Transportation, State Highway Administration at www.marylandroads.com

CITE Blended Courses for 2010

The Consortium for ITS Training and Education (CITE) announces its Blended Course schedule for 2010. A "blended" course combines the best features of both instructor-led and web-based instruction. Features include: live discussions through the use of conference calls, convenient, flexible web-based learning, a specific time schedule in which to complete the course, and student interaction through the use of a discussion board.

Scheduled courses include:

- Introduction to Telecommunications Technology, February - March
- Configuration Management, March - April
- Advanced Telecommunications Technology, April - May
- Improving Highway Safety with ITS, April - June
- Fundamentals of Database Management Systems, June - July
- Managing High Technology Projects in Transportation, September - October
- Traffic Signal Timing, September - October
- Principles and Tools of Road Weather Management, October - December
- Introduction to Systems Engineering, October - December

For more information about or to register for CITE's Blended Courses visit: **www.citeconsortium.org**

Our Currently Scheduled Courses

The following courses are currently scheduled and we are still adding to the list! For more information or to schedule a class contact Janette Prince at 301.403.4623 or register online by visiting us at www.mdt2center.umd.edu.

ASPHALT ROADS - COMMON MAINTENANCE PROBLEMS

Ed Stellfox
January 20, 2010, 8:30am – 12:30pm
College Park, Maryland
$59 All Registrants

Municipal employees with road maintenance responsibilities should understand the causes of common maintenance problems on asphalt roads and be familiar with proper repair materials and methods. This course discusses causes and repair procedures for common problems such as cracking, potholes, rutting, corrugations, etc. The procedures cover materials, equipment, and techniques for lasting repairs. Also included, a brief discussion of surface treatment.

FLAGGER CERTIFICATION

Juan Morales
January 21, 2010, 8:30am – 12:30pm
College Park, Maryland
$100 All Registrants

A MD SHA-approved ATSSA (American Traffic Safety Services Association) flagger card will be issued upon satisfactory completion of this course. This will be valid for 4 years and is acceptable in several states, including MD, VA and DC. The class is presented in PowerPoint© and will include a 25-question multiple choice exam and a flagger demonstration (dexterity test). Students will receive their ATSSA Flagger Certification card the day of the course (upon passing the exam).

ASPHALT RESURFACING

Ed Stellfox
February 3, 2010, 8:30am – 12:30pm
College Park, Maryland
$59 All Participants

This course reviews the various asphalt mixes, their components and their uses. Asphalt resurfacing procedures are covered, including preparation, material, equipment, operation and safety. Special emphasis is placed on proper rolling and compaction of the asphalt overlay. Superpave mix design is discussed as well. Municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers are encouraged to attend.

ASPHALT RECYCLING

Ed Stellfox
February 17, 2010, 8:30am – 12:30pm
College Park, Maryland
$59 All Participants

This course discusses the advantages of asphalt recycling as part of your road maintenance program. It covers techniques for recycling asphalt pavement, including surface recycling, hot mix recycling (both in plant and on-site), and cold mix recycling. The course emphasizes cold mix recycling, full depth reclamation, reviewing materials, equipment and operations. It also presents recent examples of asphalt recycling projects in several states. The following topics will be discussed: advantages; review of techniques -materials, equipment, and operations for surface recycling, hot-mix recycling, cold-mix recycling, and full depth reclamation.

BASIC DRAINAGE

Ed Stellfox
March 3, 2010, 8:15am – 3:00pm
College Park, Maryland
$89 All Participants

This course emphasizes the importance of good drainage with discussions of water and its effects on roads, problems caused by improper drainage, and ways to handle these problems. It covers types of drainage facilities, ranging from ditches, culverts, subdrains, inlets and end structures. Their uses, materials, installation and maintenance as well as erosion control are addressed. It also introduces geosynthetic drainage applications. The following topics will be covered: importance of drainage, characteristics of water, system maintenance, drainage principles, surface and subsurface drainage, ditches, driveways, drainage culverts – materials and placement, headwalls, endwalls and inlets, erosion control, and geosynthetics in drainage.

UNDERSTANDING ROAD DESIGN AND MAINTENANCE (For elected officials)

Ed Stellfox
March 10, 2010, 8:30am – 3:00pm
College Park, Maryland
$89 All Participants

This course is the first step in understanding the problems that a Municipal Road department faces on a daily basis. This course designed for elected officials conveys an understanding of design and maintenance of municipal roads that will make your life easier when dealing with Road Superintendents, Public Works Directors, Foremen, etc. It also gives elected officials a better understanding of what is involved in a road and street budget. This is an excellent course for: Municipal elected/appointed officials, road commissioners, supervisors, and city or town managers.

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CONSTRUCTION MATHEMATICS

Ed Stellfox
March 24, 2010, 8:30am – 3:00pm
College Park, Maryland
$89 All Participants
CEUs: 0.5

Construction inspectors may need to brush up on math skills specifically related to construction inspection, especially basic geometry, fractions, area, volume and conversions. The class is a good refresher, and excellent preparation for the construction inspection class. The course was designed for road workers, foremen, superintendants, construction inspectors and supervisors in need of a refresher, especially in preparation for the Construction Inspections class. Depending on the interest of the participants, the course may cover: whole number and fractions, decimals (for measurement and payment), mixed operation fractions and decimals, formula evaluation, techniques of algebra, ration and proportion, percentage, hints for problem solving, useful formulas, square and square roots, conversion, and transportation construction examples. Please note: Participants should bring a calculator, a scale, and a straight edge.

TECHNIQUES FOR REDUCING CONSTRUCTION AND MAINTENANCE COSTS

Ed Stellfox
April 14-15, 2010, 8:30am – 3:00pm, Day 2 8:30am - 12:30pm
College Park, Maryland
$120 All Participants

Counties and municipalities bear a considerable financial burden with respect to the construction and maintenance of roadways. Inflation, increasing cost of labor, materials and fuel have risen steeply in the past few years. At the same time, municipal budgets have not kept pace. It is essential to conserve resources, find energy efficient and low maintenance materials and to use more efficient techniques. This workshop will conclude with groups of participants developing a cost control plan for a project.

ENGINEERING FABRICS, GRIDS, WEBS, AND CELLS (WHAT THEY ARE AND HOW THEY'RE USED)

Ed Stellfox
April 21, 2010, 8:30am – 3:00pm
College Park, Maryland
$89 All Participants

This course is an introduction to geosynthetics, beginning with a discussion of geosynthetics, what they are, how they are made and how they can be used in a road maintenance program. The course then looks at other geosynthetics and their road system uses, including geogrids, geocells and geowebs, presenting new materials with new applications. Designed for municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers. This course will cover the following topics: history; materials (geotextile fabrics, geogrids, geocells and geowebs); uses and applications of drainage, erosion control, reinforcement, separation, and reflective crack control.

THE 7 HABITS OF HIGHLY EFFECTIVE PEOPLE

Kim Carr
April 27-28, 2010, 8:00am – 4:00pm
College Park, Maryland
$175 Maryland Local Government Employees
$225 All Other Participants

Maybe you have heard about The 7 Habits of Highly Effective People – the best-seller business book. Now you have a chance to attend two days of training based on this same book. This training experience provides the foundation to strengthen the human side of performance at the personal, managerial, and organizational levels. This program equips employees with the tools and skills to work at the highest levels of effectiveness, both with and through others. The content of this training helps build stronger organizations by strengthening and exercising the character and competence of the individuals within them. During the workshop, you'll experience interactive exercises, case studies, and poignant video segments, and learn from the experiences of other participants..

ROAD SURFACE MANAGEMENT

Ed Stellfox
May 5, 2010, 8:30am – 3:00pm
College Park, Maryland
$89 All Participants

This course provides participants with the basic concepts of road surface management including inventory, distress identification, condition survey, strategies, programs, budgets, and field surveys. A Road Surface Management Systems software demonstration will also be conducted during this course.

LOW COST SAFETY IMPROVEMENTS

Mark Hood
May 12, 2010, 8:15am – 4:00pm
College Park, Maryland
$115 Maryland Local Government Employees
$135 All Other Participants

This course provides participants with methods for implementing effective, low cost safety improvements targeted at high crash areas. It emphasizes the basic and enhanced application of traffic control devices, low cost safety improvements, and their specific safety benefit (crash reduction factors). Traffic crash data collection, identification of hazardous locations, and engineering study procedures are also discussed. Emphasis is placed on low cost solutions that may be made at the local level.

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PREVENTIVE PAVEMENT MAINTENANCE

Ed Stellfox
May 19, 2010, 8:15am – 3:00pm
College Park, Maryland
$89 All Participants

This course is the first step in making your asphalt pavements last longer at lower costs. The course covers preventive maintenance treatments such as chip seals, slurry seals, and micro-surfacing and discusses when and where each technique could be effective. It presents application methods, including preparation, materials, equipment, operations and safety, along with practical tips on how to avoid trouble.
This course is open to municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers.

UNPAVED AND GRAVEL ROAD MAINTENANCE

Ed Stellfox
June 2, 2010, 8:30am – 12:30pm
College Park, Maryland
$59 All Participants

This course addresses basic maintenance techniques for unpaved and gravel roads. Topics include road materials, blading or dragging, reshaping or regrading for proper crown, regraveling, stabilization or full-depth reclamation, and dust control, with an introduction to road management techniques.

TRAFFIC SIGNS

Ed Stellfox
June 16, 2010, 8:00am – 12:30pm
College Park, Maryland
$59 All Participants

This half-day course will cover the regulations and guidelines for traffic signs including; regulatory signs, warning signs, and guide signs. A review of the Manual on Uniform Traffic Control Devices (MUTCD) will also be covered. An in depth discussion of sign examples, installation and maintenance, as well as sign management will be covered.

WINTER MAINTENANCE

Ed Stellfox
September 22, 2010, 8:30am – 3:00pm
College Park, Maryland.
$89 All Participants

This course covers all aspects of winter operations- planning and organizing, methods of snow and ice control, salt usage, and winter equipment maintenance. This lesson will include usage of snow maps, formal snow plans, snow plow and salt spreader operation. This course in intended for municipal officials, road commissioners, supervisors, superintendents, publics works and maintenance personnel, equipment operators, and city or town managers.

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