

Country Roads & City Streets

WV Local Technical Assistance Program

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College of Engineering & Mineral Resources

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DISTRACTED DRIVING CREATES DANGEROUS SITUATIONS

Chief Murray Pendleton, Chairman, Connecticut Police Chief's Assoc. Highway Safety Committee



Driving large municipal trucks and special purpose vehicles, including cars, can be challenging enough even when full attention is given to the road and potential hazards.

It only takes a second for a crash to happen. Distractions occur when drivers concentrate on something other than operating their vehicles – such as engaging in cell phone conversations. The National Highway Traffic Safety Administration (NHTSA) estimates that 25% of all crashes involve some form of driver distractions.

National surveys show that most drivers, at least occasionally, engage in behaviors that draw some of their attention away from their driving task. The most common of these behaviors include such general activities as:

- Talking or texting on a cell phone
- Talking with passengers
- Changing radio stations or CD's
- Eating or drinking while driving.

Operating municipal trucks is unique. The fact that most of these trucks have special equipment requires more attention to detail, leaving no room for distractions.

Driving is a full-time job. Operating snow-plows, trash trucks, fire engines, etc., while using a cell phone, reading a road map, or talking to fellow employees, is potentially dangerous.

continued on following page

IN THIS ISSUE

Pages 1 & 2

Distracted Driving Creates Dangerous Situations

Page 3

Roads Scholar Graduates

Pages 4 & 5

Roads Scholar I Program Overview and Classes

Pages 6 & 7

Roads Scholar II Program Overview and Classes

Page 8

Turning Down the Volume: Customer Service Tips for Public Works

Page 9

Roadway Management Workshop Overview & Newsletter Correction

Page 10

OSHA Class Overview & Recipe: Bacon & Blue Burgers

Page 11

Recognizing Meth Waste Hazards Along WV Roads

Pages 12 & 13

Sign Retroreflectivity Information and Free Available Guidebook

Pages 14 & 15

WV LTAP Needs Assessment Summary

Page 16

Techniques for Lifting

Country Roads & City Streets is typically published quarterly. The purpose of this newsletter is to provide information that is beneficial to decision makers, elected officials, and roadway construction, maintenance and management personnel.

The material and opinions included in this newsletter are those of the West Virginia LTAP and do not necessarily reflect the views of the Federal Highway Administration or the West Virginia Department of Transportation. Every effort has been made to ensure the integrity and accuracy of both original and borrowed material; however, the West Virginia LTAP does not assume responsibility for any information that is found to be incorrect.



The West Virginia LTAP is part of the National Local Technical Assistance Program, which is funded by the Federal Highway Administration. West Virginia LTAP also receives funding from the West Virginia Department of Transportation.

MISSION:

The mission of the WV LTAP is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.

To help achieve this mission, training, demonstrations, personalized technical assistance, and resource materials are provided.

DISTRACTED DRIVING CONTINUED...

To help reduce driving distractions,

- **Make adjustments to vehicle controls such as radios, air conditioning, or mirrors before beginning to drive or after the vehicle is no longer in motion.**
- **Don't reach down or behind the driver's seat, pick up items from the floor, open the glove compartment, clean the inside windows, or perform personal grooming while driving.**
- **You should not eat or drink while driving, but if you do, get something that is not messy and that you can hold in one hand. Set your food up next to you before you take off and make sure you use a cup holder for your drink.**
- **Know where you are going and how to get there before you start.**

For more than 10 years, studies have been conducted which focus on the risks associated with various types of distractions. There clearly is ample information to believe a distracted driver is at an increased risk of a crash.

Your complete attention to driving is not only in the best interest of you and your

passengers but can clearly save lives as well as reduce serious injuries.

Such distractions may not only cause you to lose control of your vehicle, they may cost someone, including you, their life.

TEXTING IS A MAJOR DISTRACTION

The National Safety Council estimates that 80% of Americans admit to using cell phones, and 20% admit to texting, while driving.

Driving while using a cell phone incurs a four times greater risk of crashing, which is equivalent to driving while drunk (with a 0.08 blood-alcohol level.) For texters, the risk is eight times greater.

Talking on a cell phone while driving slows down the reaction time of even the most experienced driver.

All drivers of municipal vehicles must be committed to reducing serious injuries and deaths on our roadways. Being a safer driver and helping reduce accidents starts with your commitment to **NOT** become a **DISTRACTED DRIVER**.

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COMMON DISTRACTIONS FOR DRIVERS

- Use of cell phones
- Eating/drinking/smoking
- Texting and e-mailing
- Personal hygiene
- Changing radio stations, CD's, DVD's, or iPod selections
- Sight seeing/gawking
- In-car information screens
- Adjusting mirrors, heat, or AC
- Searching for items
- Adjusting or viewing GPS
- Unsecured objects
- Reading (maps, directions, books, magazines, or newspapers)

SUCH DISTRACTIONS MAY NOT ONLY CAUSE YOU TO LOSE CONTROL OF YOUR VEHICLE, THEY MAY COST SOMEONE, INCLUDING YOU, THEIR LIFE.



ROADS SCHOLAR GRADUATES

The WV LTAP is proud of our recent Roads Scholar I graduates. We commend these recent graduates, along with past graduates, for their hard work and dedication in helping improve and maintain West Virginia's roadways.



West Virginia Division
of Highways
District 5 Employees
Left to Right:

John Brennan
Calvin Redman
Arnold Parrish



West Virginia Division
of Highways
District 6 Employees
Left to Right:

John Norris
Floyd Norris



City of Fairmont
Employees
Left to Right:

Randy Bland
Robert Eddy

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ROADS SCHOLAR I PROGRAM OVERVIEW

The WV LTAP has been working hard over the past few years to improve our Roads Scholar I (RS I) Program. We are excited to announce that in addition to our traditional RS I classes, we are now allowing some of our special topic classes to count toward RS I graduation requirements. We encourage you to keep a copy of this information for future reference. If you have any questions or think you may be close to becoming a RS I graduate, please contact Kim at 304-293-9924 or kim.carr@mail.wvu.edu.

TARGET AUDIENCES:

- **Primary Audience** – The RS I Program is primarily targeted to roadway agency and public works: maintenance workers, supervisors, and officials/administrators.
- **Secondary Audience** – RS I classes may also appeal to secondary target audiences, depending on the specific class topic. This could include inspectors, police departments, fire departments, public services districts (PSDs) for water and wastewater operators, elected officials, and others.

The following definitions are used by the WV LTAP when referring to target audiences:

- **Maintenance Workers** – Individuals who perform work alongside or in the roadway, such as flaggers, laborers, equipment operators, forepersons, etc.
- **Supervisors** – Individuals who supervise the work of those classified as maintenance workers, such as maintenance directors, public works directors, street commissioners, etc.
- **Officials and Administrators** – Individuals who hold elected or hired municipal management positions.



RS I GRADUATION REQUIREMENTS AND COMPLETION AWARDS

- To become a RS I graduate, each participant must take a total of **8 half-day classes** and complete an open-book quiz at the conclusion of each class.
- Classes range in length from 3 to 4 hours each, depending on the topic and instructor. These classes must be completed in a 5 year period.
- Participants are automatically enrolled in the Roads Scholar Program. There is no need to do any extra paperwork, other than submitting the typically requested registration information.
- Each RS I graduate receives a framed certificate, an orange and white traffic barrel shaped mug, and a baseball cap.

ROADS SCHOLAR I PROGRAM SPECIAL TOPIC CLASSES

Chain Saw Safety - This special topic class combines classroom instruction along with a tree felling demonstration. The importance of personal protective equipment, saw checks, chain saw operation, reactive forces, directional felling, and communicating with others are just some of the subjects covered.

Inspecting for Traffic Sign Retroreflectivity - Participants will be “walked through” the assessment techniques available for conducting sign maintenance with respect to retroreflectivity. Class objectives include understanding sign inspection methods that can be used to evaluate sign retroreflectivity in compliance with federal requirements and learning traffic sign inspection techniques for assessing sign retroreflectivity.

Gravel Road Maintenance - This class delves into the importance of drainage, correct material selection and application, and environmentally sensitive solutions for maintaining gravel roads.

ROADS SCHOLAR I CLASSES AND DESCRIPTIONS

The following classes are offered on a regular basis and are part of the RS I Program.



- 1. Asphalt Roads: Common Maintenance Practices:** This class provides a review of the causes of potholes, rutting, corrugations, alligator cracking, etc., and the correct repair procedures. Proper repair methods, materials, and equipment which should be used in making lasting repairs are also included.
- 2. Basic Construction and Maintenance Math:** Most of us deal with math on a daily basis, whether we realize it or not. How many cones do I need for my work zone? How much cold mix will it take to fill that hole? How many tons of salt do I have available in my salt pile? This class provides a refresher of basic math skills that will help make your jobs easier.
- 3. Basic Surveying: Lines, Levels, and Layouts:** This introductory surveying class covers using levels, checking slopes, checking elevations, and horizontal and vertical distance measuring.
- 4. Control of Utility Cuts:** One of the most aggravating items that undermines the structural stability of a newly reconstructed or resurfaced street is a new utility or repair cut. This session covers ways of controlling roadway cuts made by contractors and utilities through ordinances, permits, specifications, and proper inspection along with fee systems. Proper utility cut procedures are also discussed.
- 5. Drainage: The Key to Roads that Last:** Participants will learn about the many roadway problems caused by improper drainage and best practices to solve these problems. Types of drainage structures, appropriate uses, material considerations, and pipe sizing are also discussed.
- 6. Equipment Operations and Worker Safety:** State and municipal road workers must operate a wide range of on- and off-road equipment in a wide variety of hazardous situations. This class stresses key training points for the safe and effective operation of typical equipment – dump trucks, loaders, graders, etc. Safe work procedures for lifting, handling hazardous materials, and other topics of this nature are also covered.
- 7. Flagger Certification (ATSSA):** Flaggers are the first line of defense when it comes to the safety of workers, motorists, and pedestrians in a work zone; they operate as the *de facto* safety officer on many work crews. This course will train you to be a competent flagger; able to set up a proper work zone and control traffic like a pro. Successful completion of this course results in nationally recognized ATSSA 4-year flagger certification.
- 8. Proper Signs and Markings:** This class provides an introduction to and explanation of the *Manual on Uniform Traffic Control Devices (MUTCD)* including sign design, location, and maintenance. Correct application of commonly used signs and markings is presented. Examples of improper signing are also discussed.
- 9. Risk Management/Tort Liability:** This class identifies common liability issues faced by street departments and highway agencies in areas including traffic control devices, roadway surface conditions, shoulders, work zones, roadsides, etc. Risk management strategies to reduce/prevent accidents and tort liability suits are presented.
- 10. Road Safety Fundamentals:** Road safety refers to the portion of overall roadway safety that is determined by a roadway's physical features such as road design, roadside objects, signs and pavement markings and intersections. Addressing road safety on local roads is a challenge because conditions and hazards vary widely and funds are extremely limited. This class reviews some of the more common road safety problems and offers a practical systematic approach to solving them.
- 11. Successful Supervision/ Working with People:** This class introduces basic concepts of supervision to improve relationships with workers while getting the job done. Topics include fundamentals of supervision, communicating with others, team building, motivating people, problem solving, and decision making.
- 12. Winter Maintenance:** Participants will be provided information on various snow and ice control methods, including plowing procedures, chemical usage and storage, chemicals and abrasives, anti-icing, snow fences, and public relations. (Attending a Snow and Ice Control Workshop can be substituted for this class.)
- 13. Work Zone Traffic Control:** This class provides a review of work zone standards, including the *West Virginia Manual on Temporary Traffic Control for Streets and Highways*. Traffic control devices, the different parts and areas of a work zone, typical applications, and flagging operations are also covered. This class includes a “hands-on” game-board exercise.

ROADS SCHOLAR II PROGRAM OVERVIEW



The WV LTAP realizes that many of you are interested in becoming Roads Scholar II (RS II) graduates. Please note that you are **not required** to be a RS I graduate in order to take RS II classes and become a RS II graduate; the two programs are completely separate.

We have been working diligently to complete the requirements and class offerings for the RS II Program. As with the RS I Program, occasionally we will offer “special topic” classes that can be counted toward the appropriate program graduation. Currently, there are three such special topics classes available for the RS II Program. We anticipate adding more classes over time.

As with the RS I information, we encourage you to keep a copy of this information for future reference. If you have any questions regarding the Roads Scholar II Program, please contact Kim at 304-293-9924 or kim.carr@mail.wvu.edu.

TARGET AUDIENCES:

- **Primary Audience** – Individuals involved in the planning and oversight of roadway work and safety evaluation. This includes but is not limited to, managers, supervisors, technicians, engineers, officials/administrators.
- **Secondary Audience** – RS II classes may also appeal to secondary target audiences, which would be class specific.

RS II GRADUATION REQUIREMENTS AND COMPLETION AWARDS

- To become a RS II graduate, each participant must take a total of **8 full-day classes** and complete an open-book quiz at the conclusion of each class.
- Classes range in length from 5.5 to 7 hours each, depending on the topic and instructor. These classes must be completed in a 5 year period, with exceptions made if class offerings have not been available.
- Participants are automatically enrolled in the Roads Scholar II Program. There is no need to do any extra paperwork, other than submitting the typically requested registration information.
- Each RS II graduate receives a framed certificate and a leather bound embossed padfolio.

ROADS SCHOLAR II PROGRAM SPECIAL TOPIC CLASSES

FranklinCovey 7 Habits of Highly Effective People: This 2.5 day class can count as one of the eight required RS II classes. Participants will learn how to live and communicate more effectively, through individual and group exercises, videos, and a lecture/discussion setting. Learning proactive techniques, writing a personal mission statement, and time management are just a few of the topics that are covered in this engaging and interactive class.

Marshall Mix Asphalt: After taking this class, participants should understand the basis for Marshall Mix Design, along with the materials used in asphalt concrete. This class also includes hands-on testing for the Marshall Mix Design process. This class is geared specifically for asphalt technicians or those individuals involved in the oversight of Marshall Mix Asphalt.

Superpave: After taking this class, participants should have a basic understanding of Superpave Mix Design, along with the materials used in asphalt concrete. This class also includes hands-on testing and is geared specifically for asphalt technicians or those individuals involved in the oversight of Superpave.

ROADS SCHOLAR II CLASSES AND DESCRIPTIONS

1. Accident Investigation/Reconstruction: This class will help local road managers with identifying perishable data, above and beyond what is included in standard police reports. Often it is important for an agency to assess their liability exposure and collect their own data in certain crashes. The class instructor will present the elements involved with crash reconstruction.

2. Common Sense Solutions to Intersection Safety Problems: This course will help participants identify unsafe conditions at intersections where crashes tend to occur or drivers feel unsafe. Participants will be provided with a toolbox of common sense solutions.

3. Design & Operation of Work Zone Traffic Control:

In the RS I class, basic work zone traffic control principles

are covered. This session will build on those principles and provide attendees with the knowledge necessary to properly design and operate typical maintenance activity work zones in a way that increases the safety of both workers and the traveling public.

4. Drainage, Drainage, Drainage: This class provides a more in-depth approach to drainage, compared to the RS I drainage class. The class instructor will delve deeper into topics such as the use of geo-synthetic products, retention/detention, and culvert sizing. Topics will be discussed from an application perspective, not a policy perspective. **(This class is scheduled to be offered in January 2011.)**

5. Effective Business Writing Practices: Participants will learn essential practices for writing attention getting reports, proposals, memos, and letters. Participants will learn techniques that will help them convey written information clearly and concisely. This class will also include effective email communication and proper business etiquette. **(This class is scheduled to be offered in January 2011.)**

6. Hot Mix Asphalt (HMA) Pavement Preservation and Rehabilitation: During this class, the numerous benefits of preventive maintenance will be discussed. Treatment applications, including slurry seals, chip seals, microsurfacing, thin overlays, and crack sealing, along with the materials involved with each, will be discussed and compared.

7. Introduction to Asphalt Technology: This full-day course will cover materials, mixes, and components of asphalt. Attendees will also learn specification information, quality control, and how to recognize the process and mix being used by contractors. Additionally, the course will cover inspection, placement, and compaction.

8. Low-Cost Safety Improvements: This class emphasizes the application of traffic control devices, enhanced traffic control device application measures, low-cost safety improvements, and the specific safety benefits of each in terms of crash modification factors. Signing, marking and illumination are highlighted. The information is directly applicable to addressing requests and comments from the public.

9. Pedestrian and Bicycle Accommodation: This class focuses on the planning, design, maintenance, and operational approaches for creating pedestrian and bicycle friendly environments. Topics include characteristics of pedestrians and bicyclists, adapting existing communities for pedestrians/bikes, sidewalk design, street crossings, accessibility, public spaces, multi-use trails, bicycle facilities, bike parking, and connections to transit.

10. Roadside Safety: This class will focus on how to reduce fatalities and serious injuries that result from vehicles leaving the road and hitting a fixed object or overturning. The focus of the class will be on applying the AASHTO Roadside Design Guide. Specific areas covered include clear zones, slopes, sign supports, trees, guardrails, end treatments, bridge transitions, and identifying problem areas.

11. Traffic Calming: This class will introduce a toolbox of various vehicular traffic calming techniques. Participants will learn about the many different options for calming vehicular traffic, with an emphasis on the advantages/disadvantages, planning and policies, and liability/legal concerns of each specific device.



TURNING DOWN THE VOLUME - CUSTOMER SERVICE TIPS FOR PUBLIC WORKS

Kim Carr, WV LTAP

As a state, county, or municipal worker in the public works sector, do you get tired of the constant praise and appreciation you are shown by the public? Or do you find yourself often feeling like you are in the middle of a firing squad? My guess is that the vast majority of you fall into the latter. Being employed in the public works sector regularly feels like a thankless job.

The fact is, as public servants, the job you do and services you provide have a daily impact on the people you serve. When all is going well you probably rarely hear about your positive impact. However, when the public or media, either with just cause or simply from their personal perspective, do not think your agency is doing the best job possible, you often end up with individuals and groups who are very unhappy; and they aren't afraid to let you know!

Public roadway agencies do not have the luxury of always giving the public what they want. And citizens often feel frustrated because they do not have the choice of switching to a different company if they do not like the level of service being provided. This, of course, means frustration for both sides; citizens expecting more even though you cannot meet their demands because of rules, regulations, guidelines or budgetary cutbacks, and you as a public works employee, getting frustrated because you feel like you have explained the same things over and over again.

The following are a few simple steps you can take the next time you are confronted with an unhappy citizen.

TRY NOT TO TAKE THE RUDE BEHAVIOR PERSONALLY.

This is often the most difficult thing to do, especially if you feel like you are being verbally attacked. Try, though, to put yourself in the citizen's shoes and find out what has occurred that has them so upset.

GENUINELY LISTEN TO THE CONCERNS TO GET TO THE ISSUE.

Even if the person who is registering a complaint is someone you view as a chronic complainer or just a generally miserable person, make a point to actively listen to what they have to say. Although you may not be able to resolve the issue in the exact manner requested, sometimes



simply taking a few minutes to listen is the best course of action. If an irate citizen feels you are truly trying to understand their situation, and you acknowledge the frustration they are feeling, this can help diffuse the individual's anger and help them become calmer and more rational. Essentially, by letting the person know that you truly want to understand, you help them move past their feelings and on to the concrete issues.

Your body language and tone of voice are two of your most valuable tools when speaking with an angry citizen. If an angry citizen is speaking loudly, do not raise your voice. Instead speak calmly and more softly. Have open body language. Invite the person to sit down. Do not cross your arms and do not multi-

task – no phones calls, checking email, etc.

Remember that above all else, angry citizens want to feel you are making the effort to understand their situation. They want their feelings and emotions to be acknowledged by you. Often, if you simply acknowledge that the citizen is upset, it will help calm them down. Just make sure your tone of voice and phrasing is not accusatory, judgmental, or defensive.

DO NOT GO STRAIGHT TO PROBLEM SOLVING MODE.

People commonly make the mistake of going straight to problem-solving mode when interacting with an angry citizen. Remember, if the person is still angry, they are going to be focused on what they are feeling instead of being ready to focus on possible solutions. By ignoring the anger, you may actually make the person even more upset.

DISCUSS AVAILABLE OPTIONS.

After getting to the issue that the citizen wants corrected, ask them if they have thought of some solutions for the problem. They may actually have a solution you have not thought of. Often though, because of funding issues, regulations, or other restrictions, you may not be able to give the citizen exactly what they want, and it is possible you may not be able to solve the problem. However, instead of saying, "No. We can't do that," let them know what you can do and what options are available. When people feel like they have some options, it makes them feel less helpless, and it also opens up the opportunity for a two-way dialogue.

So while you will not be able to solve every issue to the complete satisfaction of the citizen, by listening, acknowledging their feelings, and discussing possible options, you will have a better chance of coming to a positive conclusion.

ROADWAY MANAGEMENT WORKSHOP OVERVIEW

Kim Carr, WV LTAP

The WV LTAP partnered with the WV Division of Highways to hold a Roadway Management Workshop (RMW) in conjunction with the WVDOH's Maintenance Conference. The RMW was held on April 28, 2010 in South Charleston, WV.

Hosting this one-day in-state event provided a forum to get a variety of topics and sessions out to those individuals in our state who previously may have attended a Roadway Management Conference (RMC), which in past years was a 2.5 day event held in either WV, MD, VA, PA, or DE. Due to out-of-state travel restrictions and budget issues, the Roadway Management Conference has been put on indefinite hold; thus, we were excited to be able to partner with the WVDOH to offer an abbreviated training.

The one-day workshop included a wide mix of topics. After brief welcoming remarks, Ron Eck, senior advisor with the WV LTAP and retired WVU Faculty member, presented a general session titled, *The Important Role Routine Maintenance Plays in Highway Safety*. During this general session, participants learned about the impact that routine maintenance has on the safety of both drivers and pedestrians. For instance, vehicular crashes can be reduced by

having a properly maintained and graded shoulder area and by making sure trees and other vegetation are not blocking sight distance. This session emphasized that maintenance and safety go hand-in-hand.

During the next general session, which was presented by representatives from the WVDOH, attendees learned about the WVDOH's experience and outcomes with using natural salt brine this past winter. While no one really wanted to even mention the word snow, this was an important session as attendees learned about the pros and cons the WVDOH District 4 had with using the natural salt brine, along with the environmental issues, costs, and the process they used.

Attendees also had the opportunity to view an on-site demonstration of a piece of equipment known as an Asphalt Recycler. This machinery is being used

by the WVDOH and allows them to use milled asphalt on-site for patching.

The afternoon portion of the workshop included six different breakout sessions. Topics ranged from discussion of the WVDOH Core Maintenance Plan to Meth Overview and Cleanup to Trackless Tack to an Introduction to Flowable Fill.

This was a great opportunity for municipal roadway agencies and the WVDOH to learn from each other, share best practices, and learn about different materials and technologies.



Attendees at the RMW get a first-hand look at the Asphalt Recycler.

CORRECTION!

The WV LTAP staff incorrectly identified Gary Eye as Ron Tinney in the Winter 2009 edition of *Country Roads and City Streets*.

The caption should have read: *Gary Eye from the WVDOH, discusses proper calibration techniques during the outdoor demonstrations portion of the workshop.*

Our sincerest appreciation goes out to Gary for always being willing to lend a helping hand and our apologies to both Gary and Ron for the incorrect listing.



OVERVIEW OF OSHA 10-HOUR TRAINING FOR THE ROADWAY CONSTRUCTION INDUSTRY

Kim Carr, WV LTAP



Course participants from state, municipal, and private agencies listened intently as instructor Jerry Teeler discussed the many hazards faced by roadway construction workers.

On May 26 and 27, in Morgantown, WV, the WV LTAP hosted an OSHA 10-hour course that was geared specifically for the roadway construction industry. This program focused directly on the day-to-day hazards faced by roadway construction workers, and provided attendees with practical approaches to recognizing and controlling OSHA-identified roadway construction hazards.

Jerry Teeler, safety and health consultant for the American Road and Transportation Builders Association (ARTBA), was the course instructor. Jerry engaged participants through personal stories and examples and he encouraged class participants to share their personal experiences.

Eleven key construction work zone-related safety and health topics were covered. Topics covered ranged from temporary traffic control in roadway work zones, to electrical safety, to mechanized equipment, to fall prevention and protection.

Thirty-two individuals completed the course and are being issued the OSHA 10-Hour card from the OSHA Training Institute and a certificate from ARTBA. Attendees represented state, municipal, and private agencies. WV LTAP was excited to have the opportunity to offer this course, free of charge, through an arrangement with ARTBA.

A WV LTAP STAFF RECIPE FAVORITE – BACON AND BLUE BURGERS

Kevin Butler, WV LTAP



The following recipe is one of my favorites. Healthy it isn't, but sometimes you just want a big, juicy, grilled hamburger. You can reduce the fat and calories by substituting ground turkey breast for the ground beef and reducing the amount of butter. This is one that is sure to please at your next cookout.

Ingredients

- | | | |
|---|------------------------------------|----------------------------|
| • 1 (8 ounce) package of crumbled blue cheese | • 1.5 lbs ground beef | • salt and pepper to taste |
| • 1/2 cup butter, softened | • 1 beaten egg | • 1/2 tsp. garlic powder |
| | • 1/4 cup bread crumbs, unseasoned | • 1 lb thick sliced bacon |

1. Mix together the softened butter and blue cheese until well mixed. Roll into a log about 2-3 inches in diameter and wrap in Parchment paper. Refrigerate until hardened. You can also freeze if you don't plan to use for a while.
2. Once the butter is hardened, mix together the remaining ingredients in a large bowl by hand. Form the meat into 4-6 balls (depending on how big you want your burgers).
3. Slice 1/2 inch slices from the hardened blue cheese/butter log. Place each butter/blue cheese circle into the middle of the burger ball and press into middle, shaping into a thick round burger. Repeat for all remaining burgers. Ensure that butter/blue cheese is sealed into the middle of the meat.
4. Wrap each burger with two strips of bacon and secure with toothpicks.
5. Grill burgers to desired doneness.
6. Remove toothpicks and serve burgers on your favorite bun. Add your favorite toppings.

RECOGNIZING METH WASTE HAZARDS ALONG WV ROADS

Kim Carr and Sabrina DeVall, WV LTAP



The warmer months of spring and summer are busy times for roadway crews. In addition to construction on the roadways, maintenance on the roadsides is also in full swing. Mowing and ditch cleaning are common practices, as is litter clean-up. The beautiful scenery of West Virginia is often damaged by the garbage and waste strewn along our roadways and litter clean-up crews provide a valuable service in helping restore the natural beauty. Litter clean-up crews, whether

Adopt-a-Highway volunteers or roadway agency employees, need to practice proper safety measures to ensure no one is injured. High-visibility vests and warning signs are essential, along with proper clothing/shoes and sunblock. However, an increasing danger that is much harder to prepare for, is meth waste.

The traditional method of making meth involves some type of lab setup, filthy containers, foul odors, and high flames. In the past, these labs were often in rural areas that helped conceal the dealers as they “cooked” their drugs. However, labs are portable, and can be found in urban areas, in hotel rooms, and even in cars. While this method is still as dangerous as ever, drug users and makers have found a much faster, cheaper, and simpler way to make meth in small batches that can be carried in a small bag and mixed on the run. This has become known as the “shake-and-bake” method, and it is becoming increasingly popular. The risk posed to roadway, litter clean-up, and other maintenance crews, is that the bottles used in this type of production, are being discarded on roadways in states throughout the country.

The batches are much smaller, but just as dangerous as the older meth labs, as they can produce powerful explosions and release drug ingredients that must be handled as toxic waste. Bottles that don’t explode contain a poisonous brown or white sludge that roadway crews must be aware of and look for before handling any discarded waste, particularly two-liter bottles. Should you discover discarded bottles containing an unknown brown or white sludge mixture, do not open them, pick them up, kick them, roll them over, or touch them. Leave them alone and contact your supervisor immediately to let them know what you have discovered. Your supervisor should contact law enforcement personnel with the exact location of the possible meth waste dump.

While this article focused on the shake-n-bake method, the WV LTAP staff encourages you to also be on the look-out for traditional meth labs and resulting waste. In the Fall 2006 edition of ***Country Roads and City Streets***, the WV LTAP included an article titled *Methamphetamine Waste: A Danger for Road Workers*. This complete article can be found on the web at <http://wvltap.wvu.edu/Fall2006.pdf>. You can also contact any of the LTAP staff to get a printed copy mailed to you.

The WV LTAP has a CD-ROM available for loan from our lending library titled, *Meth Lab Waste Recognition*. This CD-ROM was produced by the Colorado DOT and provides a brief primer on how to recognize meth lab waste when cleaning the highways and roadsides. To borrow this CD-ROM, please contact us.

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THE WHO, WHY, AND HOW, OF A SIGN RETROREFLECTIVITY PROGRAM

Andrew Morgan, WV LTAP

Article Information Adapted from the Sign Retroreflectivity Toolkit

WHO?

The Manual on Uniform Traffic Control Devices, or MUTCD, establishes uniformity and standards for traffic signs on public roads. The MUTCD now requires all agencies, large and small, to adopt and use a sign maintenance program, which in turn will help agencies meet new minimum retroreflectivity requirements for the traffic signs they have installed.

WHY?

Statistics nationwide reveal that the nighttime crash rate is nearly three times that of the daytime crash rate, and nighttime crashes are typically more severe and/or fatal. Retroreflective traffic control devices provide safer navigation of the highway for all drivers.

The FHWA believes that the selection of a reasonable method for maintaining sign retroreflectivity might serve to defend public agencies in tort liability claims and litigation. Public agencies that implement and follow a reasonable method in conformance with the national MUTCD would be in a better position to successfully defend tort litigation involving claims of improper sign retroreflectivity than jurisdictions that lack any method.

How?

The FHWA has identified several methods for maintaining sign retroreflectivity. Agencies also have the flexibility to use a combination of methods or to develop their own methods for maintaining sign retroreflectivity.



ASSESSMENT METHODS

Visual Inspection Method - This method requires existing signs to be assessed by a trained sign inspector conducting a visual inspection from a moving vehicle during nighttime conditions. Procedures that should be used to support the nighttime visual assessment are calibration signs, comparison panels, or a consistent parameters procedure.

Measurement Method - This method simply requires using a measurement device called a retroreflectometer. Remember, the WV LTAP Center has two of these available for loan at no cost. This procedure requires you to measure all of your signs on a specific interval, such as once every year, or every other year.

MANAGEMENT METHODS

Expected Sign Life Method - The expected service life is based on the time required for the retroreflective material to degrade to the minimum retroreflectivity levels. This service life can be the warranty for the sign sheeting or the measurement of representative signs. You keep track of the sign's age using a computer inventory, sign-back stickers, and/or a photo log to determine when the sign should be replaced.

Blanket Replacement Method - The Blanket Replacement Procedure is based on wholesale replacement of signs in a specific area, along a specific corridor, or by sign types. The wholesale replacement period would be based on the expected sign life, so you will need to know or estimate expected sign life in your area.

Control Sign Method - In this method, a control sample of signs is used to represent the total population of an agency's signs. The retroreflectivity of the control signs is monitored at appropriate intervals and sign replacement is based on the performance of the control signs.

Please keep in mind that following the standards set forth in this mandate can help make our roadways safer for nighttime driving. As was mentioned above we have retroreflectometers available for loan for free if your agency is interested in using the measurement method. Also, if you would be interested in attending a traffic sign retroreflectivity class or hosting one at your location, or need more information regarding the new requirements, please contact the WV LTAP.

SIGN RETROREFLECTIVITY GUIDEBOOK & TOOLKIT AVAILABLE FOR FREE

Adequately maintained traffic signs and pavement markings help improve highway safety, especially during the nighttime. Retroreflectivity is a term that describes how light is reflected from a surface and returned to its original source. When talking about traffic signs, essentially, the retroreflective properties of traffic signs bounce light from vehicle headlights back toward the vehicle and the driver's eyes, making the signs appear brighter and easier to see and read at night. Because the retroreflective properties of traffic control devices deteriorate over time, agencies need to manage the maintenance of their signs and pavement markings.

Recent retroreflectivity standards are set forth in the Manual on Uniform Traffic Control Devices (MUTCD) and compliance dates are coming up soon. Did you know that by January of 2012, all agencies must implement a sign maintenance program that addresses the nighttime visibility of their signs?

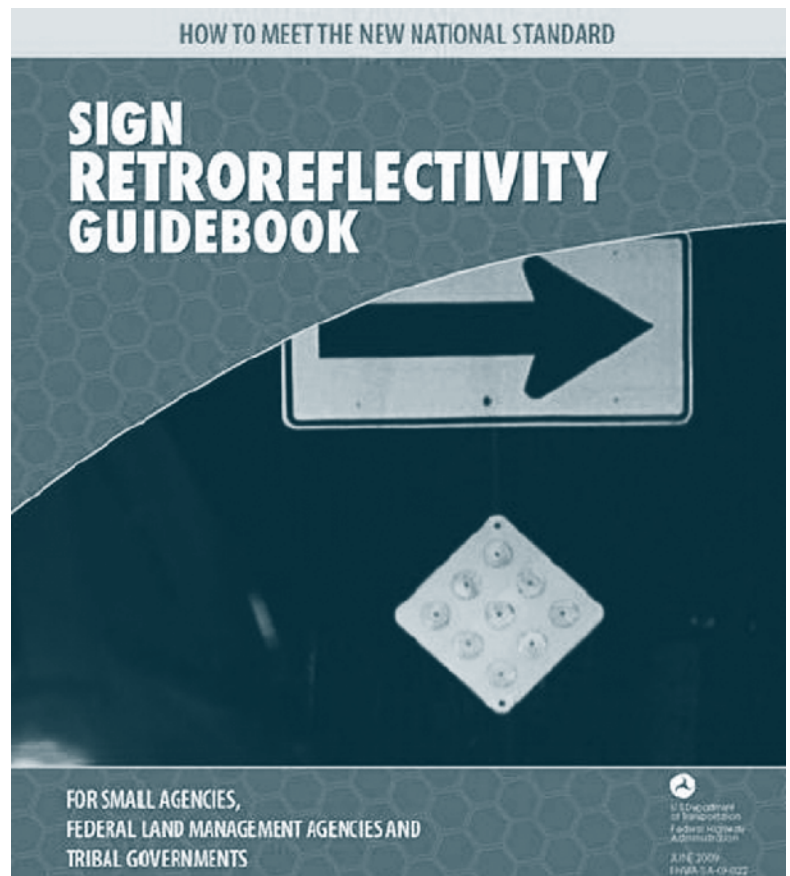
The Sign Retroreflectivity Guidebook provides information that will primarily assist small and medium sized agencies, many of whom do not have traffic engineering staff, meet the new Federal requirements for maintaining traffic sign retroreflectivity. However, agencies of all sizes and capabilities will find this resource beneficial. The Guidebook uses layman's terms to describe the maintenance procedures for retroreflectivity. It is designed to assist these agencies in making informed decisions before implementing a retroreflectivity maintenance program; all while considering resource limitations.

Included in the Sign Retroreflectivity Guidebook is a stand-alone computer based package on a CD-ROM that is called the "Traffic Sign Retroreflectivity Toolkit." This CD-ROM includes all of the information found in the printed Guidebook, along with interactive applications and resources. The CD-ROM is compatible for both PC and Macintosh computer users.

The two documents include common features such as:

- A simple step-by-step approach
- Inspection procedures
- A budget estimating tool.

Please contact Andrew Morgan at the WV LTAP if you are interested in receiving a copy of this guidebook and toolkit combination package. More information can also be found on this topic by visiting the following Federal Highway Administration website: www.fhwa.dot.gov/retro. Specific language in the MUTCD that pertains to the requirement for signs to be either illuminated or made with retroreflective sheeting materials can be found by visiting <http://mutcd.fhwa.dot.gov/>.



Compliance Dates

January 2012 - By this date, all agencies have to establish a sign maintenance program that can regularly address the new minimum sign retroreflectivity requirements.

January 2015 - By this date, all agencies must comply with the new retroreflectivity requirements for most of their installed traffic signs, included all red or white "regulatory" signs, yellow "warning" signs, and green/white "guide" signs.

January 2018 - By this date, all agencies must comply with the new retroreflectivity requirements for overhead guide signs and all street name signs.

WV LTAP NEEDS ASSESSMENT SUMMARY

The WV LTAP conducted a needs assessment survey in the latter part of 2009 to learn how we can better help those agencies and individuals that are charged with taking care of West Virginia's roads and communities. By asking questions on various topics, such as training, computer usage, and familiarity with our Center, we have gained valuable information that will help us make our program more beneficial to you. The following information provides an overview of the survey data we are using to improve our program and available services.

GENERAL INFORMATION

The first part of the survey contained general information questions that helped us understand more about the respondent and his/her agency and employment. From all the respondents to our survey,

- 94.5% were associated with state government
- 5.5% listed municipality as their organization or agency. Positions in these agencies ranged from elected official to engineer to clerical with others in between.
- 40.9% of these agencies have 1-5 employees that are responsible for managing, maintaining, or working on the road way and in the right-of-way.
- 22.7% of these agencies have 21-25 employees that are responsible for managing, maintaining, or working on the road way and in the right-of-way.
- 96.8% use a computer on a regular basis and 93.3% use a high speed internet connection.

FAMILIARITY WITH THE WV LTAP

The next goal of the survey was to learn about respondents' familiarity with the WV LTAP. There was a fairly even split between those familiar with the program and services and those who were not familiar with the program and services.

- 56.3% responded that they were familiar with the WV LTAP
- 43.7% responded that they were not familiar

One of our major sources of information is this newsletter, *Country Roads & City Streets*.

- 59.2% of respondents indicated they receive the newsletter.



TECHNICAL ASSISTANCE

As a technical assistance program, the WV LTAP often visits communities to provide assistance and expertise on a variety of issues. Nearly half of respondents said they were aware of this service. Below are the areas of need and their corresponding percentages that the respondents said could benefit from personalized technical assistance.

- 81.3% drainage issues
- 65.6% proper pothole patching
- 40.6% intersection safety
- 37.5% traffic sign reviews
- 34.4% pavement mix
- 28.1% parking issues
- 28.1% sidewalk assessments
- 25.0% with traffic counting



TRAINING

Training is a key area for the WV LTAP, so this was a major portion of our survey.

- More than half of those who responded prefer ½ day training (66.1%) to 1 day training (53.6%).
- Winter months are the best for training attendance, with February being the most preferred (62.3%).
- Mid-week training is preferred over Monday or Friday training, with more than 79% of respondents preferring Tuesday, Wednesday, and/or Thursday.
- One hour or less is the maximum driving time for a half-day training.
- Two-four hours is the maximum preferred time for a full-day workshop.

To meet the needs of limited budgets and travel constraints, the WV LTAP is pursuing non-traditional training methods, such as interactive web sessions or distance learning. We were very pleased to learn,

- 65.4% of respondents would be interested in receiving this type of training.
- 74.1% of respondents were familiar with the Roads Scholar program, which is one of our primary training programs.



WV LTAP LENDING LIBRARY

The WV LTAP also provides information through our lending library, but only 42.2% of respondents were aware that we have a library and only 13.8% of those people have borrowed material.

The survey asked respondents to provide suggestions on material they would like to borrow from the library. These responses included several topics, such as chain saw safety, drainage installation, hot mix asphalt, and rural road maintenance techniques. The lending library is being evaluated and material is being added. We will be publishing an updated list of available material on our website soon.



We were pleased with the response to our survey and thank you to those of you who responded. We have thoroughly evaluated this information and are making changes accordingly. Please note that while our formal needs assessment survey has been completed, we are always looking for ways to improve our program and better serve our customers. If you have any questions or comments, please do not hesitate to contact us at wvltap@mail.wvu.edu or 304-293-9924. Again, thank you for participating in this survey and we hope to hear from you.

TECHNIQUES FOR LIFTING

Sabrina Devall, WV LTAP



We all know that lifting heavy loads on the job can be a difficult and dangerous task, but did you know there are several ways to minimize the impact of heavy lifting on your body and even to minimize heavy lifting in itself? The following information was adapted from the familydoctor.org website and provides tips and guidelines for making loads lighter and properly handling heavier loads.

The basics of heavy lifting are fairly common knowledge but essential to remember. For your physical safety, always keep your body facing the object and keep the load close to your body. Try to carry the load in the space between your waist and shoulders, use slow and smooth movements, and never arch your back when lifting. To minimize the impact even further, inspect the load before beginning and decide if you can make the load lighter. Sometimes making more trips with lighter loads is much more productive and safer than making one trip with a heavy load. Remember these important tips in addition to the basics:

- Test every load before you lift it.
- Make sure the load is balanced and packed so it won't shift.
- Be sure you have a tight grip on the object.
- Use lifting equipment, dollies, handles, and other machines whenever possible.
- Remember that a small load does not always mean a light load.

West Virginia Local Technical Assistance Program
West Virginia University
College of Engineering and Mineral Resources
Department of Civil and Environmental Engineering
PO Box 6103
Morgantown, WV 26506-6103

Change Service Requested



Non-Profit Organization
U.S. Postage Paid
Morgantown, WV
Permit No. 34

Mark Your Calendar!

Upcoming Training:
September 30, 2010
The Snow and Ice Control
Workshop will be held at the
Days Hotel Conference Center
in Flatwoods, WV.

Call 304-293-9924 , or visit
<http://wvltap.wvu.edu> to find
out more information.