

Country Roads & City Streets

WV Local Technical Assistance Program

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ASSET MANAGEMENT ADVICE

Sabrina DeVall, Public Relations Assistant, WV LTAP

Does your agency have an effective method for tracking costs? Do you know where your money goes? Can you justify project spending and allocation of funds? If you are tracking your expenditures and have a quick, efficient way of retrieving information, you can probably answer yes to all of these questions. If you are not sure, your agency probably does not have a reliable asset management program. An Asset Management System (AMS) will ensure all decisions are based on accurate data, sound engineering, and economic analysis. It will help you manage all projects in a more cost-effective manner.

Implementing an AMS can sound overwhelming and difficult, but the end result of good reports and analysis will make all the work worth the effort. Before selecting a long-term system, ask these questions:

1. Do I have a current inventory of assets?
2. What is the current state of my assets?
3. What is the required level of service?
4. Are current assets essential to sustained agency performance?
5. What are my best investment strategies?
6. What are the best long-term funding strategies?



When you have answered these questions, you can begin framing a personalized AMS for your agency. This process should begin with a look at the *goals and objectives* you want to meet; they must be realistic, clear, and supported by all who are responsible for implementing them. *Decision making and allocation* is the next step. Decide on allocation of dollars for staff, equipment, materials, and other resources. Realize that these decisions must be proactive allocations based on goals and service levels and remember that customer expectations must be considered as well.

These initial steps are often referred to as data collection. This means you are adding information about the road or street network and

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 West Virginia University



<http://wvltap.wvu.edu>

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FAMILIAR FACE, NEW POSITION

Country Roads & City Streets is a quarterly publication of the West Virginia Local Technical Assistance Program (WV LTAP). The purpose of this newsletter is to provide information that is beneficial to roadway construction and maintenance personnel.

The material and opinions contained in this newsletter are those of the West Virginia Local Technical Assistance Program and do not necessarily reflect the views of the Federal Highway Administration or the West Virginia Department of Transportation. Material contained in Country Roads & City Streets is a combination of original and borrowed material. Every effort has been made to ensure the integrity and accuracy of this material; however, the West Virginia LTAP does not assume responsibility for any incorrect material.



**Enhancing Transportation
in Your Community**



WV LTAP would like to introduce our new director, Dr. John Zaniewski, a professor at West Virginia University. Though Dr. Zaniewski is the new director, he is not new to the Center. He has been working with the WV LTAP as a trainer, teaching several courses such as Asphalt Preventive Maintenance and Asphalt Specs, Construction, and Inspection.

Dr. Zaniewski received a BSCE with Honors from the University of Texas at Austin in 1972 and an MSCE in 1974. He received a Ph.D. from the University of Texas at Austin in 1978. His primary research focus area is in pavements, with specific interests in asphalt materials, pavement design, pavement management, and highway construction. He is a member of the American Society of Civil Engineers

(ASCE), the Transportation Research Board (TRB), and the Association of Asphalt Paving Technologists (AAPT).

Dr. Zaniewski has been an educator with West Virginia University for twelve years. He accepted the Asphalt Technology Professor position in 1996 with the Civil and Environmental Engineering Department after eleven years of teaching at Arizona State University and eleven years as a practicing engineer.

Though the LTAP staff is sorry to lose Dr. Eck as director, we are very pleased to have Dr. Zaniewski joining our team. When asked about Dr. Zaniewski assuming the role as director, Kim Carr said, "We are very excited to have Dr. Zaniewski join our Center. His areas of expertise will help us expand the services we are able to offer our customers."

Dr. Zaniewski is also excited about this new opportunity. Dr. Zaniewski says, "I am very pleased to have the opportunity to work with the LTAP Center at WVU. Dr. Eck has laid the foundation for an excellent Center and it will be a pleasure to work with the Center staff, the Advisory Board, and the WVDOT to continue and further develop this program."

WV LTAP ATTENDS NATIONAL CONFERENCE

WV LTAP staff members attended the 2008 National Local Technical Assistance Program Association (NLTAPA) Conference in July. The conference highlighted ways to better manage and operate LTAP Centers and provide more effective training.

Dr. Ron Eck and Kim Carr both presented and moderated sessions at the conference. Dr. Eck presented a session on LTAP involvement with roadway safety programs; Kim offered a session on branding and marketing LTAP Centers. Next year, WV LTAP will be assisting with the 2009 NLTAPA Conference. Hosted by Region 3, the conference will be held at the Omni William Penn Hotel in Pittsburgh, Pennsylvania.

NEW HIGH-VISIBILITY APPAREL RULE

by *Sabrina DeVall, Public Relations Assistant, WV LTAP*



All workers within the right-of-way of a Federal-aid highway who are exposed either to traffic (vehicles using the highway for purposes of travel) or to construction equipment within the work area shall wear high-visibility safety apparel.

Effective November 24, 2008



Who is a Worker?

The new rule requires all “people on foot whose duties place them within the right-of-way of a Federal-aid highway” to wear Class 2 or Class 3 high-visibility apparel when working on Federal-aid highways. Examples include:

- Construction and Maintenance Forces
- Survey Crews
- Utility Crews
- Responders to Incidents
- Law Enforcement Personnel

Previous rules required only flaggers to wear high-visibility apparel, but Rule 634.3 extends the requirement to include *all* workers who are working in the right-of-way of a Federal-aid highway.

What is a Federal-Aid Highway?

A Federal-aid highway means “highways on the Federal-aid highway system and all other public roads not classified as local roads or rural minor collectors.”

Your local West Virginia Division of Highways office should have a list of which roads are considered Federal-aid highways. To better understand, they are the only roads eligible for funding through FHWA.

It is anticipated, however, that in 2009 the revisions to the MUTCD will require high-visibility apparel for anyone working on a road open to public travel, not just to Federal-aid highways.

WV LTAP recommends that by November 24, 2008, all roadway workers wear Class 2 apparel or better, regardless of what type of road they are working on.

What is High-Visibility Apparel?

There are three classes of high-visibility apparel. To be compliant with this rule, workers’ dress must meet Class 2 or Class 3, as defined by ANSI/ISTEA 107-2004. Classes are based primarily on the area (in square inches) of: background material, highly retroreflective material, and the retroreflectivity of the material.

All vendors that sell ANSI/ISTEA 107-2004 Class 2 or Class 3 vests are required to state that the apparel



meets the standard and to list the corresponding class on the tag.

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TOO BUSY TO TRAIN? THINK AGAIN

Linda Hanson, Certified Management Consultant

There is no doubt that workers in many industries today are pushed to produce more in less time. That may be why research shows today's workers are less satisfied with their jobs versus a decade ago. In addition, as large numbers of baby boomers prepare to leave the work force, they will be increasingly replaced by younger workers, who tend to be more dissatisfied with their jobs than older workers. They also have different attitudes and expectations about the role of work in their lives. This transition presents a new challenge for many employers and may be impacting your ability to get managers and field crews to reach their full potential.

The answer to the problem for many agencies and companies is to provide more training and coaching to their employees. If your field personnel receive less than eight hours of training per year, there won't be any changes in production. Many organizations focus on more training for their management. While that is good, construction companies make or lose most of their money out on the job site, not in the office. Quality, service, and productivity happens—to a great extent—out in the field.

Your training goal should be to provide 40 hours of training per year, per employee.

because as a manager there are constraints on you. But leaving people to learn by doing or by the trial and error method is costly. Set a goal to conduct training that will help your employees excel. Your training goal should be to provide 40 hours of training per year, per employee. The total cost probably won't be more than two percent of your payroll cost but the return will be much higher improvement in bottom-line productivity.

To get started, call a meeting with your managers or team to select and prioritize training topics. In future years, make it a habit to cover the same topics, plus add new ones—there are always new people and refresher classes reinforce correct performance. Allocate training time each week, such as 30 minutes every Tuesday morning. Remember, training can be held in the office or on the job site, but it should always

Most public agencies don't have formal training programs and making time to train employees is challenging

be interactive. Use the old method of telling them what you are going to tell them, tell them, show them, let them do it and tell them again. Follow up by coaching participants until they get it right then recognize those who do a good job. Share training duties among your crew, based on experience and skill, so everyone gets a chance to teach. There are times when you should use outside people to instruct on new or technical tasks. Bringing in a specialist to train or sending employees off site to interactive seminars and workshops can be worth the investment, providing you coach them after they get back on the job so they are implementing their new skills.

People want to make a meaningful contribution on the job and they want to be recognized for their efforts. Training does this and it also fosters team spirit and more enthusiasm for their work. Use training and coaching to build productivity, quality of work, motivation, and company loyalty.

This article was written by Linda Hanson, CMC, a certified management consultant and author of 10 Steps to Marketing Success. She writes, speaks and consults on marketing, management and customer service issues. She can be contacted at www.lhenterprises.com.

2008 CHAIN SAW SAFETY WORKSHOP AND FELLING DEMONSTRATION



Over 40 attendees were eager to “sharpen” their chainsaw skills and learn how to be more efficient and safe with one of the tools of their trade. Representatives from the WV Parkways Authority, WVDOH, a local fire department, and others participated in the one day workshop held in Beckley, WV.

Workshop participants were treated to lively instruction by Cary Shepherd, a Husqvarna national training specialist from Forest Applications Training, Inc. Among other topics, Cary discussed personal protective equipment and safety, chain saw operation and maintenance, and directional felling. Cary felled a tree on site to demonstrate techniques discussed throughout the day.

The WV LTAP staff extend a special thank you to the APWA-WV Chapter for helping sponsor this event and the WV Parkways Authority for providing the class location.

SELECTING THE PROPER SNOWPLOW

Mark Franz, Technical Assistant, WV LTAP



The wintry weather will be here before we know it and now is the perfect time to start planning winter road maintenance. Like all equipment, snowplows should be selected based on the tasks they will be performing. In addition, a buyer must consider the cost (both initial and long term) of owning a snowplow. Plows are generally sold in a package, including the mold board, mount, lights, wiring, cab controls, hydraulics, and guide flags. Before making a decision, consider the following information.

TRUCK

The truck you use will limit the size of the plow that can be attached. Though some trucks come equipped with a “snowplow prep package,” they may not have the front axle rating to hold the desired plow. Ensure a truck can support the desired plow by checking with a plow dealer or the plow’s manufacturer. Overloading the front end of a truck with an oversized plow may lead to stress on the front end suspension and reduce braking ability.

PLOW TYPE

Front end plows generally come in two varieties: traditional straight edge and the “V.” The “V” plow can achieve three positions, the “V,” the scoop (reverse “V”), and the traditional straight edge. Obviously, V-plows are more versatile and potentially more efficient than the

traditional straight edge plows, but they require an experienced snow plow operator.

MOLD BOARD MATERIAL

Mold boards are typically made of two materials, steel or polyethylene (commonly termed “poly”). Steel plow packages tend to weigh less, by about 50-100 pounds because the mounting system is lighter than poly mounting systems. While poly is a stronger material than steel, steel has an advantage because it can be welded and repaired more readily. Poly plows, however, allow snow to roll off the blade better than steel, thus creating more efficient plowing. In general, a poly plow will cost \$150-\$200 more than a steel plow of the same size.

Another option becoming more popular, is stainless steel. Stainless steel plow packages usually cost less than traditional steel or poly, but they do not have as many options as traditional plows and generally come equipped with only a basic mount.

ACCESSORIES

Snowplow packages are available with a number of options, including the mount, hydraulics, the control mechanism, snow deflectors, back dragging edges, plow wings, and guide flags. Many of the basic components are included in the plow

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The West Virginia LTAP Center is a part of the nationwide Local Technical Assistance Program (LTAP), which is funded by the Federal Highway Administration. The program also receives funding from the WV 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.

Overall Goal:

The Center's overall goal is to improve the transportation system by focusing on professional training, technical assistance, and information dissemination.

To achieve this goal, the WV LTAP does the following:

- Provides on-site training and demonstrations
- Publishes a quarterly newsletter
- Maintains a video, CD-ROM, and publications library
- Provides technical assistance via mail, telephone, fax, email, or site visits



UPDATED TRAINING COURSES

WV LTAP offers many Roads Scholar courses to keep you informed and improve safety for transportation workers and the public. These courses are open to transportation workers, those in the private sector, and the general public. Below is a sample of some of the Roads Scholar I courses. You can find out more about specific courses by visiting <http://wvltap.wvu.edu>. You can also contact us to schedule training at your location. Please contact Kim Carr by phone: (304) 293-3031 ext 2612 or email: kim.carr@mail.wvu.edu.



PROPER SIGNS AND MARKINGS

This course will introduce and review the applicable standards and guidelines, from the most current edition of the *Manual on Uniform Traffic Control Devices* (MUTCD), that are needed to properly install signs and pavement markings. The session includes discussions on sign and marking retroreflectivity, inventories and management, updates to the MUTCD, and examples of improper signage. This workshop will help attendees identify practices to reduce crashes and improve safety on the roads they maintain.

WORK ZONE TRAFFIC CONTROL

This workshop will familiarize participants with relevant manuals/standards, give guidance in selecting the traffic control devices best suited to field conditions and recommendations on the use of standard traffic control layouts, and provide a better understanding of the planning,

designing, installing, and maintaining of temporary traffic control zones in highway work areas. The session also includes a hands-on game-board exercise.

EQUIPMENT OPERATION AND WORKER SAFETY

State and municipal road workers and public works personnel must operate a wide range of on- and off-road equipment in a variety of hazardous situations. This workshop stresses key training points for the safe and effective operation of typical equipment—dump trucks, loaders, graders, chainsaws, etc. Safe and efficient work procedures for lifting, handling hazardous materials, working in confined spaces, winter maintenance, and other topics of this nature are also covered.

ASPHALT ROADS: COMMON MAINTENANCE PROBLEMS

This course will help participants recognize the types and causes of common distresses in asphalt pavements such as potholes, rutting, raveling, alligator cracking, etc., and the correct repair procedures for each pavement distress.

This course will also cover proper treatment alternatives, materials, and equipment, along with the importance and benefits of having a preventive maintenance strategy.



ASSET MANAGEMENT ADVICE

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the activities performed. For this information to be useful, it must be up-to-date. There are many computer software options available or you can create your own. Most AMS users prefer software with a geographic information system (GIS) package that is useful in creating maps and graphs. After you have selected the appropriate software, you are ready to move on to *implementation*.

IMPLEMENTING AN AMS

A good AMS depends on good data management. You should start program implementation, based on the collected data, in the most cost-effective manner possible. This means considering what projects should be addressed first, and in what manner. It also means considering different delivery options. Should you use a contractor, interagency agreements, or design-build projects? Knowing your data will help you decide which is best. You also

need to monitor what actions are taken, the costs involved, and learn from your actions to help with future decisions and analysis. The final framing in implementing an AMS is *analysis*.

Analyzing the data collected and the management of data is critical to providing a better estimate of operations and maintenance costs. Your agency needs a system that will give good feedback, measuring the extent to which established performance objectives are addressed. All information in the analysis has to be accurate, objective, current, and targeted toward the goals and objectives evaluated in the initial AMS setup.

CHALLENGES AND BENEFITS

There are challenges to implementing an AMS, but the benefits of a good system will outweigh the difficulties. Your agency may have trouble linking the asset management data

to decision making or even knowing what data to collect. Some involved may resist change, making it difficult to develop management support and commitment. You will also have to identify the responsible individuals for implementation.

On the other hand, there are also many benefits to an AMS. One of the best—improved customer satisfaction! An AMS will benefit customers by:

- Maximizing roadway service performance,
- Minimizing life cycle costs,
- Proving decision makers accountable,
- Allowing your agency to be better positioned to anticipate and secure needed funding,
- Improving highway safety, and
- Matching service levels with customer expectations.

If you can overcome a few obstacles, you will find many benefits in the years to come. Your agency will be able to completely justify the allocation of funds and you will be helping all those involved and any successors make better decisions.

Whether you see immediate benefits or not, we all need to know where our dollars are going. Assess your needs and resources and begin making better decisions. You will know you have an effective AMS when you are using the system to make decisions.

There are multiple resources available to help you get started using an AMS. The following lists some resources in the WV LTAP lending library that you may find helpful.

Asset Management: Tools for Implementation (MN02.1)

Financing Capital Investment: A Primer for the Transit Practitioner (FN03.1)

Asset Management: A Strategic Approach to Managing the Nation's Highways (MG03.2)

NEW ADDITIONS TO THE LENDING LIBRARY

PUBLICATIONS



Bridge Evaluation Quality Assurance in Europe (BR08.1)

Soil Stabilization: Driving on a Solid Foundation (GT08.2)

Long Term Pavement Performance Computer Parameter: Moisture Content (PV08.3)

Minimum Retroreflectivity Levels for Blue and Brown Traffic Signs (TS08.2)

Informational Report on Lighting Design for Midblock Crosswalks (MC08.6)

CD-ROMS AND DVDs

HPC/Deck Overlay Workshop; FHWA (109)

Follow-Up Survey; High Performance Concrete State DOT Implementation; FHWA (110)

The National ITS Architecture, Version 5.0; US DOT (111)

2008 RMC Deposition Recording; WV LTAP (113)

This is only a sample list. For more information on the available library materials, please visit the website regularly and check out the Libraries link: <http://wvltap.wvu.edu/library.htm>, or contact Mark at (304) 293-3031 Ext. 2611, or by email: Mark.Franz@mail.wvu.edu.

SELECTING THE PROPER SNOWPLOW *continued from page 5*



Smaller municipalities may find this type of snowplow effective.

packages, but customizing your plow setup or replacing any part of it may cost extra.

Lastly, it is important to consider the manufacturer or dealer you are buying the plow from. Since repairs are inevitable, warranties, service, and part inventories should be considered before making a purchase. When your plow needs a repair in the middle of a snow storm, can you rely on the dealer to have the parts and services

needed to quickly get your truck back on the road?

These are all important factors and can really help you make the best decisions when purchasing equipment. Consider them carefully to have a successful and efficient snowplowing season.

Special thanks to LH Jones Equipment Company for their help in writing this article and for providing the equipment used in the photograph.

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PROOF IN NUMBERS

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- The WV LTAP Center has conducted 306 training sessions.
- Nearly 7,700 participants have taken advantage of LTAP training.
- *Country Roads & City Streets* has an average annual circulation of 9,800.
- WV LTAP staff has provided technical assistance 279 times.
- The Center has distributed 7,584 technical and reference materials.
- In 2007, WV LTAP distributed 10 Work Zone Sign Packages to local West Virginia communities, valued at approximately \$2,700.00 each.