



MARYLAND
TRANSPORTATION
TECHNOLOGY
TRANSFER CENTER

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

www.mdt2center.umd.edu

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New Work Zone ASE Law Takes Effect



The Maryland State Highway Administration (SHA) promotes a three-pronged approach to effectively manage speed related safety problems: Engineering, Education and Enforcement. Automated Speed Enforcement (ASE) systems can be an effective tool for managing speed and reducing speed related crashes when used correctly and in the appropriate circumstances.

Through an ASE program involving public education and visible enforcement, SHA seeks to change behavior and urge drivers to do what they already should be doing: driving responsibly, staying alert, and obeying the posted speed limit. Maryland law, effective October 1, 2009, allows Automated Speed Enforcement in certain school zones and work zones. Below you will find answers to some frequently asked questions about ASE in work zones:

What are automated speed enforcement (ASE) systems?

An automated speed enforcement (ASE) system is an enforcement technique with one or more motor vehicle sensors producing recorded images of motor vehicles traveling at speeds above a defined threshold. Images captured by the ASE system are processed and reviewed in an office environment and violation notices are mailed to the registered owner of the identified vehicle. Often, these systems are referred to as speed cameras.

What are the goals of automated speed enforcement in work zones?

The goals of this program are to encourage a change in driver behavior and to increase driver awareness of the impacts of speed-related crashes in work zones. Driving too fast for conditions is one of the most prevalent factors contributing to traffic crashes. Nearly one-third of all fatal crashes are speeding-related (NHTSA, 2007). Lane restrictions and other hazards in a work zone make it imperative for drivers to stay alert and obey the posted speed limit. Driving too fast for conditions reduces a driver's ability to steer safely around curves or objects in the roadway, extends the distance necessary to stop a vehicle, and increases the distance a vehicle travels while a driver reacts to a dangerous situation.

When will the first speed cameras be allowed in work zones?

Maryland law allows speed cameras in work zones starting October 1, 2009. There is a 30-day period following the installation of the first work zone ASE system where violations recorded may only be enforced by the issuance of warnings. This warning period is anticipated to occur during October 2009 and will be used by SHA for public education and awareness. After that period, citations will be issued.

Where will the speed cameras be located and how are the sites selected?

To maximize the program's flexibility and impact, the speed cameras used in work zones will be deployed in vans or sport-utility vehicles referred to as "mobile ASE units". A mobile ASE unit can be located within the limits of any work zone on expressways and controlled access highways where the speed limit is 45 mph or greater. Initially, two mobile ASE units will be rotated through a series of predetermined work zones throughout the state. These locations will be posted online. The State Police Department and State Highway Administration are using a variety of factors to determine camera deployment areas, including a location's crash, speed and violation histories.

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Get to know the “Fundamentals of Life Cycle Cost Analysis” in the Federal Highway Administration’s (FHWA) new online course. Available through FHWA’s National Highway Institute (NHI), this free 6-hour training (Course No. FHWA-NHI-131113) is comprised of two live Web conference presentations and a Web-based independent study module.

The course covers the basic terminology, concepts, and processes of life cycle cost analysis (LCCA). “This course provides a critical foundation in LCCA, as well as prepares participants for FHWA’s follow-up Real Cost LCCA Software On site Implementation Workshop,” says Nathaniel Coley, Jr., of FHWA.

Both deterministic and probabilistic LCCA are presented in the course. Topics discussed include factors to consider when calculating user costs for a transportation project, including operating conditions, the effects of traffic and congestion, and cost components. Also featured is how to use probability and simulation to better understand risk in the decision making process, as well as how to quantify risk and mitigate its effects. Additional topics include data preparation, variability, Monte Carlo simulation, and other statistical tools. A demonstration of how to apply LCCA is provided, using FHWA’s Real Cost LCCA software.

The training is targeted at design, maintenance, and materials engineers; finance managers; programming personnel; management systems personnel; and planners and materials engineers. Proficiency in basic math skills is required. Participants needing to review basic math skills should consider completing NHI’s free online Transportation Curriculum Coordination Council Math Module (Course No. FHWA-NHI-134072) before signing up for the Fundamentals of Life Cycle Cost Analysis course.

For more information on scheduling the course, contact the NHI scheduler at 703.235.0534, via e-mail: NHITraining@fhwa.dot.gov, or visit www.nhi.fhwa.dot.gov. To learn more about this course or the FHWA Real Cost LCCA Software On site Implementation Workshop, contact Nathaniel Coley, Jr., at FHWA, 202.366.2171 or e-mail: nathaniel.coley@fhwa.dot.gov. For additional LCCA resources and details on the Real Cost software, visit www.fhwa.dot.gov/infrastructure/asstmgmt/lcca.cfm. The free software can be downloaded from the site, along with FHWA’s Life-Cycle Cost Analysis Primer (Pub. No. FHWA-IF-02-047) and other LCCA publications.



Visit www.fhwa.dot.gov/infrastructure/asstmgmt/lcca.cfm for life cycle cost analysis resources.

Reprinted from the May 2009 issue of FOCUS, a publication of the United States Department of Transportation and the Federal Highway Administration

Can't make FHWA's online session?

The MD T² Center is offering:

- **Techniques for Reducing Construction and Maintenance Costs** - Scheduled for October 8-9, 2009
- **Asset Management Conference** to be held November 5, 2009 at the University of Delaware's Clayton Hall, more information about the conference is posted on our web site.

For a look at our upcoming courses see pages 9-10 or visit us online at www.mdt2center.umd.edu



State Highway Administration Takes One Small Step To Renewable Power and One Giant Leap Toward Energy Sustainability

Astronaut Neil Armstrong's phrase uttered from one-quarter million miles away on the surface of the moon still gives chills to those who hear it. As America celebrates the 40th anniversary of the breathtaking moon landing, the Maryland Department of Transportation's State Highway Administration (SHA) is making a small step and a giant leap toward energy sustainability with the installation of a wind turbine at the Westminster Maintenance Facility in Carroll County. The installation is a pilot project to determine the feasibility and the effectiveness of using "green" wind energy to help power SHA facilities.

"A key to a better, stronger Maryland is the development of sustainable energy sources," said Governor Martin O'Malley. "Pilot projects like this one will help us unlock and harness the potential of wind power. With it we are developing a better understanding of how renewable energy sources can help satisfy our energy needs while protecting our environment. This SHA initiative is a step in the right direction and has the potential of opening the door to greater possibilities down the road."

SHA's \$25,000 pilot energy project is producing sustainable energy that flows directly to the shop's power grid. The 60-foot tall wind turbine can generate as much as 2,400 watts of green energy and an average of 700 kilowatt hours of clean and renewable energy each month, reducing monthly more than 1,400 pounds of carbon dioxide that would otherwise be produced by coal-burning power plants. This translates into an equivalent of driving 109,000 miles in an average American sedan annually. Over the course of its 20-25 year life, the turbine will reduce greenhouse gas emissions equal to driving 15-18 automobiles 150,000 miles each. The wind turbine pilot program was chosen due to its ease of installation, cost and ease of maintenance. The wind turbine is located in the back parking lot of the Westminster Maintenance Facility on Wyndtryst Drive. SHA completed the installation in mid-June.

"As part of the project, we will thoroughly evaluate the wind turbine's impact to the natural and cultural environment, mechanical operations and maintenance requirements," said SHA Administrator Neil Pedersen. "Our ultimate goal is to identify renewable energy sources that will help power SHA through the 21st century."

SHA selected the Westminster facility for the pilot project following wind assessments conducted by the Maryland Energy Administration (MEA). The Westminster wind turbine is similar to residential units. It is not visually intrusive and operates with limited noise or sound. SHA purchased the wind turbine from Montgomery County based Potomac Wind Energy in Dickerson.

"Clean energy is a triple win for the state because it saves money, creates jobs and advances our energy independence," noted MEA Director Malcolm Woolf. "The Maryland Energy Administration commends the SHA for their role in advancing the use of clean energy in our State, and I am pleased that they were able to take advantage of our Agency's



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The old public works battle cry of “doing more with less” has never been more true than today. As municipal budgets and state financial assistance are cut, effectively managing your infrastructure assets is more important than ever. Failure of municipal infrastructure directly impacts our economy, our safety and our quality of life. The breadth and depth of infrastructure continues to expand and at the same time, it continues to age and deteriorate. This multi-dimensional problem creates a tremendous strain on budgets that are already stretched much too far. It is a very complex dilemma that demands a well thought-out, systematic solution commonly referred to as, “infrastructure asset management.”

An infrastructure asset management system (IAMS) provides the process for optimizing the maintenance, repair, and replacement of all assets owned and operated by a municipality. IAMS covers all activities managed by public works departments from providing information on daily activities such as generating work orders to scheduling next month’s maintenance activities to developing annual budgets to long range planning through analysis of long-term performance of all assets.

Plan for Today

The maintenance management component of an IAMS includes a work order process involving database tracking of work required and completed related to labor, equipment, and material usage. Major components of the maintenance program include planning, organizing, scheduling, and controlling all activities. This includes both reactive as well as proactive maintenance. A service request feature allows agencies to track complaints from the initial call-in to completion of the work to citizen and management notification that the work was completed.



Asset Management can address some or all of your strategic infrastructure - pavement, curbs, sidewalks, signage, drainage, water, wastewater, parks, buildings, and so on.

Plan for the Future

The planning capabilities of an asset management system allow an agency to predict future maintenance and replacement needs. Based upon the predicted maintenance and replacement needs, both short-term and long-term budgets are developed. Since virtually no agency has the financial capability to meet all future needs, prioritization analysis tools utilizing risk analysis methodologies allow the municipality to identify the future consequences of today’s funding decisions and provide for better planning to meet future needs.

Save Money

Asset management allows municipalities to systematically select the right repair at the right time at the right location in order to minimize the life-cycle costs of its assets. Properly implemented maintenance management systems improve labor, equipment, and material efficiency resulting in significant cost savings. Long range planning tools provide the necessary information for decision-makers to make cost-effective funding decisions for future repairs and replacement of assets.

Reduce Community Complaints

Keeping track of asset conditions, reacting to service requests in a timely fashion and developing an efficient maintenance management program will greatly reduce the community’s frustrations. Additionally, by having a proactive maintenance and replacement program, unanticipated asset failures will be minimized.



Written by MD T² instructor Alan Kercher

Reprinted from the Summer 2009 issue of Travel-Log, a publication of the Delaware T² Center.

For information on how effective asset management can pay for itself for your municipality, please contact the Delaware T² Center.

On November 5, 2009, the Delaware T² Center will be hosting a one-day Asset Management Conference at the University of Delaware’s Clayton Hall. Check our web site www.mdt2center.umd.edu for more information.

Two new volumes in the Federal Highway Administration's (FHWA) Traffic Analysis Toolbox series offer transportation departments guidance in using a range of analytical tools for work zone planning and management. "Successfully deployed, these tools can be invaluable assets in understanding and minimizing road user delays and keeping key stakeholders informed," says Tracy Scriba of FHWA. "While the use of analytical tools as part of work zone impacts analysis may not be necessary for every project, these guides will help agencies understand the available analytical approaches and tools and determine how and when they might be best applied to support work zone analysis and decision making."

The analytical tools can include software such as FHWA's QuickZone program and construction analysis for pavement rehabilitation strategies (CA4PRS), which was developed under an FHWA pooled fund study by the Institute of Transportation Studies at the University of California at Berkeley.

Analyzing work zone impacts can help transportation agency personnel improve decision making, taking into consideration the many factors affecting work zone planning such as mobility needs, finances, environmental impacts, safety, and user costs. "Having a better understanding of likely work zone impacts can help State and local agency staff make more informed decisions during planning, design, and construction and know how those decisions are likely to affect road users, businesses, other transportation modes, and transportation system performance," says Scriba.

Work zone analysis can include consideration of impacts to:

- Mobility and safety at both the corridor and network levels.
- Concurrent projects that are located near each other or alternate routes for other projects.
- Nearby intersections and interchanges, railroad crossings, and public transit.
- Evacuation routes.
- Affected public property such as fire stations, parks, and recreational facilities.
- Affected businesses and residences.

Volume VIII in the Toolbox series, *Work Zone Modeling and Simulation - A Guide for Decision-Makers* (Publication number FHWA-HOP-08-029), offers high-level guidance to executive staff on how analytical tools can be used to support work zone decision making throughout an entire project life cycle. The guide categorizes decision making into three types: scheduling, application of construction techniques, and transportation management plan decisions. The guide also identifies six areas of impact that should be considered when analyzing work zones: safety impacts for motorists, safety impacts for workers, mobility impacts, economic considerations, environmental concerns, and user costs. Primary attention is given to mobility impacts, where the broadest range of tools and analytical techniques are available.

A section on transportation analysis approaches describes the classes of tools available to support work zone mobility analysis, including sketch-planning tools, travel demand models, and simulation models.

"The guide also features a sample analysis process and checklist that may prove helpful in structuring an effective approach to using an analytical process to support work zone planning," says Scriba.



FHWA's new guides will help agencies in using analytical tools for work zone planning and management.



Volume IX of the Toolbox, *Work Zone Modeling and Simulation - A Guide for Analysts* (Publication number FHWA-HOP-09-001), provides specific guidance to an analyst, researcher, or manager in charge of conducting a work zone analysis project or developing an overall work zone modeling

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program or approach. The volume includes numerous case study examples, including a pavement reconstruction project on I-15 in California, the rehabilitation of the Going to the Sun Road in Montana's Glacier National Park, and the reconstruction of the Woodrow Wilson Bridge outside of Washington, DC.

Featured in Volume IX is detailed discussion of five categories of work zone analysis factors that should be considered when deciding whether or not to conduct a work zone analysis: work zone characteristics; transportation management plan strategies, including temporary traffic control and public information strategies; data, including the availability and quality of the data; agency resources; and work zone performance measures, including travel time, delay, queue length, speed, and financial impacts. Additional topics include establishing a strategic methodology for work zone analysis and identifying a transportation modeling approach.



Analytical tools can provide agencies with a better understanding of roadway work zone impacts.

Volumes VIII and IX of the Traffic Analysis Toolbox are available online at www.ops.fhwa.dot.gov/wz/traffic_analysis. Printed copies are available at no cost by sending an e-mail with the name of the requested publication and shipping information to workzonepubs@dot.gov. The two new Toolbox volumes build on an earlier FHWA guide that discussed the range of work zone impacts issues and a broad framework for assessing those impacts. This earlier guide, *Work Zone Impacts Assessment: An Approach to Assess and Manage Work Zone Safety and Mobility Impacts of Road Projects* (Publication number FHWA-HOP-05-068), is also available online at www.ops.fhwa.dot.gov/wz/resources/final_rule/wzi_guide/index.htm and in print by e-mailing workzonepubs@dot.gov. Additional online resources include FHWA's web pages on Types of Traffic Analysis Tools (www.ops.fhwa.dot.gov/trafficanalysisitools/type_tools.htm), Work Zone Traffic Analysis (www.ops.fhwa.dot.gov/wz/traffic_analysis), and Work Zone Traffic Management (www.ops.fhwa.dot.gov/wz/traffic_mgmt). For more information, contact Tracy Scriba at FHWA, 202.366.0855 or e-mail tracy.scriba@fhwa.dot.gov, or Chung Eng at FHWA, 202.366.8043 or e-mail chung.eng@fhwa.dot.gov.

For information on workshops that FHWA will be holding on the new Traffic Analysis Toolbox guides, contact Daniel Grate at the FHWA Resource Center at 410.562.3912 or by e-mail daniel.grate@fhwa.dot.gov.

A quick overview of work zone analysis is offered in a new FHWA brochure, *Using Modeling and Simulation Tools for Work Zone Analysis* (publication number FHWA-HOP-09-038). The brochure looks at the definition of work zone analysis, as well as how modeling and simulation can be used as part of the analysis. Several case studies are also highlighted. To download the brochure, visit www.ops.fhwa.dot.gov/wz/traffic_analysis (see "Work Zone Analysis Leaflet").

*Reprinted from the July 2009 issue of FOCUS, a publication of the
United States Department of Transportation and the Federal Highway Administration.*

Recycling Maintenance Material Key Element of Governor O'Malley's Smart, Green and Growing Initiative

On September 24, 2009 the Maryland Department of Transportation's State Highway Administration (SHA) announced its working with the local construction industry to develop environmentally safe methods of recycling pavement for use on future highway projects. Local contractor P. Flanigan and Sons' Winchester Recycling facility in Baltimore produces 100 percent recycled crushed graded aggregate base (GAB). This is the base material used on a roadway prior to paving operations. The recycled material is being used on SHA's \$12.4 million widening project along MD 295 (Baltimore Washington Parkway) between I-695 (Baltimore Beltway) and I-195 in Anne Arundel County.

"P. Flanigan and Sons has been using recycled materials for many decades. The Winchester facility is just one example of our continued efforts to make infrastructure and transportation construction more environmentally friendly," said Pierce Flanigan IV, President of P. Flanigan and Sons. "We are proud to receive approval from SHA and hope the use of recycled products become more widespread. Through extensive testing, the Winchester plant ensures that the quality of recycled GAB upholds the standards of SHA for materials to be used in infrastructure projects."

Using recycled crushed aggregate saves fuel that would otherwise be spent while mining for new material and its subsequent transport from quarries. Reducing fuel consumption has the added benefit of lowering vehicle emissions, which are harmful to the environment. Additionally, recycling pavement material conserves shrinking landfill space. So far, both plants that SHA approved for GAB recycling have saved more than 13,000 tons of natural (not yet mined) aggregate.

SHA has certified two local crushed aggregate recycling centers to incorporate recycled GAB into SHA projects. SHA's Office of Materials and Technology rigorously evaluates each project that uses recycled GAB for its effectiveness for a project and environmental protection. SHA envisions a future where recycled GAB will be part of the competitive bidding process on all resurfacing contracts.

"I applaud the innovative use of recycled aggregate for construction projects throughout the State," said Neil J. Pedersen, SHA's Administrator. "SHA is building environmentally-focused projects and the use of recycled aggregate is a step toward paving the way for a greener and more sustainable highway system."

SHA has also worked with other contractors to use recycled GAB. David A. Bramble, Inc., an eastern shore contractor, has been certified to use recycled GAB for the ongoing \$22 million US 113 widening project from Hayes Landing Road to north of Goody Hill Road in Worcester County.

SHA is helping to turn the tide of climate change by reducing its State fleet of vehicles by 10 percent by the end of 2010. In addition, SHA is using a five percent blend of bio-diesel fuel in equipment, as well as recovering and recycling motor oil and filters, Freon, antifreeze, tires and batteries. In 2008, SHA received a \$250,000 grant from the Environmental Protection Agency to retrofit 25 dump trucks with emissions filters. Additionally, out of a fleet of 930 pool vehicles and light trucks, 270 vehicles are equipped to operate on flex fuels such as a E85 (a blend of gasoline with 85 percent ethanol).

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CITE Blended Courses for 2009

The Consortium for ITS Training and Education (CITE) announces its Blended Course schedule for 2009. Scheduled courses include:

- Principles and Tools of Road Weather Management, October - November
- Introduction to Systems Engineering, October - November
- Configuration Management, December

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

Recycling material, reducing emissions and reusing items are ways SHA is reducing output that may lead to climate change. These and the other earth-friendly processes and procedures are consistent with Governor O'Malley's Smart, Green and Growing Initiative.

Introduced by Governor Martin O'Malley in October 2008, Maryland's Smart, Green & Growing initiative was created to strengthen the state's leadership role in fostering smarter, more sustainable growth and inspiring action among all Marylanders to achieve a more sustainable future. The initiative brings together state agencies, local governments, businesses and citizens to create more livable communities, improve transportation options, reduce the state's carbon footprint, support resource based industry, invest in green technologies, preserve valuable resource lands and restore the health of the Chesapeake Bay.

*For more information about Maryland's Smart, Green & Growing initiative, visit: <http://www.green.maryland.gov/>
This article was reprinted from the Maryland State Highway Administration*

Selling the Public Works Budget to the Public

In these difficult economic times, it is even more critical that you can successfully sell your public works budget to the elected officials of your local agency and to the public.

Here are a few tips from Hank Lambert, a new MD T² Instructor and former director of the Vermont Local Roads Program.

Develop a Concise Summary of the Budget

A concise summary and guide for informing the Board and involving the public is valuable. There is no set format. It may include a transmittal letter, a budget message, an executive summary, or a budgeting brief. At a minimum, a summary should do the following:

1. Summarize the major changes in priorities or service levels from the current year and the factors leading to these changes.
2. Articulate the priorities and key issues for the new budget period.
3. Identify and summarize major financial factors and trends affecting the budget, such as economic factors, long-range outlook, significant changes in revenue collections, tax rates, or other changes, current and future debt obligations, and significant use of or increase in fund balance or retained earnings.
4. Provide financial summary data on revenues, other resources, and expenditures for at least a three-year period, including prior year actual, current year budget, and/or estimated current year actual and proposed budget.

Tips for Presenting the Budget to the Board and to the Public

Ask First: "Have I fully involved my staff in developing the department's budget?"

1. Tailor the presentation to the situation, and what you want the Board (and the public) to decide. Begin with an overview of the presentation.
2. Revenues – explain key assumptions in developing revenue projections and show anticipated revenues by source.
3. Expenditures – explain key assumptions (inflation rates, staff turnover, anticipated increases), show expenditures by program, and project changes in salaries and fringe benefits.
4. Programs – briefly explain new requirements, give status reports on programs, and explain proposed new program initiatives and justification.
5. Focus on what interests members of the audience (support existing programs, new programs, effect on property taxes, and staffing).
6. Discuss implications of the budget (facilities, taxes, debt); show benefits if passed; explain the consequences if the budget is cut.

This article was reprinted from the Spring 2009 newsletter of the Connecticut Technology Transfer Center.

The MD T² Center is offering Budgeting for Public Works Departments on December 9, 2009. For more information about this class see page 10 or visit us online at

www.mdt2center.umd.edu

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.

SIGNAL WARRANT & INTERSECTION CONTROL ANALYSIS

Dane Ismart

October 6, 2009, 8:30am – 4pm

College Park, Maryland
\$120 Maryland Local Government
\$150 Maryland State Government
\$175 All Other Participants
CEU's: 0.6

This course will cover the eight MUTCD signal warrants: eight-hour vehicle volume, four-hour vehicle volume, peak hour, pedestrian volume, school crossing, coordinated signal system, crash experience, and roadway network. The course will also cover warrants for four-way stops as well as alternatives to traffic control signals.

TRAFFIC SIGNS

Ed Stellfox

October 7, 2009, 8:30am – 12:30pm

College Park, Maryland
\$50 Maryland Local Government
\$75 All Other 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.

TECHNIQUES FOR REDUCING CONSTRUCTION AND MAINTENANCE COSTS

Ed Stellfox

October 8-9, 2009, Day One: 8:30am - 3pm, Day Two: 8:30am - 12:30pm

College Park, Maryland
\$115 Maryland Local Government
\$135 All Other Participants

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.

WINTER MAINTENANCE

Ed Stellfox

October 14, 2009, 8:30am - 3pm

College Park, Maryland
\$75 Maryland Local Government
\$95 Maryland State Government
\$110 All Other 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 and formal snow plans.

TRAFFIC SIGN RETROREFLECTIVITY

Ronald Eck

October 20, 2009, 8:30am - 12:30pm

Denton, Maryland
\$50 Maryland Local Government
\$65 All Other Participants

This workshop is intended for those directly involved in sign maintenance, particularly sign retroreflectivity. Participants will be "walked through" the assessment techniques available for conducting sign maintenance with respect to retroreflectivity. Specific objectives of the workshop are to: review the new MUTCD requirements, understand sign inspection methods that can be used to evaluate sign retroreflectivity in compliance with the new requirements, and learn traffic sign inspection techniques that can assess sign retroreflectivity.

FLAGGER CERTIFICATION

Juan Morales

October 21, 2009, 8:30am - 12:30pm

College Park, Maryland
\$100 All Other Participants

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).

LOW COST SAFETY IMPROVEMENTS

Mark Hood

October 22, 2009, 8:15am - 4pm

College Park, Maryland

\$100 Maryland Local Government

\$125 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.

BLUEPRINT READING FOR HIGHWAY WORKERS

Glynn Stoffel

October 27, 2009, 8:30am - 4:30pm

College Park, Maryland

\$125 Maryland Local Government

\$150 Maryland State Government

\$175 All Other Participants

Upon successful completion of this course the student will be able to read and interpret many of these blueprints as well as demonstrate the ability to produce accurate and legible field sketches. At the conclusion of the course, the student will be able to...

- Recognize and define the various lines and symbols used in plan construction
- Describe and discuss the characteristics of plans, plats, profiles, views, details and other drawings found in a set of working plans
- Demonstrate the ability to use engineer's and architect's scales
- Demonstrate the ability to read and interpret the different blueprints and plans used in highway construction and maintenance
- Describe how to effectively use plans in the field
- Draw legible field sketches and as-built drawings

SITE IMPACT ANALYSIS

Dane Ismart

November 17-18, 2009,

8:15am- 4:30pm

College Park, Maryland

\$250 Maryland Local Government

\$285 Maryland State Government

\$325 All Other Participants

CEU's: 1.2

This two-day workshop gives participants the opportunity to learn the standard techniques for estimating the traffic

impacts of both small and large site developments. Content includes procedures for land use forecasting, trip generation, trip distribution and assignment, site impact layout design, and level of service designation. This is an excellent course for transportation engineers, traffic engineers, and concerned planners.

BUDGETING FOR PUBLIC WORKS DEPARTMENTS

Henry "Hank" Lambert

December 9, 2009, 8:30am- 3:30pm

College Park, Maryland

\$95 Maryland Local Government

\$125 All Other Participants

This course is designed to give public works managers some tools for developing a realistic budget and to present techniques for "selling" your budget, getting others to "buy into it", and help to promote it. Participants will also receive tips for dealing with the challenges of today's economy, the whims of Mother Nature, and the honest delivery of contracted services and materials. The workshop is a good introduction to budgeting for those responsible for developing and presenting public works budgets. Designed to assist public works directors, foreman and supervisors, select board members, elected officials and decision makers, and others with budgeting responsibilities.

THE 7 HABITS OF HIGHLY EFFECTIVE PEOPLE

Kim Carr

December 15-16, 2009, 8:30am- 4pm

College Park, Maryland

\$225 Maryland Local Government

\$250 Maryland State Government

\$285 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.

When placing a speed camera on a State route within the boundaries of a municipality, what is required?

First, you must obtain the permission of the State Highway Administration (SHA) to use a speed camera at the proposed location within that municipality. This is done by completing and submitting an application, keep checking www.marylandroads.com for the ASE in Work Zones application. The application and all required attachments need to be submitted to the District Engineer in the appropriate District Office. The application package will include:

SHA district permit application, vicinity map, a traffic safety study and justification for installation of the ASE system, plans for the ASE system, including supporting technical documentation and equipment specifications from the ASE system vendor, evaluation plan (for before-after studies), documentation of local law enforcement approval, and documentation of local ordinance or resolution approving the use of ASE systems.

Refer to Attachment A: Process for Submittal and Review of Applications for ASE Systems on State Highways in SHA's [Guidelines for Automated Speed Enforcement \(ASE\) Systems in School Zones](#) (PDF), for additional information on the application process.

Once SHA has approved the use of the speed camera at the proposed location, the County must notify the municipal corporation of SHA's approval. The County must also grant the municipal corporation 60 days from the date of notice to enact an ordinance authorizing the use of the speed camera by the municipal corporation instead of the County.

Will SHA provide funding for my jurisdiction's School Zone ASE program?

No. Each jurisdiction and municipal corporation is responsible for all costs associated with their ASE program. To fund ASE programs, Maryland law provides that revenues collected from citations issued using the speed cameras revert to the jurisdiction in uncontested cases. SHA provides no financial assistance for local speed camera programs.

*For more information about Maryland's ASE Program visit: www.marylandroads.com
This information was reprinted from the Maryland State Highway Administration*

New Wind Turbine in Westminster (concluded from page 3)

Windswept Grant Program to help bring this wind turbine to Westminster."

The Maryland Energy Administration, through its Windswept Grant Program, contributed \$6,000.00 toward the purchase and installation of the wind turbine. The wind energy pilot in Westminster supports Governor Martin O'Malley's Smart, Green and Growing Initiative, as well as the EmPower Maryland Initiative, and the Maryland Climate Action Plan. Introduced by Governor Martin O'Malley in October 2008, Maryland's Smart, Green & Growing initiative was created to strengthen the state's leadership role in fostering smarter, more sustainable growth and inspiring action among all Marylanders to achieve a more sustainable future. The initiative brings together state agencies, local governments, businesses and citizens to create more livable communities, improve transportation options, reduce the state's carbon footprint, support resource based industry, invest in green technologies, preserve valuable resource lands and restore the health of the Chesapeake Bay.

For more information about Maryland's new wind turbine's visit: <http://www.sha.state.md.us>.





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