

PennDOT Local Technical Assistance Program

DEPARTMENT OF TRANSPORTATION

pennsylvania

## *moving* forward **SPRING 2011**

A quarterly review of news and information about Pennsylvania local roads.

### LTAP Contract Renewed with PSATS

### New agreement maintains existing partnership among PennDOT, PSATS, and Pennoni

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PennDOT recently awarded a new contract with the Pennsylvania State Association of Township Supervisors (PSATS) to continue as the LTAP program administrator for the next three years. This announcement means that the quality road-related training, technical assistance, and other services that municipalities have come to expect in recent years from LTAP will continue seamlessly.

"We are pleased to continue our relationship with PSATS on the LTAP contract," said PennDOT's Deputy Secretary for Planning James Ritzman. "PSATS has been the administrator for the contract for the past five years, and its efforts in promoting and administering the program to municipalities have yielded excellent results. More municipalities across Pennsylvania know about the programs and services available through LTAP, and many more municipalities are taking advantage of what LTAP has to offer to improve their roadways. We look forward to working with PSATS in the next few years as we continue reaching out to municipalities with these valuable LTAP services."

As the prime contractor, PSATS will continue to oversee the day-to-day operations of LTAP

by coordinating the various components of the program and working with its engineering partner, Pennoni Associates Inc., two new partner groups, and the rural and metropolitan planning organizations to ensure that LTAP's technical information is current, available, and accessible to municipal officials and road crews. PSATS will also rely on its municipal connections to make sure the LTAP services reach as many municipalities as possible.

"We are excited to be chosen as the continued administrator of LTAP," said PSATS Executive Director David Sanko. "PSATS' connection with municipalities and our understanding of local transportation issues make us a natural choice to administer the Local Technical Assistance Program. Our priority with LTAP is to ensure that municipal officials and road employees are kept up-to-date on the latest trends and are given the information they need to make the best use of their often limited road maintenance funds."

To help ensure that LTAP's technical services reach municipalities, PSATS, which became LTAP's newest program administrator in 2005, will again partner with Pennoni Associates Inc., a multidisciplined consulting engineering firm with 11 offices throughout Pennsylvania. Pennoni has been serving municipalities and providing services under contract to PennDOT for four decades, and its transportation and municipal engineering experts will continue to serve as course instructors and technical assistance experts for LTAP.

See "LTAP Contract" on page 4

## Reducing Roadway Crashes State and Local Efforts to Invest in Safety Improvements Have Paid Off

by Amy Bobb, PSATS

The number of fatalities and serious injuries on Pennsylvania roadways continues to fall in recent years thanks to safety improvement efforts made at the state and local levels. Consider these PennDOT statistics as proof:

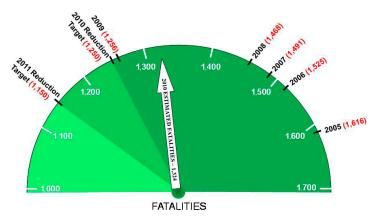
- The number of reportable crashes occurring in the state has declined almost **18 percent** from 147,646 in 2000 to 121,435 in 2009.
- An even more dramatic drop is evident in the extent of major injuries resulting from these crashes. During this 10-year period, the number of major injuries fell approximately **37 percent** from 5,162 in 2000 to 3,239 in 2009.
- Local roads have also experienced a steady decline in the number of crashes and resulting major injuries. Between 2003 and 2009, crashes have declined about **17 percent** at the same time that the number of crash-related major injuries has fallen nearly **29 percent** from 1,126 to 805.

"These drops in traffic accidents and injuries prove that what we've been doing is working," said Gary N. Modi, P.E., chief of the Safety Management Division for PennDOT's Bureau of Highway Safety and Traffic Engineering. He attributes the steady decline in crashes and crash-related major injuries and fatalities in recent years to three areas of emphasis:

- 1) Road safety improvements at the state and local levels.
- 2) A new funding source that helps municipalities fund projects designed to improve safety on roads.
- 3) Continued statewide focus on changing driver behavior through a variety of educational programs.

### Pennsylvania Highway Fatality Trend

Estimated 2010 Fatalities - 1,324



DISCLAIMER: THE ESTIMATED FATALITIES FOR 2010 IS SUBJECT TO CHANGE EVERY WEEK UNTIL THE LAST CRASH REPORT FOR 2010 IS ENTERED INTO THE CRASH RECORD SYSTEM.

### Safety Improvements to Roadways

Over the last three years, PennDOT has made safety improvements to both local and state roadways a priority. For municipalities, this emphasis on improved safety has been the focus of the Local Safe Roads and Walkable Communities Programs available from LTAP. These free programs target locations identified by PennDOT as having high crash rates. LTAP technical experts are sent to the affected municipality to conduct an investigation and generate low-cost recommendations for improving the identified problem area.

"These programs have created an awareness at the local level that a variety of simple, low-cost improvements exist to make roads safer," Modi said. Recommendations might include placing crosswalk signs in downtown districts to improve pedestrian safety (*Note: These signs are available free of charge from the bicycle/pedestrian coordinator at your PennDOT district)* or cutting down tree limbs and brush at an intersection to increase driver visibility.

At the state level, PennDOT has made specific safety improvements to its roadways. In recent years, the following enhancements to state highways have generated good results:

- Centerline rumble strips have been added to 3,231 miles of roadway since 2000, and head-on fatalities have dropped 38 percent as a result.
- Edge-line rumble strips have been added to 1,552 miles of roadway since 2000, and run-off-the-road fatalities have decreased about 23 percent as a result.
- More than 14,150 low-cost safety improvements to roads have been implemented since 1997, at the same time that the number of crashes has declined by almost 16 percent.
- Since 2001, more than 1,650 improvements were made to dangerous curves on roadways, resulting in a nearly 30-percent decrease in related crashes.
- With the improvement of 582 intersections since 2001, the number of intersection crashes has fallen nearly 16 percent.
- By removing trees and trimming branches at 2,691 locations since 2001, the state has noticed a 20-percent drop in fatalities caused by hitting trees during that time period.
- Likewise, with the relocation of 648 utility poles away from the edges of roadways since 2001, the number of fatalities caused by vehicles hitting poles has dropped by approximately 35 percent.
- Since 2001, 4,423 yield-to-pedestrian channelizing devices have been deployed at the same that pedestrian fatalities have declined by nearly 30 percent.

(*Note:* The above statistics do not include data for 2010. This data will not be available until June 2011.)

# Reportable crashes and major injuries continue to decline across Pennsylvania.

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"These numbers show that relatively simple fixes to roadways have been proven to work," said Modi. "By making these improvements to state roads, we are also conditioning drivers and modifying driver behavior to improve their driving record on local roads. For example, placing rumble strips on the centerline and along edges of roadways conditions drivers to stay in their lanes even when driving on roadways that do not contain similar warnings."

### **Funding Local Improvements**

To help municipalities fund low-cost congestion and safety-related projects on their roadways, a new funding source is now available from the state. In 2010, approximately \$7 million in local safety projects were funded through the Automated Red Light Running Enforcement (ARLE) program. Established in 2002, this program targets intersections within the city of Philadelphia with the implementation of an automated system that records violations by drivers who run red lights and are fined for their violation.

The system deters drivers from running red lights, according to a study of two ARLE intersections over a two-year period during which the violation rate dropped from 10 per hour to one per hour at each intersection. Another study by the Federal Highway Administration showed that crashes at intersections where ARLE was implemented decreased by 25 percent.

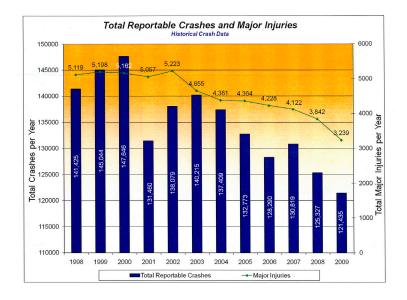
In addition to modifying risky driver behavior and reducing crashes, the automated red-light system generates revenue from the fines received from violators. This revenue is divided equally between the City of Philadelphia and the state, which distributes the money into a grant program. Municipalities may apply for these grant moneys to pay for eligible roadway-enhancement projects.

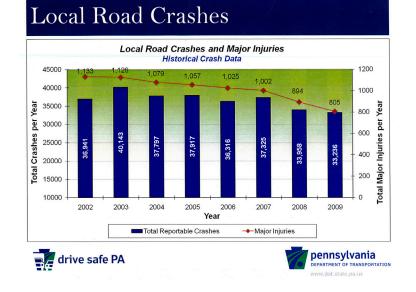
The deadline for the first round of grants was November 2010. The second round of funding is scheduled for release in 2012. Municipalities that participate in LTAP's Local Safe Roads and Walkable Communities Programs are given priority in the awarding of grants, Modi says.

He recommends that municipalities start to get their eligible projects ready now. "If they want to participate in the funding in 2012, they should call LTAP and get the ball rolling on any projects eligible to become Local Safe Roads and Walkable Communities projects," he said.

### **Driver Behavior Modifications**

The state continues to work with municipalities and communities in marketing driver behavior awareness programs to the public. These programs promote awareness of using seat belts, not driving under the influence (DUI), not driving distracted, and not driving aggressively, and specific efforts target at-risk age groups, such as teens and seniors.





Raising awareness of the consequences of participating in risky behavior while driving has helped to reduce fatalities and injuries. Between 2008 and 2009, deaths from accidents dropped 20 percent for people not wearing seat belts, nearly 17 percent for people involved in alcohol-related crashes, and almost 8 percent for aggressive drivers. Approximately 40 percent of money spent on driver modification programs goes to local efforts.

## Beyond conventional aggregates Aggregate Mixture Designed for Unpaved Roads

If you work for a road crew, you know that aggregate is crushed stone. But, have you ever heard of driving surface aggregate?

This aggregate mixture was designed by Penn State's Center for Dirt and Gravel Road Studies for use as a wearing course for unpaved roads. It was specifically created to maximize packing density and to produce a durable road surface that performs better than conventional aggregates.

To create the most durable road surface possible, a road crew must place the mixture on the roadway using a motor-paver and compact it with a 10-ton roller. The mixture is made up of finely crushed rock and variously sized particles of rock up to 1.5 inches in diameter; no clay or silt soil may be added to it. The aggregate is placed with optimum moisture at either an 8-inch depth and compacted to 6 inches or at a 6-inch depth and compacted to 4.5 inches. Optimum moisture verification is crucial if a municipality wants to achieve proper density of the placed material. The driving surface aggregate (DSA) dries out quickly, and if that occurs, the DSA surface must be rewetted with a water truck.

Although the aggregate provides a durable road surface with longer maintenance cycles, the material is not maintenance free. Uniform distribution of particle sizes is essential, so it is important to loosen the DSA to sufficient depth during grading operations to re-establish the proper blend of particle sizes and to achieve maximum compaction density.

Preliminary studies completed by the Center for Dirt and Gravel Road Studies have shown an 80- to 90-percent reduction in sediment runoff from DSA compared to existing road surfaces, even after three years of exposure and use. Because DSA is so densely packed, dust and sediment pollution are reduced by lengthening road maintenance cycles. Dust is also minimized because the fines in DSA are crushed rock and not silt or clay.

Many quarries can make DSA through their crushing and screening process, but it is also possible to mix some commonly available aggregates to create the DSA composition. This mixing process can be accomplished with a front-end loader and a water source.

As of 2006, driving surface aggregate is approved for purchase by PennDOT and by municipalities with use of Liquid Fuels Funds. PennDOT's Publication 447 provides more details. Many other technical documents, project brochures, and photos relating to DSA certification and maintenance practices can be found at www. dirtandgravelroads.com under "Resources" and "Roadwork."

Driving surface aggregate is made up of finely crushed rock and variously sized particles of rock up to 1.5 inches in diameter.

### Safety Improvements

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"If a municipality thinks it has a problem on its roadways with one of these areas of concern, it should contact PennDOT," Modi said. "Based on the data, we will look at the area and work with the local police, if need be, to address the problem and try to reduce any crashes and fatalities caused by inappropriate driver behavior."

For more information about the Local Safe Roads and Walkable Communities Programs, municipalities should contact LTAP at www. ltap.state.pa.us or 1-800-FOR-LTAP (367-5827). Information about the Automated Red Light Running Enforcement program or any of the education programs targeting driver behavior modifications can be obtained at www.dot.state.pa.us or by contacting your PennDOT district office.

### LTAP Contract

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"We are very pleased to once again be partnered with PSATS in executing the LTAP program for PennDOT," said Pennoni's Executive Vice President Nelson Shaffer. "This program is extremely valuable in supporting the commonwealth's municipalities in serving their constituents."

As part of the new contract, PSATS has sought to further strengthen LTAP's technical expertise by developing new partnerships with two additional organizations. Navarro & Wright Consulting Engineers, Inc. will lend its experience in municipal transportation projects and provide maintenance training under the contract, and Lehigh University, one of the most highly regarded engineering schools in the country, will provide product demonstrations and technical expertise on articles and tech sheets. The university will also make available its world-class industrial testing facilities for special projects as PennDOT directs.



## **Trees in the Right-of-Way**

## How your municipality can tackle roadside trees and reduce the danger to motorists

Low-hanging branches, diseased or dead limbs, and trees too close to the road are some of the natural hazards facing motorists. To reduce the danger of trees in the right-of-way and to lower liability risk, municipal road crews and public works departments must know how to effectively manage trees and keep them from becoming roadside dangers.

"Municipalities will also want to reduce their exposure to lawsuits that may occur as a result of a tree failure or some real or imagined negligent act," said Scott Diffenderfer, a board-certified master arborist with Good's Tree Care, Inc., in Harrisburg.

A properly designed roadside tree care plan should include provisions for tree maintenance, tree risk analysis, and tree removal. An effective municipal tree management program should include the following best practices:

• Regularly inspect trees, document your findings, and follow up with action. Tree inspections should be an important part of a municipality's tree management program. After recording your findings, it is important to follow up with the most appropriate action, whether it is removing dead or diseased trees and limbs or trimming low-hanging branches and cutting down trees that are too close to the road.

"By taking these small steps toward developing a tree risk plan, your municipality will minimize its exposure to risk," said Diffenderfer.

• **Properly prune and trim trees.** Trees respond better to selective and well-planned pruning rather than blanket cutting with a boom or flail mower. Such blanket treatment can damage the trees and may lead to disease, insect infestation, and even tree mortality, says Diffenderfer.

"Proper trimming may ultimately be cheaper for your municipality since trim cycles can last longer than boom mowing," he said.

- **Keep your workers safe.** Everything about roadside tree care has an associated hazard or safety concern, says Diffenderfer. To minimize risk, employees should be properly trained on equipment safety and traffic control. (*See related article on this page for some safety tips on chain saw operation.*)
- **Consider your municipal budget.** The most cost-effective roadside tree program can be developed in-house by municipal staff and managed as part of the road crew's work schedule. If the budget allows, a consulting arborist can offer a range of expert services from assisting with the preliminary steps to fully developing and managing the plan. Other options are to seek consulting help from volunteers in the community who have experience with tree management or to establish a shade tree commission to implement and manage a tree care plan.



### Safety Tips for Chain Saw Operators

Whether you're cutting down a tree too close to the road or clearing a limb that fell across the roadway during a storm, municipal road crews must make safety a top priority. Here are some safety tips from a professional tree feller:

- Become familiar with the chain saw and keep it in optimum condition. Know how your chain saw works, what it sounds and feels like, and what it's designed to do. Be sure the chain saw is properly sharpened and tensioned, and if it's not performing properly, get it adjusted or repaired. "A dull saw chain means more work pushing and often pulling on a saw to get the task accomplished," said Tim Ard of Forest Applications Training, Inc. "Workers fatigue, their productivity is reduced, and most importantly safety is compromised."
- Wear personal protective equipment. Workers should always wear safety goggles, a hard hat, earplugs, and closed, protective shoes when operating a chain saw. Nonslip gloves are also recommended.
- Learn how to sight to place the tree where you want it. An operator should use the felling sights on the chain saw to aim the tree's fall. Stand behind the sight line, and aim the tree toward the target before you start the face notch cut.
- Keep the wood hinge attached to the falling tree. The hinge provides the cutter extra reaction time and control in a variety of sawing scenarios. "Many incidents, fatalities, and injuries occur when saw operators cut the hinge off and stay with the tree too long as it falls," Ard said.
- Plan an escape route. Developing an effective retreat route involves clearing debris and other obstacles in the area, removing low-level branches, preparing an escape path opposite the direction of the fall and at a 45-degree angle, and then using it. "Injuries and fatalities are often caused because saw operators or onlookers are not far enough away from the stump of the tree when the tree or its limbs are falling," Ard said. "Plan your retreat path thoroughly."

Source: LTAP Tech Sheet #146, Safety Tips for Chain Saw Use and Tree Cutting.

## How Does the Americans with Disabilities Act Affect Sidewalk Repairs?

by Patrick Wright, Pennoni Associates

As a municipal official, you work with property owners from time to time to maintain and repair sidewalk facilities. How does the Americans with Disabilities Act (ADA) affect this work? Or perhaps your municipality is reconstructing a sidewalk to provide access to a park. How do ADA standards influence that project?

The Pennsylvania Department of Transportation has developed standards to determine when the ADA applies to sidewalk repair and alteration projects and when it doesn't. Municipalities must be familiar with these standards and know that although minor repairs and maintenance to sidewalks do not trigger full compliance with ADA requirements, any project that could or would improve pedestrian access is subject to the ADA rules.

### Basic ADA Requirements From PennDOT

- Firm, stable, and slip-resistant surface
- ¼-inch elevation difference maximum
- Minimum sidewalk width is 5 feet, or 4 feet with passing areas
- 2 percent cross slope maximum
- 5 percent longitudinal slope (or match slope of roadway)

access (for example, more than 100 linear feet of the sidewalk is being repaired), then full ADA compliance is necessary. Also, if the new or repair work is directly adjacent to a part of the sidewalk that is noncompliant with the ADA, a transition slab between the sections would be required.

In Publication 13M, PennDOT lists the following guidelines for sidewalk repairs and ADA compliance:

- Small sections of sidewalk (less than 100 feet in length and less than 500 square feet of area) that are to be replaced would require only repair in-kind. This would not trigger any new upgrades for ADA compliance.
- Minor repairs, such as filling in cracks in a sidewalk, do not trigger ADA compliance.
- Spot patching or repair of existing sidewalk to correct buckling, cracking

or other severely deteriorated conditions would not require installation of new sidewalk or an upgrade of existing sidewalk.

• As a general guideline, if more than 50 percent of a run of sidewalk is to be repaired, the entire length should be upgraded to PennDOT's ADA standards.



Minor repairs, such as filling in cracks in a sidewalk, do not trigger ADA compliance.

## Pedestrian Access and the Americans with Disabilities Act

Pedestrian access and safety are important components of our transportation system. No matter how we travel, we start and end the trip by walking into and out of buildings and other facilities. Safe and appropriate pedestrian access should be considered in all transportation planning and design projects.

The Americans with Disabilities Act of 1990 prohibits discrimination against people with disabilities. The ADA is a civil rights statute, which means pedestrian facilities that have barriers against access may constitute discrimination.

To support the ADA, several organizations have developed minimum standards for pedestrian facilities and accessibilities. These organizations include the U.S. Access Board, the Federal Highway Administration (FHWA), and PennDOT. *(See box at top for a brief summary of the basic requirements for accessible sidewalks.)* 

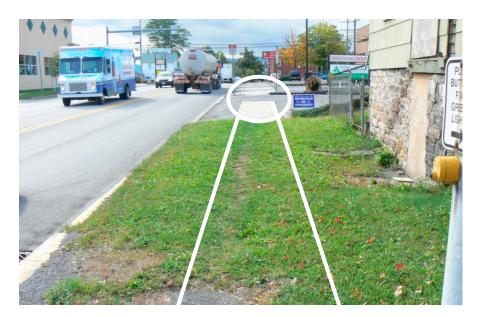
Although the ADA deals with a variety of pedestrian-access issues, this article will focus only on sidewalk repairs and alterations.

### Sidewalk Repairs and Maintenance Work

Minor repairs and maintenance work to sidewalks do not trigger full compliance with ADA requirements. This means that municipalities that must repair small sections of sidewalk are free of that burden. For example, replacement of a sidewalk panel that was uplifted from tree roots is exempt from the ADA.

But, if a potential project could or would *improve* pedestrian

# Safe and appropriate pedestrian access should be considered in all transportation planning and design projects.



New sidewalk construction and major alteration projects must comply with the ADA requirements.

### Sidewalk Alteration Projects

An alteration project refers to any change to a portion of a transportation facility located within the highway right-of-way that affects pedestrian access. When a facility is altered, it must be upgraded to meet the latest ADA standards to the maximum extent feasible.

Alteration projects, which are more significant than repairs or maintenance, include the following:

- Reconstruction of a sidewalk of a significant length (greater than 100 feet)
- Areawide sidewalk reconstruction
- Reconstruction of more than 50 percent of a run of sidewalk

In all these cases, the alteration must meet the ADA standards to the maximum extent feasible. Furthermore, an alteration project must have logical end points. So if the project includes curb-ramps, those ramps must meet ADA standards. PennDOT guidance about curb ramps includes the following:

- If a project is equal to or more than 100 linear feet and will disturb 50 percent or more of the sidewalk width and if the limit of sidewalk reconstruction is within 15 feet of a pedestrian crossing, then curb ramp upgrades will be required for that corner or mid-block crossings.
- If a project is more than 300 linear feet and a pedestrian crossing or curb ramp is within 5 percent of the total disturbed length

of sidewalk, then curb ramp upgrades will be required for that corner or mid-block crossings.

### **Know When the ADA Applies**

Maintenance projects and repairs of small sections of sidewalk are exempt from ADA requirements. However, new construction and alteration projects trigger full ADA compliance. The sidewalk alteration must comply with ADA requirements to the maximum extent feasible. To learn more about the ADA requirements, attend the new LTAP course "ADA: Requirements for Municipal Transportation Facilities." (See back page for a listing of upcoming scheduled courses. To schedule a course in your area, call LTAP at 1-800-FOR-LTAP (367-5827).)

### **ADA Compliance Resources**

- PennDOT Publication 13M, Chapter 6 ftp.dot.state.pa.us/public/bureaus/design/ PUB13M/ insidecover.pdf
- PennDOT Publication 72M, Roadway Construction Standards for Curb Ramps and Sidewalks, RC-67M ftp.dot.state.pa.public/bureaus/design/PUB72M/ pub72cov.pdf
- Accessible ROW Design Guide
  www.access-board.gov/prowac/draft.pdf
- ADA Accessibility Guidelines www.access.board.gov/adaag/adaag/pdf
- Public Rights-of-Way Access Advisory Committee (PROWAAC), Special Report: Accessible Public Rights-of-Way www.access-board.gov/prowac/alterations/guide.pdf

### New LTAP Class Addresses ADA

• LTAP has a new class on ADA requirements for municipal transportation facilities. The course takes a look at how to apply the ADA to local roadway maintenance projects and operations. Call 1-800-FOR-LTAP (367-5827) or visit www.ltap.state.pa.us for more information.

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### **LTAP Contact Information:**

400 North Street, 6th Floor Harrisburg, PA 17120 1-800-FOR-LTAP (367-5827) Fax: (717) 783-9152 Email: Itap@state.pa.us Website: www.Itap.state.pa.us



### **PennSylvania** DEPARTMENT OF TRANSPORTATION PennDOT Local Technical Assistance Program

### Want Off the Mailing List?

If you do not want to receive a copy of this newsletter, please send an e-mail to tholtzman@psats. org. The newsletter is available electronically on the LTAP Web site under Public Resources and Documents.

### Tree Management

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Finally, before a tree management program can be implemented, it is important to make sure the municipal elected officials are on board and have agreed to the breadth and depth of the plan.

"If done right, the cost for annual roadside tree maintenance will drastically reduce over the five- to seven-year period for which a plan is typically designed," said Diffenderfer. "Ultimately, the savings for reducing any risk associated with right-of-way trees cannot be overlooked."

Information for this article was obtained from LTAP Tech Sheet #145, Managing Roadside Trees: How to Develop a Tree Care Management Plan.

## Upcoming Workshops

### May 3, 2011 Clarion County Stormwater Facility Operation and Maintenance 8:00 AM – 12:00 NOON Structural Modular's Inc. (Strattanville)

May 3, 2011 *Pike County* Unpaved and Gravel Roads Common Maintenance Practices 8:30 AM – 12:30 PM Wallenpaupack Environmental Learning Center (Hawley)

May 4, 2011 SESSION FULL Montgomery County Work Zone Traffic Control 8:00 AM – 12:00 NOON Upper Merion Township (King of Prussia)

### May 5, 2011 Butler County Engineering and Traffic Studies

8:00 AM – 3:00 PM Penn Township Public Works (Butler)

### May 5, 2011 Monroe County Work Zone Traffic Control 9:00 AM – 1:00 PM Monroe County Public Safety Center (Stroudsburg)

May 9, 2011 Bedford County Managing Utility Cuts 8:00 AM – 12:00 NOON Cross Roads Bible Church (Bedford) May 10, 2011 Northumberland County Bridge Maintenance and Inspection 8:00 AM – 2:00 PM Lewis Township (Watsontown)

To Register: PHONE: <u>1-800-FOR-LTAP (367-5827)</u>

WEBSITE: www.ltap.state.pa.us This represents some of our scheduled courses. Look for updates on the Website.

### May 10, 2011 Crawford County Work Zone Traffic Control 8:00 AM – 12:00 NOON Vernon Township (Meadville)

May 11, 2011 Columbia County Project Estimating Using Mathematical Principles 8:00 AM – 3:00 PM Scott Township (Bloomsburg)

May 11, 2011 Lackawanna County Traffic Signals 8:30 AM – 3:30 PM District PennDOT 4-0 Office (Dunmore) May 16, 2011 Bedford County Posting and Bonding 8:00 AM – 12:00 NOON Cross Roads Bible Church (Bedford)

May 18, 2011 Warren County Bridge Maintenance and Inspection 8:00 AM – 2:00 PM Glade Volunteer Fire Department (Warren)

### May 26, 2011 York County Managing Utility Cuts 8:00 AM – 12:00 NOON York City Wastewater Treatment Plant (York)

May 27, 2011 Lancaster County Drainage 8:00 AM – 2:00 PM Martic Township (Pequea)

### Congratulations to the following Roads Scholar recipients:

- Paul Hoover, Manchester Township
- Tim Boults, Jones Township
- Harrison Markert, Jones Township

- John "Jack" Murray, Jones Township
- Tony Bitts, East Lampeter Township
- Donald Bortner Jr., New Freedom Borough

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