



moving FORWARD

WINTER/SPRING 2009

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

Putting Smart Transportation to Work in Your Community

Budget crises. Energy and infrastructure costs. Road congestion. Economic development. Climate change. Quality of life.

Pennsylvania's municipalities are grappling with these concerns and many more. And, although there are no easy answers to these issues, PennDOT is embarking on a new approach that aims to make transportation investments part of the solution to many of the challenges facing us today. This new initiative is called Smart Transportation, and its success requires the help of all municipalities.

What Does "Smart Transportation" Mean?

Smart Transportation strives to provide a closer link between local land use and PennDOT's transportation planning decisions. The goal of this approach is to ensure that all of PennDOT's transportation investments are affordable and long lasting and that they encourage and support the land development patterns that a community wants.

In the long run, PennDOT hopes to accomplish the following through Smart Transportation:

- **More collaboration.** Through Smart Transportation, PennDOT is working with local governments, other state agencies, transit providers, developers, and residents to arrive at community-oriented transportation solutions. In hopes of making collaboration more than just a buzzword, PennDOT is coordinating its processes and decision-making with these other groups so that a better approach to transportation can be achieved in the long run.
- **Better use of existing resources.** Smart Transportation requires that each transportation

project be evaluated to optimize its financial, environmental, and community benefits. For example, since maintaining existing infrastructure is the best way to maximize limited resources, some new development may have to be steered toward places where infrastructure is already in place.

- **Safer roads and communities.** Smart Transportation encourages innovative measures that create a safe environment for everyone. By working together, communities and PennDOT can identify creative, appropriate methods that will improve safety on roads in urban, suburban, and rural areas.
- **More transportation choices.** To achieve a more balanced transportation system in the state, Pennsylvania must invest in a variety of transportation solutions, including transit, bicycle, pedestrian, automobile, and freight. In particular, PennDOT is seeking municipal help with investments in sidewalks, bike paths, and transit routes.

How Can You Get Involved?

For Smart Transportation to succeed, all interested and affected parties must get involved in transportation issues. PennDOT knows that this approach to transportation decisions will not succeed without the support and input of local government. Here's how you can help:

- **Learn more about Smart Transportation.** Go to www.smart-transportation.com to find out more about this initiative. You will find a number of resources, news articles, and links

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Toxic and Troublesome

Meth Waste Could Pose Risk for Road Employees

The growing popularity of the highly addictive drug methamphetamine may not seem to be an issue that municipal road employees have to concern themselves with. After all, what reason would road and street employees have to worry about a drug that has been called “redneck cocaine” and goes by such aliases as speed, crank, chalk, ice, and crystal?

The danger lies in the fact that the drug is produced easily and cheaply using household ingredients in home-grown clandestine labs, often found in basements, backyards, and even Buicks across America. And when you realize that the toxic waste that results from mixing the drug’s ingredients sometimes turns up in streams and wooded areas and along roadways, you can see how road employees could be at risk.

Consider this: Your road crew comes across a cooler in a ditch along the road. A worker picks it up, not realizing that it had been used to transport the hazardous chemicals needed to make meth. He gets the substance on his hands and hours later is complaining of a severe headache, itchy eyes, and blurred vision.

The fact is that the number of meth labs popping up in rural areas, even in Pennsylvania, is on the rise. In September 2008, a large-scale meth lab was discovered underground in a manmade cave in Venango and Mercer counties, and 23 people were arrested.

By becoming more informed about how methamphetamine is made and what the dangers are associated with the drug’s lethal fumes and residue, municipal road employees will be protecting themselves and their communities.

Exposure on the Job

Meth has been called “the most dangerous drug in America” by former U.S. Attorney General Alberto Gonzales. It is cheap and easy to produce, and the long, euphoric high that users get from smoking, snorting, swallowing, or injecting it makes it highly addictive. The drug has snared people from all walks of life, including soccer moms, factory workers, teenagers, and professionals, and nowhere is it spreading more quickly than in rural communities where it’s the most convenient to make.

You see, meth may be easy to produce—combining such commonly available items as pseudoephedrine-based cold medicines, salt, kitty litter, and rubbing alcohol—but when mixed together these chemicals create a powerful stench that has been described as a cross between dirty diapers and concentrated cat urine. No wonder rural areas, where neighbors are few and far between and police have a less visible presence, become the ideal locations for meth labs to spring up.

“Meth is showing up in areas that have never seen anything like this before,” says Pennsylvania Attorney General Tom Corbett. That’s why he warns municipal officials to think about what their employees, including their public works people, could be exposed to on the job.

For road employees, exposure could come from the toxic waste that meth cooks will recklessly dump in the trash, outside their doors,

in the woods, or along rural roads. It is estimated that each pound of meth produces six pounds of toxic waste, which is so potentially lethal that law enforcement officials must wear sealed protective garb and put on breathing apparatus before entering a lab. And when removed from the lab, this waste contaminates the countryside and poses a threat to the health of anyone who encounters it.

Protecting Public Works Employees

Potential encounters with this deadly waste are why road crews should be educated about the drug and cautious around any suspicious containers they may come across while on the job. Rather than risk exposing themselves to the toxic residue of meth ingredients, road employees should err on the side of caution and call properly trained authorities to investigate any suspicious containers or trash they encounter.

Make sure your municipal police are trained on how to respond if volatile chemicals are suspected. And, if in doubt, call the State Police or the closest regional office of the Bureau of Narcotics Investigation and Drug Control, which operates under the state attorney general’s office, for advice. The regional offices are listed below:

- **Main Bureau of Narcotics Investigation office**, Harrisburg – (717) 783-2600
- **Region 1, Allentown** (serving Berks, Bucks, Carbon, Lehigh, Monroe, Montgomery, Northampton, and Schuylkill counties) – (610) 791-6100
- **Region 2, Philadelphia** (serving Chester, Delaware, and Philadelphia counties) – (215) 937-1300
- **Region 3, Lemoyne** (serving Adams, Cumberland, Dauphin, Franklin, Fulton, Lancaster, Lebanon, Perry, and York counties) – (717) 712-1280
- **Region 4, State College** (serving Blair, Centre, Clearfield, Clinton, Huntingdon, Juniata, Lycoming, Mifflin, Montour, Northumberland, Potter, Snyder, Tioga, and Union counties) – (814) 863-0632
- **Region 5, North Huntingdon** (serving Allegheny, Bedford, Cambria, Fayette, Greene, Somerset, Washington, and Westmoreland counties) – (724) 861-3600
- **Region 6, Butler** (serving Armstrong, Beaver, Butler, Clarion, Indiana, Jefferson, Lawrence, and Mercer counties) – (724) 284-3400
- **Region 7, Erie** (serving Cameron, Crawford, Elk, Erie, Forest, McKean, Venango, and Warren counties) – (814) 897-2000
- **Region 8, Wilkes-Barre** (serving Bradford, Columbia, Lackawanna, Luzerne, Pike, Sullivan, Susquehanna, Wayne, and Wyoming counties) – (570) 826-2051 ♦

Editor’s Note: Much of this information came from an article that appeared in a past issue of the Pennsylvania Township News.

Fighting the Meth War through Education

Law enforcement officials in Pennsylvania have been aggressive in the fight to eliminate meth labs, and the state attorney general's office, the State Police, and municipal police departments often team up to bust meth producers and sellers in communities across the commonwealth.

The best way that municipalities can help fight the meth war is to be aware of the dangers and to educate their employees about the drug and how to detect meth labs. Here's how to get started in employee education:

- **Make a call.** The Pennsylvania State Police has developed a presentation on meth that officers will bring to your municipality. For more information, call (570) 662-2151.

The state attorney general's Drug Demand Reduction Unit also presents educational programs on meth. Call (717) 787-3391.

- **Go online.** The Internet provides a wealth of information about meth. Check out these useful sites:
 - www.attorneygeneral.gov/drugs.aspx
 - www.usdoj.gov/dea (click on "drug information")
 - www.communityagainstmeth.com

3M Sign Grant Program

3M Traffic Safety Systems is launching the 3M Sign Grant Program, a new program designed to significantly reduce road sign replacement costs to local and state governments to meet the latest federal retroreflectivity standards set by the Federal Highway Administration (FHWA) to improve traffic safety. The 3M Sign Grant Program begins January 5, 2009 and will run through November 30, 2009. For more information visit www.3MSignGrants.com.

Traffic Counters to Hit Local Roadways

Beginning this spring, traffic counters will be placed on certain roadways around the commonwealth as part of an effort to gather traffic counts on locally owned roads. The state Department of Transportation will then report the data obtained from these devices to the Federal Highway Administration (FHWA), which will use the figures to determine transportation funding allocations.

Municipal officials and road crews may begin to see the traffic counters on their roadways starting in March and continuing through the summer. All told, the counters will record 24 hours of traffic on approximately 7,200 miles of selected roads located in rural, suburban, and urban areas.

"The state has 72,000 miles of municipally owned roads," says Laine Heltebridle, acting director of PennDOT's Bureau of Planning and Research. "We don't have the financial resources to collect data on all of them. A consultant came up with a statistically significant amount of miles that we should count — 7,200."

All roads that receive liquid fuels funds are eligible to be selected for placement of counters. The data gathered and sent to FHWA will be used in allocation formulas to determine the amount of federal dollars returned to the state. At least some of that money may come back to townships, says Heltebridle, so local officials should welcome the devices when they see them on their roads.

Because municipalities will not be notified before the counters are placed on their roads, municipal officials, police, and roadway personnel should be aware of what the counters look like. They consist of black tubing stretched across a road and connected to a metal box that is attached to an immovable object, such as a storm drain or telephone pole, at the side of the road (*see photo below*). When vehicles drive across the tube, a puff of air travels to the box and hits an air switch, registering the count.

Three different vendors will be placing and removing the traffic counters. Tri-State Traffic Data, Inc., will be working in Districts 3-0, 4-0, 5-0, 6-0, and 8-0; Count Electronics will be handling the counters in Districts 1-0, 11-0, and 12-0; and Peggy Malone and Associates will be in Districts 2-0, 9-0, and 10-0. Although the counters will only collect data for 24 hours, it may take a few days for the vendors to retrieve the counters.

For more information about the traffic counters and the data collection, call Andrea Bahoric at PennDOT's Bureau of Planning and Research at (717) 705-2382 or e-mail abahoric@state.pa.us. ♦



Municipalities should be aware of what the traffic counters look like.

Spring Grading of Your Dirt and Gravel Roads

For road crews, the spring thaw signals the end of winter and the beginning of spring grading season. Nearly every municipality has dirt and gravel roads in need of repair. (Even the city of Philadelphia maintains more than six miles of dirt roads each year.) That means that sometime between March and June, depending on your location and elevation, you will need to get out and begin work on your dirt and gravel roads.

Spring grading of these roads prepares the road surface for summer traffic by rebuilding a proper surface structure to shed road drainage and restructuring materials to reduce dust. To fully understand how important spring grading is, you must first understand winter's effects on the road and how spring brings ideal conditions for preparing the road for summer.

Ideal Wet Conditions

Over the winter months, excess water becomes trapped in the roadway. Because roadside plants and trees that normally would pull groundwater from the road area are dormant during winter, roadsides become saturated with excess water. The freeze-thaw cycle further saturates the road by drawing large amounts of water upward. Then, as the road thaws from the surface downward, water becomes trapped between the road surface and underlying frozen soil.

As melting snow and early rains add more water and soon mud to the roadway, spring is the toughest time of the year for any unpaved road. The good news for road maintenance crews is that during what quickly becomes "mud season," excessive spring moisture ironically becomes the key to repairing the road.

When the road thaws, it becomes uniformly wet, creating ideal grading conditions that cannot be duplicated during sustained rain events or summer downpours. Uniform moisture, from the road base to the road surface, is crucial to proper grading. This top-to-bottom moisture lubricates road particles and allows them to be moved more easily during grading operations. Proper moisture also prevents aggregate from segregating by size, as would happen during the grading of dryer material. Finally, adequate moisture levels throughout the entire road structure help to achieve proper compaction of the driving surface.

Proper Drainage

The initial spring grading is the best time for road maintenance crews to ensure that they have provided for proper drainage of the road. Road crews can salvage berm material that has been pushed to the side of the road by traffic and winter maintenance activities and incorporate this valuable material back into the road surface. With the use of a grader or a road drag, road crews can cut into this berm material, move it onto the center of the road, and mix it with existing road surface material.

Springtime's high moisture levels create the ideal conditions to aid in this process of reincorporating berm material. Grading equipment can cut deeper into the existing wet road surface to loosen the fine material and reincorporate it with the larger berm material to



Excessive moisture during the "mud season" of spring creates ideal conditions for grading dirt and gravel roads.

get a quality road surface. By allowing material to ride up the grader blade and roll back onto its self, road crews can achieve an effective mix of the larger berm material with the loosened fine road material. Without uniform moisture to adequately lubricate all road materials and prevent segregation by particle size, this task would be both difficult and costly.

Dust Control

Spring grading also plays an important role in reducing road dust. By incorporating the proper techniques now, you will notice less dust and fewer complaints from drivers and adjacent landowners throughout the rest of the year.

Most dirt and gravel roads in Pennsylvania are made by placing purchased hard aggregate over a much softer native material. As long as the hard stone remains incorporated into the road surface, the road remains stable and solid. But traffic on the road often causes larger stones in the aggregate to become loose and to migrate toward the edge of the road, where the stones collect in windrows. Under the abrasive force of traffic, these harder stones grind against the road surface, creating loose, fine material that ends up as dust.

If you see significant windrows of loose stone along the edge and centerline of the road, you know the road needs to be graded. Road compaction is the key to avoiding road degradation and dust generation that occurs when loosened material travels back to the raveled windrow on the road edge.

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Putting Smart Transportation to Work

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- related to Smart Transportation. PennDOT officials want to hear from you with feedback and ideas. What questions do you still have? What resources would be most helpful to your community? E-mail your comments to smarttransportation@state.pa.us.
- **Work with PennDOT on land use decisions.** Please contact your PennDOT Municipal Services Representative or LTAP about how decisions you make about land use proposals would affect transportation in the area. PennDOT would be happy to work with you to develop a transportation system that meets everyone's needs.
 - **Become a PennDOT Smart Transportation Ambassador.** E-mail PennDOT representatives at smarttransportation@state.pa.us if you are interested in helping to spread the word about Smart Transportation to others in your community. PennDOT

will provide you with all the materials and training you'll need to get started.

- **Place Smart Transportation on your meeting agenda.** If you are looking for speakers at an upcoming community gathering, meeting, or conference, consider having a Smart Transportation Ambassador come and speak about this initiative. E-mail smarttransportation@state.pa.us for more details.

SMART DECISIONS ABOUT TRANSPORTATION AND LAND USE issues today will lead to a more sustainable Pennsylvania tomorrow. By working together through the Smart Transportation approach, we can ensure that our transportation system allows future generations to enjoy a vibrant economy, a healthy environment, and a meaningful quality of life. ♦

Upcoming Workshops

To Register:
PHONE: 1-800-FOR-LTAP (367-5827)
WEB SITE: www.ltap.state.pa.us

This represents some of our scheduled courses. Look for updates on the Web site.

March 3, 2009
Montour County
Traffic Calming
Mahoning Township, Danville
8:00 AM – 3:00 PM

March 4, 2009
Lycoming County
Common Sense Solutions to
Intersection Problems
Woodward Township Fire Hall
8:00 AM – 3:00 PM

March 10, 2009
Jefferson County
Posting & Bonding of Local Roads
Brookville Borough
8:00 AM – 12:00 PM

March 10, 2009
Lycoming County
Stormwater Management
Woodward Township Fire Hall
8:00 AM – 3:00 PM

March 11, 2009
Greene County
Drainage: The Key to Roads That
Last
Greene County Fairgrounds
8:00 AM – 2:00 PM

March 11, 2009
Adams County
Posting & Bonding of Local Roads
Adams County Emergency Services
Facility
8:00 AM – 12:00 PM

March 12, 2009
Washington County
Posting & Bonding of Local Roads
California University of PA
8:00 AM – 12:00 PM

March 17, 2009
Adams County
Engineering & Traffic Studies
Adams County Emergency Services
Facility
8:00 AM – 3:00 PM

March 17, 2009
Lycoming County
Road Surface Management
Woodward Township Fire Hall
8:00 AM – 3:00 PM

March 17, 2009
York County
Stormwater Management
York Township Building
8:00 AM – 3:00 PM

March 18, 2009
Adams County
Traffic Calming
Adams County Emergency Services
Facility
8:00 AM – 3:00 PM

March 18, 2009
Tioga County
Unpaved & Gravel Roads Common
Maintenance Practices
Mansfield Fire Hall
8:00 AM – 12:00 PM

March 19, 2009
Wyoming County
Bridge Maintenance
Tunkhannock Township Building
8:00 AM – 2:00 PM

March 19, 2009
Union County
Work Zone Traffic Control
Penn State Cooperative Extension
Office
8:00 AM – 12:00 PM

March 24, 2009
Lebanon County
Common Sense Solutions to
Intersection Problems
North Lebanon Township Building
8:00 AM – 3:00 PM

March 25, 2009
Luzerne County
Equipment & Worker Safety
Forty Fort Borough
8:00 AM – 11:30 AM

March 25, 2009
Columbia County
Geosynthetics
Scott Township, Bloomsburg
8:00 AM – 11:30 AM

March 26, 2009
Clarion County
Drainage: The Key to Roads That
Last
Clarion Township Building
8:00 AM – 2:00 PM

March 26, 2009
Clarion County
Traffic Signs
Schuylkill Community Education
Council, Mahanoy City
8:00 AM – 3:00 AM

Congratulations to the following Roads Scholar recipients:

Christopher Flory, East Cocalico Township
Clair Kingston, Catawissa Borough

John Paden, Borough of Lemoyne
William Rhine Jr., East Lampeter Township



LTAP Contact Information:

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Spring Grading

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Compaction is Critical

Road compaction is often the most overlooked component of sound road maintenance. Too many maintenance crews rely on traffic alone to compact a freshly graded road. But, since traffic tends to run the same path over and over, this practice actually speeds up the creation of unwanted and expensive-to-repair rutting.

Compaction in the driving lanes will destroy the road crown that spring grading operations just achieved. To prevent the loss of road crown and to lengthen maintenance cycles, road crews should ensure that the road is uniformly compacted after all grading operations.

A simple pull-behind static roller works wonders and is an affordable option for most municipalities. If compaction equipment is not available, graders and other equipment can be used instead. A few parallel passes over the recently graded road segment will help to compact the road material, set the crown, and reduce the need for future maintenance efforts.

THE IMPORTANCE OF SPRING MAINTENANCE in preparing dirt and gravel roads for year-round use cannot be overstated. “Mud season” will not last forever, so get out there and take advantage of those wet spring conditions before the warmer days of summer arrive. ♦