Enhancing customer service, ensuring that every available dollar is used as efficiently as possible, and exploring new technologies and practices are at the root of the Pennsylvania Department of Transportation’s efforts to enhance the transportation infrastructure around the state. To help accomplish these goals, the department has implemented PennDOT Next Generation, a tool to ensure that the department is continually identifying and knocking down any potential roadblocks to moving the department forward.

“If we’re not changing, then we’re falling behind,” one of Secretary of Transportation Barry Schoch’s most common expressions, is at the foundation of PennDOT Next Generation.

PennDOT Next Generation analyzes how the department functions with an eye on creating new efficiencies and better practices. By reviewing and enhancing how the department operates, the Next Generation effort strives to make PennDOT a better business partner and employer. Next Generation focuses on improving the department’s people, processes, and policies while also serving as the primary envelope for PennDOT’s other forward-thinking initiatives to fall into.

What Are These Initiatives?

Just what are these other forward-thinking initiatives? For starters, last year PennDOT launched an employee suggestion system called IdeaLink. Through IdeaLink, PennDOT employees may offer ideas on how to continually modernize the department, improve customer service and safety, and perform their jobs more efficiently. To date, the department has reviewed more than 400 IdeaLink suggestions and has already implemented more than 300 of them. Implemented suggestions run the gamut from installing air compressors in rest areas to producing safety videos aimed at increasing work zone safety.

Also as part of the Next Generation effort, PennDOT, along with the Federal Highway Administration (FHWA), has implemented an initiative for industry partners to apply proven technologies that may help PennDOT do its job more efficiently or more cost effectively. Known as the State Transportation Innovations Council (STIC), a team of PennDOT employees, FHWA staff members, and representatives of industries and several universities that perform transportation research meet biannually to discuss and move forward ideas that show promise of working in Pennsylvania. Ideas under this effort are more technical in nature and range from better traffic signal controls to new ways of installing asphalt.

All of the forward-thinking efforts and modernization initiatives produced by the Governor’s Transportation Advisory Commission are also moving ahead under the banner of Next Generation. Through these efforts, PennDOT is identifying and correcting unnecessary and artificial boundaries that can block commonsense ways of delivering services and doing what’s right for the transportation industry, Pennsylvania residents, and PennDOT employees. Common sense is not just what Pennsylvania citizens expect and deserve; it’s also key to helping PennDOT become the best business partner, transportation steward, and employer that it can be.

Continued on page 4
Traffic Calming Can Help with Troublesome Traffic Issues

PennDOT Updates Publication 383, Pennsylvania’s Traffic Calming Handbook

If your municipality has a road segment that is given to speeding, an intersection that is not conducive to pedestrian traffic, or even a neighborhood that is plagued with cut-through traffic, then you might be a good candidate for some traffic calming devices.

Pennsylvania’s handbook developed to provide information about traffic calming devices and their best use was recently updated. The latest version of PennDOT Publication 383 (7/12), Pennsylvania’s Traffic Calming Handbook, features new devices as well as case studies with photos of effective application of traffic calming in communities across Pennsylvania.

What is Traffic Calming?

The Institute of Transportation Engineers (ITE) defines traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for nonmotorized street users.”

In other words, traffic calming is the use of devices — such as speed humps, bulb-outs, or traffic circles — that employ a physical object, device, or roadway geometry to control driver behavior. As opposed to traffic control devices, such as stop signs or speed limit signs, which rely upon the good will of drivers, or enforcement, for compliance, traffic calming devices use physical characteristics of the roadway to effectively improve driver behavior and thus increase the safety of a roadway for all road users, including pedestrians and cyclists.

Examples of traffic calming devices include right-in/right-out islands, traffic circles, or curb extensions/bulb-outs. On-street parking is another traffic calming device since it effectively reduces the roadway width and forces drivers to lower their speed, particularly when faced with opposing traffic.

The traffic calming devices presented in Publication 383 are those considered by PennDOT to be innovative and most effective. In addition to working within legal constraints, these devices contribute to the department’s overall goals of reducing traffic injuries and fatalities and have effectively improved the safe integration of several modes of transportation on our roadway network.

What’s New in Pub 383?

The most popular traffic calming devices in use in Pennsylvania include the following:
• On-street parking
• Curb extensions/bulb-outs
• Speed humps
• Raised medians/pedestrian refuges
• Right-in/right-out islands

The revised Publication 383 adds new devices and removes some of the devices that were described in the prior edition. For example, a new featured device is the speed cushion, which is a speed hump modified to provide wheel tracks at a consistent roadway elevation but at a width that allows wider vehicles such as fire trucks and ambulances to pass unimpeded. As another example of a change in the newest version of the publication, textured crosswalks have been removed from the vertical deflection section of the design guidelines. Guidelines for decorative crosswalks can be found in PennDOT Publication 111M.

New information has also been added to the latest version of Publication 383 based upon feedback PennDOT received from 382
municipalities polled in an online survey about their use of traffic calming devices. (Appendix B of the updated publication contains the survey results and makes for some interesting reading.)

Approximately 16 percent of municipalities polled by the department responded that they use traffic calming devices. Their use of the devices coupled with the department’s own applications provided a body of experiential knowledge that the new edition of Publication 383 puts to good use with the addition of case studies and photos of typical applications of several of the device design guidelines.

Other important revisions to the publication include application of Pennsylvania’s Smart Transportation principles and recognition of the new requirements for devices, markings, and signage found in the latest revisions to the MUTCD (2009).

In addition, the document recognizes and encourages the assimilation of traffic calming into a Complete Streets design concept, which envisions roadways designed and built for all roadway users, not strictly cars, and retrofitted to accommodate other users, such as pedestrians and cyclists, as demand requires. This idea of planning for the use of traffic calming devices in street design is so significant that an entirely new chapter in Publication 383 articulates the Complete Streets ideology and includes suggested changes to the decision-making and design processes. For more information about Complete Streets, visit www.completestreets.org.

**Developing a Plan**

Unchanged but vitally important to any traffic calming device application is Publication 383’s section on the traffic calming study and approval process. Chapter 4 of the publication suggests the best steps for planning, designing, and ultimately installing effective traffic calming devices. Since not every step is necessary, the described process may be modified to fit an individual community’s needs. The overarching purpose of the process is to solve traffic problems rather than just shifting them elsewhere.

Rather than installing devices piecemeal, municipalities should take a programmatic approach to effectively implementing traffic calming devices. The first steps toward establishing a sustainable program include determining funding, establishing a ranking system to prioritize projects, and establishing a Local Traffic Advisory Committee (LTAC). Once this foundation is laid, a program is ready to accept requests for study, to collect and compile supporting data, to rank and prioritize projects, and finally to pass a resolution approving further study.

The next steps in the traffic calming process are related to plan development. After a kick-off meeting that brings together the people affected by the potential project, committees may be convened that help focus the project and link members of the community with the municipal leadership. Extensive data is gathered to help define which solutions to employ. The committees then consider those solutions and ideally come to a consensus on the appropriated devices, their design, and the specific locations for installation.

To obtain plan approval, municipalities should hold an open house or public meeting, modify the plan accordingly, survey the community where solutions are to be installed, and finally seek local government and PennDOT approval. Once consensus and approvals are achieved, installation and evaluation may begin.

Keep in mind that any installed traffic calming device is intended to solve a problem. An evaluation period of three to 12 months is recommended to learn if the traffic calming solution indeed solves the problem. If not, modification may be necessary. If the solution is found to actually worsen the original problem, then the device should be removed. Remember, the ultimate goal of traffic calming is to solve a problem, not create new ones.

The project development process, combined with the details given for various traffic calming devices, make Publication 383 an invaluable resource for municipal officials and public works employees to plan, design, and install appropriate traffic calming devices. The most recent update of this useful guide will allow users to add value to their own traffic calming programs.

Publication 383 (7-12) is available electronically, at no cost, through PennDOT’s Sales Store. Go to www.dot.state.pa.us, navigate to “Forms, Publications & Maps” at the top of the page, and then select “PennDOT Sales Store.”

**Did you know...**

**LTAP offers a course on traffic calming?**

Go to www.ltap.state.pa.us and navigate to “Course Info” for a description of the course or to “Current Courses” to see the latest schedule of courses.
LTAP Technical Assistance Scores High on Value, Integrity

LTAP technical assistance continues to meet and often exceed the needs of municipalities throughout Pennsylvania, recent evaluation of the program shows. By tapping into the expertise of LTAP staff, municipalities are not only improving the safety of their roadways, intersections, and related infrastructure, but they are realizing significant cost savings in terms of labor, materials, and legal expenses.

One municipality has estimated this cost savings to be approximately $5,000, while another said that the advice saved his municipality about $500 in unnecessary expenditures. Others pointed out that, without LTAP’s guidance, they would have had to turn to their lawyers (with their associated fees) for advice on compliance, or they may have wasted staff time in researching and completing what would essentially amount to unnecessary projects. In particular, one municipality pointed out that LTAP assistance helped to overcome the threat of a lawsuit by ensuring compliance with regulations while taking an extra step to enhance the safety at a notorious intersection.

While not always quantifiable, the dollar value of the several hundred LTAP tech assists completed each year could easily result in savings of hundreds of thousands of dollars in public funds.

Participants in the tech assists also highlighted the responsiveness of the LTAP team, the depth of LTAP staff’s knowledge on a range of issues, and the staff’s ability to “walk” organizations through problems. As one LTAP user notes, “When I have questions on how to do things the right way, I know who to turn to.”

As part of the process to evaluate LTAP services, program offerings are evaluated on a number of levels and through different means, including interviews and other longer-term follow-up with LTAP users to determine the “real world” value of programming and supporting materials. The feedback from program participants highlights the value of LTAP in ensuring that municipalities are better prepared to comply with standards and regulations, operate more efficiently, maximize resources, and, most importantly, reduce roadway and other hazards that might otherwise endanger the public and municipal employees.

Forward Thinking

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Who is Behind Next Generation?

The Next Generation effort is spearheaded by a team of employees from across department specialties who are focused on improving business practices and delivering the best customer service possible. Secretary Schoch describes efforts to regionalize or share operations as a logical way to align PennDOT’s structure with the realities of today’s technology and customer needs.

“One of the pilot efforts that the Next Generation team looked at was bridge inspections, and what we found is that by simply regionalizing our efforts we were able to save $540,000,” Schoch says. “It just didn’t make sense that these artificial district boundaries prevented our bridge inspectors from crossing district lines to inspect a bridge in a neighboring district, especially if that bridge was only one or two miles down the road from where they were.”

Collaboration across areas of the department is also vital in Next Generation’s analysis of policies and procedures. The team reviews many PennDOT operations to determine whether each step, form, or process is necessary.

“We must prove to the folks who are paying the bills — Pennsylvania taxpayers — that we are worth the dollars that they are investing in us,” Schoch says. “That’s how the private sector does things, and that’s what PennDOT is doing through Next Generation.”

Recognizing that Next Generation will ultimately require a sustained effort, FHWA and the department are quickly adding other projects to the mix. To date, the FHWA deputate has developed a list of projects based on 300 ideas compiled with input from district and central office personnel. Safety Administration, the area in charge of driver and vehicle services, has identified nine projects, and other areas of the department have offered ideas for the Next Generation team to analyze.

So far, four projects have been fully developed and are showing positive results: bridge inspections, right of way, highway occupancy permits, and safety culture changes. Annual savings from these four efforts alone are estimated to be nearly $7 million.

When the right-of-way pilot project began, Assistant District 11 Executive Cheryl Moon-Sirianni, a member of the right-of-way project team, was initially skeptical, but any doubts she had soon faded. Within weeks of analyzing current procedures, strike-off letters were issued with changes that the team thought would make sense and could save time.

The bridge inspection pilot project has been received in a similar way. Team member Rich Gill, assistant bridge engineer for inspections in District 10, noted that the project is a good step to breaking down traditional thinking. Essentially, Next Generation is working to identify, execute, and demonstrate the benefits of shifting how PennDOT measures success district-by-district or bureau-by-bureau.

As the Next Generation effort evolves, schedules and teams of subject matter experts continue to be created to execute projects. Each project team is led by one or more Next Generation core members, with project champions overseeing a team of appropriate PennDOT staff. As an example of this effort, leaders of a winter services project that is focused on snow-route efficiencies are leading a team of a dozen or more people whose task it is to break down every nut and bolt of snow-route management.

PennDOT has made it a priority to ensure that each of the projects in the Next Generation initiative receive dedicated attention now, but that doesn’t stop Schoch from looking to the future.

“Our improvements will be ongoing,” he says. “If you’re a business and you stop looking at yourself, you go away. We’re competing for taxpayers’ interest and dollars, and we need to clearly demonstrate our value and why they should be willing to invest in us.”

To learn more about PennDOT’s Next Generation and the initiative’s progress, visit www.ModernDOT.pa.gov.
Recognizing that investments in all levels of Pennsylvania’s transportation infrastructure — from interstates to lower volume, locally maintained roadways — benefit the state’s economy, the Pennsylvania Department of Transportation has invested significant resources in local coordination. Through the department’s Bureau of Municipal Services, a statewide network of experts is available to advise local governments on transportation needs in their regions. The New Products Evaluation Program (NPEP) continues to be a dynamic program that PennDOT uses to help ensure local transportation networks can be improved with an eye to innovation and fiscal responsibility.

How it Works

The NPEP has evolved since its inception in the last decade. Previously, the program invited product manufacturers to submit their testing results for the department’s review to determine if the product would be appropriate for use on lower volume local roads. Now, the testing program requires manufacturers to submit their application directly to the department for review. The department then funds the review, testing, and approval of products for local governments’ use, a process that helps to reduce testing, department approval time, and manufacturer costs.

PennDOT’s Materials and Testing Laboratory has a product testing process for use on higher volume roadways. While some of the products and standards tested by the lab may be useful on lower volume local roads, there are products specifically designed for local roadways. For these local roadway products, NPEP serves as the product reviewer. For the purpose of this program, lower volume local roads are classified as Type D roads or collector highways (rural routes with light to moderate traffic), Type E roads or local access highways, and municipal- or county-owned roads (roads with light to moderate traffic).

Who Tests the Products

To fulfill the testing for NPEP, the department uses a contract its Bureau of Planning and Research has with Pennsylvania State University to evaluate these products. Penn State has the expertise to evaluate products that do not harm the environment and can be used for local roadway construction and maintenance.

Once the department receives a manufacturer’s product testing application, a NPEP Selection Committee comprised of department and local government employees works with the university to oversee the rigorous series of evaluations and physical testing at Penn State’s testing facilities.

What Happens Next

After a product is tested and given final approval, it is listed in Publication 447, Approved Products for Lower Volume Local Roads. The purchase and use of each approved product is now eligible for Liquid Fuels funds and may be used on municipal maintenance and construction projects.

To ensure continued quality, products and processes listed in the publication must perform satisfactorily and comply with the terms of the initial application to remain an approved product. Penn State is required to review and retest products in Publication 447 to make sure the products are still relevant and useful to municipalities.

A process or product will remain in Publication 447 unless one of the following occurs:

• Failure to meet specification requirements
• Inactive operation for two years
• Failure to notify the Bureau of Municipal Services of major changes in equipment or procedures that affect the quality of the product
• Revoked approved status by PennDOT
• Removal of a plant and/or facility from approved status
• Any safety-related issue
• Poor performance
• Hazardous conditions
• Non-use

Publication 447 is available electronically, at no cost, through PennDOT’s Sales Store. Go to www.dot.state.pa.us, navigate to “Forms, Publications & Maps” at the top of the page, and then select “PennDOT Sales Store.”

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**Products Approved for Use on Local Roads**

Following are examples of current, already published products that are available for local use:

<table>
<thead>
<tr>
<th>Product</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC Storm Sewer Drain and Basin</td>
<td>Reevaluate the specifications to improve the field performance of PVC Storm Sewer Drain and Basin, a currently approved product in Pub. 447. Product will remain in Pub. 447.</td>
</tr>
<tr>
<td>Stress-Absorbing Membrane Interlayer (SAMI)</td>
<td>Reevaluate Bituminous Fiber Reinforced Stress Membrane and review any changes in design or construction practices since it was first included in the publication. Product will remain in Pub. 447.</td>
</tr>
<tr>
<td>Sign Post Reflective Panels</td>
<td>Reevaluation of field performance of Sign Post Reflective Panels. Product will remain in Pub. 447</td>
</tr>
<tr>
<td>Geosynthetic Reinforced Soils (GRS)*</td>
<td>New Product Review. Penn State is assisting with the refinement and implementation of a GRS specification and focusing research on scour issues, the maintenance of the block facing walls, and the depth of the foundations. This will provide Pennsylvania’s compliance for a statewide specification. Due March 2013.</td>
</tr>
<tr>
<td>Driving Surface Aggregate (DSA)</td>
<td>Reevaluation has been received and accepted. Product will remain in Pub. 447.</td>
</tr>
<tr>
<td>Trenchless Pipe</td>
<td>Reevaluation of the pipe to determine if updates or changes are required since it was first included in the publication. Due May 2013.</td>
</tr>
</tbody>
</table>

*Of the examples, the department is emphasizing its interest in creating specifications for Geosynthetic Reinforced Soil (GRS) bridge abutments. This is a Federal Highway Administration (FHWA) “Every Day Counts” initiative, and the NPEP is funding the creation of specifications for the department. The Mt. Pleasant Road Bridge in Huston Township, Clearfield County, was the first piloted GRS bridge project in Pennsylvania and has proven how beneficial the new, cost-effective technology is. With the help of the neighboring townships of Sandy and Brady, the FHWA and PennDOT, the bridge was constructed from start to finish and opened to traffic within 35 days. The new GRS bridge only cost the township $102,000, which included the cost of paving and guiderail installation.

Currently, five GRS bridges are scheduled for construction in Pennsylvania in 2013. PennDOT is looking to further encourage the use of the GRS technology through Pub. 447. More information on the FHWA’s Every Day Counts GRS-IBS initiative can be found at www.fhwa.dot.gov/everydaycounts/technology/grs_ibs/. To learn more about this specific project, visit PennDOT’s Local Technical Assistance Program website at www.dot.state.pa.us/LTAP/.

As technology advances and new products may be marketed directly to local governments, local government officials are encouraged to contact the Bureau of Municipal Services if a product is of interest or warrants testing.

Advantages to participating in the New Products Evaluation Program include that products are eligible for liquid fuels expenditures, independent testing is conducted to validate product specifications, and best practice discussions are held statewide, including product demonstrations.

Manufacturers may submit their application by visiting PennDOT’s website under the Bureau of Municipal Services, Programs & Services Division at www.dot.state.pa.us. For more information on NPEP, call (717) 783-3721.
Meet the Expert

Going one-on-one with Sam Gregory, LTAP maintenance technical expert

The first in a series of profiles on LTAP instructors

Tell us a little about yourself.

I grew up in rural McKean County and graduated from Edinboro University of Pennsylvania with a BS in Education with the intent of teaching. After working my way through college doing a variety of jobs, including some in the road industry, I took a position with PennDOT where I worked at many positions ranging from budgeting and work planning, to research and quality assurance, to managing a county organization. In all of these positions, I was called upon to do training. When I asked a supervisor once why he chose me for this function, he stated I had a unique way of explaining policy, procedures, and techniques so others could understand them.

In addition to 29 years with PennDOT, I have worked for Indiana University of Pennsylvania as an assistant professor based out of the Administration and Leadership Studies – Research and Training Center in charge of the PennDOT Academies. I currently instruct with Penn State’s Northeast Center of Excellence for Pavement Technology Program (one of five regional Superpave centers established by the Federal Highway Administration) for contractors, consultants and Department of Transportation personnel who are required to be certified in bituminous field work.

What has been your involvement with LTAP?

My involvement with LTAP actually started when I was employed at PennDOT and was introduced to Dr. Anderson, Alan Gesford, and Carl Lubold of Penn State University, all individuals involved early on in LTAP. Alan and Carl served as mentors to me, and we shared instruction material between PennDOT and the LTAP program.

More recently, PSATS hired me as an LTAP maintenance technical expert, and during my tenure, first as an employee and now as a consultant, I have taught more than 330 LTAP courses to date. I instruct the maintenance courses, including Asphalt Roads Common Maintenance Problems, Drainage – the Key to Roads that Last, Posting and Bonding, Winter Maintenance, Geosynthetics, Road Surface Management, Roadside Vegetation Control, Bridge Maintenance and Inspection, Principles of Paving, Project Estimating, Managing Utility Cuts, Unpaved and Gravel Roads, Equipment and Worker Safety, and Superpave. I was also involved in updating or creating most of these courses and am currently developing three new maintenance courses: Full-Depth Reclamation, Liquid Bituminous Seal Coat, and Introduction to Warm Mix Asphalt.

In addition to instructing maintenance courses, I provide LTAP technical assistance (both onsite and by phone) related to maintenance functions to local government public works departments. On average, I perform 40 to 50 tech assists a year. Examples include showing agencies how to perform roadway condition surveys to assist them in asset management, troubleshooting drainage, erosion, bridge and roadway problems, and providing other technical assistance from

I enjoy sharing my knowledge with municipal officials and staff and hopefully helping them to work smarter and be more efficient and effective.

Meet the LTAP Advisory Committee

The PennDOT LTAP Advisory Committee is comprised of an appointed group of municipal government (elected and/or appointed) officials who serve a critical role as program advocates and assist PennDOT by attending training courses, reviewing course materials and content, and functioning in an advisory role on a variety of LTAP issues. The following officials currently serve as members of the Advisory Committee:

- Donald G. Sirianni Jr., Chair; Springfield Township, Montgomery County, dsirianni@springfieldmontco.org
- Paul O. Wentzler, Co-Chair; Muncy Township, Lycoming County, muncytwp@comcast.net
- Glenn A Coakley; Patton Township, Centre County, gcoakley@twp.patron.pu.us
- Mark T. Hoke; East Stroudsburg Borough, Monroe County, esbmaint@frontier.com
- Jeffrey K. Kinsey; Elizabethtown Borough, Lancaster County, publicworks@etownonline.com
- James J McGowan; Wilson Borough Public Works, Northampton County, loulourules11@verizon.net
- Marlin D. Moore; Coudersport Borough, Potter County, coudyboro@zitomedia.net
- Douglas A. Roth; Penn Township, Butler County, droth@penntownship.org
- Ann Simonetti; Marysville Borough, Perry County, asimonetti@comcast.net

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Meet the Expert

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calibrating salt spreaders to conserving material. Phone assistance may range from providing information on PennDOT specifications, regulations, and licensing requirements to researching available asset management software. Since I live in Clearfield, a lot of my work is focused on municipalities in the western part of the state although I will travel to other areas of the state, if necessary.

What do you like best about your work with LTAP?

I enjoy field assists the most because they allow me to go outside the office and use my expertise in road maintenance to educate local government employees. Essentially, I am a people person so I especially like interacting with municipal officials and employees. I enjoy sharing my knowledge with them and hopefully helping them to work smarter and be more efficient and effective.

Meet the Expert

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What do you want municipalities to know about LTAP?

I have learned there is still a lack of communication about the LTAP program at the municipal level, probably due to the turnover of personnel. I still get questions like how can I get a training session or tech assist in my municipality (contact LTAP at 1-800-FOR-LTAP) or do tech assists cost anything (nope, they’re free to municipalities).

My advice is for municipalities to take advantage of all the LTAP program has to offer. A trained work force is a productive and effective work force. Even though budgets are tight, training of employees is still necessary, and except for the employees’ time LTAP provides this service for free.

The same goes for tech assists. When presented with a problem, the more eyes you have looking at it the easier it is to solve. LTAP will help to provide those expert eyes. Again, this service is free so why wouldn’t you take advantage of it? 🍭

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

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

Congratulations to the following Roads Scholar recipient:

• Gregory Scigliano, Lackawaxen Township