



**pennsylvania**

DEPARTMENT OF TRANSPORTATION

PennDOT Local Technical Assistance Program

## **LTAP Courses (All qualify for Roads Scholar credit)**

### **Asphalt Roads: Common Maintenance Problems: (Half Day)**

This course discusses causes and repair procedures for common problems such as cracking, potholes, rutting, corrugations, etc. The procedures cover materials, equipment and techniques for lasting repairs.

### **Bridge Maintenance: (Full Day)**

This program identifies the responsibilities of municipalities that own bridges, particularly with spans less than 20 feet. Instructors will focus on maintenance practices that preserve bridges. Reports from PennDOT's Bridge Maintenance System will be reviewed.

### **Common Sense Solutions to Intersection Problems: (Full Day) New for 2009**

This course provides participants with 1) a basic understanding of intersection safety issues, 2) "How to" information for common safety tasks and low cost safety improvements that do not require an engineer, and 3) background information on safety tasks that DO require an engineer. This workshop also outlines areas where non-engineers can assist traffic engineers in the safety process, and help them to understand when an engineer needs to be consulted to make a safety related change at an intersection. This workshop is only intended to address existing roads; proposed roads are not considered because it is assumed that an engineer will be involved in design and planning of those. This program is not intended to make traffic engineers out of the general public.

### **Drainage: (Full Day)**

This course emphasizes the importance of good drainage with discussions of water and its effects on roads, problems caused by improper drainage, and ways to handle these problems. It covers types of drainage facilities, ranging from ditches, culverts and subdrains to inlets and end structures, their uses, materials, installation and maintenance.

### **Engineering and Traffic Studies: (Full Day)**

This course reviews applicable laws, ordinances, regulations and required study procedures for establishing, revising and removing traffic restrictions, as presented in PENNDOT Publication 201.

### **Equipment and Worker Safety: (Half Day)**

This course stresses key points for the safe operation and use of typical vehicles and other equipment, along with personal safety on the job. Participants also learn the Occupational Safety and Health Administration (OSHA) regulations concerning construction excavation.

### **Geosynthetics: (Half Day)**

This course identifies various types of geosynthetic materials used in road maintenance operations. Attendees will gain the knowledge and understanding of the common types of geosynthetic materials as well as their functions. Instructors will review the cost benefits in using geosynthetics in the preventive maintenance of roadway assets. The course will discuss such uses of geosynthetics as subsurface drainage, subgrade stabilization, erosion and sedimentation control, and paving fabric.

### **Managing Utility Cuts: (Half Day)**

One of the most aggravating occurrences undermining the structural stability of a newly reconstructed or resurfaced road is the utility repair cut. This course covers the management of roadway excavations by contractors and utilities through local ordinances, permits, fees, specifications and inspection. It compares local ordinances with state procedures for state roads. It also discusses PA One Call, trenching and shoring, work zone traffic control, and liability.

### **Managing Winter Road and Street Operations: (Evening) New for 2009**

This workshop is designed to show elected and appointed municipal officials who deal with winter road maintenance operations how to make those programs more efficient and effective. Through this program, you will learn how to develop and implement a snow plan for your community. You will also be introduced to the many issues that impact your community's ability to deal with winter maintenance. Instructors will present ideas that could save your municipality time and money. After this training, you will have a better understanding of developing and working with a winter maintenance program for your community.

### **Posting and Bonding of Local Roads: (Half Day)**

Many rural roads and urban streets were not built to carry today's heavy loads. This course reviews laws governing posting and bonding, requirements for developing and implementing a posting and bonding program, and ways to monitor a program. Participants examine a sample bonding agreement.

### **Principles of Paving: (Full Day)**

This course is for municipal employees who are involved in the planning, inspecting and placement of asphalt paving operations. The course will provide the knowledge needed to properly plan and monitor a hot mix asphalt paving project. Basic knowledge of hot mix asphalt materials and construction specifications will be provided. The importance of proper roadway preparation to obtain a long lasting product will be discussed. A basic understanding of the delivery, placement, and compaction process in paving operations will be provided.

### **Risk Management and Tort Liability: (Half Day)**

This course is directed at the importance of maintenance crews and their operations in reducing municipal liability. The course helps participants understand and assess their major liability exposures by identifying high tort areas in roadway activities.

### **Road Surface Management: (Full Day)**

This course is designed for the benefit of maintenance supervisors, business managers, and elected officials, who are responsible for designing and maintaining roads. This course is intended to assist in understanding and rating the surface condition of roads with the goal of identifying key issues and concerns for maintaining roads. The topics presented in this course include: 1) road surface inventory; 2) understanding and rating the surface condition of roads; 3) definition of the different pavement maintenance and rehabilitation techniques with emphasis on the benefits of performing preventive maintenance on roadways to extend their service life; and 4) Understanding of how to incorporate distress surveys into a more comprehensive management system.

### **Roadside Safety Features: (Full Day) New for 2009**

Roadside Safety Features will provide information and resources for municipalities to understand the importance of roadside safety and to be able to determine the most appropriate countermeasures. This class is not a design class but will focus on practical applications of roadside safety concepts. For example, it will follow the common theme for roadside hazard identification and improvement: hazard removal, relocation, make breakaway, shield, and delineate. Therefore, it will cover low cost improvements (pavement markings, delineators, chevrons) and higher cost (barriers). Information on guiderail warrants, types, and end treatments will be presented.

### **Roadside Vegetation Control: (Full Day)**

This course covers the importance of vegetation control and various control methods that can be used in an efficient program. Starting in 2007, attendees can earn CEUs toward keeping their applicator certification.

### **Roadway Safety Improvement Program: (Full Day)**

This course covers how to establish and maintain a safety improvement program. Participants learn how to implement safety improvements targeted at areas that have a history of crashes or exhibit conditions associated with high-crash areas.

### **Signing and Work Zone Rules for Local Governments: (Half Day)**

PennDOT adopted regulations which affect work zones and traffic control devices (signs, signals, and pavement markings) on all roads open to public travel in Pennsylvania, including municipal roads. This training will provide information that will assist municipalities in complying with these regulations, including the adoption of FHWA's Manual on Uniform Traffic Control Devices (MUTCD), and PennDOT Publications 212 and 213. Emphasis will be placed on how local governments are affected by these state regulations and federal standards, including sign installation and maintenance requirements, engineering and traffic studies, and work zone traffic control.

### **Stormwater Management: (Full Day) New for 2009**

This course will provide an overview of stormwater management issues from a municipal perspective. The course will cover regulatory requirements under NPDES II, and what municipalities should do to implement a responsible stormwater management program. In addition, operation and maintenance issues critical to responsible municipal stormwater management planning will be presented. The course will also identify funding sources and other requirements for the construction, rehabilitation, and operation and maintenance of municipal stormwater facilities.

### **Traffic Calming: (Full Day)**

This course introduces an engineering tool whose purpose is to address excessive traffic speed and/or cut-through traffic on residential streets. The course provides information that can help municipalities establish a rational traffic calming program for their roadways. Detailing information in PennDOT's Publication 383, Pennsylvania's Traffic Calming Handbook, the course defines traffic calming, describes various traffic calming devices, outlines potential positive and negative impacts on a neighborhood, and reviews a sample traffic calming program. It also investigates related issues, such as impacts of traffic calming devices on liability, roadway maintenance, and emergency service. Participants perform case studies, applying traffic calming measures to address traffic concerns.

### **Traffic Signs: (Full Day)**

This course reviews the regulations and guidelines for properly establishing and posting regulatory, warning and guide signs.

### **Unpaved and Gravel Roads Common Maintenance Practices: (Half Day)**

This course addresses basic maintenance techniques for unpaved and gravel roads. Topics include road materials, blading or dragging, reshaping or regrading for proper crown, regravelling, stabilization or full-depth reclamation, and dust control, with an introduction to road management techniques.

### **Winter Maintenance: (Full Day)**

This course covers all aspects of winter operations: planning and organizing, public relations, materials, equipment, various operations and procedures including plowing and spreading, and safety. It includes discussion of pre-wetting salt and anti-icing procedures for more effective and economical operations.

**Work Zone Traffic Control: (Half Day)**

This course identifies the required work zone signs, traffic control devices, and flagging procedures through a review of the regulations in PennDOT Publication 203, Work Zone Traffic Control. It covers development of a traffic control plan, use of typical layout figures from the publication, and inspection of established work zones. It emphasizes short-term work zones.

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**How to Request a Workshop:****On the Web site:**

- [www.ltap.state.pa.us](http://www.ltap.state.pa.us)
- Log in under your UserName (or select "User Account" at the bottom of the screen to create a new account)
- Select "Submit New Request"
- Select "Technical Assistance"
- Complete the form, and submit

**Or, please feel free to contact an LTAP representative:**

Phone: 1-800-FOR-LTAP

Email: [ltap@state.pa.us](mailto:ltap@state.pa.us)

Mail:

Pennsylvania Department of Transportation  
Bureau of Planning and Research  
Commonwealth Keystone Building  
400 North Street, 6<sup>th</sup> Floor  
Harrisburg, PA 17120