

Pavement Wearing Courses Training Resources

As of July 31, 2013

Pavement Wearing Courses Synthesis

David Orr, Cornell Local Roads Program

July 31, 2013

The following resources were used to develop the list of training resources. The list only has those items that are currently available and reasonably accessible. This synthesis has a lot of items that could be added. Only those resources directly related to wearing courses were included.

Resources	Website	Email	Phone
NLTAPA Website and Clearinghouse			
LTAP Center websites			
ISSA	http://www.slurry.org/		
NHI	http://www.nhi.fhwa.dot.gov/default.aspx		
National Center for Pavement Preservation (NCPPI)	http://www.pavementpreservation.org/	ncpp@egr.msu.edu	517-432-8220
FP2	http://www.fp2.org/		
ARRA	http://www.rra.org/		

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Length	Audience	Level	Description	Cost	Resource
Chip Seal Best Practices	Instructor Led Training Course	1 day	Broad based for anyone involved	Intermediate	Provides participants with a thorough and comprehensive understanding of chip seal design, construction, equipment, and inspection.	Between \$100 and \$200 per person.	NCPP
Slurry Seal & Micro Surfacing	Instructor Led Training Course	1 day	Engineers, managers, through inspectors.	Intermediate	Provides participants with a comprehensive understanding of slurry seal and micro-surfacing systems..	Between \$100 and \$200 per person.	NCPP
Top of the Curve: Fog seals, Rejuvenators, Crack Sealing and Filling	Instructor Led Training Course	1 day	Engineers, technicians, and specialists with a technical interest	Intermediate	Comprehensive understanding of pavement preservation treatments that are best applied early in a pavement's life.	Between \$100 and \$150 per person.	NCPP
Pavement Preservation Treatment Series: Materials FHWA-NHI-131110B	Web-based training module.	1 hour	Highway workers and inspectors.	Intermediate	Provides participants with information on the materials used for preventive maintenance treatments. Topics include: materials comprising maintenance treatments, emulsions, and aggregates.	No cost	NHI
Pavement Preservation Treatment Series: Selecting the Right Treatment FHWA-NHI-131110K	Web-based training module.	½ hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on preservation treatment selection.	No cost	NHI

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Length	Audience	Level	Description	Cost	Resource
Pavement Preservation: Preventive Maintenance Treatment, Timing, and Selection FHWA-NHI-131115	Instructor Led Training	2 days	Mid- or upper-level highway agency professionals.	Basic	Improve the skills of those involved in implementing pavement preservation programs. This includes improving the selection of pavement preventive maintenance projects and the selection of preventive maintenance treatments.	\$400 per participant – 20 minimum, 30 maximum	NHI
Pavement Preservation Treatment Series: Chip Seals FHWA-NHI-131110E	Web-based training module.	1 hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on chip seals. Topics include: project selection, pavement and weather condition requirements, storage, traffic control, construction sequence, aggregate spreading distance, brooming, chip spreading process, distributor preparation, and troubleshooting.	No cost	NHI
Pavement Preservation Treatment Series: Fog Seals FHWA-NHI-131110F	Web-based training module.	1 hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on fog seals. Topics include: uses of fog seals, suitable pavement surfaces, storage and handling of materials, application process, and problems and causation.	No cost	NHI
Pavement Preservation Treatment Series: Micro-Surfacing FHWA-NHI-131110H	Web-based training module.	1 Hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on micro-surfacing. Topics include: pavement and traffic condition considerations, construction, and troubleshooting.	No cost	NHI

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Length	Audience	Level	Description	Cost	Resource
Pavement Preservation Treatment Series: Thin Functional HMA Overlay FHWA-NHI-131110I	Web-based training module.	1 hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on thin functional hot-mix asphalt overlays. Topics include: proper usage, suitable pavement conditions, construction, and troubleshooting.	No cost	NHI
Pavement Preservation Treatment Series: Ultra Thin HMA Bonded Wearing Course FHWA-NHI-131110J	Web-based training module.	1 Hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on ultra thin, hot-mixed asphalt bonded wearing course. Topics include: usage, distresses and application considerations, construction, and troubleshooting.	No cost	NHI
Pavement Preservation Treatment Series: Crack Sealing & Filling, and Joint Sealing FHWA-NHI-131110C	Web-based training module.	1 Hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on crack sealing, crack filling, and joint sealing of flexible and rigid pavements. Topics include: working and non-working cracks, fatigue and longitudinal cracks, correct temperatures for crack sealant, crack repair sequence, hot sealant, and crack sealing or filling criteria.	No cost	NHI
Pavement Preservation Treatment Series: Slurry Seals FHWA-NHI-131110G	Web-based training module.	1 Hour	Highway workers and inspectors.	Intermediate	This training is designed to provide participants with information on slurry seals. Topics include: reasons to use slurry seals, gradations of slurry seal aggregate, preparation and application process, and problems and solutions.	No cost	NHI

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Length	Audience	Level	Description	Cost	Resource
TCCC Chip Seal Best Practices FHWA-NHI-131132	Web-based training module.	3 Hours	Entry level construction inspectors, maintenance employees (also refresher training)	Basic	Presents ways to assist in the development and implementation of pavement preservation programs by identifying the benefits of using chip seal as part of a preventive maintenance program. This course has six modules: 1 -introduction, 2 designing mixes, 3 selecting materials , 4 equipment, 5 construction practices, and 6 performance measures.	No cost	NHI
For Pavement Preservation FP ²	Online Info	NA	Road agencies that are strapped for cash looking for ways to optimize their limited dollars.	Basic	Webpages to browse to learn more about pavement preservation, and view our quarterly magazine, Pavement Preservation Journal .	No cost	FP2
MN LTAP Annual Asphalt Pavement Maintenance and Preservation Workshop	Online Info	NA	Pavement Practitioners	Basic to Intermediate	Presentations that were given at the Minnesota LTAP annual Asphalt Pavement Maintenance and Preservation Workshop are posted at this site.	No cost.	http://www.ltap.org/resources/searcdetail.php?id=5
Ohio LTAP Asphalt Pavement Preservation: Evaluation, Maintenance and Rehabilitation Workshop	Online Info	NA	Pavement Practitioners	Basic	Downloaded slides (CD w/PDF files) & course book from the Ohio LTAP Asphalt Pavement Preservation: Evaluation, Maintenance, and Rehabilitation Workshop.	No cost.	http://www.ltap.org/resources/searcdetail.php?id=6

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Length	Audience	Level	Description	Cost	Resource
Asphalt Recycling & Reclaiming Association	Online info	NA	Pavement Practitioners	Basic	ARRA's primary function has been to promote the recycling of existing roadway materials through various construction methodologies, to preserve limited natural resources and reduce costs.	No cost.	http://www.ara.org/
International Slurry Surfacing Association	Online info	NA	Pavement Practitioners	Basic	The International Slurry Surfacing Association (ISSA) is an international non-profit trade association comprised of contractors, equipment manufacturers, public officials, research personnel, consulting engineers and other industry professionals..	No cost.	http://www.slurry.org/
Asphalt Emulsion Manufacturers Association	Online info	NA	Pavement Practitioners	Basic	AEMA is a proactive organization dedicated to the advancement of the asphalt emulsion industry, constantly focusing on system preservation and the construction of the world's infrastructure.	No cost.	http://www.aema.org/
Delaware T2 Center	Videos	Short and long formats.	Pavement Practitioners	Basic	Un-narrated videos of pavement preservation techniques in short (~2 minutes) and longer formats.	O cost.	Matt Carter, Delaware T2 Center matheu@udel.edu

LTAP Classes

Pavement Wearing Courses Training Resources

As of July 31, 2013

Workshops found doing a search in the Clearinghouse database

Title	Type	Organization	View
Asphalt Maintenance & Preservation Workshop for Administrators & Decision Makers	Course-LTAP/TTAP	Minnesota LTAP	View
Asphalt Pavement Maintenance	Course-LTAP/TTAP	Virginia LTAP	View
Asphalt Pavement Maintenance	Course-LTAP/TTAP	California LTAP	View
Bituminous Surface Treatment Inspection (ACC)	Course-LTAP/TTAP	Washington LTAP	View
Chip Seal	Course-LTAP/TTAP	Oklahoma LTAP	View
Chip Seal Applications	Course-LTAP/TTAP	Colorado LTAP	View
Chip Seal Pavements	Course-LTAP/TTAP	Delaware LTAP	View
Chip Seal Process Training	Course-LTAP/TTAP	Tennessee LTAP	View
Chip Seals and Other Asphalt Pavement Surface Treatments	Course-LTAP/TTAP	California LTAP	View
Construction Inspection	Workshop	Wyoming LTAP	View
How to put together a road crew	Course-LTAP/TTAP	Northern Plains TTAP	View
Life-cycle Extension Calculator	Other	unknown	View

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Organization	View
Maintenance & Repair of Local Roads (Chip-Seal & Asphalt); and Maintenance & Repair of Low Volume Local Roads (Gravel & Chip-Seal)	Workshop	Ohio LTAP /DOT	View
Modern Chip Seal Techniques	Course-LTAP/TTAP	Washington LTAP	View
Pavement Maintenance	Other	New York LTAP/Cornell Local Roads Program	View
Pavement Preservation Treatment Construction - WEB-BASED	unknown	National Highway Institute (NHI)	View
Pavement Preservation Treatment Series: Chip Seals - WEB-BASED	unknown	National Highway Institute (NHI)	View
Pavement Preservation: Design and Construction of Quality Preventive Maintenance Treatments	unknown	National Highway Institute (NHI)	View
Pavement Preservation: Design and Construction of Quality Preventive Maintenance Treatments	unknown	National Highway Institute (NHI)	View
Pavement Preservation: Design and Construction of Quality Preventive Maintenance Treatments	unknown	National Highway Institute (NHI)	View
Preventive Maintenance Problems	Course-LTAP/TTAP	Maryland LTAP	View
Seal Coat Operations: A Workshop for Practitioners	Course-LTAP/TTAP	Minnesota LTAP	View
TCCC Chip Seal Best Practices - WEB-BASED	unknown	National Highway Institute (NHI)	View
Local Roads	Course-LTAP/TTAP	Ohio LTAP /DOT	View
ASPHALT EQUIPMENT CLEAN-OUT SYSTEM	Other	Boulder County Transportation Department	View
Asphalt Pavement Maintenance	Course-Classroom	Virginia LTAP	View

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Organization	View
Asphalt Roads Common Maintenance Problems	Course-LTAP/TTAP	Maryland LTAP	View
Chain Saw/Wood Chipper	Course-LTAP/TTAP	Oklahoma TTAP	View
Chainsaw and Chipper Maintenance and Operation	Document	Ohio LTAP /DOT	View
Chainsaw/Wood Chipper	Course-LTAP/TTAP	Oklahoma LTAP	View
Chipper/Chainsaw	Course-LTAP/TTAP	Ohio LTAP /DOT	View
Crack Sealer Manual	Document	Ohio LTAP /DOT	View
Crack Sealing De-tack Truck System	Other	unknown	View
Do's & Don'ts of Seal Coat	Course-LTAP/TTAP	Missouri LTAP	View
Dust Control on Gravel Roads	Presentation	Wyoming LTAP	View
Equipment Selection	Course-LTAP/TTAP	Northern Plains TTAP	View
Gravel Road Maintenance and Design	Course-LTAP/TTAP	Minnesota LTAP	View
Intro. to Crack Sealing	Course-LTAP/TTAP	Ohio LTAP /DOT	View
Jointbond Longitudinal Joint Stabilizer	Other	unknown	View

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Organization	View
New Hire Training Week for HT Classification	Course-Classroom	Ohio LTAP /DOT	View
Pavement Preservation Treatment Series: Crack Sealing & Filling - and Joint Sealing - WEB-BASED	unknown	National Highway Institute (NHI)	View
Pavement Preservation Treatment Series: Fog Seals - WEB-BASED	unknown	National Highway Institute (NHI)	View
Pavement Preservation Treatment Series: Localized Pavement Repair - WEB-BASED	unknown	National Highway Institute (NHI)	View
Pavement Preservation Treatment Series: Slurry Seals - WEB-BASED	unknown	National Highway Institute (NHI)	View
Preventive Maintenance for Roadway Surfaces	Course-LTAP/TTAP	Oregon LTAP	View
ROCK CRUSHER CAMERA MONITORING SYSTEM	Other	Routt County Road & Bridge Dept.	View
Seal Coat	Course-LTAP/TTAP	North Dakota LTAP	View
Subsurface Investigation Qualification	unknown	National Highway Institute (NHI)	View
TCCC Concrete Pavement Evaluation - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Concrete Pavement Preservation Series - WEB-BASED	unknown	National Highway Institute (NHI)	View
CCC Construction of Portland Cement Concrete Pavements - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Diamond Grinding and Grooving - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Full-Depth Repairs - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Joint Sealing and Crack Resealing - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Load Transfer Restoration - WEB-BASED	unknown	National Highway Institute (NHI)	View

Pavement Wearing Courses Training Resources

As of July 31, 2013

Title	Type	Organization	View
TCCC Partial-Depth Repairs - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Pipe Installation - Inspection - and Quality - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Preventative Maintenance and Pavement Preservation Concepts - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Retrofitted Edge Drains - WEB-BASED	unknown	National Highway Institute (NHI)	View
TCCC Slab Stabilization and Slab Jacking - WEB-BASED	unknown	National Highway Institute (NHI)	View

Pavement Wearing Courses Training Resources

As of July 31, 2013

Review of LTAP Workshops and Seminars.

Alabama

High Friction Surface Treatments & Intersection and Interchange Geometrics – One Time Seminar, 4 hours long

Arizona

Asphalt Pavement Maintenance 8 hours, ADOT\$0;LG35P\$35

TOPICS: The Case for Preventive Maintenance , Engineering a Preventive maintenance Program, Materials for Preventive Maintenance, Fog Seals and Rejuvenators, Chip Seal, Slurry Seal and Micro-Surfacing, Thin Hot-Mix Asphalt Overlays (Conventional, Asphalt Rubber, Novachip, etc.), Crack Treatments for Asphalt Pavements

Evaluation & Rehabilitation of Asphalt Pavement 8 hours

Objective: The course provides detailed information concerning the evaluation and quality standards for rehabilitation of asphalt pavement. The course covers concepts that assist pavement engineers and superintendents in developing the most reliable and cost effective rehabilitation alternatives for existing asphalt pavement.

The target audience for this workshop is state and local highway personnel dealing with design, construction, maintenance, and rehabilitation of asphalt pavement.

Topics:

1. Introduction
 2. Traffic loading
 3. Basic distress mechanisms
 4. Drainage and video on drainage
 5. Pavement evaluation techniques (condition survey, serviceability, structural capacity, friction)
 6. Hot mix asphalt overview
 7. Preparation before resurfacing or restoration (crack sealing, patching, milling, leveling course)
 8. Maintenance treatments (fog seal, chip seal, slurry seal and microsurfacing)
 9. Recycling of pavement materials
 10. Hot mix asphalt overlays and video on overlays
 11. Identification of feasible alternatives
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Pavement Wearing Courses Training Resources

As of July 31, 2013

Arkansas

Road Maintenance (Asphalt)

No details available

Connecticut

All About Asphalt Pavements

Florida

Asphalt Combo - Inspection and Maintenance

Description: This workshop will teach the basic concepts of asphalt materials and inspection techniques that are key to obtaining high quality work on new construction and resurfacing projects. Inspection will point out the different common problem areas and how to properly repair them.

This workshop focuses on the materials, construction details, and maintenance practices that help extend the service life of asphalt pavements. Videos and sketches will be shown to demonstrate proper and improper maintenance techniques. Ample time will be allowed to address questions on specific maintenance issues. The workshop will include discussions on: pavement evaluation to determine the types and causes of pavement distress techniques, equipment, and materials for effective crack sealing procedures, equipment, and materials for effective asphalt patching and utility repair procedures, materials, and equipment for quality and cost-effective asphalt surface treatments.

Cost: \$175 per person for public agency personnel; \$250 per person for private agency personnel

Course Length: 6 hours

Continuing Education Credit: 0.6 CEU

Professional Engineer's Credit: 6.00 PDH

Georgia

Asphalt Pavement Maintenance and Repair

Pavement Wearing Courses Training Resources

As of July 31, 2013

Idaho

Agency Fee:

Local Highway Jurisdictions: \$70

State & Federal: \$105

Out of State & Private: \$135

Register two weeks in advance and receive a \$10 discount!

Pavement Maintenance I

This course will cover the basic types of pavement failures, distress identification and severity. It will look at the difference between preventive maintenance and reactive repairs. In addition, the class will look at the various repair methods and use of each under basic pavement management concepts. The FHWA Distress Identification Manual will be furnished as part of the class.

Pavement Maintenance II

This course is a continuation of Pavement Maintenance I. After determining the type of distress the pavement has, this course looks at the alternative repair methods that are available. The applications covered include: fog coat, slurry seal, scrub seal, cape seal, and special emphasis on chip seal. The course details how each application is performed, when to use them, and the type of oils used. A discussion will include chip seal methods and how to perform a good chip seal, along with the hazards to watch out for. There will also be coverage of chips, oil, lay down, brooming, and traffic. The class will also cover the basics of emulsions and cutbacks, with a discussion of thin overlays, cold in place recycling, and full depth reclamation.

Illinois

[The seminars and classes are tuition free.](#)

Pavement Wearing Courses Training Resources

As of July 31, 2013

Kansas

Asphalt Road & Street Maintenance

About the Workshop: This is the annual training in which KS LTAP and the Kansas Asphalt Pavement Association (KAPA) cooperate to bring Kansas road and street crews information on maintaining Kansas low volume paved roads with improved and asphalt-treated wearing surfaces.

Who Should Attend: County, City, State, Township and Tribal road/street crew and supervisors, maintenance workers, and others with responsibility for maintaining paved roads. Elected officials are also invited to attend

\$65/person

Louisiana

Road Scholar #2 - Asphalt Roads: Common Maintenance Problems

This course includes a review of the causes of potholes, rutting, corrugations, alligator cracking, and other common maintenance problems. This session covers proper methods, materials, and equipment which should be used in making lasting repairs.

(4 PDH)

Road Scholar #7 - Seal Coats and Slurry Seals

This course will cover the proper selection and use of seal coats and slurry seals. Participants will learn correct methods of application, as well as practical tips on how to avoid trouble. Materials, equipment, and calibrations are discussed.

(4 PDH)

Registration Fee

\$25.00 Public Agencies

\$50.00 Private Agencies

Pavement Wearing Courses Training Resources

As of July 31, 2013

Maryland

Asphalt Roads - Common Maintenance Problems

Description: Municipal employees with road maintenance responsibilities should understand the causes of common maintenance problems on asphalt roads and be familiar with proper repair materials and methods. This course instructed by Ed Stellfox 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. Also included, a brief discussion of surface treatment.

Professional Development Hours: 4.0.

Preventive Pavement Maintenance

Description: This course is the first step in making your asphalt pavements last longer at lower costs. The course instructed by [Ed Stellfox](#) covers preventive maintenance treatments such as chip seals, slurry seals, and micro-surfacing and discusses when and where each technique could be effective. It presents application methods, including preparation, materials, equipment, operations and safety, along with practical tips on how to avoid trouble.

This course is open to municipal officials, road commissioners, supervisors, and superintendents; public works and maintenance personnel; equipment operators; and city or town managers.

Professional Development Hours: 6.0.

Registration Fees: An \$89 registration fee will be charged for all registrants.

Minnesota

- [Asphalt Pavement Maintenance and Preservation \(CTAP\)](#)
 - [Micro/Slurry Surfacing: A Workshop for Practitioners](#)
 - [Seal-Coat Operations: A Workshop for Practitioners](#)
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Pavement Wearing Courses Training Resources

As of July 31, 2013

Missouri

For Road Scholar Level 1 and Non-Road Scholar Courses:

- \$35 per person for government agencies
- \$70 per person for private agencies

For Road Scholar Level 2:

- \$50 per person for government agencies
- \$100 per person for private agencies

For Road Scholar Level 3:

- \$75 per person for government agencies
- \$150 per person for private agencies

Preventive Pavement Maintenance (Chip Seal Best Practices/Asphalt 101)

presents ways to assist in the development and implementation of pavement preservation programs by identifying the benefits of using chip seal as part of a preventive maintenance program as well as the basics of asphalt. It also covers the calibration of distributors, calibration of chip spreaders, mix design, the maintenance of existing roads, and how to put together a pavement team. Some of the different equipment available for maintaining paved roads will also be highlighted. Attendees will explore methods of extending the life of their pavements to meet the ever increasing demand for better roads given decreasing revenues. They will also be advised on the merits of developing a pavement management system to track maintenance efforts and aid in decisions on when to rebuild a road.

Pavement Wearing Courses Training Resources

As of July 31, 2013

New Jersey

Pavement Maintenance: Crack Treatment Seminar

This course discusses crack treatments in asphalt concrete pavements detailing the "why, when, where, and how." Whether you have considered starting a crack sealing program or already perform the work inhouse or by contract, this presentation details the process with current techniques, materials, and equipment. The course is presented in lecture format concluding with hands-on equipment operation and sealant application.

5 ½ hours

\$85.00 Private Industry/\$75.00 Government

New York

Pavement Maintenance

Who should attend: Highway superintendents who select pavement maintenance, evaluate options, and analyze cost. The class will cover selection of the proper maintenance activity to correct or prevent pavement problems. How to perform various maintenance options will be illustrated.

http://www.clrp.cornell.edu/workshops/pdf/pavement_maintenance-web.pdf

\$50

North Carolina

<http://www.itre.ncsu.edu/LTAP/education/index.asp>

<http://www.itre.ncsu.edu/LTAP/education/selection.asp#LTAP-APM>

Asphalt Pavement Maintenance - \$99.00 per person

This workshop covers pavement evaluation, asphalt mix materials, hot plant mix production and pavement construction methods, routing pavement maintenance techniques, and pothole patching.

Length - 1 day | Lunch provided

PDH - 8 hours

\$99.00 per participant

Pavement Wearing Courses Training Resources

As of July 31, 2013

Ohio

Maintenance & Repair of Local Roads

(Chip-Seal & Asphalt)

<http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/FlyersJuly09/Maintenance%20of%20Local%20Roads%20-%20Chip-Seal%20and%20Asphalt%20-%202013.pdf>

Total Contact Hours of training = 5

\$50 per person

Description: This workshop will focus on chip-seal and asphalt roads at the local level. The basic principles and methods for constructing, maintaining and repairing these local roads will be addressed. The information will be presented in a straightforward, practical manner.

Who Should Attend? – This workshop is aimed toward public employees and officials who are responsible for maintaining local roads, including township and county personnel. A previous technical background is not required in order to benefit from the practical tips provided in this training! Please bring a calculator in order to participate in some of the workshop examples.

Maintenance & Repair of Low Volume

Local Roads (Gravel & Chip-Seal)

<http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/FlyersJuly09/Maintenance%20of%20Low%20Volume%20Local%20Roads%20-%20Gravel%20and%20Chip-Seal%20-%202013.pdf>

Description: There are still many miles of unpaved Gravel roads and simply-paved Chip-Seal roads at the local level in Ohio, especially in the more rural areas of the state. This workshop will address the basic principles and methods for maintaining and repairing these low volume local roads. The information will be presented in a straightforward, practical manner, focusing mainly on operational considerations.

Who Should Attend? – This workshop is aimed toward public employees and officials who are responsible for maintaining unpaved (Gravel) and simply-paved (Chip-Seal) roads, including Township and County personnel. A previous technical background is not required in order to benefit from the practical tips provided in this training

Pavement Wearing Courses Training Resources

As of July 31, 2013

Oklahoma

Pavement Preservation & Surface Treatments Seminar

This one-day seminar will feature some of the newest topics on ways to preserve your pavement. Cape Seals, Crack Sealing, Fog Seals, Chip Sealing, Slurry Seal, Micro-Surfacing, and many more topics will be discussed.

W from 8:30 AM to 3:30 PM

Fee: \$0

Chip Seal Class & Demonstration – This one-day class consists of two parts – classroom instruction that goes into detail on the proper procedures to use when doing chip seal operations. The second part is a demonstration of these methods in the field. Representatives from oil suppliers and equipment manufacturers are available to answer your questions.

Pennsylvania

[ASPHALT ROADS COMMON MAINTENANCE PROBLEMS/A1](#)

This course provides relevant information to individuals who have to maintain asphalt pavements. The course material reviews the importance of preventive maintenance to the life of an asphalt pavement. The material will help the student identify common asphalt distress, the cause of the distress, and the appropriate treatments. The latest techniques, materials, and equipment will be reviewed with an emphasis on repairing the asphalt distress properly the first time. Current industry standards to properly repair problems such as cracking and potholes will be presented in detail. The basics of treatments such as seal coats, micro surfacing, and overlays will be presented. A review of the latest treatments included in Penn DOT Publication 447 Approved Products for Lower Volume Local Roads, will be covered. Intended Audience: Individuals who are involved in the planning and execution of maintenance work on asphalt pavements, including: street superintendents, roadmasters, public works directors, foreman, and select crew members. (3.5 hours)

[LIQUID BITUMINOUS SEAL COAT/A1](#)

Individuals attending this course will be presented with the information necessary for the proper planning and execution of a seal coat operation. This pavement preservation technique is often used by local government agencies to extend the useful life of their roadways. The various types of seal coat operations will be included. The participants will be able to identify typical roadway distress that can be addressed by the use of a liquid bituminous seal coat. The latest materials, equipment, and techniques available for performing this operation will be presented. The process to ensure the correct aggregate and liquid bituminous material selection is achieved will be reviewed. Equipment calibration requirements and the operational sequence will be presented to assist the participants in ensuring a quality product is obtained. Intended Audience: This course is intended for local government officials responsible for asset management, project planning, and

Pavement Wearing Courses Training Resources

As of July 31, 2013

inspection of seal coat projects, as well as the crews performing this work. This includes Public Works Directors, Supervisors, Road Masters, Foremen and Equipment Operators. (4 hours)

Rhode Island

Pavement Maintenance Methods

South Carolina

APWA "Lunch and Learn" Pavement Preservation

Course Description:

The class offers a detailed understanding of Pavement Preservation for local agencies. It identifies the efficiencies gained by developing and selecting pavement strategies that reduce long-term operating costs, improve safety, pavement condition and user satisfaction. The course focuses on information needed to develop or improve a pavement preservation program and will provide attendees with a general overview of applied asset management principles, treatments, specifications, quality control, pavement management, terminology, and network budgeting.

Course Instructors:

Larry Galehouse, PE, LS, is the founding Director of the National Center for Pavement Preservation (NCPPE), located at Michigan State University in East Lansing Michigan. The NCPPE is home to the AASHTO Transportation System Preservation Technical Services Program. Mr. Galehouse gained extensive experience in the maintenance and management of highway networks with the Michigan Department of Transportation, from where he retired. He served as the past chair of the Transportation Research Board (TRB) Committee on Pavement Preservation and the past chair of the Committee on Pavement Maintenance.

6 hours

Who Should Attend: The class is specifically designed and targeted for elected officials, county engineers, public works directors, pavement managers, and county road superintendents. Note: Private entities will not be accommodated at these sessions.

5 Professional Development Hours

Pavement Wearing Courses Training Resources

As of July 31, 2013

Texas

Road Maintenance

This training is designed to assist you in using the best products and procedures to “get the most bang” for your scarce road maintenance dollars. In this training, you will find out the answers to these important questions and more:

- Which aggregates and asphalt products should you use for chip seal projects?
- What are the substantial benefits of using asphalt emulsions?
- Why is it better to use crushed aggregate of the right size instead of using pea gravel?
- Are you using old-style products, but would like to check out what’s new?

Road maintenance training is typically conducted on-site in a two-day format.

Day 1: The local city/county representative provides the TEEX instructor with a tour of the local roads.

Day 2: The TEEX instructor conducts technical assistance workshops tailored to address local needs.

Utah

Asphalt Paving Maintenance 1

This workshop will cover the following:

- Pavement Preservation General Concepts:
 - How to do a pavement distress analysis of your road system
 - Computer tools available to evaluate and prioritize pavement preservation activities
 - The most cost effective strategies to minimize road maintenance budgets and prolong the life of the overall system
 - Where you should be spending your money at any given time in the road's life
- Becoming familiar with terminology
- Distinguishing between preservation and rehabilitation repairs
- Understanding basic pavement management concepts
- Monitoring pavement condition
- Pavement life cycle
- Distress Identification
- Pothole repair and crack sealing best practices

Pavement Wearing Courses Training Resources

As of July 31, 2013

Asphalt Paving Maintenance 2

This workshop will cover the following:

- Surface Treatments
 - Descriptions
 - Rejuvenators
 - Chip Seal Construction
 - Common Chip Seal Problems
 - Slurry Seals
 - Microsurface Seals
 - Cape Seals
 - Fog Seals
- Rehabilitation alternatives
 - Paving Fabrics
 - Thin HMA Overlays
 - Cold in Place Recycling
 - Hot in Place Recycling
 - Thin Bonded Overlays
 - Full depth Reclamation

Chip Seal Best Practices

This workshop will provide a good general outline for the overall chip seal application. Items to be covered will be asphalt types, benefits of using the different types of asphalt, aggregates of different classifications, application and cleanup practices.

Washington

Modern Chip Seal Techniques

<http://www.wsdot.wa.gov/NR/rdonlyres/8550BD5B-823A-4691-ADF2-A289F36A8D62/0/ChipSealBrochure2013.pdf>

Pavement Wearing Courses Training Resources

As of July 31, 2013

West Virginia

[Asphalt Roads: Common Maintenance Problems](#)

This class provides a review of the causes of potholes, rutting, corrugations, alligator cracking, etc., and the correct repair procedures. Proper repair methods, materials, and equipment which should be used in making lasting repairs are also included.

Wisconsin

[Asphalt Road Maintenance](#)

Fee: \$80

Choose asphalt maintenance techniques that will get the most out of your roads. You will learn how to:

- Recognize problems early
- Apply the right method at the right time to stretch your budget and maintain good roads

Topics

- Road Maintenance Basics
- Addressing Common Problems
- Specifying Surface Treatments, Overlays, and Pavement Rehabilitation

Audience: Attend if you are responsible for maintaining asphalt streets, roads, and highways or responsible for managing maintenance. This workshop will benefit: Elected officials, Engineers, Superintendents, Foremen, Equipment operators, Others responsible for road maintenance

5 Professional Development Hours (PDH) and 0.5 Continuing Education Units (CEU).