

# REGISTRATION FORM

Please detach and mail or fax before September 26,  
2011 to:

## National Center for Pavement Preservation

2857 Jolly Rd.  
Okemos, MI 48864  
517-432-8220  
FAX (517) 432-8223

NAME: \_\_\_\_\_  
(for Name Tag)

NAME: \_\_\_\_\_  
(for Certificate)

TITLE: \_\_\_\_\_

AFFILIATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

WORK PHONE (\_\_\_\_) \_\_\_\_\_

EMAIL: \_\_\_\_\_

### Payment Information

A check is enclosed for \$125.00/person  
(made payable to Michigan State University)

Please charge my credit card \$125.00/person  
Card Number \_\_\_\_\_  
Expiration Date \_\_\_\_\_  
Name on Card \_\_\_\_\_  
Zip code card billed to \_\_\_\_\_

A Purchase order is being issued for \$125.00/person  
And the payment will be mailed prior to the class

## Pavement Preservation:

# Slurry Seal & Micro-Surfacing Training Course



Sponsored by:



**October 5, 2011**  
**Town of Yountville Public Works**  
**6550 Yount Street**  
**Yountville, CA 94599**

## PAVEMENT PRESERVATION: SLURRY SEAL & MICRO-SURFACING

### ABOUT THE COURSE

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This one-day course is intended to provide participants with a comprehensive understanding of slurry seal and micro-surfacing systems. The principal focus is to offer pavement practitioners the essential skills for selecting good candidate pavements, designing and estimating projects, and gaining awareness of good construction practices. Upon the conclusion of the course the participants will possess the necessary knowledge to achieve excellent success with slurry seals and micro-surfacing projects.

### WHO SHOULD ATTEND?

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This course is suitable for the following groups:

- State Highway Agencies, County Road Commissions, Municipal Street Departments, Consultants, or any person interested in maintaining and preserving good pavement conditions.
- Engineers, managers, superintendents, designers, estimators, technicians, and inspectors with an interest in learning technical details about the slurry seal and micro-surfacing processes and application techniques.

### WHERE AND WHEN WILL THE CLASS BE HELD?

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The class will be held at the Town of Yountville Town Hall at 6550 Yount Street, Yountville, CA 94599 from 9:00 a.m. – 3:00 p.m. on Wednesday, October 5, 2011. The phone number at the training venue is (707) 944-8851.

### WHAT IS INCLUDED?

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All participants will receive a resource notebook containing all class materials.

Certificates of completion will be provided to all participants who complete the class and attendees will be eligible to receive continuing education credits (CEUs) from Michigan State University. Attendees should dress in comfortable, casual attire.

### CLASS REGISTRATION PROCEDURES

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To register for the class, please complete the registration form on the reverse side and return it to: National Center for Pavement Preservation, 2857 Jolly Rd., Okemos MI 48864 or fax it to (517)432-8223. Please contact the National Center at (517)432-8220 if you have any questions. Cancellations are permitted up to ten calendar days prior to the class. Substitutions are welcome at any time.

### COURSE CONTENT

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**Introduction** – Discussion of the history of slurry seals and micro-surfacing, the differences between these treatment techniques, typical specification requirements, and principles of project selection to enable proper selection of the appropriate candidate pavements for treatment. The introductory module will also provide an overview of the pavement preservation concept, and the advantages of preservation to agencies with respect to improved performance and lower overall costs.

**Materials** – Each of the primary material components of slurry seals and micro-surfacing will be presented and discussed in detail. Asphalt emulsions will be introduced, and will include discussion of the use of polymer-modifiers and other additives. Aggregate gradations, types, chemical properties, and physical properties will be examined with respect to their impact on treatment performance and constructability. For micro-surfacing treatments, the role of Portland cement, fly ash, and other setting additives will be presented, as will a discussion on the importance of water quality in both slurry seals and micro-surfacing.

**Design** – Information on mix designs will include discussion of material availability issues, mixing proportions, common test requirements, unique mix design requirements for slurry seals and micro-surfacing (e.g. wet cohesion and Schulze-Breuer), field sampling and testing, and estimating material quantities and expected field production rates.

**Equipment** – The equipment module of the class will include descriptions and operating principles of placement machines (continuous-run and truck-mounted), spreading equipment (spreader boxes, rut-filling boxes, and strike-offs and drags), and support equipment (feeder trucks, loaders, screeners, and sweepers).

**Construction** – The construction module will focus on practical best-practice methods for slurry seal and micro-surfacing treatment field placement. Topics covered will include project pre-planning, traffic control, material stockpile management and handling, surface preparation (crack filling, dig-outs, pavement marker removal, sweeping, and casting protection), appropriate ambient conditions for treatment application, the types of applications (tack coats, full-width courses, scratch coats, and rut filling), accelerated project requirements, inspection points, troubleshooting, and post construction evaluation.

**Business Processes** – Discussion will include payment methods, the use of warranties, assessing the value of innovations (product enhancements), and the development and importance of project documentation.

**Bill Ballou:** Bill Ballou is a lifelong Kansas resident and has worked in the preservation field for over 40 years. He completed his education at Kansas State University while working for Hy-Way Asphalt Products Company. His father, an asphalt contractor, was instrumental in forming a liquid asphalt company to supply the construction needs for emulsified asphalt. Hy-Way became a producer of asphalt in Kansas and later in Nebraska and Oklahoma. Bill worked in areas of the laboratory and also spent much time in technical assistance with the field marketing staff and customers developing specific emulsions for all types of field applications including base construction and recycling along with various preservation applications.

After spending 20 years with Hy-Way in various management positions, the company was acquired by Koch Industries. Bill and the staff of Hy-Way took a variety of positions within Koch managing and constructing new facilities throughout Texas, Missouri and Arkansas along with additional facilities in the former Hy-Way territories. Bill managed construction and technical aspects of Koch's business in the central part of the U.S. while continuing to develop new products and uses for asphalt emulsions. He is responsible for micro-surfacing development in the U.S. having brought the technology from Europe in 1979, building construction equipment and facilities to manufacture, support and market microsurfacing and slurry seals enjoyed across the U.S. today. He became national leader for Pavement Preservation while at Koch. It was in this area that the Foundation for Pavement Preservation (FP2) was chartered with Bill in a leading role. The Foundation promoted to FHWA, AASHTO and other organizations the role of preservation in North America beginning in 1992. In 2002, as President of the FP2, the idea to fund and develop a National Center for Pavement Preservation took shape and was opened at Michigan State University. The NCPP, as it is known, continues with staffing capable of providing speakers, educational opportunities and literature helping state DOT's, counties, cities and contractors develop programs in preservation of streets and highways.

Through the years, Mr. Ballou has held memberships in TRB, ASTM, AAPT, ARRA, AEMA, NPHQ and other national and international organizations. He was 2003 president of the International Slurry Surfacing Association. He has written and delivered many papers and technical research through the years on preventive maintenance procedures and construction methods and materials.

### INSTRUCTOR INFORMATION

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