Effective Concrete Bridge Repair Workshop
A practical workshop focusing on:

- Understanding causes of failures
- Developing proficiency in condition appraisal
- Implementing effective repair procedures—materials and methods

For bridge repair supervisors, engineers, contractors, technicians, and maintenance and repair crews—public agencies and private companies

November 2–3, 2011
Madison, Wisconsin
Effective Concrete Bridge Repair Workshop
November 2–3, 2011 in Madison, Wisconsin

Why This Workshop Is Important
Many highways and bridges across the United States are in dire need of maintenance and repair. Minnesota’s I-35 bridge failure, clearly illustrating this situation, has focused public attention on the need for thorough bridge inspections and rehabilitation and has made bridge repair a national priority.

Workshop Focus—Cost-Effective Approaches
Successful bridge rehabilitation requires a comprehensive approach that includes understanding why bridges fail, in-depth proficiency in condition appraisal, use of repair materials, and application of effective repair procedures.

Your expert instructors will:
• Address causes of concrete bridge failures including stream scour
• Guide you through the process of conducting condition appraisals and identifying potential failure areas
• Stress material suitability and the latest methods of concrete bridge repair
• Explore selection of effective repair strategies, appropriate work supervision, staging, and costs
• Discuss preventive maintenance issues related to avoiding premature bridge failures

This intensive two-day workshop will give you the skills you need to identify and effectively deal with existing or potential needs for concrete bridge repair.

Expert Instructors (see bios on next page)
Your workshop instructors are highly experienced, nationally recognized practitioners and consultants in concrete bridge technology and concrete bridge repair and restoration. They will share with you their many years of experience gained from hundreds of successfully completed concrete bridge repairs.

You will have an opportunity to address your own concrete bridge repair concerns and exchange ideas with the speakers and your fellow participants. Take advantage of this opportunity to learn from leaders in the field.

Who Will Benefit
If you or other members of your organization are involved in concrete bridge maintenance and repair, now is the time to upgrade your skills and knowledge and be prepared to respond to the urgent need and renewed support for bridge rehabilitation projects.

This practical workshop is structured to upgrade the knowledge and skills of:
• Concrete bridge repair supervisors
• Engineers
• Contractors
• Technicians
• Maintenance and repair crews

The workshop will benefit private companies as well as local, county, and state agencies.

Valuable Take-Home Materials
As an attendee you will receive a notebook containing materials relating to the workshop sessions. These materials will serve as a useful reference to you and your associates.

Continuing Education Credit
This workshop qualifies toward professional licensing requirements in many states: check with your local state licensing board.

University of Wisconsin: 1.2 Continuing Education Units (CEU)
Engineering Professionals: 12 Professional Development Hours (PDH)

About Us
For 60 years, leading practitioners in engineering, architecture and construction have been attending the University of Wisconsin–Madison’s Engineering Professional Development continuing education programs. Our short courses and workshops are designed for practicing professionals at all levels who seek the knowledge and skills necessary to increase their effectiveness or advance their careers.

Experienced professionals from private and public sectors serve as instructors. While the majority of our offerings are held in Madison, Wisconsin, we do structure customized courses for different organizations when requested.

ENROLL ONLINE TODAY! Or visit our Web site
Effective Concrete Bridge Repair Workshop

November 2–3, 2011
Madison, Wisconsin

Workshop Outline

Wednesday, November 2
8:00 Registration
The Pyle Center
702 Langdon Street
Madison, WI

8:30 Welcome and Introduction
Raymond C. Matulionis, PhD, AIA
Program Director
Engineering Professional Development
University of Wisconsin–Madison

8:45 The Role of Materials for Concrete Bridge Repair: How to Ensure Durable Concrete
- Overview of selected bridge repair needs
- Factors that diminish concrete durability
- Material characteristics: cementitious materials, aggregates, admixtures
- Options in concrete placement, consolidation and curing
- Common concrete tests conducted in the field
- HPC, Latex modified, Polymer Concrete
- Shotcrete, a versatile repair material
George W. Seegebrecht, PE

11:30 Lunch

12:30 Effective Repair of Concrete Bridge Substructure
- Condition appraisal: types of damage, durability considerations, assessing the risk of failure, methods of damage assessment
- Preparation for repairs: concrete removal and surface preparation
- Repair of concrete columns, beams, and abutments
- Concrete girder repair
- Repair and replacement of bearings
- Monitoring repairs for conformance to specifications
Predrag (Pete) L. Popovic, PE, SE

3:30 Stream Scour: Local Repairs and Countermeasures
- Repairs to piers, abutments, and pile bents
- Scour repair fit into overall scour countermeasures
- Guidance on design and proper installation of ripraps, grouted ripraps, mattresses, armor units, and filter materials
- Considerations in underwater placement
- Use of tremie concrete, grout bags, and preplaced aggregate concrete to reestablish spread footing bearing
Michael J. Garlich, PE, SE

5:30 Adjourn for the Day

Thursday, November 3
8:30 Assessment and Repair of Bridge Decks and Deck Joints
- Causes of deck deterioration
- How to assess and characterize the condition of an existing deck
- Deck condition assessment methods
- Findings evaluation
- Deck overlays, sealers, and treatments
- Partial and full deck patching
- Deck replacement
- Crack repair techniques
- Expansion joint design and repair
- Life cycle cost analysis
- Methodologies for choosing the best repair options
Paul D. Krauss, PE

12:00 Lunch

1:00 Assessment and Repair of Bridge Decks and Deck Joints (continued)
Paul D. Krauss, PE

3:00 Final Adjournment
Note: There will be midmorning and midafternoon breaks both days.
Four Easy Ways to Enroll

Course Information

☐ Please enroll me in Effective Concrete Bridge Repair Workshop  
Course #M906 November 2–3, 2011 in Madison, WI  
Fee: $995  
Team Discount: $895 each when two or more enroll from the same organization

☐ I cannot attend at this time. Please send me brochures on future courses.

Personal Information  (Please print clearly.)

Name ________________________________________________________________

Title _________________________________________________________________

Company _____________________________________________________________

Address ______________________________________________________________

City/State/Zip __________________________________________________________

Phone (_______) ______________________ Fax (_______) ______________________

E-mail ________________________________________________________________

Additional Enrollees

Name ________________________________________________________________

Title _________________________________________________________________

E-mail ________________________________________________________________

Billing Information

☐ Bill my company  ☐ P.O. or check enclosed (payable in U.S. funds to UW–Madison)

☑ VISA ☐ MASTERCARD ☐ AMERICAN EXPRESS

Cardholder's Name ____________________________________________________

Card No. _____________________________________________________________

Expire _______ ☐

UF# ______________  From mailer panel.

General Information

Fee Covers  Notebook, workshop materials, break refreshments, lunches, and certificate.

Cancellation  If you cannot attend, please notify us by November 1, and we will refund your fee. Cancellations received after this date and no-shows are subject to a $150 administrative fee. You may enroll a substitute at any time before the workshop starts.

Location  The Pyle Center, 702 Langdon Street, Madison, WI. Phone messages: 608-262-1122.

Continuing Education Credits  By participating in this course, you will earn 1.2 Continuing Education Credits (CEUs) or 12 Professional Development Hours (PDHs). This workshop qualifies toward professional licensing requirements in many states: check with you local state licensing board.

Accommodations

We have reserved a block of sleeping rooms (rates starting at $115, including parking and Madison Taxi's silver cab from the airport) for course participants at the Campus Inn, 601 Langdon Street, Madison, WI. To reserve a room, call 800-589-6285 or 608-257-4391 and indicate that you will be attending this course under group code 112382. Room requests made later than October 11 will be subject to availability. We have reserved a second block of sleeping rooms (rates starting at $89, including parking and continental breakfast) for course participants at the Lowell Center, 610 Langdon Street, Madison, WI. To reserve a room, call 866-301-1753 or 608-256-2621 and indicate that you will be attending this course. Room requests made later than October 1 will be subject to availability. Your enrollment confirmation will include other hotel/motel information. Both hotels are one block from the conference center location.

After room block expiration dates, rooms will be subject to availability, although accommodations should be available in these or nearby hotels until the workshop date.

We strongly recommend that you reserve a hotel room without delay. You can always cancel your reservation without penalty by notifying the hotel 24 hours before your arrival (check hotel for specifics). For those not staying at the above hotels or other hotels in the area, there is a parking garage on Lake Street, one block from the Pyle Center.

Need to Know More?

Call toll free 800-462-0876 and ask for

Program Director:
Raymond C. Matulionis, PhD, AIA,
matulionis@engr.wisc.edu

Program Associate:
Rose Richgels
Or e-mail custserv@epd.engr.wisc.edu

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