

TITLE	PAGE
Industry News	1
Industry Publications	1-3
Conference News	3-4
Call for Papers Digest	4
Upcoming Events	4

ORGANIZATIONAL MEMBERS & MAJOR EVENT SPONSORS:

50th AMERICAN CONCRETE PAVEMENT ASSOCIATION

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Stantec

Transports Québec

UCPRC

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INDUSTRY NEWS



World of Concrete 2013
February 4-8, 2013
Las Vegas Convention Center
Las Vegas, Nevada, USA

RCC Live Demo Focuses on Quality Construction

The American Concrete Pavement Association (ACPA), the Portland Cement Association (PCA), along with key industry allies conducted a four-day roller compacted concrete (RCC) educational and training event in early February during World of Concrete in Las Vegas, Nevada, USA. The placement demonstration was held in the Gold Lot at the Las Vegas Convention Center, and was made possible by several companies and individuals who had donated materials, equipment, instruments, and expertise for the demonstration. ACPA and PCA staff members also provided technical support and assistance. There were an estimated 250 spectators in attendance.



Noting the increasing acceptance and rapid growth of RCC, organizers staged the four-day demonstration to focus on the importance of quality construction. One critical step toward a successful project is "the owner acceptance of a test strip prior to paving". So, on each day, test strips that were 3.048m wide x 60.96m long (10 ft x 200 ft) were placed, prior to paving. Related activities included curing, saw cutting and non-destructive quality control testing.

Presented by Concrete Construction Magazine, the event allowed the spectators to:

- Discover RCC basics
- Explore RCC mix designs
- Determine RCC placement recommendations
- Identify examples of successful RCC projects which used test strips

Two essential Concrete Pavement Seminars were also part of the World of Concrete Seminar 2013:

- "Plan and Execute Test Pad Placement for Roller Compacted Concrete (RCC)"
by Wayne Adaska, P.E., *Director of Pavements for the Portland Cement Association*, and Christopher R. Tull, PE, LEED A.P., *Principal of CRT Concrete Consulting, LLC*
- "Basic Principles of Jointing Concrete"
by Robert Rodden, P.E., *ACPA's Director of Technical Service and Product Development*

For additional information, please contact:
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Photos: Bill Davenport and ACPA "Facebook"



INDUSTRY PUBLICATIONS

FEHRL Released Three (3) New Publications

The Forum of European National Highway Research Laboratories (FEHRL), has published Three *Forever Open Road* roadmaps:

- The Adaptable Road
- The Automated Road
- The Resilient Road

The publication of these roadmaps culminates a process started in 2011 to feed into FEHRL's fifth Strategic European Road Research Program (SERRP V). Each roadmap identifies the priorities for future research actions up to the year 2030. To download PDF copies of the three *Forever Open Road* Roadmaps, please go to:
http://www.foreveropenroad.eu/?m=6&id_directory=7399.





WIRTGEN Published Video of the E17 Motorway, Belgium.



WIRTGEN published a video on the rehabilitation of the E17 motorway, Belgium. The motorway link connects Antwerp, the third largest seaport in Europe, with the French city of Lille, via the Ghent intersection, and has been renewed on a total stretch of 11.6 km (7.2 mi): one of the biggest motorway projects in Belgium. Rehabilitation of the high-volume E17 motorway shows how such roads can be optimally reconstructed to meet the challenges of the future.

The video presents stages during the work and paving of the concrete carriageway - the most important part of the entire project. The result is the smooth and even carriageways with the highest load bearing capacity, which will easily withstand future stresses.

To see the video please go to: http://www.youtube.com/watch?v=hV4U6IYOLxQ&list=UUyoe1rRRt_bOucS7-X0mBaQ&index=3.

To order your copy of the DVD, please send an e-mail to: slipformpaving@wirtgen.de.



SHRP2 TRB SHRP-2 Released PrePublication Drafts...

"Using the Existing Pavement In-Place & Achieving Long Life"

The Strategic Highway Research Program (SHRP 2) has released a prepublication, non-edited draft version of a report titled *Using the Existing Pavement In-Place and Achieving Long Life* (Renewal Project R23) that describes a procedure for identifying when existing pavements can be used in place as part of the rehabilitation solution and the methods necessary to incorporate the original material into the new pavement structure while achieving long life.

During the last 20 years, numerous infrastructure renewal projects have either modified the existing pavement in place, or placed a new structural pavement on top of the existing pavement. SHRP 2 Project R23 developed reliable procedures for identifying when an existing pavement can successfully be used in place and how to incorporate it into the new structural pavement to achieve long life. The products include decision matrices, design tables, interactive software, and resource documents that provide valuable information regarding all aspects of a renewal project including project assessment, renewal selection, design, specifications, and construction. To view the report that documents these activities, please go to: <http://www.trb.org/Main/Blurbs/168146.aspx>.

"Composite Pavement Systems Volume 2: PCC/PCC Pavements"

The Strategic Highway Research Program (SHRP 2) has released a non-edited, prepublication draft version of a report titled *Composite Pavement Systems Volume 2: PCC/PCC Pavements* (Renewal Project R21) that investigates the structural and functional performance of placing a relatively thin, high-quality PCC surface atop a thicker PCC layer.

The first report in the series, *Composite Pavement Systems Volume 1: HMA/PCC Pavements*, explores the structural and functional performance of surfacing a new portland cement concrete (PCC) pavement layer with a high-quality hot mix asphalt (HMA) layer. Both of these new composite pavement systems have shown great promise for providing strong, durable, safe, smooth and quiet pavements that need minimal maintenance. The appendices to the two volume report provide additional detail, understanding, and history on HMA/PCC and PCC/PCC pavements. For Volume 1 & 2, the appendices and to download a PDF of Volume 2, please go to: <http://www.trb.org/Main/Blurbs/168533.aspx>.

Prepublication drafts, not edited or formatted for publication, have been made available to make research available as early as possible, and will be replaced by the final versions as the editorial process is complete.

ACPA Released New Guide Specifications: "Dowel Bar Alignment & Location for Placement by Mechanical Dowel Bar Insertion"

With the ever-increasing adoption of dowel imaging technology, such as the MIT-SCAN-2 vehicle, as a means to ensure proper location and alignment of dowel bars in concrete pavements, The American Concrete Pavement Association (ACPA), has released a new guide specification to help usher the process for dowel bars placed with a dowel bar inserter. This guide specification, developed by a task force of ACPA contractors and equipment manufacturers with feedback from several state agencies and the FHWA, condenses dowel alignment and enforcement recommendations made in many ACPA, FHWA, CP Tech Center, and NCHRP documents. Existing agency dowel alignment specifications were also considered during the development of this guide specification.

This guide specification is directly applicable to 457 mm (18 in.) long, round metallic dowel bars, with and without coatings, for use in jointed plain concrete pavements with joint sawcuts made perpendicular to the edge of pavement (e.g., non-skewed joints); many of the underlying principles may be applicable to round dowels with other lengths and diameters.

The alignment of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

SHRP 2 Renewal Project R23
Using the Existing Pavement In-Place and Achieving Long Life

PREPUBLICATION DRAFT - NOT EDITED
SHRP 2
TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

SHRP 2 Renewal Project R21
**Composite Pavement Systems
Volume 2: PCC/PCC Pavements**

PREPUBLICATION DRAFT - NOT EDITED
SHRP 2
TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ACPA GUIDE SPECIFICATION
**Dowel Bar Alignment and Location
for Placement by Mechanical Dowel Bar Insertion**
January 1, 2013

Scope, Background and Applicability
This guide specification is directly applicable to 18 in. (457 mm) long, round metallic dowel bars, with and without coatings, for use in jointed plain concrete pavements with joint sawcuts made perpendicular to the edge of pavement (e.g., non-skewed joints). Many of the underlying principles may be applicable to round dowels with other lengths and diameters. The requirements herein recognize that round bars should be used.

1. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

2. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

3. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

4. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

5. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

6. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

7. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

8. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

9. Alignment and location of dowel bars is important because significant misalignment of dowel bars in a doweled joint may prevent that joint from properly opening/closing. The occurrence of a single joint that does not open/close effectively will not necessarily result in a mid-panel crack or other pavement defect, but the risk of mid-panel cracking and joint distress increases with each successive joint with limited opening/closing capabilities.

PDH HOURS:

Attendees of the 2013 International Concrete Sustainability Conference are eligible to receive up to 12 professional development hours (PDH's), depending on the number of sessions attended.

For conference information and registration, please go to:

<http://www.concretesustainabilityconference.org/sanfrancisco/index.html>

For Hotel Sofitel San Francisco Bay reservations, please go to:

<http://www.concretesustainabilityconference.org/sanfrancisco/hotel.html>

To download the conference brochure, please go to:

<http://www.concretesustainabilityconference.org/sanfrancisco/style/2013%20ICSC%20Brochure.pdf>

For additional information, please contact:

Jessica Walgenbach | phone: (240) 485-1152 | e-mail: jwalgenbach@nrmca.org.

Call for Papers & Abstracts Digest

March 31, 2013 Due date for revised papers for Japan First International Conference on Sustainability (ICCS13). For more information, please go to: <http://www.jci-iccs13.jp/index.html>.

May 15, 2013 Due date for papers for the 12th International Symposium on Concrete Roads - "Innovative Solutions - Benefitting Society" to be held in Prague, Czech Republic, September 24-26, 2014. For the Symposium website, please go to: www.concreteroads2014.org.



UPCOMING EVENTS

**MARCH
2013**

UKIERI Concrete Congress: Innovations in Concrete Construction

March 5-8, 2013 in Jalandhar, Punjab, India, <http://www.ukiericoncretecongress.com>

8th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FramCoS-8)

March 24-28, 2013 in Ciudad Real, Spain, <http://www.framcos8.org/>

**MAY
2013**

Fifth North American Conference on the Design and Use of Self-Consolidating Concrete (SCC2013)

May 12-15, 2013 in Chicago, Illinois, USA
<http://www.intrans.iastate.edu/events/scc2013/>

International Conference on Concrete Sustainability (ICCS13)

May 27-29, 2013 in Tokyo, Japan, <http://www.jci-iccs13.jp/>

**JUNE
2013**

International RILEM Conference on Multi-Scale Modeling and Characterization of Infrastructure Materials

June 10-12, 2013 in Stockholm, Sweden, <http://www.rilem2013.org>

Ninth International Conference on the Bearing Capacity of Roads, Railways and Airfields (BCRRA 2013)

June 25-27, 2013 in Trondheim, Norway, <http://www.bcrra.org>

**JULY
2013**

ASCE T&DI 2013 Airfield and Highway Pavements Conference: Sustainable and Efficient Pavements

July 9-12, 2013 in Los Angeles, California, USA
<http://content.asce.org/conferences/pavements2013/>

8th International Conference on Road and Airfield Pavement Technology (ICPT2013)

July 14-18, 2013 in Taipei, Taiwan
<http://www.icpt2013.org>

For events taking place in August 2013 and beyond, please go to:
<http://www.concretepavements.org/calendar.htm>.



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ISCP would like to thank **Bill Davenport (ACPA)** and **Greg Dean (ACPA)** for contributions to this newsletter.

ISCP invites ISCP members and friends to submit articles and calendar items to the Editor-in-Chief for future issues.

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Please visit the **ISCP Website** at www.concretepavements.org for more information about ISCP.

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ISCP e-NEWSLETTER
VOLUME 10, NUMBER 2
FEBRUARY 2013