



# INTERNATIONAL JOINTS AND BEARING RESEARCH COUNCIL NEWSLETTER

NEWSLETTER #44

DECEMBER 2010

## Chairman's notes

The 7<sup>th</sup> World Congress on Joints, Bearings and Seismic Systems is fast approaching and the IJBRC technical committee has completed their review of the submitted abstracts. I am pleased to report that over 70 abstracts have been accepted for full paper submittal. Based on the submitted of final manuscripts, the technical committee will then decide which papers are to be accepted for presentation at the Congress. The authors of the accepted abstracts come from a varied background and encompass 15 different countries. The paper titles also cover a wide range of topics such as base isolation, joints seals, spherical bearings, plug joints, finite element analysis of joints and bearings, finger joints, disk bearings, mass dampers, monitoring systems, viscous dampers, ball rubber bearings, modular joints, ductile seismic shear keys, elastomeric bearings, fuse restrainers, hinge bearings, formed in place joints, pot bearings, parking deck joints, sliding isolators, dynamic control devices and hysteretic energy dissipating bracing systems to mention a few. The coming Congress promises to be the best yet with an outstanding venue at the Green Valley Ranch Resort in Las Vegas along with the high quality technical program.

The IJBRC Executive Committee will be meeting in early January to put together the next Congress announcement which will have the fees, hotel and exhibit information in detail. Anyone who has any suggestions to make the Congress a more meaningful experience please feel free to contact me with your input at [ijbrc@rjwatson.com](mailto:ijbrc@rjwatson.com).

Sincerely,

Ronald J. Watson  
Chairman, IJBRC

## LAHOOD DEDICATES NEW HOOVER DAM BRIDGE

### New bypass will expedite traffic flow along major freight corridor

With more than a thousand of the workers who helped build it looking on, U.S. Transportation Secretary Ray LaHood dedicated the Mike O-Callaghan-Pat Tillman Memorial Bridge at the Hoover Dam last week. When it opens to traffic this week, it will become the Western Hemisphere's longest single-span concrete arch bridge and one of the tallest in the world.

"This magnificent bridge is proof positive that America is not afraid to dream big", said LaHood. "The jobs supported by this project are undeniable, and its economic benefits to the American Southwest and the nation as a whole will be felt for generations to come."

The 1,900 ft. long bridge is a part of a \$240 million four-lane bypass that will reroute traffic for 35 miles from the two-lane bottleneck on U.S. 93 across the Hoover Dam.

Planning for the Hoover Dam Bypass began in the late 1980's, though construction didn't begin until 2002. Since then, the project, located on the Arizona/Nevada state line about 40 miles east of Las Vegas, has employed more than 1,200 workers, engineers and safety experts. From extreme desert heat for months at a time to high winds, the area's rugged conditions made the project one of the nation's most demanding and difficult engineering challenges.

"The hard work and dedication of the men and women who worked on this bridge honor the legacy of those who built the Hoover Dam 75 years ago," said Federal Highway Administrator Victor Mendez. "That hard work will now pay off by positively impacting trade and commerce and strengthening economies in the region."

U.S 93 is a high-priority trade corridor and is a central part of the major transportation network in the western U.S. Due to increases in commercial freight shipments to and from southern California and population booms in Las Vegas and Phoenix, the road over the Hoover Dam became progressively more congested.

Security concerns after Sept 11, 2001, led authorities to ban commercial trucks from traveling across the Dam, forcing truck drivers on the route to use a 75-mile detour, which added cost and delay to businesses and consumers relying on such shipments. The new Hoover Dam Bypass will shorten the route for commercial shippers along this major trade corridor and reduce traffic congestion for all who use it. Source: Roads & Bridges, October 26, 2010



## ASTM MEETING MINUTES

SUBCOMMITTEE: D04. 32 Bridges and Structures

DATE: Thursday, June 10, 2010

LOCATION: Renaissance Hotel  
St. Louis, MO

TIME: 8:30 a.m.

Following roll call and approval of the minutes from the previous meeting held in Atlanta the following action items were discussed:

- There were no ballot items however D 4071-84 (2005) Standard Practice for use of Portland Cement Concrete Bridge Deck Water Barrier Membrane Systems is up for ballot action. Unless comments are received by August 1 this document will be balloted for re-approval.
- D 3633-98 Standard Test Method for Electrical Resistivity of Membrane-Pavement Systems needs to be reviewed for upcoming ballot. Subcommittee members are requested to review this document and comment prior to the next meeting.
- The chair announced that the Call for Papers is out for the 7<sup>th</sup> World Congress on Joints, Bearings and Seismic Systems. Co-sponsored by ASTM Committee D04 on Road and Paving Materials, this event will be held on October 2-6, 2011 at the Green Valley Ranch in Las Vegas, Nevada. Abstracts are due September 1, 2011 and more information can be obtained by going to the International Joints and Bearings Research Council website [www.ijbrc.org](http://www.ijbrc.org)
- The next meeting will be held on Thursday December 9, 2010 in New Orleans, LA
- The meeting adjourned at 8:52 a.m.

## ASTM MEETING MINUTES

SUBCOMMITTEE: D04. 32 Bridges and Structures

DATE: Thursday, December 9, 2010

LOCATION: Sheraton Hotel  
New Orleans, LA

TIME: 8:00 a.m.

Following roll call and approval of the minutes from the St. Louis meeting, the following action items were discussed:

- D 4071-84 (2005) Standard Practice for use of Portland Cement Concrete Bridge Deck Water Barrier Membrane Systems has been reviewed by the Subcommittee with no comments, therefore this document will go to ballot for re-approval.
- D 3633-98 (2006) Standard Test Method for Electrical Resistivity of Membrane-Pavement Systems is up for review. Subcommittee members are asked to review this document and submit comments by February 1, 2011.
- The chair announced that the 7<sup>th</sup> World Congress on Joints, Bearings and Seismic Systems for Concrete Structures will be held at the Green Valley Ranch in Las Vegas, Nevada on October 2-6, 2011. Co-sponsored by ASTM Committee D04 on Road and Paving Materials, the World Congress will feature over 70 papers from experts around the globe in this critical field of engineering. More information on the Congress can be obtained by going to the International Joints and Bearings Research Council website [www.ijbrc.org](http://www.ijbrc.org)
- The next meeting will be held on Thursday June 16, 2011 at the Marriott Hotel in Anaheim, CA
- The meeting adjourned at 8:12 a.m.



## ASTM MEETING MINUTES

SUBCOMMITTEE D04. 34 Preformed Joint Fillers, Sealers and Sealing Systems

DATE: Thursday, June 10, 2010

LOCATION: Renaissance Hotel  
St. Louis, MO

TIME: 8:00 a.m.

Following roll call and approval of the minutes from the previous meeting held in Atlanta the following action items were discussed:

- Specification D 994 (2003) Standard Specification for Preformed Expansion Joint Fillers for Concrete (Bituminous Type) was balloted for re-approval and received one negative from Rebecca McDaniel who correctly pointed out that Section 1.2 states that SI Units shall be regarded as the Standard and yet inch/pound units are listed first. The subcommittee agreed that inch/pound units should be the Standard. The subcommittee viewed this as an editorial change since it was a clerical error.
- No comments have been received on D 2628-91 (2005) which is the Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements and D 7174-05 which is the Standard Specification for Preformed Closed Cell Polyolefin Expansion Joint Fillers for Concrete Paving and Structural Construction since the last meeting. Therefore these documents will go out for re-approval ballot prior to the next meeting.
- The new Standard Specification for Preformed Silicone Joint Seals for Bridges has been further revised based on comments received after the previous meeting. The latest draft was handed out to the subcommittee meeting attendees and will be posted on the ASTM website. The deadline for comments will be August 1, 2010 after which it will go out for subcommittee ballot.
- The chair announced that the Call for Papers is out for the 7<sup>th</sup> World Congress on Joints, Bearings and Seismic Systems for Concrete Structures. Abstracts are due September 1, 2010. ASTM Committee D04 on Road and Paving Materials is a co-sponsor of this event which will be held October 2-6, 2011 at the Green Valley Ranch in Las Vegas, Nevada. For more information go to the International Joints and Bearings Research Council website at [www.ijbrc.org](http://www.ijbrc.org)
- The next meeting will be held on Thursday December 9, 2010 in New Orleans, LA
- The meeting was adjourned at 8:29 a.m.

## ASTM MEETING MINUTES

SUBCOMMITTEE D04. 34 Preformed Joint Fillers, Sealers and Sealing Systems

DATE: Thursday, December 9, 2010

LOCATION: Sheraton Hotel  
New Orleans, LA

TIME: 8:30 a.m.

Following roll call and approval of the minutes from the St. Louis meeting the following actions items were discussed:

- D 7174-05 Standard Specification for Preformed Closed Cell Polyolefin Expansion Joint Fillers for Concrete Paving and Structural Construction along with D 2628-91 (2005) Standard Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete Pavements have been reviewed by the Subcommittee and are ready to go to ballot for re-approval.
- The new Standard Specification for Preformed Silicone Joint Seals for Bridges which was revised to address some previous negatives went out for Subcommittee ballot and received one negative from Eugene Gormley. There were several points that were discussed however, the major stumbling block was his suggestion that an inter-laboratory study be conducted to verify that the joint cycling test method described in Section 8 is repeatable. The Subcommittee was in agreement but doubtful that this could be easily achieved. There are some state department of transportation laboratories with joint cycling test equipment but it may be difficult to get them to donate the time for such a study. The Subcommittee chair will explore this possibility further.
- D 994 (2003) Standard Specification for Preformed Expansion Joint Fillers for Concrete (bituminous type) was re-balloted with modifications to address a negative from Rebecca McDaniel. However on the new ballot she also issued a negative taking exception that the SI units have not been rationalized. After much discussion Garland Steele volunteered to rework the document so that it can address this negative and be approved.
- The chair announced that the 7<sup>th</sup> World Congress on Joints, Bearings and Seismic Systems for Concrete Structures will be held at the Green Valley Ranch in Las Vegas, Nevada on October 2-6, 2011. Co-sponsored by ASTM Committee D04 on Road and Paving Materials, the World Congress will feature over 70 papers from experts around the globe in this critical field of engineering. More information on the Congress can be obtained by going to the International Joints and Bearings Research Council website [www.ijbrc.org](http://www.ijbrc.org)
- The next meeting will be held on Thursday, June 16, 2011 at the Marriott Hotel in Anaheim, CA
- The meeting was adjourned at 9:03 a.m.



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Please plan to attend and register early as we expect this event location to be in great demand. You and your guest will not be disappointed.

# Excerpts from the International Association for Bridge and Structural Engineering

Association Internationale des Ponts et Charpentes

Internationale Vereinigung für Brückenbau und Hochbau

## Presentation of Summery Report of e-learning – Mr. Bakhoum

Prof. Bakhoum presented the current web sites of e-learning, which is actually in an experimental phase.

The main objective of the E-learning project is to provide an additional forum within IABSE for exchanging information and knowledge in Structural engineering. This forum should be available to a much wider group of people than the members of the IABSE which are using the most recent available technologies, and also it could help IABSE in reaching a wider audience and in fulfilling its missions and objectives.

The site is still in its preliminary experimental phase. Your comments and suggestions will be appreciated. You are most welcome to provide your contributions, which will be considered for uploading on the website by the IABSE E-Learning board email: [elearning@iabse.org](mailto:elearning@iabse.org).

IABSE E-Learning Project (Preliminary - Experimental Phase) --- Proposed Components/Section / Units

<http://www.elearning-iabse.org/>

(Schematic Presentation: August 2010)



## Participants of the 2nd meeting of Working Group 5, 21.09.2010 in Italy, Venice.

1. Amin, A.F.M. Saiful: General Secretary, Bangladesh Group of IABSE and Associate Professor Department of Civil Engineering Bangladesh University of Engineering and Technology, Bangladesh amin@bdcom.com
2. Appleyar, Leigh: Chair of the Australian Group of IABS, ACOR Appleyard Consultants Pty Ltd, Australia – Left 14 o'clock
3. Braun, Christian: Dr.-Ing. Maurer Sohne GmbH & Co. KG, Germany braun@mchn.maurer-soehne.de
4. Freundt, Ursula: Chair of IABSE W G5, Profesor Bauhaus-University Weimar, Germany ursula.freundt@uni-weimar.de
5. Quaglini, Virginio: Professor Politecnico Milano Dipartimento Ingegneria Strutturale, Italy virginio.quaglini@polimi.it
6. Spuler, Thomas: vice chair of IABSE WG 5, MAGEBA SA, Switzerland tspuler@mageba.ch
7. Taplin, Geoff: Dr.-Ing Technical Director AECOM, Australia – left 14 o'clock geoff.taplin@aecom.com
8. Watson, Ron J: President R.J. Watson, Inc., USA rwatson@rjwatson.com
9. Wolff, Georg: VHFL, Austria, c/o REISNER & WOLFF, Austria g.wolff@reisnerwolff.at

## Apologies:

1. Sengupta, Swapan:
2. Lamsa, Jouko:
3. Kaczinski, Mark:
4. Leendertz, Han:
5. Kuhlmann, Ulrike:
6. Braun, Joachim:

## **Advances in bridge engineering, with special attention to bearings, expansion joints and base isolation system and shock transmission units**

**The seminar was held on 8-10 august 2010, at RHD Auditorium, Roads and Highways Department, Sarak Bhaban, Ramna, Dhaka 1000, Bangladesh**

### **Background**

The flood plains of the Ganges, the Brahmaputra, and the Meghna cover approximately 40% of the total geopolitical area of Bangladesh. The Ganges builds up, by far the largest area of this Indo-Bangla delta. The Ganges, the Brahmaputra-Jamuna, the Surma-Meghna and the Padma and their numerous tributaries and distributaries are the arties of the drainage system for the country. In such a geological formation, the construction and maintenance of an uninterrupted road-rail network across the country posed to be the biggest challenge, for the civil engineers, even more for the bridge engineers. Soon after independence of this land from British India in 1947 and emergence of Bangladesh from Pakistan in 1971, the engineers passed through various phases of transfer of technology and authority in designing, constructing and maintaining numerous medium and short span bridges of Bangladesh in the continual change of techno-economic scenarios.

<http://www,uabse-bd.org/>

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## **IN MEMORIUM**



### **ACI President Stehly Passes**

On Sept. 18, American Concrete Institute (ACI) president Richard D. Stehly passed away following a sudden illness.

He was elected president of ACI in March 2010. During his short time as president, he championed several ACI initiatives in sustainable development regarding the use of concrete. He was a recent chair of the Board Advisory Committee on Sustainable Development and had been extremely involved regarding the EPA's proposed regulation of fly ash disposal, and even testified on ACI's behalf in July before the U.S. House Committee on Small Business, Subcommittee on Rural Development, Entrepreneurship, and Trade.

Stehly was the principal of American Engineering Testing Inc., based in Minneapolis, Minn. A member of ACI since 1980, he was a licensed civil engineer in Minnesota and Wisconsin. Stehly was a member of numerous ACI technical committees and was chair of the Board Advisory Committee on Sustainable Development and the Strategic Planning Task Group. He also served on ACI committees 130, Sustainability of Concrete; 318 WA, International Workshop—Structural Concrete in the Americas; Financial Advisory Committee; and Seminar Oversight Committee. Stehly was an officer of the ACI Foundation and Creative Association Management, ACI's for-profit subsidiary. He also was involved in fly ash applications. The first ACI committee he served on was ACI committee 226, Fly Ash, Other Pozzolans, and Slag (now discharged). He holds a patent on a process to convert alum waste into a pozzolan.

A fellow of ACI, Stehly was a past chair of the Chapter Activities Committee and a member of the Task Group on International Strategy, which led to the formation of the International Committee, for which he served as the first chair. Stehly has traveled to more than 25 countries on behalf of ACI, presenting lectures on various concrete topics to ACI chapter members.

Stehly received a BS degree in civil engineering from the University of Minnesota. He worked as an intern at Twin City Testing, Minneapolis as a college junior and was hired as a field engineer after graduation. He became project engineer, chief engineer, and eventually president of the firm. In 1988, he joined the Anchor Block Co., one of the few block makers using the autoclave process, as president. Stehly returned to the testing business by founding American Engineering Testing with three others in December 1989. He started American Petrographic Services in 1990. The businesses currently have 15 offices and 300 employees. "The untimely passing of my friend and colleague Richard Stehly is a tremendous loss for the concrete industry and for anyone who had the privilege of knowing him and working with him," said Ron Burg, ACI executive vice president. "His enthusiasm for the American Concrete Institute and the concrete industry was infectious, and our membership, staff, and the entire concrete industry will feel his loss, both personally and professionally."

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## IN MEMORIAM

### Rob Irwin

One of New Zealand's greatest civil engineers, Rob Irwin recently passed away after an illness. Rob was extremely well versed in pre-stressed concrete, concrete rehabilitation. He built a substantial business in New Zealand, also doing business throughout Asia and the Pacific.

At one time he had a herd of 3000 sheep, keeping his farm going until his business took most of his time. As a young boy he sang in a large choir and came to love good music. During one of my many trips to Auckland, he arranged for me to get the only remaining seats in their Opera House while he stood in the back. Renate Tebaldi, New Zealand's greatest opera star, took over and thrilled everyone including the writer.

On another of my trips to New Zealand, he arranged for my travel to the Engineers' Clubs of Auckland, Wellington and Christ Church. It was a lecture trip, where he displayed our latest products and thinking in expansion joints and bearings.

After he retired, he bought a seagoing ship and with his wife Judy and some friends traveled the oceans over.

I considered him one of my dearest friends. We will all miss him greatly.

Stewart C. Watson



## Upcoming ACI Conventions

The following is a list of scheduled ACI conventions:

2011 - April 3-7

Marriott Tampa Waterside &  
Westin Harbour Island  
Tampa, FL

2011 - October 13-20

Millennium Hotel &  
Drake Energy Center  
Cincinnati OH

2012 - March 18 - 22

Hyatt Regency  
Dallas, TX

2012 - October 21 -25

Sheraton Centre,  
Toronto, ON

**For additional information, contact:**

Event Services, ACI P. O. Box 9094  
Farmington Hills, MI 48333-9094

Telephone (248) 848-3795 \* Email: [conventions@concrete.org](mailto:conventions@concrete.org)

### Mailing Address

Please check your address label for accuracy. If changes are required, please notify the IJBRC Secretary by fax or email.

Fax 1-519-894-9169

Email [lfbraun@golden.net](mailto:lfbraun@golden.net)

#### NEWSLETTER ARTICLES WANTED

Your IJBRC Executive continues to solicit articles of interest for inclusion in future editions of the IJBRC Newsletter. The semi-annual newsletter is our best way of keeping in contact with our membership. Submissions need to be on the topics of joints, bearings and seismic devices for concrete structures. They may include, but not be restricted to: book reviews, summaries of research in progress or completed, announcements of research grants received by individuals or groups, events or news items pertaining to joints, bearings and seismic devices, congratulations or bereavement notices.

Please forward such items of interest to the IJBRC Secretary by email; [lfbraun@golden.net](mailto:lfbraun@golden.net) or fax 1-519-894-9169

Individual articles included in this newsletter are the opinions of said author(s)

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