A 3-day seminar “How to Construct Good Concrete Pavements and Why” was held the first week of September in Viña del Mar, Chile. Organized by The Chilean Ministry of Public Works, The Chilean Cement Institute, and TCPavements, this seminar was sponsored by ISCP and the Chilean Chamber of Construction. The key speakers and presentations were:

- Mark Snyder, ISCP President: Construction Procedures
- Thomas Van Dam, NCE: Mixture Design, Specifications, and Sustainability
- Nigel Parks, PNA: Load Transfer Systems for Thin Pavements
- Victor Roco, Chief of the National Laboratory: Innovation in Chilean Contracts
- Mauricio Salgado, ICH: Good and Bad Concrete Pavement Practices in Chile
- Erwin Kohler, Dynatest: Pavement Performance Measurements
- Juan Pablo Covarrubias, TCPavements: Built-in Curl

The Most Recent Version of “OptiPave 2™”

The sixteen (16) sponsor companies had the opportunity to speak about their innovative products in a technology transfer session during the seminar. The attendance was about 170 people mainly from the ministry and contracting community.

There was a site visit to a project near the coast of Chile on the final day. The project was a U-TCP, short panel 1.8 x 1.8 m (6 x 6 ft) fiber-reinforced concrete pavement design, 10-cm (4-in) thick placed directly over the existing gravel road. The cost of the bid was similar to a project with a double asphalt surface treatment. During the visit all the innovations were shown and explained to those in attendance.

INDUSTRY NEWS

200+ Attended German Concrete Pavement Conference

“Betonstraßeentagung 2013” (Concrete Pavement Conference 2013) was held September 19-20 in Karlsruhe, Germany. This was one of the best-attended German Concrete Pavement Conferences in recent history - there were more than 230 participants and a dozen exhibitors. While this conference has been held bi-annually for many years, this was the first bi-lingual version of the conference, with simultaneous translation of presentations and discussions in both German and English, which undoubtedly increased international participation in the event.

The conference, which was organized and hosted by FGSV (Die Forschungsgesellschaft für Straßen- und Verkehrswesen – the German Association for Roads and Transportation), included presentations on a wide range of concrete pavement-related topics. Some of the topics, along with many others, included:

- Acoustic Optimization of Concrete Surface Texture from Diamond Grinding
- Long-Term Performance of Concrete Pavements
- End Section Treatments for Longitudinal Expansion of Concrete Pavements
- Concrete Pavement Construction from the Concessionaires Point of View
- Quality Assurance in Construction
- Modular Precast Concrete Repairs
- Recent Developments in Equipment
Mark Snyder, ISCP President delivered a welcome address and introduction to ISCP to attendees, and ISCP Members Rolf Breitenbucher and Stephan Villaret were among the many panelists and presenters. Other ISCP Members in attendance included Luc Rens, Anne Beeldens, John Roberts and ISCP Honorary Member Rupert Springenschmid.

This event is expected to take place next in 2015 at a location that is to be determined.

Roller-Compacted Concrete Pavements (RCC), being a sustainable construction solution, are becoming more popular in many countries worldwide. The European Ready Mixed Concrete Organization (ERMCO), European Concrete Paving Association (EUPAVE) Member, has recently published a brochure entitled “ERMCO Guide to Roller Compacted Concrete for Pavements”.

RCC is a cement or cement plus type II addition hydraulically-bound material used for constructing pavements and other applications. RCC pavements are a sustainable construction solution. The material is placed with asphalt paving equipment, but needs further compaction by rollers. The surface may be left exposed for low speed or heavy-duty applications, or a thin wearing surface may be applied where improved high speed skid resistance is required. RCC provides a cost effective solution for pavements where rapid construction is needed and reduced maintenance is required.

RCCs are concretes that are capable of being compacted immediately after placing by dead-weight or vibrating rollers. The constituents are the same as for conventional concretes, but the mix proportions differ in that the aggregate grading and content has to be such that the RCC can immediately take load. RCC may be used to provide the base and wearing layers of a pavement.

This Guide provides an introduction to RCC pavements and a model specification for use in Europe. It is not intended to be ‘chapter and verse’ on RCC, but an introduction to the subject and sufficient information to get started.


New TRB Publication: “Durability of Concrete”

TRB Transportation Research Circular E-C171: "Durability of Concrete: Second Edition" provides information on producing durable concrete for transportation structures and pavements. This circular is an update to Transportation Research Circular 494: "Durability of Concrete", published in 1999. This publication is intended to provide the latest information for consideration by practitioners on producing durable concrete for transportation structures and pavements.

Considering the number of facilities that have required repairs and reconstruction before reaching their intended service life, as well as the cost of the rehabilitation and the inconveniences to the traveling public, the importance of constructing long-lasting bridges and pavements continues to capture national attention and remains a high-priority item.

This document is divided into sections introducing each topic and discussing the production of durable concrete through materials selection, proportioning, construction practices, specifications, and testing.

Also included is a section of case studies, providing examples of problems encountered in the field that involve concrete pavement and bridges, along with the proposed solutions by the authors of the studies.

Special appreciation is expressed to Peter Taylor, ISCP Member for overall editing;
The ACPA & IGGA have supported the development & implementation of a new grinding process for concrete pavements: “the Next Generation Concrete Surface (NGCS)” shown to reduce tire/pavement noise.

The American Concrete Paving Association (ACPA) and International Grooving and Grinding Association (IGGA) have supported the development and implementation of a new grinding process for concrete pavements called the Next Generation Concrete Surface (NGCS) which has also been shown to reduce tire/pavement noise. Both of these options have been used on trial installations in Washington between 2006 and 2010. Three OGFC projects were constructed on high volume roadways in the Seattle urban area between 2006 and 2009. A section of NGCS was installed on I-82 near Sunnyside, Washington in October 2010.

On-Board Sound Intensity (OBSI) equipment was acquired in early 2006 for the evaluation of these potentially quieter pavements. The OBSI method isolates tire-pavement noise by measuring sound levels just 7.6 cm (3 inches) above where the tire meets the pavement. Three measurements were collected within each test section and results for each date are the average of these three measurements. To evaluate performance for the full...
test section, unique locations were measured during each collection period, instead of repeating measurements at the same location within the section. This method is a likely contributor to the variability in the results.

The three hot-mix asphalt OGFC sections were unsuccessful in maintaining noise levels that were audibly quieter than conventional dense graded hot-mix asphalt pavements (report links in Reference section). This document reports the noise results from the NGCS trial section and other concrete pavement projects with carpet drag, transverse tining, longitudinal tining, and conventional diamond ground textures. The results are organized by roadway/location. A summary of the observations and conclusions are provided at the end of the document.

To download the pdf of the publication "Concrete Pavement Noise", please go to: http://www.wsdot.wa.gov/research/reports/fullreports/814.1.pdf.

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**CONFERENCES NEWS**

**BENTONWEGENDAG 2013 to be held October 10 in the Netherlands**

The Bentonwegendag Conference will take place October 10, 2013 in Brabanthallen ’s-Hertogenbosch, Netherlands. The location is at the 1931 Congress of the Brabanthallen in ’s-Hertogenbosch. Located in southern Netherlands, it is an historical conference and event venue, on the list of national monuments, that blends modern comfort with authentic character. The theme of the conference is “Knowledge from the Source”. After the success of the first conference, it was decided that a Bentonwegendag would be organized every two years.

There are still prejudices about the use of concrete as a paving material in some parts of the world. But continuous new developments, new technologies, various appealing and sound examples of concrete have proven the necessity and function of concrete pavement. The workshops of this Bentonwegendag will have sample projects of a variety of concrete applications. This is a great opportunity for attendees to learn about applications of concrete - from concrete roads to bike paths and roundabouts, bus stops and storage areas for containers.

“Surface Characteristics” of concrete pavements is a special topic of one of the Workshops at this year’s Bentonwegendag. Pavement characteristics of concrete roads in particular, including texture, skid resistance, rolling resistance, noise reduction and the influential factors and interdependence of these properties.

**Exhibitors:** Bentonwegendag has a limited number of exhibitors booths. The exhibit hall will be located in the reception room that will be for breaks, lunch and the networking reception. If you’d like this great opportunity to be an exhibitor, please send an e-mail to: wimkramer@cementenbeton.nl, or go online for an application form to: http://translate.googleusercontent.com/translate_c?depth=1&hl=en&rurl=translate.google.com&sl=en&tl=nl&u=http://www.betonwegendag.nl/aanvraagformulier/view/form&usg=ALkJrhgqvv2P3xmvY7gmFvRmiQyhrJQ.

For more information, please go to: http://translate.google.com/translate?hl=en&sl=nl&tl=en&u=http://www.betonwegendag.nl/aanvraagformulier/view/form&usg=ALkJrhgqvv2P3xmvY7gmFvRmiQyhrJQ.

For information on the 1931 ’s-Hertogenbosch complex, please go to: http://www.1931.nl.

**ACPA 50th Annual Meeting to be Held in Puerto Rico, December 3-6**

The American Concrete Pavement Association (ACPA) will hold its Annual Meeting and 50th Anniversary Celebration December 3-6, 2013 at the Wyndham Rio Mar Beach Resort & Spa, Rio Grande, Puerto Rico. This four-day event will celebrate 50 years in the concrete pavement industry, and will look back on the past five decades, but equally important, the meeting will focus on the present and future. The theme is “Retrospectives and Prospectives” and conveys an equal balance of celebrating the past; commemorating the present; and looking to the future. The program is crafted with that end in mind!

ACPA Members, nonmembers, affiliated chapter-state employees and government officials will celebrate and recognize industry excellence and commitment through the “Excellence in Concrete Pavement” and “Distinguished Service” Awards. The program includes working meetings and a thought-provoking agenda, including ACPA’s time-honored “Concrete Pavement University” (CPU). Several CPU forums will provide for open dialogue on future equipment and materials – topics that have a direct impact on all of our businesses.

To register for the meeting, please go to: http://events.acpa.org/register/.
To view the schedule and activities, please go to the Annual Meeting website at: http://events.acpa.org.
The European Concrete Paving Association (EUPAVE) and the Czech Research Institute of Binding Materials Prague, in collaboration with the World Road Association (PIARC), are pleased to host the 12th International Symposium on Concrete Roads (ISCR) to be held in Prague, Czech Republic on September 24-26, 2014. The theme of the Symposium is “Innovative Solutions-Benefitting Society”.

The innovations not only refer to new developments of materials and concrete mixes, but also to the shift from traditional motorways and trunk roads to infrastructure for other transport modes: rail, tram, bus, bicycles and pedestrians. The use of concrete in public spaces is becoming more and more popular, both in traditional and contemporary styles. Modern long-life pavements are characterized by low environmental impact, low life-cycle cost and durable high-quality surfaces. Light colored surfaces and rigid structures contribute to tackling global warming through the positive aspects of albedo and reduced fuel consumption. Concrete roads are turned into invaluable assets in terms of sustainability, benefiting society.

This Symposium is held every four (4) years and will once again be a top event, gathering experts from industry and government, engineers, infrastructure managers, researchers and other interested participants. Preparations have started in order to offer a mixed program of academic sessions, site visits, daily tours and social activities.

The Welcome Cocktail and the Closing Cocktail, to be held at the Clarion Congress Hotel Prague, will provide the opportunity to meet colleagues in a convivial atmosphere.

The Farewell Dinner will be held in the Municipal House (Obecni dum), Prague’s foremost Art Nouveau building, and one of the finest in the whole of Europe. During the banquet guests will have a once-in-a-lifetime opportunity to walk through the famous historical halls, magnificent complex of multi-functional rooms, glorious concert hall, and explore the mastery of the most significant Czech painters and sculptors. The historic proclamation of the independent state of Czechoslovakia took place in the palace.

For the official Symposium website, please go to: www.concreteroads2014.org. EUPAVE, the Czech Research Institute of Binding Materials Prague, and PIARC are looking forward to hosting this Symposium in Prague!

CALL FOR ABSTRACTS

Announcement & Call for Abstracts for the International Concrete Sustainability Conference, Boston Massachusetts, USA to be Held May 12-15, 2014

The National Ready Mixed Concrete Association (NRMCA), Ready Mix Concrete (RMC) Research & Education Foundation and the Portland Cement Association (PCA) announce the Call for Abstracts for the 2014 International Concrete Sustainability Conference, Boston, Massachusetts, to be held May 12-15, 2014, at the Hyatt Regency in Cambridge. Abstracts are due November 30, 2013.

The 9th annual conference will provide learning and networking opportunities on the latest advances, technical knowledge, continuing research, tools and solutions for sustainable concrete manufacturing and construction. Researchers, academics, students, engineers, architects, contractors, concrete producers, public works officials, material suppliers and concrete industry professionals are invited to present and attend the conference. Suggested topics include the latest developments related to design, specifying, manufacturing, testing, construction, maintenance and research of concrete as they relate to sustainability:

- **LIFE CYCLE ASSESSMENT** - Assessing carbon footprint, embodied energy and other environmental impacts for buildings, infrastructure, and cement and concrete production.
- **LOW IMPACT DEVELOPMENT** - Pervious pavements and erosion control structures. Urban heat island reduction, light colored pavements, green roofs and cool communities.
- **NEW CONCRETE TECHNOLOGY** - Durability, extended service life models and validation, performance based specifications to foster sustainability. Innovative concrete production methods.
- **FUNCTIONAL RESILIENCE** - High performance concrete applications in buildings and infrastructure, fortified building codes, and community initiatives focusing on disaster resistance and adaptive reuse.

To submit an abstract online by November 30, 2013, please go to: www.concretesustainabilityconference.org. For questions, please contact: Lionel Lemay | E-mail: ilemay@nrmca.org.

The Massachusetts Institute of Technology (MIT) Concrete Sustainability Hub Showcase will be held in conjunction with The 2014 International Concrete Sustainability Conference on May 15, 2014.

For the conference website, please go to: http://www.concretesustainabilityconference.org/.

Walk for Sustainability

Optional Walk for Sustainability (additional fee required)

The RMC Research & Education Foundation is hosting the 4th annual Walk for Sustainability Charity Event on May 14, 6:00-7:30 AM. This event raises money for the foundation to help meet its goal of helping further the concrete industry through research and education.

Participants are asked to gather pledges for walking on specific routes, starting and ending at the Hyatt Regency Cambridge. This event requires an additional fee. Registration information will be on the website soon.
Call for Papers & Abstracts Digest


January, 2014  Due date for final papers for 12th International International Symposium on Concrete Roads to be held September 23-26, 2014, in Prague, Czech Republic. To submit final approved papers, please e-mail: info@eupave.eu. For the website, please go to: http://www.concreteroads2014.org.

February 1, 2014  Due date for abstracts for the 8th International DUT-Workshop on Research and Innovations for Design of Sustainable and Durable Concrete Pavements to be held September 20–21, 2014 in Prague, Czech Republic. To submit an abstract by February 1, 2014, please contact: Lambert Houben, Chairman, Delf University of Technology (The Netherlands), E-mail: l.j.m.houben@tudelft.nl.

UPCOMING EVENTS

October 2013

Dutch Concrete Road Symposium’s-Hertogenbosch
October 10, 2013 in The Netherlands
www.betonwegendag.nl

Innovative World of Concrete ICI-IWC 2013 and World of Concrete India 2013
October 23-26, 2013 in Hyderabad, Andhra Pradesh, India
http://www.ic-iwc2013.com/

December 2013

ACPA’s 50th Annual Meeting
December 2-6, 2013 in Rio Grande, Puerto Rico
To register: http://events.acpa.org/register/
For additional information, call 847.966.2272

International Journal of Pavements Conference
December 9-10, 2013 in São Paulo, Brazil
http://www.ijpavement.com/

January 2014

93rd Annual Meeting of Transportation Research Board (TRB)
January 12-16, 2014 in Washington, D.C., USA
http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx

February 2014

14th International Winter Road Congress
February4-7, 2014 in Andorra

International Concrete Sustainability Conference, Latin America 2014
February 6-7, 2014 in Medellin, Colombia
http://www.sustainabilityconf.org/

For events taking place in 2014 and beyond, please go to: http://www.concretepavements.org/calendar.htm

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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.