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ACI Spring 2010 Convention
March 21-25, 2010
Sheraton Chicago, Chicago, IL

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American Concrete Institute
Board of Direction

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William R. Tolley
It is with great pleasure that I welcome you to Chicago. The Illinois Chapter has been looking forward to hosting this convention and has dedicated a great deal of time and effort to ensure that you enjoy this convention and the city they call home.

The ACI Spring 2010 Convention has an impressive program with many sessions, meetings, tours, and events you don’t want to miss. Highlights of this convention include a Pervious Concrete Student Competition, the unveiling of *The Sustainable Concrete Guide: Strategies and Examples*, technical sessions featuring repair in extreme conditions and reconstruction efforts in Haiti, along with technical tours that showcase Chicago’s impressive architectural accomplishments. In addition, you will have the opportunity to join friends and colleagues in honoring two of the most influential individuals in ACI at the reception in honor of Tony Fiorato and retirement dinner for ACI Executive Vice President, William R. Tolley. It is my hope that throughout the convention program all of you will acquire valuable industry information and experience that will enhance your knowledge and build your professional network.

Lori and I are thrilled to share this week with each of you. We hope your convention experience is both productive and memorable, and you experience all that the city of Chicago has to offer. I would like to thank the Illinois Chapter for their dedication to planning this convention, and thank you for your support and contributions to ACI.

Kind Regards,

Florian G. Barth
ACI President
Greetings!

As Governor of the State of Illinois, I am pleased to welcome everyone gathered for the American Concrete Institute’s Spring 2010 Convention.

This event will provide all attendees with a chance to learn about the latest advancements in concrete technology and to discuss current concrete industry codes, specifications and guidelines. This conference also offers ample opportunity to meet and talk individually with some of the most prominent individuals and experts in the field of concrete technology. In addition to committee meetings, I am certain the networking opportunities, technical and educational sessions, seminars, social events, and exhibits will greatly benefit everyone in attendance and leave you energized to further your careers and take on new challenges.

I would like to offer a special welcome to those traveling from outside of Illinois for this event. During your stay, I encourage you to explore and discover the many sites and attractions that this great state has to offer. From historic landmarks and world-renowned museums, to first-class dining and theater experiences, there is truly a wide array of interests represented across the Land of Lincoln.

On behalf of the people of Illinois, I offer my best wishes for an enjoyable and memorable convention.

Sincerely,

Pat Quinn
Governor
Greetings

As Mayor and behalf of the City of Chicago, it is my pleasure to extend warmest greetings to all those attending the American Concrete Institute’s (ACI) Spring 2010 Convention.

The ACI Convention showcases products and services from top retailers and suppliers. Participants can build their skill and expertise through workshops and seminars and learn about new technology and techniques for concrete technology. This event offers outstanding opportunities to network, exchange best practices, gain access to comprehensive resources and formulate better ways to serve the customer.

While you are here, I hope that you will take the time to discover all that makes Chicago a great place to live and visit. I know you will like what you find. From our great architecture and beautiful Lake Michigan shoreline to our exciting nightlife, Millennium Park and may world-renowned cultural institutions, Chicago offers something for everyone.

Best wishes to everyone for an enjoyable and productive event.

Sincerely,

Richard M. Daley
Mayor

March 21, 2010
ACI Fall 2010 Convention
Green Concrete in the Steel City
October 24-28, 2010 • Pittsburgh, PA

Highlights of the convention will include:

• Tour of the Convention Center, world’s first green convention facility
• Sustainability: Systems, Buildings and Materials presentation at Student Lunch
• Student Egg Protection Device Competition
• Session on Bidding a LEED Project
• Concrete Mixer at the Heinz History Center—the largest museum of Pennsylvania history.
• Dinner cruise
• Tour of Frank Lloyd Wright’s “Falling Water”

For more information about the ACI Fall 2010 Convention, go to www.aciconvention.org.
ACI Sustaining Members

ACS Manufacturing Corporation

ALJANS

Ash Grove Cement Company

Ashford Formula

Baker Concrete Construction, Inc.

BASF Admixtures, Inc.

BCS

Boral Material Technologies, Inc.

Bray Structures

Buzzi Unicem

Cantera Concrete Company

CECO Concrete Construction

CHRYSO-ProMix Technologies

Commercial Contracting Corporation

Concrete Engineering Specialists
ACI Sustaining Members

Concrete Reinforcing Steel Institute

CTLGroup

Dayton Superior

e-construct

The Euclid Chemical Co.

Fibercon International, Inc.

Francis Harvey & Sons

Future Tech Consultants

W.R. Grace & Co.

Headwaters Resources, Inc.

Holcim (US) Inc.

ICS Penetron International Ltd

Keystone Structural Concrete, Ltd.

Kleinfelder

Lafarge North America

Lehigh Cement Co.
ACI Sustaining Members

Structural Services, Inc.
Triad Engineering, Inc.
Tru Wall Concrete, Inc.
Unibeton Ready Mix

Wacker Neuson
Webcor Concrete
Westroc, Inc.
Convention Sponsors

The ACI Illinois Chapter wishes to thank the following organizations for their donations that helped to make the ACI Spring 2010 Convention a success.

SEARS TOWER aka BIG WILLI TOWER—
TALLEST BUILDING IN CHICAGO
ACI Illinois Chapter
Baker Concrete Construction, Inc.
CTLGroup

TRUMP TOWER—HIGHEST STRENGTH CONCRETE
BASF Construction Chemicals, LLC
Holcim (US) Inc.
Sika Corporation
Wiss, Janney, Elstner Associates, Inc.

BAHA’I TEMPLE—MOST BEAUTIFUL CONCRETE STRUCTURE
The Euclid Chemical Company

311 S. WACKER DRIVE—FORMER TALLEST CONCRETE STRUCTURE
Grace Construction Products

MARINA TOWERS—MOST RECOGNIZED CONCRETE STRUCTURE
Flood Testing Laboratories
Illinois Cement
Lafarge Cement
Lehigh Cement
VCNA Prairie/St. Mary’s

WACKER DRIVE—LONGEST DESIGN LIFE CONCRETE
ACI Carolinas Chapter
ACI Greater Michigan Chapter
ACI Indiana Chapter
ACI Missouri Chapter
ACI San Antonio Chapter
Elmhurst Chicago Stone Co.
King Packaged Materials Company (King Shotcrete)
Quality Restoration
Convention Sponsors (cont.)

DEEP TUNNEL—DEEPEST HIGH STRENGTH CONCRETE
ACI Arizona Chapter
ACI Florida Suncoast Chapter
ACI Georgia Chapter
ACI Intermountain Chapter
ACI Louisiana Chapter
ACI New Jersey Chapter
ACI Northeast Texas Chapter
ACI Rocky Mountain Chapter
Butterfield Color
Concrete Industry Board, A New York City ACI Chapter
Continental Cement
Xpress Materials, LLC

CIRCLE INTERCHANGE—BUSIEST ELEVATED HIGHWAY CONCRETE
Mohr Ready Mix
Todd Nelson
Rich Shadle

Sponsors are listed as of 2/24/10.
ACI Illinois Chapter
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Pete Stamatopoulos, Elmhurst Chicago Stone Co.
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Kelly Page, International Concrete Repair Institute (ICRI)
Margaret Reed, Wiss, Janney, Elstner Associates, Inc.

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Lonny Terzo, Prairie Material
Paul Tuscher, Prairie Material

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Vicki Jennings, CTLGroup
David McDonald, Epoxy Interest Group of CRSI
Rich Shadle, Sika Corporation

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Rich Shadle, Sika Corporation

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Jill Humphrey
Marian Meinheit
Katy Russell

Publicity
Nick Graziani, Sika Corporation
Danielle Kleinhans, CTLGroup
Michael Morrison, CTLGroup
Peter Stamatopolous, Elmhurst Chicago Stone Co.

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Patrick O’Brien, Holcim (US) Inc.
Brad Pfanenstiel, BASF Construction Chemicals, LLC – Admixture Systems

Student Program
Walter H. Flood IV, Flood Testing Laboratories, Inc.
Joni Lauren Jones, CTLGroup
Technical Sessions
Joe Balik, W.R. Grace & Co.
Ron Burg, CTLGroup
James Clarke, Prairie Material
Paul Gaudette, Wiss, Janney, Elstner Associates, Inc.

Treasurer
Susanne Flood, Flood Testing Laboratories, Inc.
The Sustainable Concrete Guide—Strategies and Examples

The first-ever comprehensive resource on concrete and sustainability, this book provides insight on specific strategies for the best use of concrete in high-performance, long-lasting green buildings. Included are case studies, technical data and references, and numerous practices that can be implemented immediately. This is the first in a series of guides on sustainable concrete published by the U.S. Green Concrete Council and available from ACI.

$75.00
General Information

ACI Registration

ACI staff is available to answer your convention questions at the ACI Registration Desk during the following hours:

- Saturday: 2:00 pm-6:00 pm
- Sunday: 7:30 am-5:00 pm
- Monday: 8:00 am-5:00 pm
- Tuesday: 8:00 am-5:00 pm
- Wednesday: 8:00 am-12:00 pm

Name Badges

ACI uses color-coded name badges to identify attendees. Name badges are as follows:

- Member: Blue
- Attendee: Black
- Fellow: Green
- Honorary Member: Red
- Staff: Orange
- Guest: Tan
- Student: Green Ribbon

Attention ACI Attendees!

First-time convention attendees have a “Convention #1” ribbon on their name badge. Please welcome them to the convention!

Schedule Changes

Cancellations, additions, and location changes to the convention schedule will be posted daily on a monitor inside the exhibit area at the Sheraton Chicago.

Emergencies

In the event of an emergency, we kindly request that you do NOT dial 9-1-1. Please go to the nearest house phone to contact the hotel operator by dialing ‘0’ or hotel security at extension 88.
General Information

ACI Book Drive

Making Literacy More Concrete!

ACI will conduct a book drive during the ACI Spring 2010 Convention, in an effort to promote literacy. Bring a new or gently used book for children in grades K-12, to help us reach our goal of 1200 books!

Donated books will be given to Book Worm Angels’ a non-profit organization founded to help children in underachieving Chicago Public Schools strengthen their reading skills and develop a love for reading. Book Worm Angels helps to establish classroom lending libraries for recreational reading in an easily administered program involving principals, teachers, reading specialists, and parents/caregivers. To learn more about Book Worm Angels, visit www.bookangels.org.

ACI Bookstore

Visit the ACI Bookstore during the following hours:

Saturday 2:00 pm-6:00 pm
Sunday-Tuesday 8:00 am-5:00 pm
Wednesday 8:00 am-12:00 pm

Career Center

Looking for a job or an employee? Visit the ACI Bookstore to view ACI’s Online Career Center. This job search engine is specifically targeted to the concrete industry. Job seekers, you’ll have an opportunity to post your resume and to view, apply for, and save available jobs. Employers, you’ll have the opportunity to post job openings, post internships FREE of charge, and target the individuals you want to attract.

Membership Information

To learn MORE about the benefits of becoming an ACI member and how to become a member, visit the ACI Bookstore.

ACI E-Learning

ACI is expanding its reach to provide educational training via the Internet. This program will cover topics from ACI certification training to courses covering design, construction, and repair of concrete. E-Learning courses are now available. Stop by the ACI Bookstore to learn more about this new program.
General Information

Cyber Stations and Wireless Hot Spots

Stay connected to home and work! Take advantage of the Cyber Stations and FREE wireless hot spots available in the River Exhibit Hall during the following hours:

- Saturday: 2:00 pm-6:00 pm
- Sunday-Tuesday: 8:00 am-5:00 pm
- Wednesday: 8:00 am-2:00 pm

To access the wireless connection, look for ACI Cybercafe 1, ACI Cybercafe 2, ACI Cybercafe 3, or ACI Cybercafe 4 in your network connections.

ACI will have a limited number of laptop charging stations. Charging time is limited to 20 minutes. DO NOT leave your laptop or other valuables unattended at any time. ACI and the Sheraton are not responsible for lost or stolen items.

Local Information

ACI Illinois Chapter members will be happy to answer questions about the local area. Stop by their information desk during the following hours:

- Saturday: 2:00 am-6:00 pm
- Sunday-Tuesday: 8:00 am-5:00 pm

ACI Fall 2010 Convention Information

Mark your calendars for the Fall 2010 Convention October 24-28, 2010 in Pittsburgh, PA. The convention will focus on sustainability and thus has the theme “Green Concrete in the Steel City.” The ACI Pittsburgh Area Chapter will be available Sunday through Tuesday to answer your questions about Pittsburgh and activities at the fall convention.
General Information

FOOD AND BEVERAGE OPTIONS

ACI Concession Stand  RIVER EXHIBIT HALL-LEVEL 1
A concession stand will be set up in the River Exhibition Hall Sunday through Tuesday, 11:00 am-2:00 pm. Sandwiches, salads, fruit and other grab-and-go items will be available for purchase.

LB Bistro and Patisserie  LEVEL 2
Enjoy American cuisine in this French bistro-style restaurant. Breakfast is available Monday through Sunday 6:30 am-11:30 am. A breakfast buffet is available until 12:00 pm on weekends. Lunch is served 11:30 am-2:00 pm.

Chi Bar  LOBBY LEVEL
Beverages and a limited bar menu are available 5:00 pm-1:00 am daily.

Chicago Burger Company  LEVEL 1
Hours of operation vary from 11:30 am-7:00 pm based on hotel occupancy.

Shula's Steak House  LOBBY LEVEL
Shula’s is one of Chicago’s premier steakhouses which also offers seafood and is open daily for dinner 5:30 pm-10:00 pm.

The Link@Sheraton Cafe  LEVEL 2
Stop by to grab coffee or a snack from 6:00 am-5:00 pm. Workstations and wireless Internet is available 24 hours a day for hotel guests.

Java Bar  LOBBY LEVEL
Java Bar is open each morning based on occupancy. Coffee, juice fruit and pastries are available. Additionally, beverages and a limited bar menu are available 3:00 pm-11:00 pm.

Room Service
Room service is available 6:00 am-11:00 am and 4:00 pm-2:00 am daily.

Restaurant Reservations  LOBBY LEVEL
The concierge will be available to make restaurant reservations and recommendations daily 7:00 am-9:00 pm daily.
## General Information

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<thead>
<tr>
<th>Beverage Breaks and Beer Garden</th>
<th>RIVER EXHIBIT HALL</th>
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<tbody>
<tr>
<td>Beverages are available during the following hours.</td>
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<td><strong>Coffee</strong></td>
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<td><strong>Beer Garden</strong></td>
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### Water Stations
In an attempt to lessen the amount of bottled water thrown away during each convention, ACI has chosen not to provide bottled water to attendees. As a replacement, water stations will be placed throughout the hotel for you to enjoy.

### Alcohol Policy
Non-alcoholic beer and soft drinks are available at all ACI-sponsored receptions. The legal drinking age in Illinois is 21.

### TRANSPORTATION

#### Airport Shuttle
Go Airport Shuttle Express offers a scheduled transfer service 7 days a week to both Chicago O’Hare International Airport and Midway International Airport. *Please note that Go Airport Shuttle Express does make additional stops at other hotels on the way to the airport, which could delay your anticipated arrival/departure times.* Return transfer reservations must be made 24 hours prior to departure.

To purchase your shuttle ticket in advance or to learn more about Go Airport Shuttle Express, please visit [http://www.airportexpress.com/index.html](http://www.airportexpress.com/index.html) or call 1-888-284-3826. *For a 20% discount on the ACI Spring 2010 Airport Shuttle visit [http://airportexpress.hudsonltd.net/res?USERIDENTRY=ACI&LOGON=GO](http://airportexpress.hudsonltd.net/res?USERIDENTRY=ACI&LOGON=GO).*

#### Taxis
Taxis are available from the main lobby. The average cost of a taxi to O’Hare International or Midway International Airport is approximately $28 to $40 depending on the number of passengers, time of day and airport of departure.

Taking a taxi around town? Be sure to have the address where you are going to give to the driver.
General Information

Public Transportation
The Chicago Transit Authority (CTA) offers regional transit (bus and rail service) throughout the Chicago metro area. For schedule, fare and station location information, visit [www.transitchicago.com](http://www.transitchicago.com). Heading back to O'Hare International Airport? Go to the Clark and Lake Street Station and take the Blue Line train towards O'Hare. If you’re leaving from Midway International Airport, go to the State and Lake Street Station and ride the Orange Line train to Midway.

Session Handouts on Demand
RIVER EXHIBIT HALL
Handouts are available from speakers who have elected to provide and post them to the ACI Web site. Stop by the Cyber Stations or go to [www.aciconvention.org/handouts](http://www.aciconvention.org/handouts) to download or print a copy of the handouts for the sessions you plan to attend. If you do not find a handout for a particular session, please contact the speaker for more information.

Session Attendance Tracking Form
The Session Attendance Tracking Form, found after page 178, can be submitted to state boards that allow self-reporting of Continuing Education activities as evidence of participation. In most cases, one contact hour is equal to one Professional Development Hour (PDH). Check with your state board for acceptance criteria. Please note: ACI does not track and cannot provide documentation confirming attendee participation or attendance at any ACI session held during the convention.

Speaker Ready Room
FOUNTAINVIEW
The Speaker Ready Room is available to moderators, speakers, and committee chairs during the following hours:

- **Saturday**: 3:00 pm-6:00 pm
- **Sunday**: 7:00 am-7:00 pm
- **Monday & Tuesday**: 7:00 am-6:00 pm
- **Wednesday**: 7:00 am-3:00 pm

All speakers are requested to check in at the Speaker Ready Room one day prior to their session to ensure that:
- ACI has downloaded their presentation on the network in the session rooms
- Speakers’ session handouts are downloaded onto the ACI Web site
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<td>HURON</td>
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<td>ILLINOIS BOARDROOM</td>
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<td>RIVER EXHIBIT HALL</td>
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<td>SUPERIOR A</td>
<td>Level 2</td>
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<td>SUPERIOR B</td>
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Win a Piece of Chicago to Take Home!

Winning is easy and fun:

1. Stop by the ACI Illinois Chapter Desk located outside the River Exhibit Hall to pick up your Exhibitor Contact Card (one entry per attendee).*

2. Fill in your card with your contact information.

3. Visit with exhibitors and find out about their products/services. Each exhibitor you visit will give you a sticker to place on your card.

4. Once your Exhibitor Contact Card is full, turn the completed card into the ACI Illinois Chapter Desk.

5. At 5:00 pm on Monday and Tuesday, March 22 and 23, the drawing winners will be announced in the Beer Garden.

If you win but are not at the Beer Garden, the Chicago Chapter Convention Committee will send your prize to you!

*Exhibitors are not eligible to win.
The ACI Illinois Chapter and the American Concrete Institute wish to thank all exhibitors for their participation and support of the ACI Spring 2010 Convention.

Exhibit Hours
Please visit the exhibitors during the following hours:
Sunday 8:00 am-5:00 pm
Monday 8:00 am-5:00 pm
Tuesday 8:00 am-5:00 pm

American Casein Company  Booths #5 & 6
American Casein Company offers specialized protein polymers for use as a water reducer or super-plasticizer in cement applications including but not limited to injection grouting, self-leveling underlayments and historic repair. Technical assistance is available as well from Amco’s Protein Polymer Group. For additional information visit www.americancasein.com.

Atlas Restoration, LLC  Table #3
This geotechnical contractor’s scope of work includes slab stabilization, joint repair, foundation remediation with Atlas Piers and deep foundation systems with Chana Helical Anchors. Attend Atlas’ presentation of Slab Stabilization with Polyurethane Foam on Tuesday, March 23rd at 9:45 am in the River Exhibit Hall. For additional information visit www.atlasrestoration.com.

BASF Construction Chemicals, LLC  Booth #21
BASF’s Construction Chemicals division is the worldwide supplier of chemical systems and formulations for the construction industry. The North American Construction Chemicals Division of BASF is comprised of four business lines that offer products and solutions primarily for commercial, residential, industrial, and infrastructure construction, improving durability, water resistance, energy efficiency, safety, and aesthetics. BASF’s innovative products and solutions help make products better. BASF will introduce a revolutionary workability admixture on Monday, March 22nd at 10:30 am in the River Exhibit Hall. Contact BASF Construction Chemicals at 800-628-9990 or visit www.construction-chemicals.basf.com.
Exhibitors
Exhibitor listing as of 2/24/10

Burgess Pigment Company  Booth #18
Introducing Burgess OPTIPOZZ, a highly reactive metakaolin, engineered for quick strength, improved durability, and reduced efflorescence in your mix design. For more information, visit www.burgesspigment.com.

Chicago Testing Laboratory, Inc.  Table #5
Chicago Testing Laboratory (CTL) is your “best-in-class” resource for portland cement concrete testing, inspection, training, and engineering. Since 1912, CTL has maintained its reputation as a leader in the field of materials testing and inspection. Visit www.chicagotestinglab.com for additional information.

Construction Tie Products  Booth #33
Construction Tie Products (CTP) designs, produces, and supplies specialty anchors for the masonry restoration and masonry construction marketplace. CTP is a U.S. company supplying S.S. helical ties, mechanical repair anchors, stone anchors, and provides services to design and manufacture ties for special applications.

CTLGroup  Booths #19 & 20
CTLGroup is an internationally recognized professional consulting and testing firm that provides engineering and scientific services to clients in the transportation, materials, power, buildings and facilities, and legal and insurance industries. Our unmatched ability to deliver for clients on all these elements is what makes CTLGroup the industry leader. For additional information, visit www.ctlgroup.com.

Decon USA, Inc.  Booth #24
Decon USA is the original North American manufacturer of Studrails and the exclusive distributor of the Macalloy Tension Rod System and the Jordahl Anchor Channels. Decon will be featuring the three innovative product lines at their booth. Visit www.deconusa.com for additional information.

Engius, LCC  Table #2
Engius develops and sells high-tech products for the heavy-construction, concrete industry. The company’s flagship product is the IntelliRock product line that monitors the thermal properties of concrete and is able to determine the strength of curing concrete in real-time. Visit our booth to see our new wireless system that enables access to real-time data via the Internet. Engius will demonstrate “IntelliRock and Concrete Maturity” on Monday, March 22nd at 3:00 pm in the River Exhibit Hall. For additional information, visit www.engius.com.
ERICO

Booth #31

ERICO is a leading global designer, manufacturer and marketer of precision-engineered specialty metal products serving niche markets in a diverse range of electrical, construction, utility and rail applications. ERICO is also proud of its LENTON® line of rebar splicing systems and other products utilized to connect steel reinforced rods in concrete. **Attend ERICO's product demonstration on Tuesday, March 23rd at 11:15 am in the River Exhibit Hall.**

The Euclid Chemical Co.

Table #1

The Euclid Chemical Co., founded in 1910, is a worldwide supplier of quality products and services for the concrete and masonry industry. Euclid offers a full line of admixtures, and repair and maintenance products based on the latest technology. Euclid provides on-site service for guidance on proper product usage as well as complete specification assistance and laboratory support. To learn more about The Euclid Chemical Co., visit www.euclidchemical.com.

Forney Inc.

Table #11

Forney Inc. is the leading manufacturer of testing equipment for the construction industry. Renowned as a new product innovator since 1916, Forney offers thousands of test products for the concrete, asphalt and soils industries. Working with the test labs of DOT’s, universities and civil engineers, Forney, in its own way, helps make the world a safer place. Please visit www.forneyonline.com for more information.

Germann Instruments, Inc.

Booths #34 & 35

Exhibitors
Exhibitor listing as of 2/24/10

Grace Construction Products

GSSI
GSSI, the world leader in ground penetrating radar, exhibits the most advanced products used for the nondestructive inspection of concrete location and maps a target’s depth with precision prior to cutting and coring with our innovative Structure Scan systems. Stop by our booth for a demonstration of the new Structure Scan Mini! Attend our presentation “Introduction to Ground Penetrating Radar for Concrete Inspection” on Monday, March 22nd at 2:15 pm in the River Exhibit Hall. For additional information, visit www.geophysical.com.

Humboldt Mfg. Co.
When it comes to construction materials testing equipment, Humboldt Mfg. Co. has the largest selection of equipment and the largest in-stock inventories for all your testing needs. Humboldt carries equipment for whatever aspect of materials testing you’re involved in: fresh concrete testing or strength testing; non-destructive testing of concrete; cement testing; concrete flooring and floor coverings; testing aggregate properties, general laboratory equipment and more. Visit www.humboldtmfg.com for additional information.

International Concrete Repair Institute
ICRI, the International Concrete Repair Institute, is a leading resource for education and information to improve the quality of repair, restoration, and protection of concrete and other structures. Membership includes contractors, manufacturers, engineers, owners, and other professionals around the world with this common goal. Learn more about ICRI at www.icri.org.
**Exhibitors**

*Exhibitor listing as of 2/24/10*

**James Instruments, Inc.**
Booth #14

James Instruments began in 1968 by supplying the now classic Rebar locator. James Instruments expanded product line of strength, ultrasonic, rebar location, corrosion, moisture and maturity provides updated technology to the non-destructive testing field. **Attend James Instruments demonstration of NDT testing equipment and applications on Tuesday March 23rd at 1:30 pm in the River Exhibit Hall.** For additional information, please visit www.ndtjames.com.

**JE Tomes**
Table #7

JE Tomes and Associates manufactures specialty concrete products for the repair and restoration industry. Their color-matched product line sets the standard for restoration materials by significantly reducing the appearance of repairs. Their products include resurfacing and patching mortars, form and pour concretes, shotcretes, underlayments, self-leveling cements, and many more. Visit www.jetomes.com for additional information.

**Kryton International Inc.**
Booth #23

Kryton develops, manufactures, and markets a wide range of products designed to waterproof, repair, and protect concrete structures. Developed in Kryton's dedicated concrete research laboratory and tested in the field for over 35 years, the Krystol Concrete Waterproofing System is the world’s leading integral crystalline waterproofing technology. **Don't miss our presentation on Monday, March 22nd at 11:15 am in the River Exhibit Hall.** To learn more about Kryton, visit www.kryton.com.

**James McHugh Construction Co.**
Booth #4

James McHugh Construction Co.’s innovative ideas are the driving force behind their history of providing concrete services on many of the Midwest’s most complex structures. Regularly called on to provide expertise and critical insights on today’s most technically demanding construction projects, McHugh offers techniques and capabilities that result in high quality, cost-saving approaches to projects. For additional information, visit www.mchughconstruction.com.
National Restoration Systems, Inc.  
National Restoration Systems, Inc. (NRS) features general contractors specializing in the restoration and protection of concrete and masonry structures. NRS has offices in both Chicago and Boston. For more information on our company, projects, and key employees, please visit www.nrsys.com.

Northeast Solite Corporation  
Northeast Solite Corporation proudly celebrates 60 years of providing the highest quality, most innovative, and ecologically sound construction products available today. Its two operating companies (Northeast Solite Corporation [1961] and Kentucky Solite Corporation [1972]) are backed up by two coal reserve companies, several strategically located distribution plants, development properties, and land holding companies for future expansion. For more information, visit www.nesolite.com.

Olson Engineering  
Olson Engineering specializes in nondestructive evaluation (NDE), infrastructure condition assessment and repair, structural health monitoring, geophysical and vibration engineering. Olson Instruments manufactures ultrasonic, sonic and seismic instruments for pavements, foundations, and structures as well as seismic surface wave, crosshole, downhole, reflection and refraction tests, and distributes IDS radar systems in the U.S. **Attend our demonstration on “Sonic, Radar, and Electrical Methods for Imaging Concrete and Rebar” on Tuesday, March 23rd at 12:45 pm in the River Exhibit Hall.**

Proceq USA Inc.  
Proceq USA Inc. offers a complete range of portable concrete testing instruments for nondestructive site investigations. Products include the Original SCHMIDT Concrete Test Hammer, Profometer 5+ Rebar Detection System, and a host of other products for ultrasonic pulse velocity, corrosion analysis, resistivity, permeability, and pulloff/bond strength test applications. **On Monday, March 22nd at 1:30 pm, Proceq will introduce the New SilverSchmidt Concrete Test Hammer in the River Exhibition Hall.** Visit www.proceq-usa.com for additional information.

Propex Concrete Systems – ELEMIX  
Propex is the world leader in supplying fibers for secondary concrete reinforcement to the construction market. Our synthetic fibers, steel fibers, and highly engineered fiber blends are designed to provide superior concrete crack control over the entire life span of the concrete. Visit www.fibermesh.com for additional information.
Exhibitors
Exhibitor listing as of 2/24/10

QuakeWrap Inc.  Booth #28
QuakeWrap's award-winning technology provides solutions for repair and strengthening of structures using fiber-reinforced polymers (FRP) at a fraction of the time and cost of conventional methods. Within one integrated process, our highly-skilled engineers and construction crews create innovative solutions specifically tailored to clients. Applications include: beams, columns, walls, tanks, pipes, underwater piles, etc. **Join us Monday, March 22nd at 9:45 am in the River Exhibition Hall as we present “Super Laminates™, the Next Generation of FRP.”** Please visit www.quakewrap.com for more information.

Robert H. Ward and Assoc., Inc.  Table #10
We are in our 49th year of serving the repair industry, and are the nationally recognized shotcrete experts for the repair of concrete. Please stop by our table to view an excellent PowerPoint presentation of important projects completed, view one of the “secrets” to our success, or just to say hello.

School of Business and Economics at Michigan Technological University  Table #14
The Michigan Tech MBA Online Program is changing the rules for online MBAs. Our 2-year online program focuses on innovation and technology management, the perfect complement to your career. Bridge the fields of technology and business to meet the demands of a constantly changing world. Stop by our table to learn more!

Sika Corporation  Booth #22
Sika Corporation, based in Lyndhurst NJ, is a technology leader with 100 years of experience in concrete materials and restoration technology. Sika’s innovative product line includes resins, structural strengthening systems, grouts, anchoring adhesives, overlays, industrial flooring, roofing systems, protective coatings and wood floor adhesive systems, and installation products. Full service sales and technical offices support our customers nationwide. Learn more about the Sika Corporation by visiting www.sikaconstruction.com.

Silica Fume Association  Booth #17
The Silica Fume Association provides high-performance concrete and Silica Fume technology to design engineers and transportation authorities. As a valuable recycled waste material, Silica Fume offers unique properties to sustainable concrete structures. Learn more about the Silica Fume Association by visiting www.silicafume.org.
South Atlantic LLC

South Atlantic LLC is your premier source for hot dip galvanizing services and products. With five locations throughout the U.S. they are able to provide rapid, quality coating service for manufacturers and fabricators. Their manufacturing operations have galvanized steel products, reinforcing bar, lintels, and ground rods and accessories in stock and ready for immediate shipment nationwide.

South Atlantic Galvanizing will present “Recent Research on Galvanized Rebar” on Monday, March 22nd at 12:00 noon in the River Exhibit Hall. For additional information on our products, stop by our table or visit www.southatlanticllc.com.

Superior Gunite

Superior Gunite has been in the gunite/shotcrete industry for over 50 years. Superior Gunite began with the very first pier repairs in the 1940s, and continue to develop and improve structural shotcrete. Superior Gunite consistently continues to meet the demanding challenges faced in construction today to remain the leader in the shotcrete marketplace with top quality work and on-time completion. In an industry where there is no substitute for experience, our company has an outstanding record. Contact Ron Federico at Ron.Federico@shotcrete.com for more information. Observe a demonstration of shotcrete installation on Tuesday, March 23rd at 2:15 pm in the River Exhibit Hall.

Taylor & Francis

CRC Press & Routledge, members of the Taylor & Francis Group, are premier publishers of books, journals, and electronic databases in the field of civil engineering. Stop by the booth to peruse our latest offerings, pick up a free sample journal, and take advantage of special show offers.

Tekla, Inc.

Tekla Structures is a Building Information Modeling (BIM) solution for concrete contractors, rebar detailers, and structural engineers. Tekla Structures provides a model-based solution where construction details are stored on 3D models. Details include concrete shapes, mix information rebar types, quantities and more. Drawings are generated automatically from the model. Stop by Tekla’s demonstration of BIM for the concrete industry on Monday, March 22nd at 12:45 pm in the River Exhibit Hall. For more information, visit www.tekla.com.
Tilt-Up Design Systems, LLC  
Tilt-Up Design Systems, LLC is a technology company providing a SaaS application, Tilt-Werks, that creates a complete tilt-up wall panel design from dimensional and engineering input. For additional information, visit www.tilt-werks.com.

University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) at Michigan Technological University  
The University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) at Michigan Technological University conducts research, education, technology transfer, and workforce development to meet state and national transportation agency needs related to the construction and maintenance of infrastructure utilizing materials including portland cement concrete, geopolymer concrete, and supplementary cementious materials. Learn more about the University Transportation Center for Materials in Sustainable Transportation Infrastructure at our presentation on Tuesday, March 23rd at 10:30 am in the River Exhibit Hall.

Vector Corrosion Technologies  
Vector Corrosion Technologies offers a portfolio of solutions for concrete corrosion repair and protection that includes electrochemical chloride extraction, cathodic protection, and an array of galvanic protection systems, including embedded galvanic anodes, galvanic jackets, and activated arc-spray zinc metalizing. Vector also provides evaluation, repair, and mitigation services for post-tension corrosion and temperature-resistant composite strengthening systems. Attend Vector's demonstration on Monday, March 22nd at 9:00 am in the River Exhibit Hall. Contact Vector at 813-830-7566 or visit www.vector-corrosion.com.

Wiss, Janney, Elstner Associates, Inc.  
Wiss, Janney, Elstner Associates, Inc. (WJE) is an interdisciplinary architectural, engineering, and materials sciences firm specializing in investigation, analysis, and repair design services for historic and contemporary concrete buildings and structures. With more than 70,000 completed assignments, WJE is positioned as the industry leader in concrete problem solving. For additional information, visit www.wje.com.
Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22 and 23, from 9:00 am to 3:30 pm, in the River Exhibit Hall.

### Monday Exhibitor Demonstration Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Exhibitor</th>
<th>Presentation/Demo Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am</td>
<td>Vector Corrosion Technologies</td>
<td>XMesh Gold cementitious fibre-reinforced structural strengthening</td>
</tr>
<tr>
<td>9:45 am</td>
<td>QuakeWrap Inc.</td>
<td>SuperLaminates™, the next Generation of FRP</td>
</tr>
<tr>
<td>10:30 am</td>
<td>BASF Construction Chemicals</td>
<td>Introducing a revolutionary workability admixture</td>
</tr>
<tr>
<td>11:15 am</td>
<td>Kryton</td>
<td>Integral waterproofing using KIM crystallization admixtures</td>
</tr>
<tr>
<td>12:00 pm</td>
<td>South Atlantic LLC</td>
<td>Recent research on galvanized rebar</td>
</tr>
<tr>
<td>12:45 pm</td>
<td>Tekla Inc.</td>
<td>BIM for the concrete industry</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>Proceq</td>
<td>Introducing the new SilverSchmidt concrete test hammer</td>
</tr>
<tr>
<td>2:15 pm</td>
<td>GSSI</td>
<td>Introduction to ground penetrating radar for concrete inspection</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Engius LLC</td>
<td>IntelliRock and concrete maturity</td>
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</tbody>
</table>

### Tuesday Exhibitor Demonstration Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Exhibitor</th>
<th>Presentation/Demo Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am</td>
<td>Germann Instruments</td>
<td>Latest NDT systems and their applications</td>
</tr>
<tr>
<td>9:45 am</td>
<td>Atlas Restoration LLC</td>
<td>Slab stabilization with polyurethane foam</td>
</tr>
<tr>
<td>10:30 am</td>
<td>Michigan Technological University</td>
<td>University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MISTI) program highlights</td>
</tr>
<tr>
<td>11:15 am</td>
<td>Erico</td>
<td>LENTON and LENTON LOCK product demonstration</td>
</tr>
<tr>
<td>12:45 pm</td>
<td>Olson Engineering and Instruments</td>
<td>Sonic, radar, and electrical methods for imaging concrete and rebar</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>James Instruments Inc.</td>
<td>NDT testing—equipment and applications</td>
</tr>
<tr>
<td>2:15 pm</td>
<td>Superior Gunite</td>
<td>Shotcrete installation</td>
</tr>
</tbody>
</table>
Special Events
Sunday, March 21, 2010

Convention #1 Breakfast
8:00 am-9:00 am
Sponsored by the ACI Convention Committee

Session Moderator: Kari Yuers
President & CEO
Kryton International, Inc.
Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session on convention activities. Attendees will have the opportunity to meet other convention attendees and learn about the events to be held in the week ahead.
Student Pervious Concrete and
FRC Bowling Ball Competitions
RIVER EXHIBIT HALL
11:00 am-5:00 pm

Pervious Concrete Competition—sponsored by ACI Committee S801, Student Activities, the ACI Illinois Chapter, the Center for Maximum Potential Building Systems (CMPBS), and the U.S. Green Building Council® (USGBC®)

FRC Bowling Ball Competition—sponsored by ACI Committees S44, Fiber Reinforced Concrete, S801, Student Activities and the ACI Illinois Chapter

Thank you to Humboldt and Forney for donating the compression machines to be used in these competitions. Also, special thanks to Flood Testing Laboratories for transportation of the Humboldt machine.

Session Moderator: Lawrence H. Taber
Structural Engineer
Black & Veatch
Kansas City, MO

ACI’s nationally recognized student competitions offer students the opportunity to participate in interesting and educational concrete projects. This spring, students will compete in two competitions: the FRC Bowling Ball Competition and, for the very first time, the Pervious Concrete Competition. During the FRC Bowling Ball Competition, students will design and construct a fiber-reinforced concrete bowling ball that will achieve optimal performance under specified failure criteria and develop a fabrication process that produces a radial uniform density while maximizing volume. For the Pervious Concrete Competition, students will compete to create a pervious concrete specimen that maximizes permeability while maintaining a good splitting tensile strength. Come cheer on your favorite team during these spirited competitions!
The ACI Spring 2010 Convention officially begins at the Opening Session. Here, ACI will recognize different individuals and groups for their contributions to ACI and achievements in the concrete industry. A full listing of awardees is listed on pages 97-99.

Opening Reception
6:30 pm-7:30 pm
Sponsored by the ACI Illinois Chapter

After the Opening Session, make your way to the exhibit hall to enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees! This is a networking opportunity you won't want to miss!

Following the Opening Reception, experience one of Chicago's fine restaurants. Visit the ACI Illinois Chapter Desk for suggestions.
The ACI Collegiate Concrete Council and the Student and Young Professional Activities Committee invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages and/or appetizers.
Monday, March 22, 2010

✓ Student Lunch

CHICAGO 6&7

12:00 pm-2:00 pm

$50 U.S. per person; FREE to students who preregister

Sponsored by Baker Concrete Construction, Inc.

Coordinated by the ACI Illinois Chapter and ACI Committee S801,

Student Activities

Speaker: George Tuhowski, III
General Superintendent
and Director of Sustainability
Leopardo Companies
Hoffman Estates, IL

Topic: The Importance of Sustainable Design

Following lunch, the results of the Student Competitions will be announced. Then, featured speaker George Tuhowski III, LEED AP and General Superintendent and Director of Sustainability at Leopardo Companies, will discuss the importance of sustainable design and the significance of thinking “green” when designing future structures. Recently completed LEED projects in Chicago will be highlighted.

✓ =separate fee required

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Reception Honoring Tony Fiorato
5:30 pm-7:00 pm
$35 U.S. per person
Sponsored by the ACI Illinois Chapter

Please join the ACI Illinois Chapter in honoring Tony Fiorato for his numerous contributions and accomplishments. Fiorato has served the industry in many ways, most notably as President of ACI during the centennial year and as Chairman of the Board of ASTM. He has been recognized as a Fellow of ACI; awarded the ACI Illinois Chapter’s prestigious Henry Crown Award, the ACI Henry L. Kennedy Award, and the ACI Henry C. Turner Medal; and recognized by the Reinforced Concrete Research Council with the Arthur J. Boase Award. In 2008, Fiorato was inducted into the National Academy of Engineering. His research in the area of high-strength concrete and concrete durability is widely recognized and highly respected. Perhaps his most notable contributions are his tireless efforts to promote usable, consistent codes and standards and share his knowledge worldwide. The purpose of this reception, in addition to the technical sessions in his honor, is to recognize him for his outstanding long-time selfless dedication to the concrete industry. Hors d’oeuvres and a cash bar will be available.

✓ =separate fee required
William R. Tolley Retirement Celebration

7:30 pm-10:00 pm
$90 U.S. per person

Join other ACI friends and colleagues for a celebration dinner and toast in honor of William R. (Bill) Tolley’s retirement from ACI. Tolley started his career at the American Concrete Institute in 1975 as the Manager of Administrative Services. Later he served as Senior Managing Director in which he oversaw conventions, education, certification, chapters, information technology and international activities. He was promoted to Executive Vice President in 2002.

Tolley is the President of the ACI Foundation and its three councils. In addition, he is the President of Creative Association Management (CAM), a subsidiary of ACI that manages other associations such as the International Concrete Repair Institute, American Shotcrete Association, Post-Tensioning Institute, and the Building Owners and Managers Association of Metropolitan Detroit (BOMA).

In addition to his service at ACI, he is the Chairman of the Concrete and Masonry Related Associations and has served as Treasurer, Board member, and Chair of the Finance and Administration Committee for the Council of Engineering and Scientific Society Executives (CESSE). Tolley is a Certified Association Executive and has been active in the American Society of Association Executives.

A Fellow of ACI, he received the ACI Henry L. Kennedy Award for his outstanding leadership in strengthening and expanding chapter activities. In 2006, he was named one of the 10 most influential people in the concrete industry.

Please join us in honoring Bill Tolley’s dedication to and retirement from ACI during this very special event!

✓ = separate fee required
Tuesday, March 23, 2010

✓ Contractors’ Day Lunch
12:00 pm - 2:00 pm
$55 U.S. per person
Hosted by the ACI Illinois Chapter and Construction Liaison Committee

Speaker: Bobby Hull
Retired Hockey Player
Chicago Blackhawks
Sarasota, FL

Topic: A Shot and a Goal!
Memoirs of the Golden Era of Hockey

Join other ACI attendees and contractors for the Contractors’ Day Lunch featuring Hockey Hall of Famer, Bobby Hull. Bobby Hull is regarded as one of the greatest ice hockey players of all time and perhaps the greatest left winger to ever play the game. He possessed the most feared slapshot in his day. In his 23 years in the National Hockey League and World Hockey Association, he played for the Chicago Blackhawks, Winnipeg Jets, and Hartford Whalers. Hull will regal the audience with anecdotes from his multifaceted career.
Concrete Mixer—The Blues!  
SHERATON CHICAGO 4-10  
6:30 pm-8:00 pm  
Sponsored by the ACI Illinois Chapter

Chicago is known worldwide as the home of the Blues. Be inspired by the music that was made popular in Chicago during the 1940s and 1950s by artists such as Muddy Waters, Willie Dixon, John Lee Hooker, Howlin’ Wolf, and Elmore James, during the Blues-themed Concrete Mixer at the Chicago convention! The perfect place to network and relax as you enjoy great music, a taste of Chicago, and cocktails (and maybe a surprise guest or two!), courtesy of the ACI Illinois Chapter.

All ACI attendees MUST wear a name badge to attend.  
Please use the drink tickets found in your registration packet, or cash to purchase beverages.

Following the Concrete Mixer enjoy more great food at one of Chicago’s spectacular eateries. Chicago is such a food lovers’ paradise that the only dilemma you’ll have is how to choose from so many delicious options. Visit the ACI Illinois Chapter Desk or the hotel concierge for suggestions.
International Lunch
12:00 pm-2:00 pm
$30 U.S. per person
Hosted by the ACI International Committee

Speaker: Vincent Mages
Vice President of Climate Change Initiatives
Lafarge Cement
Paris, France

Topic: World Business Council for Sustainable Development Cement (WBCSD) Sustainability Initiative

Join other ACI attendees for a special presentation from Vincent Mages at the International Lunch. Vincent Mages is the Vice President of Climate Change Initiatives at Lafarge Cement. Prior to this role, he was the Vice President of Group Internal Communications. Mr. Mages has occupied various positions in France and Japan, all which have been related to cement, aggregates, and gypsum activities, as well as in marketing business development and strategy. During his presentation, he will highlight the cement industry global initiatives to reduce CO₂, the WBCSD Cement Sustainability Initiative, and the role of cement and concrete in sustainable construction.

=separate fee required
Thursday, March 25, 2010

✓ ACI/PCA Simplified Design of Concrete Buildings of
Moderate Size and Height Seminar
ONTARIO
7:30 am Registration, coffee and pastries available
8:00 am-5:00 pm
$597 Non-Member Registration Fee
$457 ACI National Members Registration Fee
$125 Full-Time Students (with proof of enrollment)

Speakers:

Mahmoud Kamara
Senior Structural
Engineer
Portland Cement
Association
Skokie, IL

Lawrence C. Novak
Manager – Building
Structures
Portland Cement
Association
Skokie, IL

This one-day seminar will focus on the design of concrete buildings
of moderate size and height, in accordance with the latest information
in ACI 318-08, 2009 IBC, and ASCE 7-05. The purpose of this seminar
is to provide civil, architectural, and structural engineers with ways
to simplify design procedures, thus reducing the time required to
analyze, proportion, and detail small to moderate size projects while
still complying with ACI 318-08, “Building Code Requirements for
Structural Concrete.” Various design considerations that need to
be addressed in the structural design and detailing of reinforced
concrete buildings will be discussed. Numerous time-saving shortcuts
and design aids will be introduced.

✓=separate fee required

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Guest Events

Sunday-Wednesday

✓ Guest Hospitality

Continental Breakfast 7:00 am-10:00 am
Open to individuals who registered for the guest program ONLY.

Guest Suite
10:00 am-5:00 pm

Sunday, March 21, 2010

Guest Overview
8:00 am-9:00 am
Acquaint yourself with the week ahead! You’ll also get a preview of the guest programs for the ACI Fall 2010 Convention in Pittsburgh and the ACI Spring 2011 Convention in Tampa.

Monday, March 22, 2010

Guest Tea
3:30 pm-5:00 pm
Please join Mrs. Lori Barth for afternoon tea. This is a wonderful opportunity to get to know other registered guests and enjoy a refreshing break! A guest name badge is required to attend this event.

✓ = separate fee required
**Tours**

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

**Sunday, March 21, 2010**

✓ **Wonderful Town Tour**
9:30 am-1:00 pm  
$43 U.S. per person  
You'll see the important architecture and public art in the Chicago Loop, including the Merchandise Mart, Board of Trade, and Louis Sullivan's Auditorium Building from the motor coach. Then you’ll rise 103 stories to the Willis Tower Skydeck for a completely different perspective of the city. Back at street level, you'll ride through Chicago’s lakefront museums, Navy Pier, and breathtaking skyline. North of the Loop, you'll see the Magnificent Mile and Lincoln Park, then head west to see Oprah Winfrey’s Harpo Studios, Greektown, many other landmarks and, finally, Hyde Park and the University of Chicago. Lunch is not included on this tour.

**Monday, March 22, 2010**

✓ **A Place in Time: The History and Architecture of Oak Park and River Forest**
9:00 am-3:00 pm  
$113 U.S. per person  
At the turn of the century, the Chicago area was to become the living canvas for the spectacular work of Frank Lloyd Wright and his contemporaries. The natural landscape of Oak Park and River Forest was the setting for this revolution in Modern American Residential style. During this tour, you will visit the Frank Lloyd Wright home and studio, and Wright’s first public building, the Unity Temple. Next, you’ll tour the Ernest Hemingway home and museum. This day will include lunch at a historic café in old Oak Park. **Climbing stairs is required for this tour.**

✓ = separate fee required
Tours

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

Monday, March 22, 2010 (cont.)

Aqua Building Presentation and Tour
Tour 1: 12:00 pm-1:30—SOLD OUT
Tour 2: 12:30 pm-2:00 pm—Registration Required
Meet at the Aqua Building—225 North Columbus Drive (approximately 4 blocks from Sheraton)
Coordinated by ACI Committee 124, Concrete Aesthetics

Take a tour of Aqua and hear from James McHugh Construction about how this striking new concrete tower was built. Aqua is an 82-story mixed-use residential skyscraper. To capture views of nearby landmarks, the architect stretched Aqua’s balconies outward, resulting in the building’s wave-like forms and irregularly shaped concrete floor slabs. Note: The roof will be accessed by a fixed ladder. Please dress appropriately.

Tuesday, March 23, 2010

✓ Tour of Metropolitan Water Reclamation District Construction Upgrade
7:00 am-12:00 pm
$25 U.S. per person

The Metropolitan Water Reclamation District (MWRD) of Greater Chicago is currently constructing a large upgrade in its sewage treatment facilities to increase the capacity of its Calumet plant, located on the south side of the city. Construction began in January 2009 and is expected to continue through the fall of 2012. The district construction upgrade consists of 12 155 foot diameter primary settling tanks, an enclosed aerated grit removal facility, twin 96-inch diameter force mains, service tunnels, effluent conduits, utility relocation/replacement, and other appurtenances. A guided tour of the construction site will be given by both MWRD and contractor staff. A valid photo ID such as a driver’s license, state ID card, or passport must be provided to enter the plant facilities. Appropriate footwear (no open-toed shoes) is required.

✓ = separate fee required
Tours

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

Tuesday, March 23, 2010 (cont.)

✓ Great Tastes of Chicago
9:00 am-2:00 pm
$103 U.S. per person
Chicago is a Mecca for great chefs and outstanding food. Forget your diet and save your appetite for a day filled with mouth-watering treats during this incredible culinary tour. This tour will include a visit to an old-time ethnic bakery, an artisanal cheese maker, a unique chocolate shop, and lunch at one of Chicago’s dynamic culinary schools. Additional stops include a spice shop and a specialty olive oil and vinegar store. Please note that the use of stairs is required on this tour.

✓ Chicago Architecture Tour
8:45 am-1:00 pm
$69 U.S. per person
On foot, we’ll tour Chicago’s new and renewed buildings along Dearborn Street, including Daley Plaza with its landmark Picasso and surrounding State of Illinois and Chase Bank plazas filled with large-scale sculptures and murals that energize Chicago’s Loop. A cruise of the Chicago River and Lake Michigan is the most unique and interesting way to see the city. On this narrated 90-minute Lake and River Cruise, we’ll see the best of Chicago’s historic and state-of-the-art architecture and learn why Chicago is known as the “Architectural Capitol of the World.” Please note that the cruise sails rain or shine, so please dress in appropriate attire. Stairs are required to reach the cruise boat. If for some reason the Coast Guard cancels the cruise due to high seas, the time will be spent visiting several architecturally significant buildings and exhibits, including the Rookery, Chicago Architecture Foundation, and the Chicago History Museum. Finally, we'll visit Millennium Park, a 26-acre park that features an ice rink, a 1500-seat indoor theatre for music and dance, the 120 foot high, 3000-seat Jay Pritzker Music Pavilion designed by Frank Gehry, and so much more.

✓ = separate fee required
Follow the ACI Convention on twitter

#aciconvention

American Concrete Institute®
Advancing concrete knowledge
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Friday, March 19, 2010

6:30 pm-9:00 pm
TAC  Technical Activities M1  COLORADO

Saturday, March 20, 2010

7:00 am-6:00 pm
TAC  Technical Activities M2  COLORADO

1:00 pm-3:00 pm
562-D  Eval Repair & Rehab - Struct Repair Design  ARKANSAS

1:00 pm-5:00 pm
EAC  Educational Activities M1  SUPERIOR A
301  Specifications M1  MICHIGAN A&B
562-F  Evaluation Repair & Rehab - General  OHIO

2:00 pm-6:00 pm
Registration  RIVER EXHIBIT HALL

3:00 pm-5:00 pm
376  RLG Containment Structures M1  ARKANSAS

5:00 pm-9:00 pm
562-A  Eval, Repair & Rehab - Life Safety  ARKANSAS
562-C  Eval, Repair & Rehab - Structural Analysis  SUPERIOR A
562-E  Eval, Repair & Rehab - Durability Qlty Assurance  OHIO

7:00 pm-9:00 pm
347-A  Formwork - Specification  MISSOURI

Sunday, March 21, 2010

7:00 am-8:30 am
301-SC  Spec - Steering Committee  COLUMBUS B

7:30 am-5:00 pm
Registration  RIVER EXHIBIT HALL

8:00 am-9:00 am
562-B  Eval, Repair & Rehab - Loads  COLORADO
562-Co  Eval, Repair & Rehab - Coordination Meeting ONTARIO
Convention #1 Breakfast  CHICAGO 8
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Sunday, March 21, 2010 (cont.)

8:00 am-9:30 am
341-C  Equake Res Brdgs-Retrofit  ARKANSAS

8:00 am-10:00 am
E706  Repair Application Procedures  ILLINOIS
S801  Student Activities  SUPERIOR B
506-A  Shotcreting - Evaluation  PARLOR F

8:00 am-10:30 am
CLC  Construction Liaison  OHIO

8:00 am-11:00 am
TAC-RG5  TAC Review Group 5  PARLOR C
445-B  Shear & Torsn - Seismic Shear  PARLOR G

8:00 am-12:00 pm
TAC-RG1  TAC Review Group 1  PARLOR A
TAC-RG2  TAC Review Group 2  PARLOR B
TAC-RG3  TAC Review Group 3  PARLOR D
TAC-RG4  TAC Review Group 4  PARLOR E

8:30 am-10:00 am
342  Bridge Evaluation  ERIE

8:30 am-10:30 am
546-B  Repair - Material Selection Guide  SUITE 929
549-A  Thin Reinforced - Glass Fiber-Reinforced Concrete  MISSISSIPPI

8:30 am-11:30 am
MEMC  Membership  MISSOURI
315-B  Detailing - Constructibility  HURON
350-C  Env Str - Reinf & Devel  COLUMBUS B
408  Development and Splicing  MAYFAIR
440-H  FRP - Reinforced Concrete  SUPERIOR A

8:30 am-12:00 pm
301  Specifications M2  CHICAGO 9

8:30 am-12:30 pm
347  Formwork  CHICAGO 10

9:00 am-11:00 am
551  Tilt-Up  ONTARIO
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✔ Separate fee required

TG = Task Group

Sunday, March 21, 2010 (cont.)

9:30 am-1:00 pm
✔ Wonderful Town Tour  DEPART CONVENTION ENTRANCE

9:00 am-5:00 pm

376  RLG Containment Structures M2  COLORADO

9:30 am-11:00 am

341-D  Perf Based Seismic Design  ARKANSAS

9:30 am-2:00 pm

549  Thin Reinforced  CHICAGO 8

10:00 am-11:30 am

E701  Materials for Concrete Construction  ILLINOIS
IC-Part  International Partnerships & Publications  PARLOR F

10:00 am-1:00 pm

228  Nondestructive Testing  ERIE
421  Reinf Slabs  SUPERIOR B

10:00 am-3:00 pm

301-F  Spec - Precast Concrete Panels  SUITE 830

10:30 am-11:30 am

546-C  Repair - Guide  SUITE 929

10:30 am-1:00 pm

370  Dynamic & Vibratory Effects  OHIO

10:30 am-1:30 pm

445-A  Shear & Torsn - Strut & Tie  MISSISSIPPI

11:00 am-12:30 pm

341-A  Earthquake Res Brdgs - Columns  ARKANSAS

11:00 am-1:00 pm

506-G  Qualifications for Projects  ONTARIO

11:00 am-2:00 pm

TAC  Technical Activities M3  PARLOR C
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Sunday, March 21, 2010 (cont.)

11:00 pm-5:00 pm
Student Pervious Concrete and FRC Bowling Ball Competitions RIVER EXHIBIT HALL

11:30 am-1:00 pm
HTC Hot Topic PARLOR G
221 Aggregates MAYFAIR
335 Composite Hybrid MISSOURI
350-SC Env Str - Steering Comm ILLINOIS
374-TG2 Protocol for Testing RC Structural Elements COLUMBUS B
548-C Structural Polymer Design SUITE 929

11:30 am-5:00 pm
562 Eval, Repair & Rehab SUPERIOR A

12:30 pm-2:00 pm
130-F Social Issues PARLOR E
445-E Shear & Torsn - SOA Torsion PARLOR F

12:30 pm-3:30 pm
301-H Spec -Tilt-Up Constr & Arch Conc HURON

1:00 pm-3:00 pm
301-E Spec - Prestressed Concrete PARLOR A
345 Bridge Construction MAYFAIR
445-C Shear & Torsn - Punching Shear PARLOR G

1:00 pm-4:00 pm
BAC-SD Board Advisory Committee on Sustainable Development MICHIGAN A&B

1:00 pm-5:00 pm
301-C Spec - Placing Consolidating & Curing SUITE 929
301-D Spec - Lightweight & Massive Concrete COLUMBUS B
301-G Spec - Shrink Comp Conc & Ind Floor Slabs PARLOR B
336 Footings ONTARIO
355 Anchorage ERIE

1:30 pm-3:00 pm
209-A Statistic Procedures LINCOLN
341-B Earthquake Res Brdgs - Pier Walls ARKANSAS
440-D FRP - Research MISSISSIPPI
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Sunday, March 21, 2010 (cont.)

1:30 pm-5:00 pm
350-E  Env Str - Precast/Prestressed  PARLOR D

2:00 pm-3:00 pm
506-B  Shotcreting - Fiber Reinforced  CHICAGO 8
548-TG  Polymers - TG  PARLOR E

2:00 pm-3:30 pm
C650  Tilt-Up Constructor Cert  OHIO
236-B  Material Science - Transport Mechanisms  COLUMBUS A

2:00 pm-4:00 pm
215  Fatigue  ILLINOIS
305  Hot Weather  CHICAGO 9

2:00 pm-5:00 pm Sessions

Durability and Long-Term Performance of SCC  SHERATON 2
Durability for Concrete of Pavements  SHERATON 1
Incorporating the ASCE Body of Knowledge  SHERATON 5
Innovations in Fire Design of Concrete Structures  SHERATON 4
Ultra High-Performance Concrete for Bridges  SHERATON 3

2:00 pm-5:00 pm
RCC  Responsibility  PARLOR C
309  Consolidation  PARLOR F
315  Detailing  CHICAGO 10
352  Joints  SUPERIOR B

2:30 pm-5:00 pm
224  Cracking  MISSOURI

3:00 pm-4:30 pm
441-E  Columns Multi-Spiral Reinf  PARLOR A
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Sunday, March 21, 2010 (cont.)

3:00 pm-5:00 pm

E601 Seminar Oversight Committee SUITE 830
121 Quality Assurance LINCOLN
201-A Durability - Sulfate Attack MAYFAIR
341 Earthquake Resistant Bridges CHICAGO 8
423/445 Adhoc Grp on Shear in Prestress Conc PARLOR G
440-L FRP - Durability MISSISSIPPI
550 Precast Structures ARKANSAS

3:30 pm-5:00 pm

Intl-Cert International Certification COLUMBUS A
236-D Material Science - Nanotechnology of Concrete M1 HURON
439-A Steel Reinf - Wire OHIO

4:00 pm-5:00 pm

S805 Collegiate Concrete Council ILLINOIS
123 Research MICHIGAN A&B

5:15 pm-6:30 pm

Opening Session & Awards Program CHICAGO 6&7

6:30 pm-7:30 pm

Opening Reception RIVER EXHIBIT HALL

7:30 pm-10:00 pm

123 Forum: Fly Ash Contributes to Sustainable Concrete Construction – Is It Justified to Reclassify the Material as a Hazardous Waste? SHERATON 3

9:00 pm-10:30 pm

Student and Young Professional Networking Event CHI BAR
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Monday, March 22, 2010

6:30 am-8:15 am
Workshop for Technical Committee Chairs  CHICAGO 6&7

7:00 am-8:30 am
Speaker Skills Training Breakfast: Teaching Methods and Educational Materials  CHICAGO 9

7:15 am-8:30 am
IC-Conf  International Conferences  PARLOR F

7:30 am-8:30 am
Chapter Forum  ERIE

8:00 am-5:00 pm
Registration and Exhibits  RIVER EXHIBIT HALL

8:15 am-10:00 am
351-B  Grtng Fndns - Equip Machnry  SUITE 929

8:30 am-9:30 am
343-B  Bridge Deck Design  SUITE 836

8:30 am-10:00 am
S802  Teaching Methods and Educational Materials  PARLOR B
118  Computers  PARLOR F
130-A  Materials  HURON
439  Steel Reinforcement  PARLOR C
440-G  FRP - Student  OHIO
524  Plastering  ERIE
544-B  FRC - Education  COLORADO

8:30 am-10:30 am
PUBC  Publications  LINCOLN
506-C  Shotcreting - Guide  SUITE 930

8:30 am-11:00 am
355-TG  Anchorage TG  ONTARIO
548-A  Polymers - Overlays  COLUMBUS A
## Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

☑ Separate fee required  
TG = Task Group

### Monday, March 22, 2010 (cont.)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:30 am-11:30 am</td>
<td>C610 Field Technician Cert CHICAGO 10</td>
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<td>209 Creep &amp; Shrinkage SUITE 1029</td>
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<td>311 Inspection ARKANSAS</td>
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<td>437 Strength Evaluation SUPERIOR A</td>
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<td>543 Piles SUITE 830</td>
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<td>546 Repair CHICAGO 9</td>
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<tr>
<td>8:30 am-12:00 pm</td>
<td>301-A Spec - Gen Req, Definitions &amp; Tolerances PARLOR A</td>
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<td>301-B Spec - Formwork &amp; Reinforcement SUITE 936</td>
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<td>362-A Parking Str - Standard PARLOR D</td>
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<tr>
<td>8:30 am-12:30 pm</td>
<td>374 Seismic Design MAYFAIR</td>
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<tr>
<td>8:30 am-1:00 pm</td>
<td>302 Floor Construction CHICAGO 8</td>
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<td>350-B Env Str - Durability PARLOR G</td>
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<tr>
<td>8:30 am-5:00 pm</td>
<td>313 Bins &amp; Silos ILLINOIS</td>
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<tr>
<td>8:30 am-6:30 pm</td>
<td>350-D Env Str - Structural PARLOR E</td>
</tr>
<tr>
<td>9:00 am-11:00 am</td>
<td>365 Service Life MISSOURI</td>
</tr>
<tr>
<td>9:00 am-12:00 pm</td>
<td>Sessions</td>
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<tr>
<td></td>
<td>Extreme Tilt-Up Performance: Design to Construction, Part 1 SHERATON 2</td>
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<tr>
<td></td>
<td>Recent Advances in Maintenance and Repair of Concrete Bridges SHERATON 5</td>
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<tr>
<td></td>
<td>Research in Progress SHERATON 1</td>
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<td></td>
<td>Technical Session in Honor of Tony Fiorato, Part 1 SHERATON 4</td>
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<tr>
<td></td>
<td>Textile Reinforced Concrete—Modern Developments, Part 1 SHERATON 3</td>
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Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✔ Separate fee required  

TG = Task Group

Monday, March 22, 2010 (cont.)

9:00 am-1:00 pm
423  Prestressed  SUPERIOR B

9:00 am-3:00 pm

✔ A Place in Time: The History  DEPART CONVENTION
Architecture of Oak Park and River Forest  ENTRANCE

9:00 am-5:00 pm
376-TG  RLG Containment Structures-TG M1  MISSISSIPPI

9:30 am-3:30 pm
Exhibitor Demonstrations  RIVER EXHIBIT HALL

9:30 am-10:30 am
343-A  Design  SUITE 836

10:00 am-11:00 am
130-B  Production/Transport/Construction  SUITE 929

10:00 am-11:30 am
440-K  FRP - Material Characteristics  PARLOR C

10:00 am-12:00 pm
445-D  Shear & Torsn - Database  PARLOR B

10:00 am-12:30 pm
349-C  Nuclear Str - Anchorage  HURON

10:00 am-1:00 pm
207  Mass Concrete  ERIE
216  Fire Resistance  OHIO
232-A  Fly Ash - Use of Nat Pozzolans  PARLOR F
343  Bridge Design  COLORADO

10:30 am-11:30 am
318-ETG 1  Slabs  SUITE 836

10:30 am-12:00 pm
124  Aesthetics  LINCOLN

10:30 am-12:30 pm
506-E  Shotcreting - Specifications  SUITE 930
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Monday, March 22, 2010 (cont.)

11:00 am-1:00 pm
130-E Design/Specifications/Codes/Regulations  MISSOURI
351 Equip Foundations  ONTARIO
548-B Adhesives in Concrete  COLUMBUS A

11:30 am-1:00 pm
201-D Durability - Oversight Committee  SUITE 830
304 Measuring/Mix/Trans/Placing  ARKANSAS
346 CIP Pipe  SUITE 836
544-A FRC - Production & Applications  MICHIGAN A&B

11:30 am-2:00 pm
314 Simplified Design Buildings  CHICAGO 10
441 Columns  SUPERIOR A
447 Finite Element Analysis  SUITE 1029

12:00 pm-1:30 pm
Aqua Building Presentation and Tour 1  MEET AT
(SOLD OUT) AQUA BUILDING

12:00 pm-2:00 pm
✓ Student Lunch  CHICAGO 6&7

12:30 pm-2:00 pm
Aqua Building Presentation and Tour 2  MEET AT
(Registration Required) AQUA BUILDING

1:00 pm-2:30 pm
C631 Conc Transportation Const Insp  PARLOR A
ISO/TC 71 ISO/TC 71 Advisory Cmte  MAYFAIR
228-TG Nondestructive Testing TG  SUITE 936
350-H Env Str - Editorial  SUITE 830

1:00 pm-3:00 pm
C660 Shotcrete Nozzleman Cert  COLORADO

1:00 pm-3:30 pm
375 Design for Wind Loads  SUITE 929

1:00 pm-4:00 pm
225 Hydraulic Cements  PARLOR D
232 Fly Ash & Natural Pozzolans  CHICAGO 9
237 Self-Consolidating Concrete  ONTARIO
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Monday, March 22, 2010 (cont.)

1:00 pm-5:00 pm
301 Specifications M3  SUPERIOR B
362 Parking Structures  HURON

1:30 pm-3:00 pm
440-J FRP - Stay in Place Forms  MICHIGAN A&B

2:00 pm-3:00 pm
ITG-6 High-Strength Steel Reinforcement  PARLOR G
SCO Scholarship Council M2  SUITE 1537

2:00 pm-3:30 pm
ACI 318/
ASCE7  ACI 318/ASCE7 Coordination  SUITE 836
231 Early Age  OHIO
318-S Spanish Translation  ERIE
544-E FRC - Mechanical Properties  PARLOR B

2:00 pm-5:00 pm Sessions
Effects of Micro- and Macro-cracking on Durability  SHERATON 5
Extreme Tilt-Up Performance: Design to Construction, Part 2  SHERATON 2
Serviceability Limit States for Concrete Structures  SHERATON 1
Technical Session in Honor of Tony Fiorato, Part 2  SHERATON 4
Textile Reinforced Concrete—Modern Developments, Part 2  SHERATON 3

2:00 pm-5:00 pm
MKTC Marketing  LINCOLN
130 Sustainability M1  CHICAGO 8
307 Chimneys  SUITE 930
318-B Reinforcement & Development M1  SUPERIOR A
349-A&B Nuclear Structures - Design & Materials  COLUMBUS A&B
364 Rehabilitation  MISSOURI

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Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Monday, March 22, 2010 (cont.)

2:00 pm-6:00 pm
369  Seismic Rehab  ARKANSAS
445  Shear & Torsion  PARLOR C

2:00 pm-6:30 pm
212  Chemical Admixtures  PARLOR F
360  Slabs on Ground  CHICAGO 10

2:30 pm-4:00 pm
533  Precast Panels  MAYFAIR

2:30 pm-5:00 pm
CAC  Chapter Activities  SUITE 1029

3:00 pm-4:00 pm
506-F  Shotcreting - Underground  SUITE 936

3:00 pm-5:00 pm
373  Prestressed/Tendons  PARLOR G

3:00 pm-6:00 pm
440-F  FRP - Repair Strengthening  MICHIGAN A&B

3:30 pm-5:00 pm
211-P  Guide for Selecting Proportions for Pumpable Concrete  PARLOR B
214  Strength Tests  OHIO
318-L  International Liaison  SUITE 836
446  Fracture Mechanics  SUITE 929

3:30 pm-6:00 pm
544-D  FRC - Structural Uses  ERIE

3:30 pm-6:30 pm
350-J  Env Str - Education  SUITE 830
435  Deflection  PARLOR A

4:00 pm-6:00 pm
117-TG  Tolerances Task Group  COLORADO
201-E  Salt Weathering/Salt Attack  PARLOR D
                        Beer Garden  RIVER EXHIBIT HALL
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✔ Separate fee required  TG = Task Group

Monday, March 22, 2010 (cont.)

4:30 pm-5:30 pm
236  Material Science  ONTARIO

5:00 pm-6:00 pm
Women in ACI Reception  MAYFAIR

5:00 pm-6:30 pm
E702  Designing Concrete Structures  HURON
318-TGF  TGF - Foundation  SUITE 836
555  Recycled  SUPERIOR B

5:00 pm-7:00 pm
E703  Concrete Construction Practices  SUITE 930

5:30 pm-7:00 pm
✔ Reception Honoring Tony Fiorato  CHICAGO 9

7:30 pm-10:00 pm
✔ William R. Tolley Retirement Celebration  CHICAGO 6&7

Tuesday, March 23, 2010

7:00 am-8:30 am
TTTC  TAC Technology Transfer  MISSOURI

7:00 am-9:00 am
563-C  Excavation/Surface Preparation  SUITE 936
563-FG  Mixtures/Placing/Curing  SUITE 1029
563-I  Proprietary Grouts/Concrete  PARLOR A
563-L  Prestressed Concrete  MICHIGAN B
563-MN  Polymer Concrete Overlays/Protection Systems  COLUMBUS A&B

7:00 am-12:00 pm
✔ Technical Tour of Metropolitan Water District  DEPART CONVENTION ENTRANCE

7:30 am-9:00 am
130-G  Education/Certification  MISSISSIPPI

8:00 am-10:00 am
211-C  Proportioning - No Slump  SUITE 930
230  Soil Cement  SUITE 830
444  Experimental Analysis  PARLOR E
## Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

- ✔ Separate fee required
- TG = Task Group

### Tuesday, March 23, 2010 (cont.)

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<th>Session</th>
<th>Location</th>
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<td>325-A Pavements - Design</td>
<td>PARLOR D</td>
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<tr>
<td>8:00 am-12:00 pm</td>
<td>EAC Educational Activities M2</td>
<td>PARLOR B</td>
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<tr>
<td>8:00 am-5:00 pm</td>
<td>Registration and Exhibits</td>
<td>RIVER EXHIBIT HALL</td>
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<tr>
<td>8:30 am-10:00 am</td>
<td>C620 Laboratory Tech Cert OHIO</td>
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<td>238 Workability of Fresh Concrete SUITE 929</td>
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<td>523-A Cellular - Autoclaved Aerated PARLOR C</td>
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<td>8:30 am-10:30 am</td>
<td>IJBRC Intl Joints &amp; Bearings Research COLORADO</td>
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<td>318 Building Code M1 CHICAGO 6</td>
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<td>357 Offshore &amp; Marine ILLINOIS</td>
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<td>548 Polymers HURON</td>
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<td>8:30 am-11:30 am</td>
<td>201 Durability ARKANSAS</td>
<td>CHICAGO 10</td>
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<td>306 Cold Weather PARLOR G</td>
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<td>348 Safety CHICAGO 8</td>
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<td>350-G&amp;K Env Str - Tightness Testing/Haz Mat LINCOLN</td>
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<td>440 Fiber Reinforced Polymer CHICAGO 8</td>
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<td>506 Shotcreting ERIE</td>
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<td>522 Pervious Concrete CHICAGO 9</td>
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<td>8:30 am-12:00 pm</td>
<td>117 Tolerances MAYFAIR</td>
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<td>8:30 am-12:30 pm</td>
<td>349 Nuclear Structures M1 SUPERIOR A&amp;B</td>
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<td>8:30 am-3:30 pm</td>
<td>350-F Env Str - Seismic PARLOR F</td>
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<td>9:00 am-10:00 am</td>
<td>332-D Residential Concrete - Footings &amp; Foundation Walls ONTARIO</td>
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Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

Separate fee required

TG = Task Group

Tuesday, March 23, 2010 (cont.)

9:00 am-10:30 am
122 Thermal Properties SUITE 836

9:00 am-11:00 am
563-H Architectural/Prestressed Concrete SUITE 1029
563-JK Crack Repair/External Reinforcement PARLOR A
563-P Corrosion COLUMBUS A&B

9:00 am-11:30 am
IC International Committee MISSISSIPPI

9:00 am-12:00 pm Sessions

Advances in the Material Science of Concrete, Part 1 SHERATON 1
Concrete Repair—Xtreme Conditions, Part 1 SHERATON 3
Design Using the Strut-and-Tie Method: Examples and Approaches, Part 1 SHERATON 2
Extreme Concrete History SHERATON 4
Structural Health Monitoring for Bridge Design and Evaluation SHERATON 5

9:00 am-12:00 pm
TRRC TAC Repair & Rehab SUITE 936

9:00 am-1:00 pm
ITG-8 ITG-8 Perform Criteria for Conc Matrls MICHIGAN B

9:00 am-2:00 pm
Great Tastes of Chicago DEPART CONVENTION ENTRANCE

9:00 am-3:30 pm
Exhibitor Demonstrations RIVER EXHIBIT HALL

9:00 am-5:00 pm
376-TG RLG Containment Structures TG M2 MISSOURI
All schedule and location changes will be posted daily in the River Exhibition Hall.

Separate fee required  TG = Task Group

Tuesday, March 23, 2010 (cont.)

10:00 am-11:00 am
130-C  Structures in Service  OHIO
332-E  Residential Concrete - Above Grade Walls  ONTARIO

10:00 am-11:30 am
C630  Construction Inspector Cert  PARLOR E

10:00 am-12:00 pm
211-A  Proportioning - Editorial  SUITE 830
327  RCC Pavements  SUITE 929

10:00 am-1:00 pm
371  Elevated Tanks with Concrete Pedestals  SUITE 930
523  Cellular Concrete  PARLOR C

10:30 am-12:00 pm
325-C  Pavements - Prestressed and Precast  PARLOR D
544-F  FRC - Durability  HURON

11:00 am-12:00 pm
332-B&C  Residential Concrete Materials & Placement  OHIO

11:00 am-1:00 pm
CRC  Concrete Research Council  COLUMBUS A&B
130  Sustainability of Concrete M2  CHICAGO 6

11:30 am-1:00 pm
211-E  Proportioning - Evaluation  PARLOR E
213-TG  Lightweight - Editorial TG  PARLOR A
223-D  Shr Compensating - Non Reinforced Concrete or Mortar  LINCOLN
515  Protective Systems  ERIE

11:30 am-2:00 pm
552  Cementitious Grouting  MISSISSIPPI

12:00 pm-2:00 pm
Contractors' Day Lunch  CHICAGO 7
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

Separate fee required

TG = Task Group

Tuesday, March 23, 2010 (cont.)

12:30 pm-2:00 pm
C640  Craftsman Cert  SUITE 1029

1:00 pm-2:00 pm
223-C  Shr Compensating - Constr  ARKANSAS
325-D  Proportioning for Pavements  SUITE 929
332-F  Residential Concrete - Slabs  OHIO

1:00 pm-3:00 pm
NPTF  EAC New Programs Task Force  SUPERIOR A&B
201-C  Durability - Condition Report  SUITE 930
211-I  Assessing Aggregate Gradation  PARLOR D
236-D  Material Science - Nanotechnology of Concrete M2  PARLOR E

1:00 pm-6:30 pm
318-A  General Concrete Constr  ILLINOIS
318-C  Serviceability/Safety  MICHIGAN B
318-H  Seismic Provisions  MAYFAIR
318-R  Code Reorganization  COLORADO

1:30 pm-3:00 pm
120  History  MICHIGAN A
213  Lightweight  COLUMBUS A&B

2:00 pm-3:30 pm
234  Silica Fume  OHIO
325-E  Accelerated Paving  PARLOR A
544-C  FRC - Testing  CHICAGO 6

2:00 pm-4:00 pm
130-D  Rating Systems/Sustainability Tools  CHICAGO 8
211-F  Proportioning - Submittal  SUITE 830
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Tuesday, March 23, 2010 (cont.)

2:00 pm-5:00 pm Sessions

Hot Topic Session: Reconstruction Efforts in Haiti

Advances in the Material Science of Concrete, Part 2

Concrete Repair—Xtreme Conditions, Part 2

Contractors’ Day Session: Xtreme Local Projects

Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2

Open Paper Session

2:00 pm-5:00 pm

CPC Certification Programs
222 Corrosion
223 Shrinkage Compensating
229 Controlled Low Strength
235 Electronic Data Exchange
310 Decorative Concrete
332 Residential Concrete
349 Nuclear Structures M2
563 Specs for Repair of Struct Conc in Bldgs

2:00 pm-6:00 pm

233 Slag Cement

3:00 pm-5:00 pm

CC Convention Committee M2
211-N Proportioning with Ground Limestone and Material Fillers
372 Prestressed/Wire Wrapped

3:00 pm-6:00 pm

131 BIM

3:30 pm-5:00 pm

363-A High-Strength Lightweight Concrete
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required  TG = Task Group

Tuesday, March 23, 2010 (cont.)

3:30 pm-5:30 pm
325 Pavements  MICHIGAN A

3:30 pm-6:00 pm
544 Fiber-Reinforced Concrete  SUPERIOR A&B

4:00 pm-6:00 pm
350-L Env Str - Specification  PARLOR G
Beer Garden  RIVER EXHIBIT HALL

4:30 pm-6:00 pm
308/213 Guide on Internal Curing  OHIO

5:00 pm-6:00 pm
Faculty Network Reception  COLUMBUS A&B

6:30 pm-8:00 pm
Concrete Mixer – The Blues!  SHERATON CHICAGO 4-10

Wednesday, March 24, 2010

7:00 am-8:30 am
ACI/ASCE  ACI/ASCE Coordination  MISSISSIPPI

7:00 am-9:00 am
SYPAC  Student & Young Professional Activities  ARKANSAS

7:00 am-10:00 am
TSC  TAC Specifications  OHIO

8:00 am-10:30 am
308-B Curing - Specifications  SUITE 929

8:00 am-12:00 pm
Registration  RIVER EXHIBIT HALL

8:00 am-1:30 pm
318-B Reinforcement & Development M2  HURON
318-D Flexure & Axial Loads  COLORADO
318-E Shear & Torsion  MISSOURI
318-G Prestressed Precast  ERIE
Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Wednesday, March 24, 2010 (cont.)

8:30 am-11:30 am

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<tr>
<td>8:30 am</td>
<td>Proportioning</td>
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<td>303</td>
<td>Architectural CIP</td>
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<tr>
<td>330-TG</td>
<td>Parking Lots &amp; Site Paving TG</td>
<td>MISSISSIPPI</td>
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<tr>
<td>363</td>
<td>High-Strength</td>
<td>ONTARIO</td>
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<tr>
<td>560</td>
<td>Design &amp; Constr ICFs</td>
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8:30 am-6:30 pm

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<tr>
<td>350</td>
<td>Environmental Structures</td>
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8:45 am-1:00 pm

✓ Chicago Architecture Tour

DEPART CONVENTION ENTRANCE

9:00 am-11:00 am

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<td>329</td>
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9:00 am-12:00 pm Sessions

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<td>9:00 am</td>
<td>Building Information Modeling in the Concrete Industry, Part 1</td>
<td>SHERATON 4</td>
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<td>Frontiers in the Use of Polymers in Concrete, Part 1</td>
<td>SHERATON 2</td>
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<td></td>
<td>International Session: Tall Buildings</td>
<td>SHERATON 1</td>
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<td></td>
<td>Quality Management Systems in the Concrete Industry</td>
<td>SHERATON 5</td>
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<tr>
<td></td>
<td>What About Adhesive Anchors? Part 1</td>
<td>SHERATON 3</td>
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9:00 am-12:00 pm

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00 am</td>
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9:00 am-5:00 pm

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10:00 am-12:30 pm

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<tr>
<td>10:00 am</td>
<td>Concrete Quality Technical Mgr</td>
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10:30 am-1:00 pm

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<tr>
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<td>Curing - Guide</td>
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Daily Program

All schedule and location changes will be posted daily in the River Exhibition Hall.

✓ Separate fee required

TG = Task Group

Wednesday, March 24, 2010 (cont.)

11:30 am-1:00 pm
C601-D Decorative Concrete Finisher MAYFAIR

12:00 pm-2:00 pm
✓ International Lunch CHICAGO 7

1:00 pm-4:00 pm
330 Parking Lots & Site Paving OHIO

2:00 pm-5:00 pm Sessions
Building Information Modeling in the Concrete Industry, Part 2 SHERATON 4

Frontiers in the Use of Polymers in Concrete, Part 2 SHERATON 2

International Forum for International Chapters and Partners SHERATON 1

Sustainable Design in Structural Concrete SHERATON 5

What About Adhesive Anchors? Part 2 SHERATON 3

2:00 pm-5:00 pm
308 Curing MAYFAIR

2:30 pm-6:30 pm
318 Building Code M2 CHICAGO 8

Thursday, March 25, 2010

8:00 am-5:00 pm
✓ ACI/PCA Simplified Design of Reinforced Concrete Buildings of Moderate Size and Height Seminar ONTARIO

10:00 am-5:00 pm
BOD Board of Direction SHERATON 1
ACI is conducting a book drive during the ACI Spring 2010 Convention, in an effort to promote literacy. Bring a new or gently used book for children in grades K-12, to help us reach our goal of 1200 books! Donations may be made at the ACI Illinois Chapter Desk outside the River Exhibit Hall.

Donated books will be given to Book Worm Angels is a non-profit organization founded to help children in underachieving Chicago Public Schools strengthen their reading skills and develop a love for reading. Book Worm Angels helps to establish classroom lending libraries for recreational reading in an easily administered program involving principals, teachers, reading specialists, and parents/caregivers. To learn more about Book Worm Angels, visit www.bookangels.org.
<table>
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<tr>
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<td>Mon</td>
<td>2:00 pm-3:30 pm</td>
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<td>ACI/ASCE</td>
<td>ACI/ASCE Coordination</td>
<td>Wed</td>
<td>7:00 am-8:30 am</td>
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<tr>
<td>ACIFdn</td>
<td>ACI Foundation</td>
<td>Wed</td>
<td>9:00 am-12:00 pm</td>
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<tr>
<td>BAC-SD</td>
<td>Board Advisory Committee on Sustainable Development</td>
<td>Sun</td>
<td>1:00 pm-4:00 pm</td>
<td>MICHIGAN A&amp;B</td>
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<tr>
<td>BOD</td>
<td>Board of Direction</td>
<td>Thu</td>
<td>10:00 am-5:00 pm</td>
<td>SHERATON 1</td>
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<td>Construction Liaison</td>
<td>Sun</td>
<td>8:00 am-10:30 am</td>
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<td>CPC</td>
<td>Certification Programs</td>
<td>Tue</td>
<td>2:00 pm-5:00 pm</td>
<td>LINCOLN</td>
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<td>Concrete Research Council</td>
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<td>E701</td>
<td>Materials for Concrete Construction</td>
<td>Sun</td>
<td>10:00 am-11:30 am</td>
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<td>E702</td>
<td>Designing Concrete Structures</td>
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<td>5:00 pm-6:30 pm</td>
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<td>E703</td>
<td>Concrete Construction Practices</td>
<td>Mon</td>
<td>5:00 pm-7:00 pm</td>
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<td>E706</td>
<td>Repair Application Procedures</td>
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<td>IC-Part</td>
<td>International Partnerships &amp; Publications</td>
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<td>10:00 am-11:30 am</td>
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<td>IJBRC</td>
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<td>International Certification</td>
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<td>117</td>
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<td>Design/Specifications/Codes/Regulations</td>
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<td>Shr Compensating-Non Reinforced Concrete or Mortar</td>
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<td>Cracking</td>
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<td>Day</td>
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<td>Fly Ash &amp; Natural Pozzolans</td>
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<td>Silica Fume</td>
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<td>Electronic Data Exchange</td>
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<td>Material Science</td>
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<td>Material Science-Transport Mechanisms</td>
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<td>237</td>
<td>Self-Consolidating Concrete</td>
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<td>Workability of Fresh Concrete</td>
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<td>301-A</td>
<td>Spec-Gen Req, Definitions, &amp; Tolerances</td>
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<td>301-B</td>
<td>Spec-Formwork &amp; Reinforcement</td>
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<td>Spec-Lightweight &amp; Massive Concrete</td>
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### Numerical Committee Meeting Listing

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<th>Day</th>
<th>Time</th>
<th>Room Name</th>
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<tr>
<td>301-E</td>
<td>Spec-Prestressed Concrete</td>
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<td>Spec-Shrink Comp Conc &amp; Ind Floor Slabs</td>
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<td>Spec-Tilt-Up Constr &amp; Arch Conc</td>
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<td>Spec-Steering Committee</td>
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<td>Floor Construction</td>
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<td>Measuring/Mix/Trans/Placing</td>
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<td>Guide on Internal Curing</td>
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<td>Curing-Guide</td>
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<td>Tue</td>
<td>10:00 am-12:00 pm</td>
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<td>329</td>
<td>Perf. Ready Mixed</td>
<td>Wed</td>
<td>9:00 am-11:00 am</td>
<td>CHICAGO 10</td>
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<tr>
<td>330</td>
<td>Parking Lots &amp; Site Paving</td>
<td>Wed</td>
<td>1:00 pm-4:00 pm</td>
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<tr>
<td>330-TG</td>
<td>Parking Lots &amp; Site Paving TG</td>
<td>Wed</td>
<td>8:30 am-11:30 am</td>
<td>MISSISSIPPI</td>
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<tr>
<td>332</td>
<td>Residential Concrete</td>
<td>Tue</td>
<td>2:00 pm-5:00 pm</td>
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<td>332-B&amp;C</td>
<td>Residential Concrete Materials &amp; Placement</td>
<td>Tue</td>
<td>11:00 am-12:00 pm</td>
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<td>332-D</td>
<td>Residential Concrete-Footings &amp; Foundation Walls</td>
<td>Tue</td>
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<td>Residential Concrete-Above Grade Walls</td>
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<td>Residential Concrete-Slabs</td>
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<td>336</td>
<td>Footings</td>
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<td>Committee</td>
<td>Day</td>
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<td>Earthquake Resistant Bridges</td>
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<td>Eqquake Res Brdgs-Columns</td>
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<td>Eqquake Res Brdgs-Pier Walls</td>
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<td>Formwork-Specification</td>
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<td>Nuclear Structures M1</td>
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<td>Nuclear Structures-Design &amp; Materials</td>
<td>Mon</td>
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<td>349-C</td>
<td>Nuclear Str-Anchorage</td>
<td>Mon</td>
<td>10:00 am-12:30 pm</td>
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<td>350</td>
<td>Environmental Structures</td>
<td>Wed</td>
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<td>Env Str-General &amp; Concrete</td>
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<td>Env Str-Precast/ Prestressed</td>
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<td>Mon</td>
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<td>Joints</td>
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<td>355</td>
<td>Anchorage</td>
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<tr>
<td>355-TG</td>
<td>Anchorage TG</td>
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<td>357</td>
<td>Offshore &amp; Marine</td>
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<tr>
<td>360</td>
<td>Slabs on Ground</td>
<td>Mon</td>
<td>2:00 pm-6:30 pm</td>
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<td>362</td>
<td>Parking Structures</td>
<td>Mon</td>
<td>1:00 pm-5:00 pm</td>
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<td>362-A</td>
<td>Parking Str-Standard</td>
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<td>8:30 am-12:00 pm</td>
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<td>High-Strength</td>
<td>Wed</td>
<td>8:30 am-11:30 am</td>
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<td>High-Strength Lightweight Concrete</td>
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<td>Seismic Rehab</td>
<td>Mon</td>
<td>2:00 pm-6:00 pm</td>
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<td>370</td>
<td>Dynamic &amp; Vibratory Effects</td>
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<td>10:30 am-1:00 pm</td>
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<td>371</td>
<td>Elevated Tanks with Concrete Pedestals</td>
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<tr>
<td>372</td>
<td>Prestressed/Wire Wrapped</td>
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<td>SUITE 930</td>
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<td>373</td>
<td>Prestressed/Tendons</td>
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<td>374-TG2</td>
<td>Protocol For Testing RC Structural Elements</td>
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<td>Design for Wind Loads</td>
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<td>Shotcreting-Underground</td>
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<td>543</td>
<td>Piles</td>
<td>Mon</td>
<td>8:30 am-11:30 am</td>
<td>SUITE 830</td>
</tr>
<tr>
<td>544</td>
<td>Fiber-Reinforced Concrete</td>
<td>Tue</td>
<td>3:30 pm-6:00 pm</td>
<td>SUPERIOR A&amp;B</td>
</tr>
<tr>
<td>544-A</td>
<td>FRC-Production &amp; Applications</td>
<td>Mon</td>
<td>11:30 am-1:00 pm</td>
<td>MICHIGAN A&amp;B</td>
</tr>
<tr>
<td>544-B</td>
<td>FRC-Education</td>
<td>Mon</td>
<td>8:30 am-10:00 am</td>
<td>COLORADO</td>
</tr>
<tr>
<td>544-C</td>
<td>FRC-Testing</td>
<td>Tue</td>
<td>2:00 pm-3:30 pm</td>
<td>CHICAGO 6</td>
</tr>
<tr>
<td>544-D</td>
<td>FRC-Structural Uses</td>
<td>Mon</td>
<td>3:30 pm-6:00 pm</td>
<td>ERIE</td>
</tr>
<tr>
<td>544-E</td>
<td>FRC-Mechanical Properties</td>
<td>Mon</td>
<td>2:00 pm-3:30 pm</td>
<td>PARLOR B</td>
</tr>
<tr>
<td>544-F</td>
<td>FRC-Durability</td>
<td>Tue</td>
<td>10:30 am-12:00 pm</td>
<td>HURON</td>
</tr>
<tr>
<td>546</td>
<td>Repair</td>
<td>Mon</td>
<td>8:30 am-11:30 am</td>
<td>CHICAGO 9</td>
</tr>
<tr>
<td>546-B</td>
<td>Repair-Material Selection Guide</td>
<td>Sun</td>
<td>8:30 am-10:30 am</td>
<td>SUITE 929</td>
</tr>
<tr>
<td>546-C</td>
<td>Repair-Guide</td>
<td>Sun</td>
<td>10:30 am-11:30 am</td>
<td>SUITE 929</td>
</tr>
<tr>
<td>548</td>
<td>Polymers</td>
<td>Tue</td>
<td>8:30 am-10:30 am</td>
<td>HURON</td>
</tr>
<tr>
<td>548-A</td>
<td>Polymers-Overlays</td>
<td>Mon</td>
<td>8:30 am-11:00 am</td>
<td>COLUMBUS A</td>
</tr>
<tr>
<td>Code</td>
<td>Committee</td>
<td>Day</td>
<td>Time</td>
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<tr>
<td>548-B</td>
<td>Adhesives in Concrete</td>
<td>Mon</td>
<td>11:00 am-1:00 pm</td>
<td>COLUMBUS A</td>
</tr>
<tr>
<td>548-C</td>
<td>Structural Polymer Design</td>
<td>Sun</td>
<td>11:30 am-1:00 pm</td>
<td>SUITE 929</td>
</tr>
<tr>
<td>548-TG</td>
<td>Polymers-TG</td>
<td>Sun</td>
<td>2:00 pm-3:00 pm</td>
<td>PARLOR E</td>
</tr>
<tr>
<td>549</td>
<td>Thin Reinforced</td>
<td>Sun</td>
<td>9:30 am-2:00 pm</td>
<td>CHICAGO 8</td>
</tr>
<tr>
<td>549-A</td>
<td>Thin Reinforced-Glass Fiber Reinforced Concrete</td>
<td>Sun</td>
<td>8:30 am-10:30 am</td>
<td>MISSISSIPPI</td>
</tr>
<tr>
<td>550</td>
<td>Precast Structures</td>
<td>Sun</td>
<td>3:00 pm-5:00 pm</td>
<td>ARKANSAS</td>
</tr>
<tr>
<td>551</td>
<td>Tilt-up</td>
<td>Sun</td>
<td>9:00 am-11:00 am</td>
<td>OREGON</td>
</tr>
<tr>
<td>552</td>
<td>Cementitious Grouting</td>
<td>Tue</td>
<td>11:30 am-2:00 pm</td>
<td>MISSISSIPPI</td>
</tr>
<tr>
<td>555</td>
<td>Recycled</td>
<td>Mon</td>
<td>5:00 pm-6:30 pm</td>
<td>SUPERIOR B</td>
</tr>
<tr>
<td>560</td>
<td>Design &amp; Constr ICFs</td>
<td>Wed</td>
<td>8:30 am-11:30 am</td>
<td>MAYFAIR</td>
</tr>
<tr>
<td>562-A</td>
<td>Eval, Repair &amp; Rehab-Life Safety</td>
<td>Sat</td>
<td>5:00 pm-9:00 pm</td>
<td>ARKANSAS</td>
</tr>
<tr>
<td>562-B</td>
<td>Eval, Repair &amp; Rehab-Loads</td>
<td>Sun</td>
<td>8:00 am-9:00 am</td>
<td>COLORADO</td>
</tr>
<tr>
<td>562-C</td>
<td>Eval, Repair &amp; Rehab-Structural Analysis</td>
<td>Sat</td>
<td>5:00 pm-9:00 pm</td>
<td>SUPERIOR A</td>
</tr>
<tr>
<td>562-Co</td>
<td>Eval, Repair &amp; Rehab-Coordination Meeting</td>
<td>Sun</td>
<td>8:00 am-9:00 am</td>
<td>ONTARIO</td>
</tr>
<tr>
<td>562-D</td>
<td>Eval, Repair &amp; Rehab-Structural Repair Design</td>
<td>Sat</td>
<td>1:00 pm-3:00 pm</td>
<td>ARKANSAS</td>
</tr>
<tr>
<td>562-E</td>
<td>Eval, Repair &amp; Rehab-Durability Qty Assurance</td>
<td>Sat</td>
<td>5:00 pm-9:00 pm</td>
<td>OHIO</td>
</tr>
<tr>
<td>562-F</td>
<td>Eval, Repair &amp; Rehab-General</td>
<td>Sat</td>
<td>1:00 pm-5:00 pm</td>
<td>OHIO</td>
</tr>
<tr>
<td>563</td>
<td>Specs for Repair of Struct Conc in Bldgs</td>
<td>Tue</td>
<td>2:00 pm-5:00 pm</td>
<td>SUITE 1029</td>
</tr>
<tr>
<td>563-C</td>
<td>Excavation/Surface Preparation</td>
<td>Tue</td>
<td>7:00 am-9:00 am</td>
<td>SUITE 936</td>
</tr>
<tr>
<td>563-FG</td>
<td>Mixtures/Placing/Curing</td>
<td>Tue</td>
<td>7:00 am-9:00 am</td>
<td>SUITE 1029</td>
</tr>
<tr>
<td>563-H</td>
<td>Architectural/Precast Concrete</td>
<td>Tue</td>
<td>9:00 am-11:00 am</td>
<td>SUITE 1029</td>
</tr>
<tr>
<td>Code</td>
<td>Committee</td>
<td>Day</td>
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<tr>
<td>563-L</td>
<td>Proprietary Grouts/Concrete</td>
<td>Tue</td>
<td>7:00 am-9:00 am</td>
<td>PARLOR A</td>
</tr>
<tr>
<td>563-JK</td>
<td>Crack Repair/External Reinforcement</td>
<td>Tue</td>
<td>9:00 am-11:00 am</td>
<td>PARLOR A</td>
</tr>
<tr>
<td>563-L</td>
<td>Prestressed Concrete</td>
<td>Tue</td>
<td>7:00 am-9:00 am</td>
<td>MICHIGAN B</td>
</tr>
<tr>
<td>563-MN</td>
<td>Polymer Concrete Overlays/Protection Systems</td>
<td>Tue</td>
<td>7:00 am-9:00 am</td>
<td>COLUMBUS A&amp;B</td>
</tr>
<tr>
<td>563-P</td>
<td>Corrosion</td>
<td>Tue</td>
<td>9:00 am-11:00 am</td>
<td>COLUMBUS A&amp;B</td>
</tr>
</tbody>
</table>
NOTABLE CONCRETE

in CHICAGO

and Vicinity

Compiled by ACI Committee 124, Aesthetics

Co-sponsored by:

AIA Chicago

Download a copy of notable concrete projects at www.aciconvention.org
Sunday, March 21, 2010
8:00 am-9:00 am

Convention #1 Breakfast
CHICAGO 8
Sponsored by the ACI Convention Committee

Session Moderator: Kari Yuers
President & CEO
Kryton International, Inc.
Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session on convention activities. Attendees will have the opportunity to meet other convention attendees and learn about what an ACI convention has to offer. Be sure to also attend the following events throughout the week.

Monday, March 22 & Tuesday, March 23
8:00 am-8:30 am
Coffee at the Meeting Spot
River Exhibit Hall
Join other first-time attendees and convention veterans for morning coffee to discuss the days’ events and network.

1:00 pm-2:00 pm:
Mentors and Guides Available at the Meeting Spot
River Exhibit Hall
Grab a bite to eat from the concession stand in the exhibit area and meet convention veterans and other first-time attendees.

Tuesday, March 23
6:00 pm
Pre-Mixer Gathering
Chi Bar
Meet for a pre-mixer beverage with convention mentors and other attendees. Beverages will be available for purchase.

✓=separate fee required
87
Sunday, March 21, 2010
11:00 am-5:00 pm

Student Pervious Concrete and FRC Bowling
Ball Competitions

Pervious Concrete Competition—sponsored by ACI Committee S801, Student Activities, the ACI Illinois Chapter, the Center for Maximum Potential Building Systems (CMPBS), and the U.S. Green Building Council® (USGBC®)

FRC Bowling Ball Competition—sponsored by ACI Committees 544, Fiber Reinforced Concrete, S801, Student Activities, and the ACI Illinois Chapter

Thank you to Humboldt and Forney for donating the compression machines to be used in these competitions. Also, special thanks to Flood Testing Laboratories for transportation of the Humboldt machine.

Session Moderator: Lawrence H. Taber
Structural Engineer
Black & Veatch
Kansas City, MO

ACI’s nationally recognized student competitions offer students the opportunity to participate in interesting and educational concrete projects. This spring, students will compete in two competitions: the FRC Bowling Ball Competition and, for the very first time, the Pervious Concrete Competition. During the FRC Bowling Ball Competition, students will design and construct a fiber-reinforced concrete bowling ball that will achieve optimal performance under specified failure criteria and develop a fabrication process that produces a radial uniform density while maximizing volume. For the Pervious Concrete Competition, students will compete to create a pervious concrete specimen that maximizes permeability while maintaining a good splitting tensile strength. Come cheer on your favorite team during these spirited competitions.
Self-consolidating concrete is an important and significant advance within concrete technology that is having a major impact on concrete practice. This technical session will focus on the long-term performance of SCC.

Influence of Supplementary Cementing Materials and Fillers on the Transport Properties of SCC

Mohammed Sonebi, Senior Lecturer (Associate Professor), Queen’s University-Belfast, Belfast, United Kingdom

Frost Durability of Self-Consolidating Concrete Used in Repair Applications

Kamal H. Khayat, Professor, University of Sherbrooke, Sherbrooke, QC, Canada

Sulfate Resistance of Self-Consolidating Concrete

Mohamed Tamer Farouk Bassuoni, Lecturer (Assistant Professor), Queen’s University-Belfast, Belfast, United Kingdom

Durability of SCC: General Results Based on Hydration Studies and Microstructural Investigations

Geert De Schutter, Professor, Magnel Laboratory for Concrete Research, Ghent University, Ghent, Belgium

High-Temperature Resistance of Self-Consolidating Concrete

Patrick Bamonte, Assistant Professor, Milan University of Technology, Milan, Italy; and Pietro Gambarova, Milan University of Technology

Durability Characteristics of SCC Incorporating Metakaolin

Mohamed Lachemi, Professor, Ryerson University, Toronto, ON, Canada
Durability for Concrete of Pavements

SHERATON 1
Sponsored by ACI Committee 325, Pavements

Session Moderator: Peter C. Taylor
Associate Director
National Concrete Pavement Technology Center
Ames, IA

This session focuses on how concrete materials and their proportioning and placing can affect the potential durability of pavements. The session presented by invited experts in their fields will include discussion about testing methods and specifications.

Cementitious Binders for Durable Concrete Pavements 2:00 pm
Thomas J. Van Dam, Program Director, Applied Pavements Technology, Inc., Hancock, MI

Role of Aggregates in Durable Concrete 2:25 pm
James D. Powell, Technical Director, Vulcan Materials Co., Birmingham, AL

Mix Design and Proportioning for Durability 2:50 pm
Peter C. Taylor, Associate Director, National Concrete Pavement Technology Center, Ames, IA

The Effects of Construction Practices on Concrete Pavement Longevity 3:15 pm
Michael E. Ayers, Director of Education for Design and Construction, American Concrete Pavement Association, Skokie, IL

Testing Concrete Durability 3:40 pm
Tommy E. Nantung, Sections Manager, Indiana Department of Transportation, West Lafayette, IN

Concrete Pavement Durability: The Final Step—Maintaining the Durability 4:05 pm
Shiraz D. Tayabji, Regional Manager, Fugro Consultants Inc., Ellicott City, MD
Incorporating the ASCE Body of Knowledge

SHERATON 5

Sponsored by ACI Committee S802, Teaching Methods and Educational Materials

Session Co-Moderators:  
Fred Meyer  
Associate Professor and Director of Civil Engineering  
United States Military Academy  
West Point, NY

Shashi S. Marikunte  
Assistant Professor  
Pennsylvania State University  
Middletown, PA

The ASCE Body of Knowledge will become a requirement for civil engineering departments to be accredited by the Accreditation Board for Engineering and Technology and for civil engineers to be licensed. This session provides an overview of the topics that ASCE expects junior engineers to learn on the job before licensure. It will also cover several examples of how to cover non-traditional topics in concrete courses.

Presentation from the Walter P. Moore Award Winner  
2:00 pm  
Mahmoud M. Reda Taha, Associate Professor, University of New Mexico, Albuquerque, NM

Addressing the Project Management Outcome in a Design Course  
2:45 pm  
James H. Hanson, Assistant Professor, Rose-Hulman Institute of Technology, Terre Haute, IN

Incorporation of the ASCE Body of Knowledge (BOK) Based on Global Experiences  
3:07 pm  
Fred Meyer, Associate Professor and Director of Civil Engineering, United States Military Academy, West Point, NY; and Steve Hart, United States Military Academy

Teaching Sustainability to Engineers  
3:29 pm  
Daniel R. Lynch, MacLean Professor of Engineering, Dartmouth, Hanover, NH
Incorporating the ASCE Body of Knowledge (cont.)    SHERATON 5

Tracking Student Performance Using Bloom's Taxonomy  3:51 pm
Keith Thompson, Assistant Professor, University of Wisconsin, Platteville, Platteville, WI

Incorporating Teamwork and Communication in an Undergraduate Concrete Course  4:13 pm
Laurel M. Dovich, Professor, Walla Walla University, Spokane, WA

Incorporating the ASCE Body of Knowledge into a Multi-Disciplinary Design Project  4:35 pm
Charles W. Dolan, Professor, University of Wyoming, Laramie, WY
The provision of appropriate fire safety measures to structural members is a major safety requirement in building design since fire represents a significant hazard in built infrastructure. Recent research and development efforts have focused on developing rational design approaches, innovative mixture designs, constitutive models for high temperature material properties, and advanced computational techniques for enhancing fire resistance of concrete structures. In this session, findings from the recent development activities on the fire performance of concrete (reinforced and prestressed) and masonry systems will be presented through eight presentations. This session is expected to benefit practicing engineers and lead to wider use of innovative design approaches and materials in building applications.

Introduction to ACI Committee 216 and Current Committee Activities 2:00 pm
Venkatesh Kumar Kodur, Professor, Michigan State University, East Lansing, MI

Bond Strength Degradation for Prestressed Steel and Carbon FRP Bars in Ultra High-Performance Concrete at Elevated Temperatures 2:05 pm

Stress Block Parameters for Reinforced Concrete Beams Exposed to Elevated Temperatures 2:25 pm
Maged A. Youssef, Associate Professor, The University of Western Ontario, London, ON, Canada; and S.F. El-Fitiany, The University of Western Ontario
Innovations in Fire Design of Concrete Structures (cont.)

An Analytical Method for Assessing the Strength of Concrete Structural Elements During and After Fire

Martin Gillie, Lecturer, University of Edinburgh, Edinburgh, Scotland; and Angus Law, University of Edinburgh

A Macroscopic Finite Element Computer Model for Tracing Fire Response of Reinforced Concrete Columns

Nikhil Raut, PhD Candidate, Michigan State University, East Lansing, MI; and Venkatesh Kumar Kodur, Michigan State University

Reinforced Concrete Bearing Walls Under Elevated Temperatures

Yahya C. Kurama, Associate Professor and Director of Graduate Studies, University of Notre Dame, Notre Dame, IN; and Kevin Mueller, University of Notre Dame

Effect of Temperature on Tensile Strength of High-Strength Concrete

Venkatesh Kumar Kodur, Professor, Michigan State University, East Lansing, MI; and Wasim Khaliq, Michigan State University

Review of High Temperature Properties of High-Strength Concrete

Long T. Phan, Research Structural Engineer, National Institute of Standards and Technology, Gaithersburg, MD

Experience with Full-Scale Tests for Concrete Tunnel Constructions

Frank Dehn, Executive Director, Leipzig Institute for Materials Research and Testing, Leipzig, Germany
Ultra High-Performance Concrete for Bridges
SHERATON 3
Sponsored by ACI Committee 343, Bridge Design
Session Moderator: Shrinivas B. Bhide
Director of Engineering
Bentley Systems, Inc.
Sunrise, FL

Ultra high-performance concrete (UHPC) offers exceptional strength and durability properties. The result is efficient, long-lasting, and economic structures. This session will present material properties, design philosophies, current research, and case studies of UHPC bridges from around the world.

Innovative Application of Ultra High-Performance Concrete with Fiber-Reinforced Polymer Tubes in Columns
2:00 pm
Amir Mirmiran, Professor and Chair, Florida International University, Miami, FL; and Pedram Zohrevand, Florida International University

Innovative Field-Cast UHPC Joints for Precast Bridge Deck Panels
2:20 pm
Vic Perry, Professional Engineer, Lafarge North America Inc., Calgary, AB, Canada; and Matthew Royce, New York State Department of Transportation

Interface Shear Performance of Precast Prestressed Ultra High-Performance Bridge Girder with Cast-in-Place Concrete Deck
2:40 pm
Lawrence F. Kahn, Professor, Georgia Institute of Technology, Atlanta, GA; and Charles Crane, Georgia Institute of Technology

Ultra High-Performance Concrete Structural Components
3:00 pm
Benjamin Graybeal, Research Structural Engineer, Federal Highway Administration, Maclean, VA

Marine Performance and Chloride Resistance of UHPC
3:20 pm
Michael Thomas, Professor, University of New Brunswick, Frederickton, NB, Canada; and Vic Perry, Lafarge North America Inc.

Optimization of Highway Bridge Girders for Use with Ultra High-Performance Concrete
3:40 pm
Carin L. Roberts-Wollmann, Professor, Virginia Polytechnic Institute, Blacksburg, VA; Michael Woodworth, Thomas Cousins, and Elisa Sotelino, Virginia Polytechnic Institute
Ultra High-Performance Concrete for Bridges (cont.)  SHERATON 3

Ultra High-Performance Fiber-Reinforced Concrete in Footbridges  4:00 pm
Gamal Ghoneim, Senior Structural Engineer, Cohos Evamy Partners, Calgary, AB, Canada; Gerald Carson, Cohos Evamy Partners; and Vic Perry, Lafarge North America Inc.

Ultra High-Performance Concrete Research at Virginia Tech  4:20 pm
Christopher D. Moen, Assistant Professor, Virginia Polytechnic Institute, Blacksburg, VA; Vathana Poev, Kacie D’Alessandro, Carin Roberts-Wollmann, Thomas Cousins, and Elisa Sotelino, Virginia Polytechnic Institute

Ultra High-Performance Concrete for Bridge Double T Girders  4:40 pm
George Morcous, Assistant Professor, University of Nebraska-Lincoln, Omaha, NE
Sunday, March 21, 2010
5:15 pm-6:30 pm

Opening Session & Awards Program
The ACI Spring 2010 Convention officially begins during the Opening Session. Here, ACI will recognize different individuals and groups for their contributions to ACI and achievements in the concrete industry. Congratulations to the following awardees!

HONORARY MEMBERSHIP
Daniel L. Baker
Angel Herrera
Brad D. Inman
H. S. Lew
Surendra P. Shah

50 YEAR MEMBERS
Charles Ang
Edward Aziz
John Brunalli
Emery Farkas
D. Gene Daniel
Kenneth D. Hansen
John M. Hanson
Kal Hindo
D. Kennedy
L. Robert Kimball
Eleusipo Labrada*
Joseph F. Lamond
Murray Low
Ronald B. McPherson
Bernard L. Meyers
Donald E. Milks
Warren Minner
Isam (Sam) Munir
Dan Ravina
Dennis E. Roby
Henry Rouillard
Stuart Thompson
James Warner
J. Craig Williams
Leonard Woodruff
Asim Yeginobali

FELLOW
James Aldred
Robert W. Barnes
Oguzhan Bayrak
Evan C. Bentz
Young Soo Chung
Cesar A. Constantino
Juan Pablo Covarrubias
Russell L. Hill
Marc Jolin
Jose Daniel Damazo-Juarez
Kimberly E. Kurtis
Laura N. Lowes
Paul F. Mlakar
John W. Nehasil
Lawrence C. Novak
Gianfranco Ottazzi
Long T. Phan
Jose I. Restrepo
David M. Rogowsky
Harry C. Roof
David A. Rothstein
Larbi M. Sennour
John F. Silva
Sri Sritharan
Michael C. Stenko
Thomas J. Van Dam
Kolluru V. Subramaniam
Arthur T. Weiss, Jr.
W. Jason Weiss
Yan Xiao
Kari Yuers

*deceased
Sunday, March 21, 2010
5:15 pm-6:30 pm

ACI AWARDEES (cont.)

PERSONAL AWARDS

ARTHUR R. ANDERSON MEDAL
Ward R. Malisch

ROGER H. CORBETTA CONCRETE CONSTRUCTOR AWARD
Bruce A. Suprenant

JOE W. KELLY AWARD
Ken Bondy

HENRY L. KENNEDY AWARD
Jon B. Ardahl

ALFRED E. LINDAU AWARD
Ron Klemencic

HENRY C. TURNER MEDAL
Concrete Reinforcing Steel Institute

CHARLES S. WHITNEY MEDAL
Baker Concrete Construction, Inc.

DISTINGUISHED ACHIEVEMENT AWARD
Illinois Ready Mixed Concrete Association

PAPER AWARDS

WASON MEDAL FOR MOST MERITORIOUS PAPER
Gary J. Klein

WASON MEDAL FOR MATERIALS RESEARCH
Michael D. A. Thomas, Allan Scott, Theodore W. Bremner, Alain Bilodeau, and Donna C. Day

ACI CONSTRUCTION AWARD
Victor H. Villarreal

CHESTER PAUL SIESS AWARD FOR EXCELLENCE IN STRUCTURAL RESEARCH
Aurelio Muttoni

ACI DESIGN AWARD
Hartwig N. Schneider and Ingo Bergmann

CHAPTER ACTIVITIES AWARD (DOMESTIC)
J. Mitchell Englestead Mike Murray

CHAPTER ACTIVITIES AWARD (INTERNATIONAL)
Mohammed H. Al-Nagadi Mario A. Chiorino

ACI YOUNG MEMBER AWARD FOR PROFESSIONAL ACHIEVEMENT
Maria Juenger Nakin Suksawang Jennifer Tanner
ACI AWARDEES (cont.)

DELMAR L. BLOEM
DISTINGUISHED SERVICE AWARD
V. Tim Cost
Russell L. Hill
Michael S. Stenko

ACI CERTIFICATION AWARD
Vartan Babakhanian
David Darwin
Mario R. Diaz

ACI FOUNDATION—CONCRETE RESEARCH COUNCIL BOASE AWARD
Sami Hanna Rizkalla

ACI FOUNDATION—CONCRETE RESEARCH COUNCIL PHILLEO AWARD
H. Celik Ozyildirim

WALTER P. MOORE, JR. FACULTY ACHIEVEMENT AWARD
Mahmoud Reda Taha

2009 EXCELLENT CHAPTERS
Arizona
Georgia
Illinois
India
Iran
Kansas
Louisiana
Missouri
New Jersey
New Mexico
Northeast Texas
Peru
Pittsburgh
San Antonio

2009 OUTSTANDING CHAPTERS
Carolinhas
Central and Southern Mexico
Eastern Pennsylvania and Delaware
Ethiopia
Florida Suncoast
Indiana
Intermountain
Las Vegas
Nebraska
Northeast Mexico
Ontario
San Diego International
Southern California
Sunday, March 21, 2010
6:30 pm-7:30 pm

Opening Reception
RIVER EXHIBIT HALL
Sponsored by the ACI Illinois Chapter

After the Opening Session, make your way to the exhibit hall to enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees! This is a networking opportunity you won’t want to miss!

Following the Opening Reception, experience one of Chicago’s fine restaurants. Visit the ACI Illinois Chapter Desk for suggestions.
Following its long tradition, ACI Committee 123 brings industry experts together to debate on another subject and to share their views with ACI patrons. The debate this time is whether it is justified to reclassify fly ash as a hazardous waste. Based on more than one-half century of research and application, today fly ash is the most commonly used supplementary cementitious material. We can produce good quality durable concrete by replacing as much as 50% of portland cement with fly ash. Since the production of portland cement is associated with greenhouse gas emissions, minimizing the use of portland cement and maximizing the use of supplementary cementitious materials is a substantial contribution to sustainable development, and fly ash does just that. Also, when fly ash is used in concrete, most harmful metals in the material are safely immobilized by the hydration reactions of cement, which could otherwise be hazardous if not disposed of properly.

If fly ash is reclassified as a hazardous waste, the big question is what implications it would have on the advances the concrete industry has made towards a sustainable concrete construction. Would fly ash still be included in concrete standards and specifications due to fear of liability and litigation? What alternatives would the concrete industry have in reducing CO$_2$ emissions associated with the production of portland cement? What alternatives would the concrete industry have in reducing the heat of hydration and consequently cracking and reduced service life of mass concrete structures such as dams? What alternatives would the concrete industry have in producing low permeability watertight structures with long service life? How would this reclassification impact major on-going construction projects designed and specified with fly ash? Could this reclassification jeopardize construction projects currently being performed under American Recovery and Reinvestment Act (ARRA)? What impact would reclassification have on the economic growth of the nation?
123 Forum: Fly Ash Contributes to Sustainable Concrete Construction—Is It Justified to Reclassify the Material as a Hazardous Waste? (cont.)

Our panelists in Chicago will address these and many other questions, and after discussing the subject with them you should be able to make an assessment whether reclassification of fly ash as a hazardous waste is a step forward or a step backward.

Introduction

Mohammad S. Khan, Senior Vice President, Professional Service Industries, Inc., Herndon, VA

Reclassification Impacts—A Global Perspective

Anne Ellis, Vice President of Government Affairs, AECOM, Alexandria, VA

Liability, Litigation, and Stigma—3 Barriers to Progress

Thomas H. Adams, Executive Director, American Coal Ash Association, Aurora, CO

The Potential Consequences of Reclassifying Fly Ash as a Hazardous Waste in Florida

Christopher Ferraro, Structural Materials Research Engineer, Florida Department of Transportation, Gainesville, FL

The Beneficial Use of Fly Ash in Pavements:

The Concrete Pavement Industry’s Perspective

Leif Wathne, Vice President of Highways and Federal Affairs, American Concrete Pavement Association, Washington, DC

Questions, Answers, and Discussion
The ACI Collegiate Concrete Council and Student and Young Professional Activities Committee invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages and/or appetizers.
Monday, March 22, 2010
6:30 am-8:15 am

Workshop for Technical Committee Chairs
Sponsored by the ACI Technical Activities Committee

Session Moderator: David H. Sanders
Professor
University of Nevada, Reno
Reno, NV

ACI Technical Committee Chairs are expected to attend this breakfast workshop to meet with fellow Chairs, TAC members, and ACI staff and to hear updates on important recent developments of interest to ACI Technical Committee Chairs. There will be table discussions and short presentations. If you are unable to attend, please ask the Secretary or another committee member to represent you in your absence.
Session Moderator: James H. Hanson  
Assistant Professor  
Rose-Hulman Institute of Technology  
Terre Haute, IN

Speaker: Chris Carroll  
Assistant Professor  
University of Louisiana at Lafayette  
Lafayette, LA

Topic: The Use of a Tablet PC for a Presentation

This presentation will focus on the use of Tablet PC’s for presentations. Tablet PC’s are becoming more popular in academia amongst faculty and students, with some schools requiring students to purchase a Tablet PC prior to enrollment in an engineering program. While this push seems to be towards creating a more automated workforce, the most useful application of Tablet PC’s can be seen in classroom instruction. Tablet PC’s may be the most useful tool when creating active learning environments. By using a Tablet PC during lectures, faculty can use skeleton file formats which allow students the opportunity to focus more attention on important items and spend less time on sketches and drawings that so often distract students from key points during a lecture. If this concept works in a classroom setting, why should it be limited to classroom settings?

Many engineers present projects and give professional seminars on a regular basis as part of their careers. On too many occasions, PowerPoint presentations are given with information overload. In these situations, viewers leave the presentation overwhelmed and unable to pinpoint the presenter’s main objective. By using techniques similar to those used with Tablet PC’s in active learning style teaching environments, presenters can also keep the focus of the viewers and emphasize key points in their presentations. This presentation will give examples of both applications; a typical lecture and a professional seminar.
Monday, March 22, 2010
7:30 am-8:30 am

Chapter Forum
Sponsored by the Chapter Activities Committee

What is required of chapters in regards to filing the IRS 990 form? Is your chapter incorporated correctly? Donna Halstead, ACI’s Managing Director of Finance and Administration will address these common questions.
Tilt-up concrete is both a frontier and a staple in the building industry. Although largely considered an industrial building system, today's market exhibits design and construction accomplishments that are achieved through effective collaboration of architects, engineers, and contractors. Attendees of this session will uncover the historical significance of tilt-up design and construction, and develop a solid foundation of the capabilities and technologies that enable the present and future to be dominated by this building method for low- to mid-rise construction.

**Historical Significance of Slender Wall Test**

*9:00 am*

James S. Lai, Retired Structural Engineer, La Cañada Flintridge, CA

**Code Changes That Effect Tilt-Up Concrete Design**

*9:30 am*

John W. Lawson, Assistant Professor, California Polytechnic State University, San Luis Obispo, CA

**The Role of Steel**

*10:00 am*

Anthony I. Johnson, Production Application Engineering, Concrete Reinforcing Steel Institute, Rochester Hills, MI

**Seismic Performance of Concrete Tilt-Up Walls**

*10:30 am*

Perry Adebar, Associate Professor, University of British Columbia, Vancouver, BC, Canada; Kenneth J. Elwood, University of British Columbia

**Hybrid System Design & Construction**

*11:00 am*

Jeff Griffin, Senior Project Manager, LJB Inc., Dayton, OH
Recent Advances in Maintenance and Repair of Concrete Bridges

SHELTON 5
Sponsored by ACI Committee 345, Concrete Bridge Construction, Maintenance and Repair

Session Moderator: Yail Jimmy Kim
Assistant Professor
North Dakota State University
Fargo, ND

This special session will focus on current technology for concrete bridge repair and maintenance. The presentations and technical papers will include case studies of damages and corresponding repair due to extreme events, state-of-the-art repair technologies, evaluation and inspection techniques, and maintenance of existing concrete bridges.

The Effect of Snapping the Prestress Wires for Box Beams Subjected to Combined Load

9:00 am
Mokhtar M. Aburawi, Professor, Al Marghab University, Alkhoms, Libya; and Ali Mohamed, Engineering Academy in Tajura

Seismic Rehabilitation of RC Bridges by Using FRP and SRP: Case Study of a Bridge in the South of Italy

9:20 am
Marco Di Ludovico, Assistant Professor, University of Naples, Naples, Italy; Roberto Cuzzilla, Andrea Prota, and Gaetano Manfredi, University of Naples

Bridge Inspection and Repair in Cold Regions

9:40 am
Amer Hmidan, PhD Student, North Dakota State University, Fargo, ND; and Jimmy Kim, North Dakota State University

Use of Non-Destructive Evaluation Techniques to Localize Occurring Damage in RC Structure Exposed to a Marine Environment

10:00 am
Antonio Nanni, Professor and Chair, University of Miami, Coral Gables, FL; Rossella M. Ferraro, Alexander Suma, Fabio Matta, and Brian Metrovich, University of Miami

Evaluation of Fire-Damaged Bridges

10:20 am
Scott T. Wyatt, Senior Bridge Engineer, CTLGroup, Skokie, IL
Recent Advances in Maintenance and Repair of Concrete Bridges (cont.)

Technical Demands for Preventive Bridge Maintenance 10:40 am
Johan L. Silfwerbrand, Professor, Royal Institute of Technology, Stockholm, Sweden

FRP Retrofit for a Historic Arch Bridge in Southern Ontario 11:00 am
Khaled A. Soudki, Canada Research Chair, University of Waterloo, Waterloo, ON, Canada; Scott Davis, AECOM; and Christine Beard Laaber, Town of South Bruce Peninsula

Texas’ Use of CFRP to Repair Concrete Bridges 11:20 am
Brian Merrill, State Bridge Construction and Maintenance Engineer, Texas Department of Transportation Bridge Division, Austin, TX; Dingyi Yang and Timothy E. Bradberry, Texas Department of Transportation
Research in Progress

SHERATON 1
Sponsored by ACI Committee 123, Research and Current Developments

Session Co-Moderators:  
Aleksandra Radlinska  
Assistant Professor  
Villanova University  
Villanova, PA  

Farshad Rajabipour  
Assistant Professor  
The Pennsylvania State University  
University Park, PA

The session will feature presentations of original unpublished results from ongoing research projects and leading-edge concrete technology and research throughout the world.

James Instruments Awardee Presentation  
9:00 am
Investigation of Delaminations in Concrete Using Air-Coupled Impact Echo Method
Taekeun Oh, PhD Student, University of Illinois at Urbana-Champaign, Urbana, IL

Experimental Examination of Confinement Reinforcement in Pretensioned Concrete Beams  
9:05 am
Brandon E. Ross, PhD Student and Research Assistant, University of Florida, Gainsville, FL; and H.R. Hamilton, University of Florida

Bond and Shear Behavior of Beams Containing Lightweight Synthetic Particles  
9:20 am
Sami H. Rizkalla, Distinguished Professor of Civil Engineering and Construction, and Director Constructed Facilities Laboratory, North Carolina State University, Raleigh, NC; and Matthew J. Heiser, Amr I. Hosny, and Paul Zia, North Carolina State University

Use of Mixed Mode Fracture Interfaces for the Modeling of FRP Strengthened Beams  
9:35 am
Jae Ha Lee, PhD Candidate, The Pennsylvania State University, State College, PA; and Maria M. Lopez, The Pennsylvania State University

Long Term Behavior of Integral Abutment Bridges  
9:50 am
Matthew D. Lovell, Graduate Assistant, Purdue University, West Lafayette, IN; and Robert J. Frosch, Purdue University

Monday, March 22, 2010  
9:00 am-12:00 pm
Monday, March 22, 2010
9:00 am-12:00 pm

Research in Progress (cont.) SHERATON 1

An Integrated Framework for Creation and Assessment of Sustainable Construction Processes 10:05 am
Jacqueline Thompson, PhD Candidate and Sustainable Construction Research Specialist, Arizona State University, Tempe, AZ; and Howard H. Bashford, Arizona State University

Integrating 3D Imaging and Discrete Element Modeling for Concrete Fracture Problems 10:20 am
Eric Landis, Professor and Chair, University of Maine, Orono, ME; John Bolander and Daisuke Asahina, University of California–Davis; and Sean de Wolski, University of Maine

The Effect of Coatings Used to Mitigate Alkali-Silica Reaction and/or Delayed Ettringite Formation 10:35 am
Evan R. Wehrle, Graduate Research Assistant, University of Texas, Austin, TX; and Kevin Folliard, University of Texas

Influence of Stranding on Chloride Threshold Levels in Prestressing Steels: Test Method and Preliminary Results 10:50 am
Robert D. Moser, Doctoral Candidate, Georgia Institute of Technology, Atlanta, GA; and Lawrence F. Kahn, Kimberly E. Kurtis, and Preet M. Singh, Georgia Institute of Technology

Research Progress with ASTM C1202 Chloride Test 11:05 am
Peter Claisse, Professor, Coventry University, Coventry, United Kingdom

Mechanical Properties of Fiber-Reinforced Aerated Concrete (AFRC) 11:20 am
Aboozar Bonakdar, Graduate Student, Arizona State University, Tempe, AZ; and Barzin Mobasher, Arizona State University

Evaluating the Effect of Methods and Calculation Techniques on Apparent Activation Energy (Ea) of Cementious Materials 11:35 am
Md. Sarwar Siddiqui, Graduate Student, Kansas State University, Manhattan, KS; and Kyle Riding, Kansas State University

Extending Internal Curing to Concrete Mixtures with w/c Higher than 0.42 11:50 am
Mauricio Lopez, Assistant Professor, Pontificia Universidad Católica de Chile, Santiago, Chile
Part one of this session will highlight Tony Fiorato’s many technical contributions to the concrete industry. Presentations that focus on Fiorato’s contribution in the codes arena will include an overview of the relationship between ACI and ASTM standards in cement and concrete technology, harmonization of cement standards, reorganization of the ACI 318 building code, and rationalization of concrete core testing protocols.

ACI and ASTM: Cementing the Relationship  
Nicholas J. Carino, Concrete Materials Consultant, Chagrin Falls, OH  
9:00 am

Code of Millennium, Reorganization of ACI 318  
W. Gene Corley, Senior Vice President, CTLGroup, Skokie, IL  
9:30 am

ACI’s Approach to Durability in ACI 318-08: A More Rational Approach  
Terence C. Holland, Consulting Engineer, Concrete Terry LLC, Auburn Township, OH  
10:00 am

Evaluation of Pre-Test Moisture Conditioning of Concrete Cores on Measured Compressive Strength  
Ronald G. Burg, Vice President, CTLGroup, Skokie, IL  
10:30 am

Harmonization of Cement Specifications  
Al Innis, Vice President Product Performance, Holcim (US) Inc., Dundee, MI  
11:00 am

Effect of Cement Properties on Concrete Performance  
Peter C. Taylor, Associate Director, National Concrete Pavements Technology Center, Ames, IA  
11:30 am
Textile Reinforced Concrete—Modern Developments, Part 1

SHERATON 3

Sponsored by ACI Committee 549, Thin Reinforced Cementitious Products and Ferrocement

Session Moderator: Ashish Dubey
Research Associate
USG Corporation
Libertyville, IL

This technical session highlights recent advances in the field of textile reinforced concrete (TRC). Topics covered in the symposium include novel textile reinforcements for concrete, mechanical behavior, durability performance, thermal and fire behavior, modeling and structural design aspects, production methods, and practical applications of textile reinforced concrete. Practicing engineers, architects, structural designers, specifiers, contractors, academicians, and researchers with an interest in the field of textile reinforced concrete will find this technical session highly pragmatic and useful to their professional development.

Introduction 9:00 am
Ashish Dubey, Research Associate, USG Corporation, Libertyville, IL

Influence of Matrix Composition and Short Fibres on the Workability of Fibre Concrete 9:05 am
Wolfgang Brameshuber, Professor and Chair, Institute of Building Materials and Research—RWTH Aachen University, Aachen, Germany; and Marcus Hinzen, Institute of Building Materials and Research—RWTH Aachen University

Durability of Textile Reinforced Concrete 9:30 am
Till Büttner, Professor, Institute of Building Materials and Research—RWTH Aachen University, Aachen, Germany; and Allessandra Keil and Michael Raupach, Institute of Building Materials and Research—RWTH Aachen University

Behavior of Textile Reinforced Concrete Strengthened RC-Structures Under Fire Loading 9:55 am
Daniel Ehlig, Professor, Institute of Concrete Structures—Dresden University of Technology, Dresden, Germany; and Frank Jesse and Manfred Curbach, Dresden University of Technology
Monday, March 22, 2010
9:00 am-12:00 pm

Textile Reinforced Concrete—Modern Developments, Part 1 (cont.)

Corrosion Protection of Steel Reinforced Concrete Structural Members in Repair and Strengthening Using TRC  
10:20 am
Matthias Lieboldt, Professor, Institute of Concrete Structures—Dresden University of Technology, Dresden, Germany; and Viktor Mechtcherine, Dresden University of Technology

Preformed Textile Reinforcements for Thin-Walled Textile Reinforced Sandwich Building Members  
10:45 am
Steffan Janetzko, Professor, Institute for Textile Technology—RWTH Aachen University, Aachen, Germany

On the Mechanical Behavior of Carbon and Glass Fiber Filament Yarns Under Long-Term Load  
11:10 am
Ayham Younes, Professor, Institute of Textile and Clothing Technology—Dresden University of Technology, Dresden, Germany; Chokri Cherif, Thomas Engler, and Andre Seidel, Institute of Textile and Clothing Technology—Dresden University of Technology

High-Speed Tensile Testing of Textile Composites  
11:35 am
Deju Zhu, PhD Student, Arizona State University, Tempe, AZ; Barzin Mobasher, Arizona State University; and Alva Peled and Zvi Cohen, Ben Gurion University
Exhibitor Demonstrations

Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22nd and 23rd from 9:00 am to 3:30 pm. Presentations may demonstrate equipment operation, introduce new products, demonstrate software capabilities, or describe the services provided by each participating company. These presentations may include PowerPoint shows, videos, and even hands-on workshops. Each demonstration will conclude with a question and answer period. Attendees representing all areas of the concrete industry will find the demonstrations both interesting and educational. Learn more about the products and services offered by the following companies:

<table>
<thead>
<tr>
<th>Time</th>
<th>Exhibitor</th>
<th>Presentation/Demo Title</th>
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<tbody>
<tr>
<td>9:00 am</td>
<td>Vector Corrosion Technologies</td>
<td>XMesh Gold Cementitious Fibre Reinforced Structural Strengthening</td>
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<tr>
<td>9:45 am</td>
<td>QuakeWrap Inc.</td>
<td>SuperLaminates™, the next Generation of FRP</td>
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<tr>
<td>10:30 am</td>
<td>BASF Construction Chemicals</td>
<td>Introducing a revolutionary workability admixture</td>
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<tr>
<td>11:15 am</td>
<td>Kryton</td>
<td>Integral Waterproofing using KIM crystallization admixtures</td>
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<tr>
<td>12:00 pm</td>
<td>South Atlantic LLC</td>
<td>Recent Research on Galvanized Rebar</td>
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<tr>
<td>12:45 pm</td>
<td>Tekla Inc.</td>
<td>BIM for the Concrete Industry</td>
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<tr>
<td>1:30 pm</td>
<td>Proceq</td>
<td>Introducing the New SilverSchmidt Concrete Test Hammer</td>
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<tr>
<td>2:15 pm</td>
<td>GSSI</td>
<td>Introduction to Ground Penetrating Radar for Concrete Inspection</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Engius LLC</td>
<td>IntelliRock and Concrete Maturity</td>
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For a complete listing of each demonstrator and the time of their presentation, pick up the flyer in the Registration area, or refer to signs located in front of the Demonstration Area located in the River Exhibit Hall.
Monday, March 22, 2010
12:00 pm-2:00 pm

✓ Student Lunch

CHICAGO 6&7
$50 U.S. per person; FREE to students who preregister
Sponsored by Baker Concrete Construction, Inc.

Coordinated by the ACI Illinois Chapter and ACI Committee S801, Student Activities

Speaker: George Tuhowski III
General Superintendent and Director of Sustainability
Leopardo Companies
Hoffman Estates, IL

Topic: The Importance of Sustainable Design

Join other ACI attendees and students for the results of the Student Competitions. Following the awards, featured speaker George Tuhowski III, LEED AP and General Superintendent and Director of Sustainability at Leopardo Companies, will discuss the importance of sustainable design and the significance of thinking “green” when designing future structures. Recently completed LEED projects in Chicago will be highlighted.

PREREGISTRATION IS REQUIRED TO ATTEND.
Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

✓ = separate fee required

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Aqua Building Presentation and Tour
Tour 1: 12:00 pm-1:30 pm—SOLD OUT
Tour 2: 12:30 pm-2:00 pm—Registration Required
Meet at the Aqua Building—225 North Columbus Drive
(approximately 4 blocks from Sheraton)
Coordinated by ACI Committee 124, Concrete Aesthetics

Take a tour of Aqua and hear from James McHugh Construction about how this striking new concrete tower was built. Aqua is an 82-story mixed-use residential skyscraper. To capture views of nearby landmarks, the architect stretched Aqua’s balconies outward, resulting in the building’s wave-like forms and irregularly shaped concrete floor slabs. Note: The roof will be accessed by a fixed ladder. Please dress appropriately.
Monday, March, 22, 2010
2:00 pm-5:00 pm

Effects of Micro- and Macro-cracking on Durability
SHERATON 5
Sponsored by ACI Committees 201, Durability of Concrete, and 224, Cracking

Session Co-Moderators: Ralf Leistikow
Principal and Branch Manager
Wiss, Janney, Elstner Associates, Inc.
Duluth, GA

Lawrence J. Valentine
Director of Technical Services
ShrinkageComp Plus, Inc.
Concord, NC

Presenters will discuss the impact of micro- and macro-cracking can have on the long- and short-term durability of concrete in a variety of applications.

Long-Term Water Permeability of Cracks in Concrete
2:00 pm
Hans W. Reinhardt, Professor, University of Stuttgart, Stuttgart, Germany

Durability of Partially Cracked Axial Concrete Members Subjected to Harsh Environments
2:20 pm
Mozahid Hossain, Master’s Degree Student, North Dakota State University, Fargo, ND; and Yail Kim, North Dakota State University

Investigating the Effect of Cracking on Concrete Permeability as a Function of Crack Width and Tortuosity
2:40 pm
Farshad Rajabipour, Associate Professor, University of Hawaii at Manoa, Honolulu, HI; and Alireza Akhavan, University of Hawaii at Manoa

Shrinkage Compensation for Greater Durability
3:00 pm
Lawrence J. Valentine, Director of Technical Services, ShrinkageComp Plus, Inc., Concord, NC

Recent Advances on Self-Healing of Cement-Based Materials
3:20 pm
Erik Schlangen, Associate Professor, Delft University of Technology, Postbus, Netherlands
Effects of Micro- and Macro-cracking on Durability (cont.)

X-Ray Absorption Measurements of Fluid Ingress Cracked Concrete Under Load

Amir Poursaei, Research Assistant Professor, Purdue University, West Lafayette, IN; and Jason Weiss, Purdue University

Experimental Considerations for Studying the Impact of Cracks on Reinforcement Corrosion

Mette Geiker, Associate Professor, Technical University of Denmark, Kongens Lyngby, Denmark

Micro-cracked Concrete Tension Members Retrofitted with Near-Surface Mounted CFRP Strips Subjected to Wet-Dry Cycles

Arifur Rahman, Master’s Degree Student, North Dakota State University, Fargo, ND; and Yail Kim, North Dakota State University
Tilt-up concrete is both a frontier and a staple in the building industry. Although largely considered an industrial building system, today’s market exhibits design and construction accomplishments that are achieved through effective collaboration of architects, engineers, and contractors. Attendees of this session will uncover the historical significance of tilt-up design and construction and develop a solid foundation of the capabilities and technologies that enable the present and future to be dominated by this building method for low- to mid-rise construction.

**Extreme Measures of Education**  
*2:00 pm*

Kimberly Kramer, Director of Graduate Studies, Kansas State University, Manhattan, KS

**Total Site Cast Precast Concrete Solutions for Today’s Parking Structures**  
*2:30 pm*

Joseph J. Steinbicker, Principal, Steinbicker & Associates, LLC, Dayton, OH

**How Did They Build That? Non-Traditional Tilt-Up Structures**  
*3:00 pm*

William R. Braswell, Senior Vice President, BBM Structural Engineers Inc, Longwood, FL

**Detailing Tilt-Up Panels Using Revit Structure**  
*3:30 pm*

Philip S. Kopf, President, Kopf Consulting Group, Marietta, GA

**BIM Systems and Collaborative Technology for Tilt-Up Design and Construction**  
*4:00 pm*

Shane Walters, Design Engineer, Tilt-Up Design Systems, LLC, Heathrow, FL

**Tilt-Up: Engineering and Construction Partner to New Heights**  
*4:30 pm*

James R. Baty, Technical Director, Tilt-Up Concrete Association, Mount Vernon, IA
Limit states are of a fundamental importance in the new generation of load and resistance factor design (LRFD) codes including AASHTO LRFD. So far, the major effort has focused on ultimate (strength) limit states. Yet, in many cases, it is the serviceability limit state (SLS) that governs the design. There is an urgent need to verify the adequacy of the current design criteria for SLS and, if needed, to develop rational provisions.

**Introduction**

2:00 pm

Hani H. Nassif, Associate Professor, Rutgers University, Piscataway, NJ

**Behavior of Beams Prestressed with Unbonded Tendons at the Serviceability Limit State**

2:05 pm

Hani H. Nassif, Associate Professor, Rutgers University, Piscataway, NJ; and Ozgur Ozkul, Leslie E. Robertson Associates

**Deflection Control: Dealing with Uncertainty**

2:30 pm

Andrew Scanlon, Professor, Pennsylvania State University, University Park, PA

**Camber Variability in Pretensioned Concrete Members**

2:55 pm

Kromel Hanna, PhD Student, University of Nebraska-Lincoln, Lincoln, NE; and Maher K. Tadros, University of Nebraska

**Target Reliability for Serviceability Limit States**

3:20 pm

Andrzej S. Nowak, Professor, University of Nebraska—Lincoln, Lincoln, NE; and Piotr Paczkowski, University of Nebraska—Lincoln
Monday, March, 22, 2010
2:00 pm-5:00 pm

Serviceability Limit States for Concrete Structures (cont.)

Deflection Control of Steel and FRP Reinforced Concrete
Peter H. Bischoff, Professor, University of New Brunswick, Fredericton, NB, Canada
3:45 pm

Tensile Stress Limits in Webs of Segmental Concrete Bridges
Ayman M. Okeil, Assistant Professor, Louisiana State University, Baton Rouge, LA
4:10 pm

Prediction of Long-Term Prestress Loss in High-Strength Concrete
Amgad F. Girgis, Structural Engineer, Kiewit Engineering Co., Omaha, NE; and Maher K. Tadros, University of Nebraska-Lincoln
4:35 pm
Technical Session in Honor of Tony Fiorato, Part 2
SHERATON 4
Sponsored by the ACI Illinois Chapter

Session Co-Moderators:  Ronald G. Burg
                       Vice President
                       CTLGroup
                       Skokie, IL
                       James M. Clarke
                       Quality Control Director
                       Prairie Material
                       Bridgeview, IL

Part two of this session continues with presentations that highlight Tony Fiorato’s contributions to the development and use of high-strength concrete, including the evolution of high-strength concrete in Chicago, and a presentation on how high-strength concrete technology made the world’s tallest building possible. Additional presentations will cover Fiorato’s contributions that advanced knowledge in such diverse areas as how cement properties affect concrete performance, how Alkali-Silica Reaction (ASR) is controlled and mitigated through effective specifications, and how performance-based specifications were applied to rapid concrete repair materials.

Controlling and Mitigating ASR through Effective Specifications  2:00 pm
Paul D. Tennis, Manager, Cement and Concrete Technology, Portland Cement Association, Fort Mill, SC

Lunar Concrete - Beyond Codes and Standards  2:30 pm
T.D. Lin, President, Lintek International, Inc., Wilmette, IL

Evolution of High-Strength Concrete in Chicago  3:00 pm

How High-Performance Concrete Made the World’s Tallest Building Possible  3:30 pm
Lawrence C. Novak, Director of Engineered Buildings, Portland Cement Association, Skokie, IL
Technical Session in Honor of Tony Fiorato, Part 2 (cont.)

Case Histories in High-Strength Concrete  4:00 pm
Michael A. Caldarone, Principal Engineer, CTLGroup, Skokie, IL

A Performance-Based Concrete Specification for Rapid Repairs  4:30 pm
Matthew D. D’Ambrosia, Project Manager, CTLGroup, Skokie, IL
This technical session highlights recent advances in the field of textile reinforced concrete (TRC). Topics covered in the symposium include novel textile reinforcements for concrete, mechanical behavior, durability performance, thermal and fire behavior, modeling and structural design aspects, production methods, and practical applications of textile reinforced concrete. Practicing engineers, architects, structural designers, specifiers, contractors, academicians, and researchers with an interest in the field of textile reinforced concrete will find this technical session highly pragmatic and useful to their professional development.

Introduction 2:00 pm
Ashish Dubey, Research Associate, USG Corporation, Libertyville, IL

Recommendations for Determining Design Strength Values of Textile Reinforced Concrete for Practical Applications 2:05 pm
Frank Jesse, Professor, Institute of Concrete Structures—Dresden University of Technology, Dresden, Germany; Kai Schicktanz and Manfred H. Curbach, Institute of Concrete Structures—Dresden University of Technology

New Model for the Calculation of TRC Sandwich Panels 2:30 pm
Michael Horstmann, Professor, Institute of Structural Concrete—RWTH Aachen University, Aachen, Germany; Josef Hegger and Ali Shams, Institute of Structural Concrete—RWTH Aachen University

Strengthening of a Barrel Shell with Textile Reinforced Concrete—Dimensioning and Design 2:55 pm
Frank Schladitz, Professor, Dresden University of Technology, Dresden, Germany; Enrico Lorenz, Silvio Weiland, and Manfred H. Curbach, Dresden University of Technology
Textile Reinforced Concrete—Modern Developments, Part 2 (cont.)

Strengthening of a Barrel Shell with Textile Reinforced Concrete—Practical Experiences

3:20 pm

Frank Schladitz, Professor, Dresden University of Technology, Dresden, Germany; Enrico Lorenz, Frank Jesse, and Manfred H. Curbach, Dresden University of Technology

Concepts and Execution Examples for the Use of Textile Reinforced Concrete

3:45 pm

Christian Schatzke, Professor, Institute of Building Construction and Design – RWTH Aachen University, Aachen, Germany; and Hartwig Schneider, Institute of Building Construction and Design-RWTH Aachen University

Application of Textile Reinforced Concrete in Prefabrication

4:10 pm

Viktor Mechtcherine, Professor, Dresden University of Technology, Dresden, Germany; Matthias Lieboldt and Marko Butler, Dresden University of Technology

Development, Production and Application of an Insulated Wall System Made of Self-Supporting TRC Sandwich-Façade Elements

4:35 pm

Michael Glowania, PhD Student, Institute of Textile Technology and Process Engineering – RWTH Aachen University, Aachen, Germany; Silke Tomoscheit, and Thomas Gries, Institute of Textile Technology and Process Engineering - RWTH Aachen University; and Michael Horstmann, Ali Shams, and Josef Hegger, Institute of Structural Concrete-RWTH Aachen University
Women in ACI Reception
Co-Sponsored by the Society of Women Engineers

All registered convention attendees are invited to attend the Women in ACI Reception. This long-standing ACI tradition is a great opportunity to get to know other women in the concrete industry. A cash bar and light hors d’oeuvres will be served.
Please join the ACI Illinois Chapter in honoring Tony Fiorato for his numerous contributions and accomplishments. Fiorato has served the industry in many ways, most notably as President of ACI during the centennial year and as Chairman of the Board of ASTM. He has been recognized as a Fellow of ACI; awarded the ACI Illinois Chapter’s prestigious Henry Crown Award, the ACI Henry L. Kennedy Award, and the ACI Henry C. Turner Medal; and recognized by the Reinforced Concrete Research Council with the Arthur J. Boase Award. In 2008, Fiorato was inducted into the National Academy of Engineering. His research in the area of high-strength concrete and concrete durability is widely recognized and highly respected. Perhaps his most notable contributions are his tireless efforts to promote usable, consistent codes and standards and share his knowledge worldwide. The purpose of this reception, in addition to the technical sessions in his honor, is to recognize him for his outstanding long-time selfless dedication to the concrete industry. Hors d’oeuvres and a cash bar will be available.

**PREREGISTRATION IS REQUIRED TO ATTEND.**

*Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.*

✓ = separate fee required
Join other ACI friends and colleagues for a celebration dinner and toast in honor of William R. (Bill) Tolley’s retirement from ACI. Tolley started his career at the American Concrete Institute in 1975 as the Manager of Administrative Services. Later he served as Senior Managing Director in which he oversaw conventions, education, certification, chapters, information technology, and international activities. He was promoted to Executive Vice President in 2002.

Tolley is the President of the ACI Foundation and its three councils. In addition, he is the President of Creative Association Management (CAM), a subsidiary of ACI that manages other associations such as the International Concrete Repair Institute, American Shotcrete Association, Post-Tensioning Institute, and the Building Owners and Managers Association of Metropolitan Detroit (BOMA).

In addition to his service at ACI, he is the Chairman of the Concrete and Masonry Related Associations and has served as Treasurer, Board member, and Chair of the Finance and Administration Committee for the Council of Engineering and Scientific Society Executives (CESSE). Tolley is a Certified Association Executive and has been active in the American Society of Association Executives.

A Fellow of ACI, he received the ACI Henry L. Kennedy Award for his outstanding leadership in strengthening and expanding chapter activities. In 2006, he was named one of the 10 most influential people in the concrete industry.

Please join us in honoring Bill Tolley’s dedication to and retirement from ACI during this very special event!

**PREREGISTRATION IS REQUIRED TO ATTEND.**

*Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.*

✓ = separate fee required
The Metropolitan Water Reclamation District (MWRD) of Greater Chicago is currently constructing a large upgrade in its sewage treatment facilities to increase the capacity of its Calumet plant, located on the south side of the city. Construction began in January 2009 and is expected to continue through the fall of 2012. The district construction upgrade consists of 12 155 foot diameter primary settling tanks, an enclosed aerated grit removal facility, twin 96-inch diameter force mains, service tunnels, effluent conduits, utility relocation/replacement, and other appurtenances. A guided tour of the construction site will be given by both MWRD and contractor staff.

A valid photo ID such as a driver's license, state ID card, or passport must be provided to enter the plant facilities. Appropriate footwear (no open-toed shoes) is required.
This session highlights material science aspects of concrete and the distinct impact that the Center for Advanced Cement Based Materials (ACBM) has had in this area over the past 20 years. Emphasis will be placed on advances in understanding the fundamental scientific background of cement-based materials as well as the crucial impact these research efforts have had on the concrete industry.

Introduction

9:00 am

Jason H. Ideker, Assistant Professor, Oregon State University, Corvallis, OR; and Aleksandra Radlinska, Villanova University

In Pursuit of “Crack-Free” Concrete. A Tribute to

Professor Surendra P. Shah

9:05 am

Emmanuel K. Attiogbe, Manager of Technical Services, BASF Construction Chemicals LLC, Beachwood, OH

Performance of High-Density Concrete at Elevated Temperature

9:30 am

Corina Aldea, Associate Materials Engineer, AMEC Earth and Environmental; and Bruce Cornelius, AMEC Earth and Environmental

Monitoring Chemical Shrinkage Using Pressure Sensors

9:50 am

Sulapha Peethamparan, Assistant Professor, Clarkson University, Potsdam, NY; Emily Weissinger, Joe Vocaturo, Jie Zhang, and George W. Scherer, Princeton University

Cement-Based Materials Reinforced with Nanofibers

10:10 am

Zoi Metaxa, Visiting Pre-Doctoral Fellow, Northwestern University, Evanston, IL; and Maria S. Konsta-Gdoutos, Democritus University of Thrace; and Surendra P. Shah, Northwestern University
Tuesday, March 23, 2010
9:00 am-12:00 pm

Advances in the Material Science of Concrete, Part 1 (cont.)

SHERATON 1

Studying of Cement Paste Setting at Microstructural Level 10:30 am
Giri Venkiteela, PhD Student, University of Louisville, Louisville, KY; and Zhihui Sun, University of Louisville

Cement-Based Materials Characterization at the Nanoscale: Nanoindentation and Ultrasonic AFM 10:50 am
Jae Hong, Post-Doctoral Fellow, Northwestern University, Evanston, IL; Paramita Mondal, University of Illinois at Urbana-Champaign; and Surendra P. Shah, Northwestern University

X-Ray Nanotomography of Cement Microstructure 11:10 am
David A. Lange, Professor and Associate Department Head, University of Illinois at Urbana-Champaign, Urbana, IL; Yaodong Jia, Tsinghua University; and Yi-Shi Liu, University of Illinois at Urbana-Champaign

Modeling Nucleation and Growth Kinetics of Alite Using µic 11:30 am
Shashank Bishnoi, Post-Doctoral Fellow, Laval University, Quebec, QC, Canada; and Karen Scrivener, Ecole Polytechnique Fédérale de Lausanne

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Concrete Repair—Xtreme Conditions, Part 1

SHERATON 3

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Paul E. Gaudette
Associate Principal
Wiss, Janney, Elstner Associates, Inc.
Chicago, IL

Joseph S. Balik
Manager of International Projects
WR Grace & Co.
Arlington Heights, IL

The ACI Illinois Chapter is hosting an all-day session on Concrete Repair—Xtreme Conditions. Twelve presentations will be given by local and nationally recognized experts in concrete repair ranging in scope from conditions commonly found in the field to specific building and transportation structures. Included will be such landmark projects as the Baha’i House of Worship, Ronald Reagan Airport, Fenway Park, the I-35 Bridge reconstruction, and Old Chicago Post Office repair. You’ll hear the presentations and views of the contractor, material supplier and engineer involved, and satisfy your desire for knowledge on extreme concrete repair!

Corrosion Mitigation at Reagan National Airport 9:00 am
David W. Whitmore, Vice President, Vector Construction Ltd., Winnipeg, MB, Canada; and Chris Ball, Vector Corrosion Technologies

Role of Engineer and Contractor in Repair Work 9:30 am
Thomas L. Rewerts, President, Thos. Rewerts & Co., LLC, Kansas City, MO

Fenway Park Restoration 10:00 am
Paul E. Gaudette, Associate Principal, Wiss, Janney, Elstner Associates, Inc., Chicago, IL; and Ann Harrer, Wiss, Janney, Elstner Associates, Inc.

Baha’i House of Worship Restoration 10:30 am
Robert F. Armbruster, President, The Armbruster Company, Inc., Northbrook, IL

Tuesday, March 23, 2010
9:00 am-12:00 pm
Tuesday, March 23, 2010
9:00 am-12:00 pm

Concrete Repair—Xtreme Conditions, Part 1 (cont.)  SHERATON 3

Repair, The Ultimate Sustainability  11:00 am
Fred R. Goodwin, Senior Development Scientist, BASF Construction Chemicals LLC, Beachwood, OH

Post-Tensioning Repairs in a Coastal Environment  11:30 am
John F. Duntemann, Principal, Wiss, Janney, Elstner Associates, Inc., Northbrook, IL; and Jon Sfura, Wiss, Janney, Elstner Associates, Inc.
Design Using the Strut-and-Tie Method: Examples and Approaches, Part 1
SHERATON 2
Sponsored by ACI Committee 445, Shear and Torsion

Session Co-Moderators: Karl-Heinz Reineck
Professor
University of Stuttgart
Leonberg, Germany

Lawrence C. Novak
Director, Engineered Buildings
Portland Cement Association
Skokie, IL

The provisions for design using the strut-and-tie model (STM) were incorporated in ACI 318 in 2002. Since then, practicing engineers have been using this model for the design of common and uncommon structures. These two sessions present an introduction to the method, design examples, common problems experienced in real design applications, additional guidance for using the STM, and an assessment of existing requirements. The sessions conclude with a discussion of the need for change in the code provisions and further guidance documents.

Introduction 9:00 am
Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

The STM Design Process and ACI Requirements 9:05 am
Daniel A. Kuchma, Associate Professor, University of Illinois at Urbana-Champaign, Champaign, IL

Bridge Pier–Hammerhead Bent Cap 9:25 am
Robin Tuchscherer, Structural Engineer, Datum Engineers, Austin, TX

Design of Deep Pile Caps with Tension Piles 9:50 am
Widianto Widianto, Structural Engineer, ExxonMobil Development Company, Houston, TX

Foundation Grade Beam 10:10 am
Leonard P. De Rooy, Professor, Calvin College, Grand Rapids, MI
Tuesday, March 23, 2010
9:00 am-12:00 pm

Design Using the Strut-and-Tie Method: Examples and Approaches, Part 1 (cont.)
SHERATON 2

Stepped Beam
10:30 am
Matthias F. Andermatt, Graduate Student, University of Alberta, Breton, AB, Canada

Dapped-End Double T-Beam with Curved Bar Nodes
10:55 am
Gary J. Klein, Executive Vice President, Wiss, Janney, Elstner Associates, Inc., Northbrook, IL

Evaluation of Prestressed Dapped Girder Ends with Cazaly Hangers
11:20 am
Katrin Habel, Bridge Designer, AECOM, Edmonton, AB, Canada

Guideline Documents for Using Strut-and-Tie Models
11:45 am
Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

Closure
11:55 am
Lawrence C. Novak, Director, Engineered Buildings, Portland Cement Association, Skokie, IL
Come experience our past! Concrete has an exciting history that needs to be explored and cherished. In this session, we will pry open those history books and discover a wide range of topics including Roman cement, historic mixture designs, dam construction, historic ready mixed concrete trucks, and much more.

Introduction  
Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO  

Roman Cement  
Paul J. Tikalsky, Professor and Chair of Civil and Environmental Engineering, University of Utah, Salt Lake City, UT  

Tampa's Concrete Cemetery  
Joseph A. Amon, Senior Consultant, Ardaman Associates Inc, Tampa, FL  

History of the Ready Mixed Concrete Truck  
Richard Yelton, Editor-in-Chief, Hanley Wood, Chicago, IL  

The King Bee's Contributions to Concrete Technology  
Jon I. Mullarky, Retired, Chester, MD  

Bridging the Imjin River during the Korean War  
Fred Meyer, Associate Professor and Director of Civil Engineering, United States Military Academy, West Point, NY
Old Concrete Dam Construction and Modern Expansion: Ah Ha, A Clue! 11:10 am
Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO

Early Concrete Mixture Designs 11:35 am
Luke M. Snell, Eminent Scholar, Del E. Web School of Construction, Arizona State University, Tempe, AZ
Structural Health Monitoring (SHM) activities have picked up pace in recent years. Many bridge projects are now instrumented with monitoring systems that perform various tasks and achieve different goals. Typical SHM activities can be classified into condition assessment and performance evaluation. Condition assessment is conducted on existing bridges to make decisions with respect to their load-carrying capacity, need for rehabilitation, or even replacement. Performance evaluation, on the other hand, is usually a long-term exercise, where the recorded response is used to evaluate the structural performance of the monitored system or component. In all cases, SHM has now become a viable tool that helps engineers answer questions that cannot be addressed in lab settings.

Contributors to this session include consultants, bridge officials, and researchers who are in charge of bridge SHM projects. The session will give the audience valuable information and lessons from existing projects. It will also allow the exchange of information about the latest technological advancements in SHM, including sensor types, communication modules, and data mining techniques.

Field Testing and SHM of Concrete Bridges in Kentucky  9:00 am
Issam E. Harik, Professor, University of Kentucky, Lexington, KY

City of Seattle’s Approach to Long-Term Monitoring  9:30 am
David Anderson, Senior Civil Engineer Specialist, Seattle Department of Transportation, Seattle, WA
Tuesday, March 23, 2010
9:00 am-12:00 pm

Structural Health Monitoring for Bridge Design and Evaluation (cont.)

Evaluation of Streicker Bridge Performance Using Fiber-Optic Monitoring Systems
Branko Glisic, Assistant Professor, Princeton University, Princeton, NJ
10:00 am

Test to Failure of a Slab Bridge
Bruno P. Massicotte, Professor, Ecole Polytechnique Montreal, Montreal, QC, Canada
10:30 am

Remote Monitoring of Bridges in the Everglades
Rajan Sen, Professor, University of South Florida, Tampa, FL
11:00 am

Structural Health Monitoring for Evaluation of Cracking Potential of Concrete Decks
Hani H. Nassif, Professor, Rutgers University, Piscataway, NJ
11:30 am
Exhibitor Demonstrations

Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22nd and 23rd from 9:00 am to 3:30 pm. Presentations may demonstrate equipment operation, introduce new products, demonstrate software capabilities, or describe the services provided by each participating company. These presentations may include PowerPoint shows, videos, and even hands-on workshops. Each demonstration will conclude with a question and answer period. Attendees representing all areas of the concrete industry will find the demonstrations both interesting and educational. Learn more today about the products and services offered by the following companies:

<table>
<thead>
<tr>
<th>Time</th>
<th>Exhibitor</th>
<th>Presentation/Demo Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am</td>
<td>Germann Instruments</td>
<td>Latest NDT systems and their applications</td>
</tr>
<tr>
<td>9:45 am</td>
<td>Atlas Restoration LLC</td>
<td>Slab stabilization with polyurethane foam</td>
</tr>
<tr>
<td>10:30 am</td>
<td>Michigan Technological University</td>
<td>University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) program highlights</td>
</tr>
<tr>
<td>11:15 am</td>
<td>Erico</td>
<td>LENTON and LENTON LOCK product demonstration</td>
</tr>
<tr>
<td>12:45 pm</td>
<td>Olson Engineering and Instruments</td>
<td>Sonic, radar, and electrical methods for imaging concrete and rebar</td>
</tr>
<tr>
<td>1:30 pm</td>
<td>James Instruments Inc.</td>
<td>NDT testing—equipment and applications</td>
</tr>
<tr>
<td>2:15 pm</td>
<td>Superior Gunite</td>
<td>Shotcrete installation</td>
</tr>
</tbody>
</table>

For a complete listing of each demonstrator and the time of their presentation, pick up the flyer in the Registration area, or refer to signs located in front of the Demonstration Area located in the River Exhibit Hall.
Tuesday, March 23, 2010
12:00 pm-2:00 pm

✓ Contractors’ Day Lunch
CHICAGO 7
$55 U.S. per person
Hosted by the ACI Illinois Chapter and Construction Liaison Committee

Speaker: Bobby Hull
Retired Hockey Player
Chicago Blackhawks
Sarasota, FL

Topic: A Shot and a Goal!
Memoirs of the Golden Era of Hockey

Join other ACI attendees and contractors for the Contractors’ Day Lunch, featuring Hockey Hall of Famer, Bobby Hull. Bobby Hull is regarded as one of the greatest ice hockey players of all time and perhaps the greatest left winger to ever play the game. He possessed the most feared slapshot in his day. In his 23 years in the National Hockey League and World Hockey Association, he played for the Chicago Blackhawks, Winnipeg Jets, and Hartford Whalers. Hull will regale the audience with anecdotes from his multifaceted career.

PREREGISTRATION IS REQUIRED TO ATTEND.
Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

✓ = separate fee required
This session will focus on the reconstruction efforts being put in place to start the rebuilding process of Haiti, following the devastating earthquake that took place January 12, 2010. Presentation topics include: the damage and aftermath of the Haiti earthquake from an eyewitness prospective, seismicity of the Caribbean, first-hand evaluation of the construction used in Haiti one month after the earthquake, and lessons learned from RC construction in the Americas from the Haiti Earthquake.
This session highlights material science aspects of concrete and the distinct impact that the Center for Advanced Cement Based Materials (ACBM) has had in this area over the past 20 years. Emphasis will be placed on advances in understanding the fundamental scientific background of cement-based materials, as well as the crucial impact these research efforts have had on the concrete industry.

**Introduction**  
2:00 pm  
Jason H. Ideker, Assistant Professor, Oregon State University, Corvallis, OR; and Aleksandra Radlinska, Villanova University

**Structural Concrete with Lightweight Synthetic Particles**  
2:05 pm  
Matthew D. D’Ambrosia, Project Manager, CTLGroup, Skokie, IL

**Internal Curing: A Discussion of the Role of Pore Solution on Relative Humidity Measurements and the Desorption of LWA**  
2:30 pm  
Javier Castro, Graduate Research Assistant, Purdue University, West Lafayette, IN; Jason Weiss, Purdue University; Ryan Henkesiefken, U.S. Concrete, Inc.; Pietro Lura, EMPA; and Farshad Rajabipour, The Pennsylvania State University

**Linking the Structure of Micro- and Macro-porous Concretes to Transport through Electrical Impedance**  
2:50 pm  
Narayanan Neithalath, Assistant Professor, Clarkson University, Potsdam, NY; and Jitendra Jain, Clarkson University
Tuesday, March 23, 2010
2:00 pm-5:00 pm

Advances in the Material Science of Concrete, Part 2 (cont.)
SHERATON 1

Improvement of Fresh-State Concrete Through Small Additions of Clay
3:10 pm
Nathan A. Tregger, Graduate Research Assistant, Northwestern University, Evanston, IL; Raissa P. Douglass-Ferron, The University of Texas; and Surendra P. Shah, Northwestern University

Closed Form Solutions for Uniaxial Passive Restraint Experiments
3:30 pm
Zachary C. Grasley, Assistant Professor, Texas A&M University, College Station, TX

Quantifying Damage Due to Aggregate Expansion in a Cement Matrix
3:50 pm
Mohammad Pour-Ghaz, Graduate Research Assistant, Purdue University, West Lafayette, IN; and Jason Weiss, Purdue University

High-Speed Tensile Testing of Fabric Cement Composites Under Intermediate Strain Rates
4:10 pm
Barzin Mobasher, Professor, Arizona State University, Tempe, AZ

Advancements in Cement-Based Materials from Rheology a Perspective
4:30 pm
Raissa P. Douglass-Ferron, Assistant Professor, The University of Texas, Austin, TX
Concrete Repair—Xtreme Conditions, Part 2

SHERATON 3
Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Joseph S. Balik
Manager, International Projects
WR Grace & Co.
Arlington Heights, IL

Paul E. Gaudette
Associate Principal
Wiss, Janney, Elstner Associates, Inc.
Chicago, IL

The ACI Illinois Chapter is hosting an all-day session on Concrete Repair—Xtreme Conditions. Twelve presentations will be given by local and nationally recognized experts in concrete repair ranging in scope from conditions commonly found in the field to specific building and transportation structures. Included will be such landmark projects as the Baha’i House of Worship, Ronald Reagan Airport, Fenway Park, the I-35 Bridge reconstruction, and Old Chicago Post Office repair. You’ll hear the presentations and views of the contractor, material supplier and engineer involved and satisfy your desire for knowledge on extreme concrete repair!

Old Chicago Post Office Shotcrete Repair 2:00 pm

To Repair or Not to Repair 2:30 pm
Ward R. Malisch, Technical Director, American Society of Concrete Contractors, Northville, MI

Marina City Façade Repairs 3:00 pm
Robert F. Joyce, President, Quality Restorations, Inc., Wood Dale, IL

Repair Approaches for Concrete Slab Finish Problems 3:30 pm
K. Nam Shiu, Vice President, Walker Restoration Consultants, Elgin, IL
Concrete Repair—Xtreme Conditions, Part 2 (cont.)  SHERATON 3

Reconstruction of I-35 Bridge  4:00 pm
Kevin A. MacDonald, Vice President of Engineering Services, Cemstone Concrete Products Co., Mendota Heights, MN

Performance Specifications for Repair Work  4:30 pm
Michael M. Sprinkel, Managing Director, Virginia Transportation Research Council, Charlottesville, VA
Contractors’ Day Session: Xtreme Local Projects
SHERATON 4
Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Paul Tuscher
Quality Control
Prairie Material
Bridgeview, IL

Kelly M. Page
Executive Director
International Concrete Repair Institute
Des Plaines, IL

Chicago is known for its innovative use of concrete in a variety of projects, from beautiful skyscrapers to the enormous Chicago Deep Tunnel project. In this session, you can hear about some of the most recent interesting projects within the Chicago Metropolitan area, straight from those intimately involved with these projects.

Constructability and Efficiency of Concrete Construction  2:10 pm
Bill Carbeau, Director of Special Applications Business, Putzmeister America Inc., Sturtevant, WI

O’Hare Modernization Program  2:50 pm
William Trudeau, Quality Assurance Manager, O’Hare Modernization Program, Chicago, IL

Constructability—AQUA  3:40 pm
Paul Treacy, Concrete Superintendent, James McHugh Construction Co., Chicago, IL

Conservation and Relocation of the U-505 Submarine  4:20 pm
Leonard Koroski, Project Architect, Goettsch Partners, Chicago, IL; Gregory J. Lakota, Halvorson and Partners.
The provisions for design using the strut-and-tie model (STM) were incorporated in ACI 318 in 2002. Since then, practicing engineers have been using this model for the design of common and uncommon structures. These two sessions present an introduction to the method, design examples, common problems experienced in real design applications, additional guidance for using the STM, and an assessment of existing requirements. The sessions conclude with a discussion of the need for change in the code provisions and further guidance documents.

Introduction: Highlights from Session 1

2:00 pm
Lawrence C. Novak, Director, Engineered Buildings, Portland Cement Association, Skokie, IL

Propped Cantilever with Opening

2:10 pm
Daniel A. Kuchma, Associate Professor, University of Illinois at Urbana-Champaign, Urbana, IL

Design of a Link Beam at a Roof of a Medium-Rise Building

2:35 pm
Hakim Bouadi, Senior Associate, Walter P. Moore & Associates, Houston, TX

Diaphragm for a Segmental Concrete Bridge

2:55 pm
Richard J. Beaupre, Senior Bridge Engineer, URS Corporation, Tampa, FL
Tuesday, March 23, 2010
2:00 pm-5:00 pm

Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2 (cont.)

SHERATON 2

Diaphragm for Extradosed Cable-Stayed Bridge 3:20 pm
Trevor Kirkpatrick, Structural Engineer, URS Corporation, Tampa, FL

Importance of Reinforcement Detailing 3:45 pm
Denis Mitchell, William Scott Professor of Civil Engineering, McGill University, Montreal, QC, Canada

Strut-and-Tie Models for Beams Versus Shear Design? 4:15 pm
Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

Future of ACI STM Provisions and Guidelines 4:35 pm
Daniel A. Kuchma, Associate Professor, University of Illinois at Urbana-Champaign, Urbana, IL

Closure 4:55 pm
Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany
The Open Paper Session is a forum for presenting recent technical information that could not be scheduled into other convention sessions.

**Introduction**

Sulapha Peethamparan, Assistant Professor, Clarkson University, Potsdam, NY

**P2P: The Australian Perspective**

Ken W. Day, Consultant, Concrete Advice Pty. Ltd, Melbourne, Australia

**Monitoring Early Age Microstructure Development of Cement Paste Using Bender Elements**

Jinying Zhu, Assistant Professor, The University of Texas, Austin, TX; Seong-Hoon Kee, The University of Texas

**Development of Novel Concrete/Cold-Formed Steel Composite Beams**

Alexander Wehbe, Design Engineer, Kiewit Engineering Co., Omaha, NE; Nadim I. Wehbe and Arden B. Sigl, South Dakota State University; and Lionel E. Dayton, Nucor Research and Development

**The Role of Aggregate Stiffness on Restrained Shrinkage Cracking**

Kyung-Joon Shin, Graduate Student, Purdue University, West Lafayette, IN; and Jason Weiss, Purdue University

**Evaluation and Analysis of the Repair of a Post-Tensioned, Precast Concrete, Segmental Bridge**

Adel El-Safty, Associate Professor, University of North Florida, Jacksonville, FL; and Robert Bennett, University of North Florida
Open Paper Session (cont.)

**Electrical Impedance Based Effective Media Approaches for High Performance Concrete Strength Prediction and its Relationship to Maturity Functions**

*3:40 pm*

**Jarrod Persun**, Graduate Student, Clarkson University, Postdam, NY; and **Narayanan Neithalath**, Clarkson University

**Effect of Lightweight Aggregate and Curing Temperature on the Cracking Tendency of Concrete**

*3:59 pm*

**Benjamin Byard**, Graduate Research Assistant, Auburn University, Auburn, AL; and **Anton K. Schindler**, Auburn University

**The Origin of Early Age Expansions in Cement Pastes Containing Shrinkage Reducing Admixtures**

*4:18 pm*

**Gaurav Sant**, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; **Barbara Lothenback**, EMPA Materials Science and Technology; **Karen Scrivener**, Ecole Polytechnique Fédérale de Lausanne; and **Jason Weiss**, Purdue University

**Aggregate Characterization for Recycled Concrete Aggregates**

*4:37 pm*

**Yogini Deshpande**, Post-Doctoral Researcher, Michigan Technological University, Houghton, MI
Faculty Network Reception

COLUMBUS A&B

Faculty members and students are invited to attend this informal reception. During this time, you will have an opportunity to exchange ideas and network. Light hors d’oeuvres and a cash bar will be available.

Tuesday, March 23, 2010
5:00 pm-6:00 pm
Concrete Mixer—The Blues!  
SHERATON CHICAGO 4-10

Sponsored by the ACI Illinois Chapter

Chicago is known worldwide as the home of the Blues. Be inspired by the music that was made popular in Chicago during the 1940s and 1950s by artists such as Muddy Waters, Willie Dixon, John Lee Hooker, Howlin’ Wolf, and Elmore James during the Blues-themed Concrete Mixer at the Chicago convention! The perfect place to network and relax as you enjoy great music, a taste of Chicago, and cocktails (and maybe a surprise guest or two!), courtesy of the ACI Illinois Chapter.

All ACI attendees MUST wear a name badge to attend. Please use the drink tickets found in your registration packet, or cash to purchase beverages.

Following the Concrete Mixer enjoy more great food at one of Chicago’s spectacular eateries. Chicago is such a food lovers’ paradise that the only dilemma you’ll have is how to choose from so many delicious options. Visit the ACI Illinois Chapter Desk or the hotel concierge for suggestions.
Chicago Architecture Tour
$69 U.S. per person

Wednesday, March 24, 2010
8:45 am-1:00 pm

On foot, we'll tour Chicago's new and renewed buildings along Dearborn Street, including Daley Plaza with its landmark Picasso and surrounding State of Illinois and Chase Bank plazas filled with large-scale sculptures and murals that energize Chicago's Loop. A cruise of the Chicago River and Lake Michigan is the most unique and interesting way to see the city. On this narrated 90-minute Lake and River Cruise, we'll see the best of Chicago's historic and state-of-the-art architecture and learn why Chicago is known as the "Architectural Capitol of the World." Please note that the cruise sails rain or shine, so please dress in appropriate attire. Stairs are required to reach the cruise boat. If for some reason the Coast Guard cancels the cruise due to high seas, the time will be spent visiting several architecturally significant buildings and exhibits, including the Rookery, Chicago Architecture Foundation, and the Chicago History Museum. Finally, we'll visit Millennium Park, a 26-acre park that features an ice rink, a 1500-seat indoor theatre for music and dance, the 120 foot high, 3000-seat Jay Pritzker Music Pavilion designed by Frank Gehry, and so much more.

✓=separate fee required
Building Information Modeling in the Concrete Industry, Part 1
SHERATON 4
Sponsored by ACI Committee 118, Use of Computers

Session Co-Moderators:  
Allan P. Bommer  
Chief Design Engineer  
Bentley Systems, Inc.  
Seattle, WA

Phillip J. Antis  
Principal, Manager Structural Engineering  
AECOM  
Arlington, VA

The presentations in this session will illustrate successes, failures, problems, and the potential of using Building Information Modeling (BIM) for concrete structures in any or all phases of a project (design, detailing, fabrication, construction, and operation). Some presentations will be project-specific and others will cover topics such as industry standards, interoperability, and tolerance/fit issues.

Intro to the New Committee 131—Building Information Modeling of Concrete Structures  
9:00 am

Peter J. Carrato, Principal Civil Engineer, Bechtel Corporation, Frederick, MD; and Allan P. Bommer, Bentley Systems, Inc.

The Concrete Benefits of BIM  
9:10 am

Erleen Hatfield, Principal, Buro Happold, New York, NY

BIM and Structural Concrete: Constructability Begins in Design  
9:35 am

William F. Ikerd, Director of Integrated Project Delivery Department, Raymond L. Goodson Jr., Inc., Dallas, TX

Potential BIM Applications for Cast-in-Place Concrete in Nuclear Plant Design and Construction  
10:00 am

Peter J. Carrato, Principal Civil Engineer, Bechtel Corporation, Frederick, MD; and Martin Reifschneider, Bechtel Corporation
Wednesday, March 24, 2010
9:00 am-12:00 pm

Building Information Modeling in the Concrete Industry, Part 1 (cont.)

Construction Simulation for Transfer Floors and Outriggers of Reinforced Concrete Building Using BIM
Bohwan Oh, Chief Researcher, Daewoo Engineering and Construction Co., Gyeongi-Do, South Korea; and Taehun Ha and Myungho Lee, Daewoo Engineering and Construction Company

Virtual Building
Frank Haase, Senior Manager Virtual Building and Design, Webcor Builders, San Francisco, CA

The Use of BIM to Facilitate Concrete Design and Construction Leveraging Integration
William M. Klorman, President, W. M. Klorman Construction Corporation, Woodland Hills, CA
Wednesday, March 24, 2010
9:00 am-12:00 pm

Frontiers in the Use of Polymers in Concrete, Part 1  SHERATON 2
Sponsored by ACI Committee 548, Polymers and Adhesives for Concrete

Session Co-Moderators:  Mahmoud M. Reda Taha
Associate Professor
University of New Mexico
Albuquerque, NM

Mike Stenko
President
Transpo Industries Inc.
New Rochelle, NY

This session focuses on innovative uses of polymers in concrete. These include new types of polymer admixtures, new applications of polymer concrete, structural analysis of new polymer concrete systems, ultra-high-strength polymer concrete, new developments for epoxy modified mortars, the use of saturated acrylic polymers (SAP) for internal curing, and others.

Visco-Elastic Behavior of Concrete Containing Super-Absorbent Polymers  9:00 am
Eduard Koenders, Associate Professor, Delft University of Technology, Delft, Netherlands; H. Van der Ham and Klaas Van Breugel, Delft University of Technology

Polymer Concrete for Sustainable Development and the Innovative Use of Recycled Glass in Polymer Concrete  9:20 am
Paul Mellon, President, Novetas Solutions LLC, Philadelphia, PA

Shrinkage, Creep, and Moisture Transport in Polymer-Based Repair Materials  9:40 am
Muhammad K. Rahman, Professor, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia; and M.H. Baluch, King Fahd University of Petroleum and Minerals

State of Practice in Polymer Concrete Overlays  10:00 am
David W. Fowler, Professor, The University of Texas, Austin, TX; and David P. Whitney, The University of Texas
Frontiers in the Use of Polymers in Concrete, Part 1 (cont.)

A New Latex-Modified Cement Paste Incorporating Carbon Nanotubes

Mahmoud M. Reda Taha, Associate Professor, University of New Mexico, Albuquerque, NM; Eslam Soliman and Usama F. Kandil, University of New Mexico

“Green” Novolac-Cementitious Overlays on Industrial Floors in Wet Environments

Floyd E. Dimmick, Manager and Technical Director, Crown Polymers, LLC, Huntley, IL

Effect of Water-Soluble Polymers as Self-Curing Agent on Portland Cement Mixes Incorporating Silica Fume

Amr El-Dieb, Professor, United Arab Emirates University, Al Ain, United Arab Emirates; and A.A.M Mahmoud, United Arab Emirates University

Rehabilitation of Edouard Pare Bridge Using LMC Overlay

Jacques A. Bertrand, President, Béton Mobile du Québec, Inc, Lava, Quebec, Canada
International Session: Tall Buildings
SHERATON 1
Sponsored by the ACI International Committee

A special presentation will be made on the response of concrete buildings during the 27 February 2010 Chilean Earthquake.

Session Co-Moderators: H.S. Lew
Senior Structural Engineer
National Institute for Standards and Technology
Gaithersburg, MD

Mario A. Chiorino
Professor
Politecnico di Torino, Facoltá di Architettura
Torino, Italy

Tall and Innovative: New Ambitions for Concrete Tall Buildings 9:00 am
David Scott, Principal, ARUP, New York, NY

Some Recent Tall Concrete Buildings in Brazil 9:30 am
Mario Franco, Partner, Escritório Técnico Julio Kassoy e Mario Franco, Eng. Civis Ltda, São Paulo, Brazil

Costanera Center: Extreme Height in Chile 10:00 am
Rene Lagos, President, Rene Lagos Associates, Santiago, Chile

Super-tall Residential Towers 10:30 am
William F. Baker, Partner, Skidmore, Owings & Merrill, Chicago, IL; and James J. Pawlikowski, Skidmore, Owings & Merrill, Chicago, IL

Tall Concrete Buildings (Costanera Center) in Chile and Their Seismic Performance During the February 2010 Offshore Maule Chilean Earthquake 11:00 am
Ronald Klemencic, President, Magnusson Klemencic Associates, Seattle, WA

Questions and Discussions 11:30 am
Quality Management Systems in the Concrete Industry

SHERATON 5
Sponsored by ACI Committee 121, Quality Assurance Systems for Concrete

Session Co-Moderators: Ryan K. Riehle
President and CEO
BuildWays Corporation
Pittsburgh, PA

Stephen Marchese
President
Future Tech Consultants
Minola, NY

This technical session will provide guidance, examples, and experiences demonstrating quality management tools and systems within the concrete industry. This session will be useful to owners, architects, engineers, material suppliers, and consultants.

Quality Management System for the Trans Hudson Express
(THE) Project
9:00 am
Johan C.F. Schor, Vice President of Quality Management, STV Incorporated, New York, NY

Quality Assurance on Port Authority of NY & NJ Projects
9:25 am
Casimir A. Bognacki, Chief of Materials Engineering Unit, Port Authority of New York & New Jersey, Jersey City, NJ

Constructor Quality Management at the WTC Transportation Hub Project
9:50 am
Thomas Tyler, Quality Manager, Skanska USA Civil Northeast, Whitestone, NY

Running a Large QAS Concrete Program
10:15 am
Michelle E. Walters, Structural Engineer, Hatch Mott MacDonald, Toronto, ON, Canada

Quality Management Methods for the Manufacture of Chemical Admixtures
10:40 am
Thomas M. Greene, Regional Technical Services Manager, W.R. Grace & Co., Houston, TX
Wednesday, March 24, 2010
9:00 am-12:00 pm

Quality Management Systems in the Concrete Industry (cont.)

Quality Management Methods for the Manufacture of Portland Cement
11:05 am
Paul D. Brooks, Senior Technical Engineer, Holcim (US) Inc., Albany, NY

In-Transit Process Control for Ready Mixed Concrete 11:30 am
As the ACI 318 Code Committee adopts design procedures for adhesive anchors into the code and the memories of the failures of adhesive anchors in the Boston Central Artery Tunnel ceilings are still fresh in our minds, it is appropriate to review the subject of adhesive anchors. These presentations cover the full breadth of technical information being asked by design professionals and includes design, installation, qualification, and inspection requirements, and continues to discuss the characteristics of sustained load behavior and other specific anchor considerations.

**Adhesive Anchors—Requirements for Their Reliable Use in Concrete Construction**

*9:00 am*

**Werner A.F. Fuchs**, Director of Fastening Technical Research, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; and **Rolf Eligehausen**, University of Stuttgart Institute of Construction Materials

**Draft Design and Qualification Provisions for Adhesive Anchors in Concrete**

*9:20 am*

**John F. Silva**, Director of Codes and Approvals, Hilti North America, San Rafael, CA

**Adhesive Anchors: A Comparison of Testing, Qualification, and Design between the USA and Europe**

*9:40 am*

**Jake Olsen**, Managing Director, Power Fasteners, Shanghai, China; and **Andra Hoermann-Gast**, Consultant to ICC-ES
What About Adhesive Anchors? Part 1 (cont.)

Installation of Adhesive Anchors—Theory and Practice 10:00 am
Philipp Grosser, PhD Candidate, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; Rolf Eligehausen and Werner A.F. Fuchs, University of Stuttgart Institute of Construction Materials

Building Code Requirements for Inspections of Adhesive Anchors in Concrete 10:20 am
Brian C. Gerber, Senior Structural Engineer, ICC Evaluation Services, Inc., Whittier, CA; and Mahmut Ekenel, International Code Council

Adhesive Anchors in Slabs of Marginal Thickness—A Post-Mortem 10:40 am
Andrew Budek-Schmeisser, Assistant Professor, New Mexico Institute of Mining and Technology, Socorro, NM; and Claudia Wilson, New Mexico Institute of Mining and Technology

Design Method for Splitting Failure Mode of Adhesive Anchor Systems 11:00 am
Jörg Asmus, Principal and Structural Engineer, Ingenierburo Eligehausen und Asmus, Stuttgart, Germany

Japanese Guidelines for Embedment Depth and Edges on Bonded Anchor Tensile Resistance 11:20 am
Katsuhiko Nakano, Professor, Niigata Institute of Technology, Kashiwazaki, Niigata, Japan; Yasuhiro Matsuzaki, Tokyo University of Science; and Tomoaki Sugiyama, Taisei Corporation

ACI-CRSI Adhesive Anchor Installation Certification Update 11:40 am
Neal S. Anderson, Vice President of Engineering, Concrete Reinforcing Steel Institute, Schaumburg, IL; and Donald F. Meinheit, Wiss, Janney, Elstner Associates, Inc.
Wednesday, March 24, 2010
12:00 pm-2:00 pm

International Lunch
CHICAGO 7
$30 U.S. per person
Hosted by the ACI International Committee

Speaker: Vincent Mages
Vice President of Climate Change Initiatives
Lafarge Cement
Paris, France

Topic: World Business Council for Sustainable Development Cement (WBCSD) Sustainability Initiative

Join other ACI attendees for a special presentation from Vincent Mages at the International Lunch. Vincent Mages is the Vice President of Climate Change Initiatives at Lafarge Cement. Prior to this role, he was the Vice President of Group Internal Communications. Mr. Mages has occupied various positions in France and Japan, all which have been related to cement, aggregates, and gypsum activities, as well as in marketing business development and strategy. During his presentation, he will highlight the cement industry global initiatives to reduce CO₂, the WBCSD Cement Sustainability Initiative, and the role of cement and concrete in sustainable construction.

PREREGISTRATION IS REQUIRED TO ATTEND.
Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.
Building Information Modeling in the Concrete Industry, Part 2  
SHERATON 4  
Sponsored by ACI Committee 118, Use of Computers

Session Co-Moderators: Allan P. Bommer  
Chief Design Engineer  
Bentley Systems, Inc.  
Seattle, WA

Phillip J. Antis  
Principal, Manager Structural Engineering  
AECOM  
Arlington, VA

The presentations in this session will illustrate successes, failures, problems, and the potential of using Building Information Modeling (BIM) for concrete structures in any or all phases of a project (design, detailing, fabrication, construction, and operation). Some presentations will be project-specific and others will cover topics such as industry standards, interoperability, and tolerance/fit issues.

A Contractor’s Experiments with BIM  
2:00 pm  
James T. Davy, Manager of Virtual Construction, McHugh Construction Co., Chicago, IL

Building Information Modeling From Design to Fabrication  
2:30 pm  
Scott Hammond, Industry Segment Manager—Structural Engineering, Autodesk, Inc., Waltham, MA

Utilization of an Integrated Reinforced Concrete Model from Design through Construction and Beyond  
3:00 pm  
Santanu Das, Vice President—Structural Group, Bentley Systems, Inc., Yorba Linda, CA; and Jeffrey N. Cochrane, Applied Systems Associates, Inc.

Concrete BIM: When “Good Enough” BIM Doesn’t Cut It  
3:30 pm  
Alistair Wells, Sales and Marketing Manager, Tekla, Inc., Kennesaw, GA

Rebar Detailing for BIM  
4:00 pm  
Richard Birley, President, Condor Rebar Consultants, Inc., Vancouver, BC, Canada

IFCs for Concrete Construction—Current State of the Industry  
4:30 pm  
Edwin T. Dean, Vice President, Nishkian Dean, Portland, OR
Frontiers in the Use of Polymers in Concrete, Part 2  
SHERATON 2
Sponsored by ACI Committee 548, Polymers and Adhesives for Concrete

Session Co-Moderators:  Mahmoud M. Reda Taha  
Associate Professor  
University of New Mexico  
Albuquerque, NM

  David W. Fowler  
Professor  
University of Texas  
Austin, TX

This session focuses on innovative uses of polymers in concrete. These include new types of polymer admixtures, new applications of polymer concrete, structural analysis of new polymer concrete systems, ultra-high-strength polymer concrete, new developments for epoxy modified mortars, the use of saturated acrylic polymers (SAP) for internal curing, and others.

Rapid Concrete Bridge Overlays  
2:00 pm
Michael M. Sprinkel, Associate Director, Virginia Transportation Research Council, Charlottesville, VA

Performance-Based Aspects and Constructability of Bridge Deck Latex Modified Concrete Overlays with and without Fibrous Additives  
2:25 pm
Mohammad A. Al-hassan, Assistant Professor, Purdue University-Fort Wayne, Fort Wayne, IN; and Suleiman Ashur, Purdue University-Fort Wayne

Use of Novalac Polymer Concrete in Sewer Application and Why  
2:50 pm
Joseph A. Nuciforo, Vice President, JPCI Services, Mesa, AZ

VESLMC Use on the Pulaski Skyway  
3:15 pm
Chris Davis, Northeastern Manager, CTS Cement Manufacturing Corp, Belmar, NJ
Frontiers in the Use of Polymers in Concrete, Part 2 (cont.)

Fundamentals and Applications of Hybrid Fiber-Reinforced Polymers Combined with Concrete 3:40 pm

Thomas Kang, Assistant Professor, University of Oklahoma, Norman, OK; Woosuk Kim, University of Oklahoma; and Dong-Uk Choi, Hankyong National University

Properties of Economical Latex-Modified Concrete Using Recycled Paint 4:05 pm

Aly Said, Assistant Professor, University of Nevada-Las Vegas, Las Vegas, NV; and Oscar Quiroz, University of Nevada-Las Vegas

Architectural Applications for Precast Polymer Concrete 4:30 pm

Constantin Bodea, President, Metro Cast Corp., Westland, MI; and David W. Fowler and David P. Whitney, The University of Texas
Wednesday, March 24, 2010
2:00 pm-5:00 pm

International Forum for International Chapters and Partners

SHERATON 1
Sponsored by the ACI International Committee

Session Moderator: Luke M. Snell
Eminent Scholar
Del E. Web School of Construction
Arizona State University
Tempe, AZ

This forum is to update our international chapters on certification programs that are available through ACI and student program ideas, as well as provide general discussions on how to improve your chapter activities.

This forum is open to all attendees. Chapter officers are encouraged to attend.

Introduction 2:00 pm
Luke M. Snell, Eminent Scholar, Del E. Web School of Construction, Arizona State University, Tempe, AZ

ACI Certification Programs 2:10 pm
John K. Conn, Manager, Certification Operations and Chapters, American Concrete Institute, Farmington Hills, MI

The Local Sponsoring Group (LSG) for Certification 2:40 pm
Roberto A. Nunez, Lecturer and Senior Construction Extension Specialist, North Carolina State University, Raleigh, NC

Saudi Arabia Building Code Creates Need for Certifications 3:10 pm
Mohammad H. Al-Nagadi, President, Saudi Building Code National Committee, Riyadh, Saudi Arabia

Student Competitions in Brazil 3:40 pm
Selmo C. Kuperman, Director, DESEK, Ltd., São Paulo, Brazil

ACI Student Competitions 4:10 pm
Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO

Comments and Open Discussion on Chapter Activities 4:40 pm
Luke M. Snell, Eminent Scholar, Del E. Web School of Construction, Arizona State University, Tempe, AZ
Sustainable Design in Structural Concrete

Sponsored by ACI Committees 130, Sustainability of Concrete, and 351, Foundations for Equipment and Machinery

Session Co-Moderators: James K. Hicks
Executive Vice President of Research and Development
CERATECH Inc.
Baltimore, MD

Mukti L. Das
Principal Civil Engineer
Bechtel Power Corporation
Frederick, MD

This session will include papers on concrete applications that incorporate sustainable design solutions for materials and structures. Ways to reduce the environmental impact associated with concrete materials and construction of structural elements will be explained and discussed. Methods of training and educating engineers and designers in new techniques and practices that leverage concrete’s sustainable advantages will be explored. This session will include examples of sustainable production of concrete, material optimization, function-specific design, and cutting-edge methods and applications that can be used to increase the sustainability of concrete structures.

ACI is a U.S. Green Building Council (USGBC) Education Provider. ACI is committed to enhancing the ongoing professional development of the green building industry through top-quality, third-party reviewed education courses or events.

The USGBC has approved the technical and instructional quality of this course for 3 GBCI CE Hours towards the LEED Credential Maintenance Program.

Sustainable Design of Heavy Industrial Concrete Structures 2:00 pm
Javeed Munshi, Principal Engineer, Bechtel Power Corporation, Frederick, MD; and Mukti L. Das, Bechtel Power Corporation
Wednesday, March 24, 2010
2:00 pm-5:00 pm

Sustainable Design in Structural Concrete (cont.)  SHERATON 5

New Development in Lightweight Insulating Concrete  2:30 pm
Neal S. Berke, Principal Scientist, Grace Construction Products, Cambridge, MA

Sustainable Benefits of On-Site Concrete Batch Plants  3:00 pm
Kelsey Edwardsen, Structural Engineer, Bechtel Corporation, Richland, WA

How Do We Teach a New Generation of Engineers Green Building and Sustainability?  3:30 pm
John T. Kevern, Assistant Professor of Civil Engineering, University of Missouri-Kansas City, Kansas City, MO

Precast Possibilities for Sustainable Projects  4:00 pm
Larry Rowland, Manager Marketing and Technical Service, Lehigh Cement Company, Allentown, PA

Achieving a Sustainable Future Through Performance, Not Prescription  4:30 pm
Mark F. Chrzanowski, Principal Structural Technologist, CH2M HILL, Newberry, FL
As the ACI 318 Code Committee adopts design procedures for adhesive anchors into the code and the memories of the failures of adhesive anchors in the Boston Central Artery Tunnel ceilings are still fresh in our minds, it is appropriate to review the subject of adhesive anchors. These presentations cover the full breadth of technical information being asked by design professionals and includes design, installation, qualification, and inspection requirements, and continues to discuss the characteristics of sustained load behavior and other specific anchor considerations.

**Stress Versus Time-to-Failure Test Method for Evaluating the Sustained Load Performance of Adhesive Anchor Systems in Concrete**

**2:00 pm**

Todd Davis, PhD Candidate, University of Florida, Gainesville, FL; and Ronald A. Cook, University of Florida

**Behavior and Design of Bonded Anchors Under Sustained Load**

**2:20 pm**

Rolf Eligehausen, Professor, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; and Ronald Blochwitz and Werner A.F. Fuchs, University of Stuttgart Institute of Construction Materials

**Evaluation of Long-Term Behavior of Bonded Anchors—Approval Testing Versus Long-Term Results**

**2:40 pm**

Hannes A. Spieth, Director of Technology Transfer and Research, Fischerwerke GmbH & Co., Waldachtal, Germany
Wednesday, March 24, 2010
2:00 pm-5:00 pm

What About Adhesive Anchors? Part 2 (cont.)

Effect of Environmental Exposure on the Creep Behavior of Adhesive Anchors
Adham El Menoufy, Graduate Student, University of Waterloo, Waterloo, ON, Canada; Hannah C. Schell, Ministry of Transportation Ontario; and Khaled A. Soudki and Abdel ElSayed, University of Waterloo

Probability-Based Assessment of Short- and Long-Term Load Bearing Behavior of Bonded Anchors
Konrad Bergmeister, Professor, BOKU-University of Natural Resources and Applied Life Science, Vienna, Austria; and Ronald Mihala, BOKU-University of Natural Resources and Applied Life Science

Curing and Load Performance of Adhesive Anchor Systems Installed at Low Temperatures
Ingo Alig, Head of Physics Department, German Plastics Institute, Darmstadt, Germany; Ralf Neuerburg, Hilti Corporation; and Dirk Lellinger and Frank Bohm, Deutsches Kunststoff Institute

Effect of Fly Ash as Cement Replacement on the Short-Term Bond Strength of Adhesive Anchor Systems
Peter Grzesik, Manager of Anchor Approvals & Project Engineer, Hilti North America, Tulsa, OK

Simulation of Adhesive Anchoring Systems in Concrete
Fritz Wall, Director—International Regulations and Approvals, Hilti Corporation, Schaan, Liechtenstein; and Bernhard Winkler and Yijun Li, Hilti Corporation

Strength of Adhesive Anchor Embed Plates in Precast Concrete Under Welding and Eccentric Shear
Michael G. Eilers, PhD Candidate, Coreslab Structures Inc., Kansas City, KS; and Ganesh Thiagarajan, University of Missouri-Kansas City
Thursday, March 25, 2010
8:00 am-5:00 pm

✓ ACI/PCA Simplified Design of Concrete Buildings of Moderate Size and Height Seminar

ONTARIO

7:30 am Registration, coffee and pastries available

$597 Non-Member Registration Fee
$457 ACI National Members Registration Fee
$125 Full-Time Students (with proof of enrollment)

Speakers:

Mahmoud Kamara
Senior Structural Engineer
Portland Cement Association
Skokie, IL

Lawrence C. Novak
Manager, Building Structures
Portland Cement Association
Skokie, IL

This one-day seminar will focus on the design of concrete buildings of moderate size and height, in accordance with the latest information in ACI 318-08, 2009 IBC, and ASCE 7-05. The purpose of this seminar is to provide civil, architectural, and structural engineers with ways to simplify design procedures, thus reducing the time required to analyze, proportion, and detail small to moderate size projects while still complying with ACI 318-08, “Building Code Requirements for Structural Concrete.” Various design considerations that need to be addressed in the structural design and detailing of reinforced concrete buildings will be discussed. Numerous time-saving shortcuts and design aids will be introduced.

✓ = separate fee required

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Session Attendance Tracking Form for the ACI Spring 2010 Convention
Chicago, IL • March 21-25, 2010

Use this form to track your attendance at ACI sessions. This form can be submitted to state boards that allow self-reporting of Continuing Education activities as evidence of participation. In most cases, a contact hour is equal to 1 Professional Development Hour (PDH). Check with your state board for acceptance criteria.

Instructions: Check off each session you attended and write in the number of PDH credits you earned for each day.

Remember that 1 PDH is equal to a contact hour (nominal) of instruction or presentation, rounded down to the nearest half-hour.

SUNDAY, MARCH 21, 2010
2:00 p.m.-5:00 p.m. 3 PDH
 Durability for Concrete of Pavements (35)
 Durability and Long-Term Performance of SCC (237/201)
 Ultra High-Performance Concrete for Bridges (343)
 Innovations in Fire Design of Concrete Structures (216)
 Incorporating the ASCE Body of Knowledge (E802)

7:30 p.m.-10:00 p.m. 2.5 PDH
 123 Forum: Fly Ash Contributes to Sustainable Concrete Construction—Is It Justified to Reclassify the Material as a Hazardous Waste? (123)

MONDAY, MARCH 22, 2010
9:00 a.m.-12:00 p.m. 3 PDH
 Research in Progress (123)
 Extreme Tilt-up Performance: Design to Construction, Part 1 (55)
 Textile Reinforced Concrete—Modern Developments, Part 1 (494)
 Recent Advances in Maintenance and Repair of Concrete Bridges (343)
 Technical Session in Honor of Tony Fiorato, Part 1 (ACI Illinois Chapter)

2:00 p.m.-5:00 p.m. 3 PDH
 Extreme Tilt-up Performance: Design to Construction, Part 2 (55)
 Technical Session in Honor of Tony Fiorato, Part 2 (ACI Illinois Chapter)
 Textile Reinforced Concrete—Modern Developments, Part 1 (494)
 Serviceability Limit States for Concrete Structures (343)
 Effects of Micro- and Macro-cracking on Durability (224/201)

TUESDAY, MARCH 23, 2010
9:00 a.m.-1:00 p.m. 3 PDH
 Advances in the Material Science of Concrete, Part 1 (236)
 Design Using the Strut-and-Tie Method: Examples and Approaches, Part 1 (445)
 Concrete Repair—Xtreme Conditions, Part 1 (ACI Illinois Chapter)
 Extreme Concrete History (340)
 Structural Health Monitoring for Bridge Design and Evaluation (343)

2:00 p.m.-5:00 p.m. 3 PDH
 Open Paper Session (123)
 Contractors’ Day Session (ACI Illinois Chapter)
 Advances in the Material Science of Concrete, Part 2 (236)
 Concrete Repair—Xtreme Conditions, Part 2 (ACI Illinois Chapter)
 Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2 (445)
 Hot Topic Session: Reconstruction Efforts in Haiti (HIC)

WEDNESDAY, MARCH 24, 2010
9:00 a.m.-1:00 p.m. 3 PDH
 International Session: Tall Buildings (IC)
 Frontiers in the Use of Polymers in Concrete, Part 1 (548)
 What About Adhesive Anchors? Part 1 (548/355)
 Building Information Modeling in the Concrete Industry, Part 1 (118)
 Quality Management Systems in the Concrete Industry (121)

2:00 p.m.-5:00 p.m. 3 PDH
 International Forum for International Chapters and Partners (IC)
 Frontiers in the Use of Polymers in Concrete, Part 2 (548)
 Sustainable Design in Structural Concrete (351/130)
 What About Adhesive Anchors? Part 2 (548/355)
 Building Information Modeling in the Concrete Industry, Part 2 (118)

DAILY PDH TOTALS AVAILABLE
Total completed on Sunday, 3/21/10 ______
Total completed on Monday, 3/22/10 ______
Total completed on Tuesday, 3/23/10 ______
Total completed on Wednesday, 3/24/10 ______
Total number of PDHs completed ______

Enter your name and address here
Thank you for attending the Spring 2010 Convention!

See you in Pittsburgh!

Future ACI Conventions

Fall 2010
Green Concrete in the Steel City
October 24-28, 2010
Westin & David L. Lawrence Convention Center
Pittsburgh, PA

Spring 2011
Concrete—The Strength of Florida
April 3-7, 2010
Marriott Tampa Waterside & Westin Harbour Island
Tampa, FL