President’s Letter

Well, the spring/summer construction season has finally arrived, the sun is shining (at least for the day!), and it seems that project start-ups are finally in full swing. I hope that 2011 brings a renewed sense of optimism, and things start to get back on the right track for everyone.

As my term as your chapter president winds down, I’d like to take the opportunity to thank everyone for making this past year a great experience. The chapter officers, board of directors, the staff at IRMCA, and the entire ICACI membership have been instrumental in organizing and planning multiple successful events and programs during my presidency. The level of commitment and dedication of this group never fails to amaze as we have muddled our way through these tough economic times. I am grateful to each one of them for their tireless efforts over the past year.

Beginning with our annual Scholarship Golf Outing at River Glen Country Club on June 7th, the chapter is hosting several exciting events during the summer months. On Saturday, June 11th, we will be having our Annual Indianapolis Indians Baseball Outing at Victory Field, co-sponsored with IRMCA and IN-ICPA. This is always a fun event, and a fantastic venue for professional baseball, so consider joining your fellow concrete industry professionals for a night at the ballpark. On July 7th, we are co-sponsoring a program and tour of the new Evansville Arena with IRMCA and the Ohio Valley Concrete Promotional Committee. This project was recently recognized as “Project of the Year” at our Annual Meeting and Awards Banquet. This facility is sure to become a landmark for the City of Evansville, and we’re excited about being a part of this unique event.

Thanks again to all for giving me the opportunity to serve as your chapter president during the past year. It has truly been a rewarding experience!

Mike Rose
President – Indiana Chapter ACI

Upcoming Events
June 7: ICACI Annual Scholarship Golf Outing
June 11: Joint IRMCA/IN-ACPA/ICACI Annual Baseball Outing
July 7: Evansville Arena Tour
April 11, 2012: Annual Meeting and Awards Banquet, Marriot North, Indianapolis
2011 ICACI Banquet Honors Top Indiana Projects and Scholarship-Winning Students

The annual meeting and awards program for the Indiana Chapter of ACI was held April 13th at the Indianapolis Marriott North. At the meeting the chapter welcomed newly elected Directors Rich Gardner and Ashley Frantz to the board. Jack Springer was elected 2011 chapter President and Don Corson was elected to serve as Vice President. Mike Rose was recognized for his outstanding leadership over the past year as our outgoing President. With chapter business complete, the celebration began.

Evansville Arena was selected as the 2011 Project of the Year.

In accordance with our chapter’s mission to promote education, the IC-ACI was proud and fortunate to grant scholarships to three deserving area college students. Awards were then presented for outstanding achievements in concrete construction. Ten unique projects were recognized this year, including the chapter’s inaugural award for sustainability. The Evansville Arena was our 2011 project of the year.

Your Board of Directors would like to sincerely thank everyone who took the time and submitted projects for consideration this year. Thank you, too, to all those who attended the program. Please feel free to let your board know what you thought about the program as we are always trying to improve our members’ experience. Also, start thinking about submitting those unique projects you are working on currently. Submissions are accepted year-round. While awards will not be handed out until next year, we may be able to spotlight your unique project in an upcoming issue of the Palindrome.
Awards Banquet Photos (*all photos courtesy of James Reid*)

Outgoing President Mike Rose (right) accepts Golden Gavel Award from President-Elect Jack Springer.

2011 Scholarship winners (from left) Charlie Tinch (IUPUI), Molly Rice (Rose-Hulman) and Chris Meehan (IUPUI) were selected by the Board of Directors from a very competitive list of entrants.
Industry Links

- National Ready Mixed Concrete Association
  www.nrmca.org
- Indiana Ready Mixed Concrete Association
  www.irmca.com
- Precast/Prestressed Concrete Institute
  www pci.org
- American Concrete pavement Association
  www.pavement.com
- National Precast Concrete Association
  www.precast.org
- Concrete Reinforcing Steel Institute
  www.crsi.org
- American Society of Civil Engineers
  www.asce.org
- Indiana Section-American Society of Civil Engineers
  www.inasce.org
- PCA - Portland Cement Association
  www.cement.org

Outstanding Achievements in Concrete – Project of the Year

- 2011 Award Recipient
  - Evansville Arena

Project of the Year - Evansville Arena

Outstanding Achievements in Concrete – Health Care

- 2011 Award Recipient
  - Eugene & Marilyn Glick Eye Institute

Health Care – Eugene and Marilyn Glick Eye Institute

Outstanding Achievements in Concrete – Public Works

- 2011 Award Recipient
  - Town of Plainfield Headworks Building

Public Works – Town of Plainfield Headworks Building

Outstanding Achievements in Concrete – Transportation

- 2011 Award Recipient
  - Marion County I-465 White River Bridge Decks

Transportation – Marion County I-465 White River Bridge Decks
Parking – IUPUI Gateway Garage

Institutional – Ivy Tech Multi-Modal Facility

Monuments – City of Berne – Muensterberg Plaza & Clock Tower

Restoration – Twyckenham Drive Bridge #207, South Bend
ICACI Elections Held

ICACI election winners were announced in April for the coming term beginning in June, 2011. Jack Springer of BASF Admixtures was elected to a 1-year term as President and Don Corson of American Structurepoint was elected Vice-President. Jack’s election follows a 1-year term as Vice-President and several years on the Board of Directors. Similarly, Don’s election follows a 3-year term on the Board. Ashley Frantz was elected to a full 3-year term of service after serving as an interim appointee to fill a directorship vacated in 2009. Ashley has been a valued Director and will now continue serving ICACI in that role. New to the Board this year is Rich Gardner, elected to a 3-year term as Director.

A special “thank you” goes to outgoing President Mike Rose of Alt & Witzig Engineering for his years of service on the Board of Directors, as Vice President and President. Mike now joins the exclusive group of ICACI Past Presidents whose selfless dedication has helped the Indiana Chapter thrive and continue its mission of service to the concrete industry.
Hot Weather Concreting (Summer is coming – really!)

ACI Committee 305 defines hot weather as any combination of high ambient temperature, high concrete temperature, low relative humidity, wind speed and solar radiation. The effects of high temperature, solar radiation and low relative humidity on concrete may be more pronounced with increased wind velocity and can lead to rapid evaporation of moisture, the primary cause of plastic shrinkage cracks.

Potential Problems
The potential problems of hot weather can occur at any time of the year in tropical or arid climates and generally occur during the summer season in other climates. Problems associated with hot weather concrete placement include increased:

- Water demand
- Rate of slump loss and tendency for retempering
- Rate of setting
- Difficulty in handling, placing, compacting and finishing
- Occurrence of plastic shrinkage cracking
- Need for early curing
- Risk of cold joints

In hardened concrete, hot weather concreting can:

- Increase drying shrinkage and differential thermal cracking
- Decrease compressive and flexural strengths
- Affect the uniformity of surface appearance

The requirements to achieve good results in hot weather concrete placing and curing are not different from those for other seasons. Concrete should be placed where it will remain and in shallow layers to allow adequate vibration. It shall be protected using sunscreens, shades and wind breaks and protected from moisture loss. Adequate curing measures shall be undertaken. The use of polypropylene fibers will reduce the formation of plastic shrinkage cracks and in addition, these fibers improve impact, shatter and abrasion resistance. The use of an evaporation reducer will enhance the quality of the concrete. This monomolecular film reduces surface moisture evaporation, reduces crusting and plastic shrinkage cracks, but is not to be used as a finishing aid.

Summary
Hot weather difficulties are chiefly caused by high concrete temperatures and rapid evaporation of water from concrete. These conditions adversely affect the quality of concrete since the rate of setting is accelerated, strength is reduced and cracks may occur in either the plastic or hardened state. Curing is more critical and air-entrainment is more difficult to attain in hot weather. Field strength specimens are affected in the same manner as the concrete in place. If all precautions and recommended ACI 305R guidelines are followed, successful hot weather concreting can be achieved.

Article by Jack Springer, ICACI President-Elect
Scholarship Golf Outing - June 7 - Sign Up Now!

Please reserve June 7, 2011 on your calendar for a fun afternoon of golf for a worthy cause. This year we are returning to River Glen Country Club located in Fishers, IN. Your Indiana Chapter American Concrete Institute awards scholarships every year for deserving engineering and construction management students at universities across the state of Indiana. It is our goal to encourage young people to enter the world of concrete design and construction. All proceeds will go directly to help fund our Scholarship Program. The success of last year’s event allowed us to award $6,000.00 in scholarships at our Annual Meeting on April 13, 2011. So please join us to have a great time and support our scholarship program!

An entry form is attached to the end of this newsletter. Sign up now!

Moisture Issues in Concrete Flatwork

In February, ICACI hosted an informational program on moisture issues prevalent in concrete slabs. Chris Tull, PE, LEED AP, of CRT Concrete Consulting, LLC, presented an eye-opening presentation on moisture-related floor covering and coating problems that have become more commonplace in recent years. Topics covered included an overview of potential issues, proper placement procedures, testing methods and what to do when problems are discovered. The presentation featured a breakfast and was attended by 43 participants. Bowen Engineering graciously provided meeting space at their new Meridian Street location.

Chris Tull of CRT Consulting, LLC, leads a program on moisture issues in flatwork.
Self-Consolidating Concrete (SCC) Revisited

It has been given a variety of names from Self Consolidating Concrete to Self Compacting Concrete, but no matter what name you give it, SCC is still a valuable option for a variety of applications. SCC is a non-segregating highly flowable concrete, so much so that standard slump cone measurements don’t work because the concrete can’t support itself vertically. Instead, flowability is measured using the slump flow test now standardized as ASTM C-1611, “Slump flow of self consolidating concrete”. When using this method, SCC has a typical spread ranging from 18-30 inches wide. Although very fluid, its compressive strength is considerably more than normal mixes. The fluidity or “viscosity” is an important characteristic of the mix and depends on the application as to how fluid or wide the spread needs to be.

What makes SCC? The high flowability of SCC is generally achieved using a high-range water reducer (HRWR) or “superplasticizer” as it is sometimes referred. This extra flow that is attained without using extra water coupled with extra cement and other cementitious materials along with a well graded aggregate can produce very impressive early and ultimate compressive strengths along with a smooth, well consolidated surface that every contractor and owner likes to see. Another popular admixture that is often tied in with a HRWR is a Viscosity Modifying Admixture (VMA). This particular product actually changes the rheology of the concrete and increases the viscosity of the concrete while still allowing the concrete to flow without segregation. When material ingredients are less than perfect for a mix or just not locally available, VMA is a valuable tool to mask these symptoms to still produce a workable and effective SCC mix.

Test Methods - One of the most common tests performed to examine the passing ability of an SCC mix is the J-Ring Test (ASTM C-1621). Here the slump flow is with both the J-ring (a 12-inch diameter rebar cage with 16 bars at 5/8” diameter) and without. The passing ability of the mix is the difference between the two. The C-1621 test method indicates that a difference less than 1” is considered good and a difference greater than 2” is considered poor, although no tolerances have been defined for this test. Another test method associated with ASTM C-1621 is the Visual Stability Index (VSI), a completely subjective test where a number of 0 to 3 is assigned to the concrete used in the slump flow test. The technician assigns a value of 0 for no segregation and 3 for obvious segregation with a stack of aggregate in the middle of the slump flow test and paste spreading away from it.

Factors to consider – Several key factors must be considered in order to produce consistent SCC and reduce variability, and one is having a uniform aggregate gradation. Although a smaller aggregate helps attain SCC more easily, SCC has been produced successfully with up to 1.5” maximum size aggregate. Another key factor to SCC is controlling variability. Along with closely monitoring aggregate gradations...
and admixtures, SCC also requires **careful control of aggregate moistures**, as varying moisture contents can significantly impact SCC flowability and stability. Slump retention and flow delays on the jobsite that result in the reduction of flow ability can result in the loss of the benefits of using SCC.

One key difference that must be noted has to do with consolidation between working with SCC and regular high slump/flow mixes. Although high slump/flow mixes can appear to have an SCC look in certain instances, the fact is they are not and typically need to be vibrated either externally or internally when being placed in walls or around structural rebar. It must also be noted that with the high viscosity and flowability of SCC mixtures, **lateral formwork pressure must be closely monitored**. ACI – 347’s “Guide to formwork for concrete” is a popular document to refer to when it comes to meeting specification requirements for formwork. Along with formwork pressure it must also be stressed when placing SCC in forms to check to ensure that formwork is virtually watertight to ensure that paste from the mix is contained in the forms to provide the consolidation and consistent finish that we all desire. When ordering/specifying SCC, remember to consider the end use of the concrete. Ready-mixed concrete producers will generally have developed mixes based on performance and applications, so don’t forget to consider the type of construction, placement method, formwork, and reinforcement configuration when preparing for an SCC pour.

*Article by Justin Lowder – ICACI Board Member*

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**Student Certifications Held**

On April 12, 2011, in a program held at **Valparaiso University**, Associate Professor John Schemmel and three students took part in the ACI Concrete Field Testing Technician Certification. Similarly, on April 29-30, 2011, students from the **University of Evansville** and **Ivy Tech Community College** took the ACI Concrete Field Testing Technician Certification.

As part of its mission to provide education about the concrete industry, the Indiana Chapter of ACI encourages the participation of students in Certification programs as a way to get “hands-on” knowledge and real world applications in concrete construction. Faculty or students wishing to learn more about the Certification programs may contact an ICACI Board member for more information.
Upcoming Certification Dates

The dates below are for upcoming ACI Concrete Field Testing Technician, Level 1 programs that will be held at Builder’s Concrete in Fishers, Indiana in 2011:

July 15-16
September 9-10
November 4-5
*Additional Fall 2011 Date TBD in Gary, Indiana

First Day: Review Class; Second Day: Written and Practical Exams

Certification Program Policy: Examiners and Supplemental Examiners (Proctors) are required to be a Member of Indiana Chapter ACI; either through an Individual Membership or under a Company Membership.

The ACI – Indiana Chapter extends a big “THANK YOU!!” to Builder’s Concrete for agreeing to host the Indianapolis area certification programs.

For a registration flyer or questions about the program, please contact Eileen Dick ~ phone (317) 872-6302.
ICACI Officers and Board of Directors

President: Mike Rose – Alt & Witzig Engineering  
(317) 875-7040 mrose@altwitzig.com  
Vice President: Jack Springer – BASF Admixtures (President-Elect)  
(260) 341-0606 jack.springer@basf.com  
Past President: Scott Hall – Builder’s Concrete  
(317) 570-6201 shall@bcconcrete.com  
Treasurer: Tom Grisinger - Lehigh Cement Co.  
(317) 409-3218 tgrisinger@lehighcement.com  
Director: Don Corson – American Structurepoint (Vice President-Elect)  
(317) 547-5580 dcorson@structurepoint.com  
Director: Justin Lowder – Irving Materials, Inc.  
(317) 402-2300 justin.lowder@irvmat.com  
Director: Charlie Scheuermann – Patriot Engineering & Environmental  
(317) 576-8058 cscheuermann@patrioteng.com  
Director: Ashley Frantz – Great Lakes Chloride  
(317) 872-6302 afrantz7@gmail.com  
Director: Ryan Decker – F.A. Wilhelm  
(317) 359-5411 ryandecker@fawilhelm.com  
Director: Tom Hart – Messer Construction  
(317) 576-9250 thart@messer.com  
Director-Elect: Rich Gardner  
(219) 741-5885 rich.gardner@ceratechinc.com

Indiana Chapter ACI Website

The Indiana Chapter has a website where you can find information on upcoming  
events, such as, ACI certification classes, programs, and golf outings. Membership  
applications, Award nomination forms, Scholarship applications and other  
information are also available. Please go to www.concrete.org, then click on the  
“Chapters” tab and select “Indiana”.

IC-ACI Tax-Exempt Status

As a tax-exempt organization, the Indiana Chapter American Concrete Institute is  
required to file an annual Return to the Internal Revenue Service. The Return is  
available for review by any member of IC-ACI. For information, contact Tom  
Grisinger, Secretary/Treasurer at 317-409-3218 or tgrisinger@lehighcement.com.
Annual Scholarship Golf Outing

June 7, 2011
River Glen Country Club
12010 Clubhouse Drive, Fishers, Indiana 46038

Please reserve June 7th, 2011 on your calendar for a fun afternoon of golf, for a worthy cause. We are holding it at River Glen Country Club again this year. Your Indiana Chapter American Concrete Institute awards scholarships every year for deserving engineering and construction management students at universities across the state of Indiana. It is our goal to encourage young people to enter the world of concrete design and construction by awarding these scholarships. All proceeds will go directly to help fund our Scholarship Program. We will award $6,000.00 in scholarships at our Annual Awards Banquet on April 13, 2011. So please join us to have a great time and support our scholarship program!

Please fill out the attached Entry Form and send it in today!

| ♦ Date:  Tuesday, June 07, 2011 | ♦ 11:00 to 12:00 pm - Check In |
| ♦ Format:  Texas Scramble      | ♦ 11:00 am - Practice Tee Open |
| ♦ Attire: No jeans or T-shirts, Soft Spikes only  | ♦ 12:00 pm - Shotgun Start |
| ♦ Lunch on your own – The Snack Bar will be open | ♦ 5:00 pm - Cash Bar Open |
|                        | ♦ 5:30 pm - Dinner and Awards |

**Texas Scramble:** All players tee off. Then the team chooses the best drive, and each member plays their own ball in the rest of the way. The lowest two scores are added together as the team score.
ENTRY FORM – June 7, 2011
ICACI Annual Scholarship Golf Outing

CONTACT INFORMATION:
Company
Address
Phone
Email

FOURSOME NAMES:


Costs:                                                                 Total Cost:
Golf & Dinner: $150 per player / $600 per foursome*
Mulligans: _______ x $5 each (maximum 2 / player)
Skins: $20 per foursome (50:50 split on proceeds)
Hole Sponsorship (18 available): $150 per hole*
Beverage Cart Sponsorship (2 available): $150 each
Dinner Only: $30
I don’t play golf; but here is a contribution to the Scholarship Fund: $ 

Total Enclosed: $ 

I can donate the following Items for Door Prize/s: 

Note: * Approximately $76.71 of the golf / dinner registration fee per person; and all of the Hole Sponsorship & Mulligans, and ½ the Skins are considered as donations to the Scholarship Fund and are therefore tax deductible.

❖ Please fax Entry Form to: Tom Grisinger @ 317-819-1605 ASAP.

PAYMENT INFORMATION:

Please Mail Checks (payable to: Indiana Chapter ACI):
Tom Grisinger / Indiana Chapter ACI
7905 Dawson Drive, Fishers, IN 46038

Credit Card: (Please Fax or Mail Information with Entry Form)

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Note: Security Code may be found next to the signature line on the back of the card.
At some point you’ll have to stop admiring the scenery and hit the ball….
Plan to attend IRMCA, IN-ACPA and ACI Annual Baseball Outing

Please join us for our Annual Baseball Outing at the Indiana Victory Field Ballpark.

The Indians will play The Gwinnett Braves on Saturday, June 11th– 7:05 p.m.. Our group will meet for a picnic dinner at the Left Field picnic area and then move to box seats to watch an exciting game of baseball.

Date: Saturday, June 11th, 2011

Picnic Times: 5:30– 7:00 p.m.

Game Time: 7:05 p.m.

Location: Victory Field Downtown Indianapolis

Fee: $30.00 per person*

*includes a reserved box seat and pre-game buffet with beverages in the left field Picnic Area.

Children ages 2 and under are free.

All game Times are subject to change.

Email registrations to edick@irmca.com or fax to 317-872-6313 or call 317-872-6302

Name: ____________________________ Company: __________________________________

Address: __________________________ City: ______ State: ______ Zip: ____________

Phone: _____________________________ Fax: ________________________________

Email: ______________________________

# of Tickets needed: _________ x $30.00= ________ Bill _____ Check Enclosed______


Name on Card: ______________________________ Exp Date: ___________________
A Brighter future is just around the Bend

Join Us as we take a tour of the new Evansville Arena and learn from the professionals behind the scenes of this Architectural centerpiece in Evansville, Indiana!

In late 2011, the City of Evansville will open a beautiful, exciting, state-of-the-art, multi-purpose Arena at the corner of Main Street and Martin Luther King Jr., Blvd. in Downtown Evansville. Join us on July 7th to get sneak peak of this architectural centerpiece. The new Evansville Arena will be the region’s center for sports and entertainment, designed to host basketball, hockey, concerts, exhibitions and shows for audiences as large as 11,000. This tour will showcase behind the scenes design challenges along with day to day construction sequences on building and design to meet LEED requirements.

Details:
Date: Thursday, July 7th, 2011
Time: 12:00 p.m. (Central Time)
Location: Hunt Construction Project Office
16 N.W. 6th Street
Evansville, Indiana 47708
Cost: Free - Lunch will be provided.

Parking available on street and in rear of building. Also in the garage at 6th and Sycamore (see attached map)

Attendees need to bring a hard hat, work boots and safety glasses. If you have a high-visibility vest you should bring that as well.

Email registrations to edick@irmca.com or fax to 317-872-6313 or call 317-872-6302

Name: ___________________________ Company: ________________________________

Address: ____________________________ ________________________________

City: ___________________________ State: _______ Zip: ____________________________

Phone: ___________________________ Fax: ________________________________

Speaker Line Up: (Bio’s attached)

Joe Eckhart
Hunt Construction Group
Project Manager

Chris Minter
Populous
Project Architect

John Krupski
American Structurepoint, Inc.
Structural Engineer

Join Us as we take a tour of the new Evansville Arena and learn from the professionals behind the scenes of this Architectural centerpiece in Evansville, Indiana!
Join Us inside this new modern structure as we tour the new Evansville Arena!

The vision for the new Arena came together through leadership from the City government, years of expert studies and input from Evansville citizens. The expression of that vision is a stunning design incorporating Indiana limestone and extensive use of glass to instill a sense of place. The design’s sweeping curved forms evoke the unique nature of our City’s graceful horseshoe bend in the Ohio River while providing an aesthetic that is of its time.

Speaker Bio’s:

Joe Eckhart
Hunt Construction Group
Project Manager

Joe is a project manager for Hunt Construction Group. His role in the arena’s construction was overall project manager. Hunt Construction Group is in charge of managing all construction operations, the overall budget for the arena, and ensuring that all safety regulations are met during the course of the construction of the arena.

Chris Minter
Populous
Project Architect

Chris is one of the Architects from Populous who was involved in the design of the Evansville Arena. He has also played a significant role in construction admission making weekly trips to Evansville to coordinate RFIs, construction submittals, and meetings with the owner, design team, and contractors.

John Krupski
American Structurepoint, Inc.
Structural Engineer

John is a structural engineer for American Structurepoint. He largely played a part in the engineering of the concrete framing systems and foundation systems for the arena. After the design was complete and construction documents were delivered, his role transitioned to onsite engineering representation. He made weekly trips to Evansville for 6 months where he processed RFIs and construction submittals, attended meetings with contractors, coordinated structural nonconformance issues, and answered various questions from the contractors on