President’s Letter

Welcome to the final 2011 ICACI installment of the Palindrome. It is with great pleasure that I can write to let our members know of some important past events that have been accomplished by your board of directors.

April 13, our annual meeting at the Marriott North was a great success with scholarships awarded to three individuals. The evening continued with the annual awards for Outstanding Achievements in Concrete. The annual meeting was well attended and a great event, we will do it all again on April 11, 2012, so start getting your photos and projects lined up.

June was a great month in that we held the annual Scholarship Golf Outing at River Glen Golf Course. Although the group was slightly smaller than 2010 and the temperature elevated, we did award scholarships to two deserving students. For 2012, it has been promised to bring some “new” ideas for the outing. Stay tuned.

Also in June, the annual Indianapolis Indians baseball night was held with the Indiana Ready Mix Concrete Association, Indiana American Paving Association and our ICACI members. It was a great baseball night, fantastic fireworks and a good night to spend with families, friends and industry members. Hope to see you at next years’ game.

The “Project of the Year”, the Evansville Arena Project received more notoriety in the form of a tour for ICACI, IRMCA and the IRMCA Ohio Valley Promotion Group on July 7th. Project managers spoke on the design, construction and special amenities of the arena. As they stated, this is a venue that can handle basketball, hockey, touring groups and many other events.

Our Fall Educational Seminar included a presentation on “Special Inspections” at the Pyramids in Indianapolis. Turnout for the Special Inspection was staggering as the room was filled to capacity. Many questions were asked and presenters Don Corson, American Structurepoint, Chella Subram, Cornerstone Engineering, and Kevin Hendrickson, ATC Associates, did an excellent job of informing the group of the current state of the Special Inspections.

In December, a tour was created by Justin Lowder of IMI on the workings of a ready mix operation. Those attending were treated to a breakfast and the tour of exactly how a concrete plants works.

Board of Director Elections will be coming up early in 2012, we will be needing (2) board
members. Please let us know if you or if you know anyone that is interested in serving.

Thank you for your participation in the ICACI events of 2011 and we look forward to continuing to bring you quality events in 2012.

On behalf of the 2011 ICACI Board of Directors, we wish all a Joyous Holiday Season.

Respectfully,

Jack Springer

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**Upcoming Events**

January 10: Concrete Maturity Testing – Breakfast Program
February 15: Concrete 101 Workshop
April 11: Annual Meeting and Awards Banquet

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**Call for 2012 Board of Directors Nominees**

Two ICACI Board Director positions will be coming up for election in 2012. Service to our industry is a great way to make a contribution to the betterment of concrete construction and practice here in Indiana and beyond. Director positions are for a term of 3 years and provide opportunities to meet and share ideas with professionals from all facets of the concrete world. There are a number of committees within ICACI always looking for “champions” to spearhead programs, activities and promotions.

If you know of someone that would be capable and willing to serve, please contact any ICACI Board Member. It will be necessary to provide a brief biography and contact information to allow the nominating committee to review the credentials of the prospective nominees. **Nomination information is due to the board by March 15, 2012.** Ballots will then be provided to the membership for voting and results announced at the 2012 Annual Awards Banquet.

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**Concrete Maturity Program Slated for January 10, 2012**

Don’t miss this excellent breakfast program presentation on maturity testing of concrete! Tom Luby of Engius, LLC, will provide in-depth information on real-time determination of in-place concrete strength and thermal control using state-of-the-art temperature profiling methods. Breakfast starts at 8 a.m. with the program beginning at 8:30, at the Pyramids in Indianapolis. Program attendees receive 1.0 Professional Development Hour (PDH). Registration form is included with this edition of *The Palindrome*. Sign up now!!

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**Concrete 101 Returns February 15, 2012!**

ICACI’s “Concrete 101 – What Every Concrete Professional Should Know” makes its return February 15, 2012. This intensive day-long workshop covers a wide spectrum of concrete construction topics and offers 6 Professional Development Hours. Watch for registration forms coming soon!!
Concrete Plant Tour Yields Behind-the-Scenes View

Irving Materials, Inc. (IMI) hosted a very informative “behind-the-scenes” tour of its West Morris Street facility in Indianapolis on December 8. Following a tasty breakfast from Dunkin’ Donuts, ICACI Director and IMI Technical Services professional Justin Lowder and IMI Plant Manager Billy Griffith led a group of fifteen intrepid individuals on a trip around and through the plant.

An intrepid group tours IMI’s concrete plant on West Morris Street on December 8.

Starting in the storage facility, attendees got a first-hand look at bulk-stored critical concrete admixtures such as fiber-additives, integral water-repellent and corrosion-inhibiting admixture. Also in the facility was a curing station for concrete cylinders.

Venturing out into the sub-freezing temperatures, the group toured the aggregate unloading areas as well as truck wash-out and material recycling stations. As the morning was quite busy with winter closing in, concrete mixers were coming and going, yielding an up-close look at the loading process.

Justin Lowder of IMI gives plant tour attendees the view from outside and inside.
Inside the plant, conveyors and batching equipment were displayed in action as live batches of concrete were being prepared. Storage capacities for aggregate, cement, flyash and microsilica were explained along with seasonal requirements for close monitoring of moisture contents and temperatures. Inside the plant’s control room, the logistics of batching all the right materials in just the right proportions were discussed. A quick trip outside the control room gave a bird’s eye view of the plant’s powerful paddle mixer capable of producing a full batch of concrete in just seconds. All agreed it was a very informative and interesting inside look at a very productive concrete plant facility.

Article by Don Corson, ICACI Vice-President

Cold Weather Concreting: Rules to Remember

As grim Winter begins to take hold in Indiana, protection of concrete work takes on new urgency and tactics. ACI Committee 306 has recently issued updated guidelines for Cold Weather Concreting. ICACI Board Member Ryan Decker of F.A. Wilhelm offers the following information and suggestions for producing quality concrete construction during cold weather conditions:

DEFINITIONS (ACI 306R)

1) **Cold Weather** – Any time the air temperature falls below or is expected to fall below 40 degrees F during the protection period, or the period required to prevent the concrete from being affected by exposure to cold weather.

2) **Protection Period** – The time during which the concrete is maintained at or above a specific temperature in order to prevent freezing of the concrete or to ensure the necessary strength development for structural safety.

OVERVIEW

• **Objectives of Cold Weather Concreting Practices**
  a) Prevent damage to concrete due to freezing at early ages.
  b) Assure that the concrete develops the required strength for safe removal of forms, shores, reshores, and for safe loading of the structure during and after construction.
  c) Maintain curing conditions that foster normal strength development without using excessive heat.
  d) Limit rapid temperature changes, particularly before the concrete has developed sufficient strength to withstand induced thermal stresses.
    i) Rapid cooling of concrete surfaces or large temperature differences between exterior and interior members of the structure can cause cracking.
    ii) At the end of the required period, insulation or other means of protection should be removed gradually so that the surface temperature decreases gradually during the subsequent 24-hr period.
  - Thickness < 12 inches = 50 degrees F
  - 12 to 36 inches = 40 degrees F
  - 36 to 72 inches = 30 degrees F
• >72 inches = 20 degrees F

iii) Provide protection consistent with the intended serviceability of the structure. (Basically short-term construction economy should not be obtained at the expense of long-term durability of the concrete structure.)

**Things to Keep in Mind**

1) Corners and edges of concrete are more vulnerable to freezing and usually are more difficult to maintain at the required temperature.

2) Heated enclosures must be strong enough to be windproof and weatherproof.
   a) Combustion heaters should be vented and they should not be permitted to heat or to dry the concrete locally.
   b) Fresh concrete surfaces exposed to carbon dioxide, resulting from the use of salamanders or other combustion heaters that exhaust flue gases into an enclosed area, may be damaged by carbonation of the concrete “Dusting”. Dusting may result in soft surfaces or surface crazing depending on the concentration of carbon dioxide.

3) All snow, ice, and frost must be removed so that it does not occupy space intended to be filled with concrete.

4) The R-Value of typical concrete blankets is based on a 3” air space beneath the Blanket. The R-Value listed on the tag is not the R-Value that will actually be provided unless there is a 3” air space.
   a) The R-Value is actually about half of what is listed. Contact the manufacturer to confirm

How Many Layers of Blankets would be required if the Temperature is below 32°F and will be covered for 3 days?

• Based on a minimum of 600 lb/cy of cement in mix and delivery temperature min of 50°F.
• Wall forms covered with blankets will have the minimum 3” air gap, full R value can be used.
  1. Walls 24” thick to 13”; 1 layer of at least an R value of 4 (Min outside air temp = -30°F)
  2. Walls 12” thick to 7”; 1 layer of at least an R value of 4 (Min outside air temp = 3°F)

• Slabs will not have the minimum 3” air gap, so assume R value is half of what is listed.
  3. Slabs 12” thick to 7”; 1 layer of at least an R value of 2 (Min outside air temp = 31°F)
     a. Slabs 12” thick to 7”; 2 layers of at least an R value of 5 (Min outside air temp = 2°F)
  4. Slabs 6” or less; 1 layer of at least and R value of 2 (Min outside air temp = 41°F)
     a. Slabs 6” or less; 2 layers of at least and R value of 5 (Min outside air temp = 27°F)

• Principles
  a) Concrete that is protected from freezing until it has attained a compressive strength of at least 500 psi will not be damaged by exposure to a single freezing cycle. Strength gain is affected by the duration of the protection provided. Slower strength gains will occur if the concrete placed is not protected for a long enough period.
  b) Concrete that is protected will mature to its potential strength despite subsequent exposure to cold weather.
  c) Where a specified concrete strength must be attained in a few days or weeks, protection at temperatures above 50°F is required. (See ACI 306R)
  d) Except within heated protective enclosures, little or no external supply of moisture is required for curing during cold weather. (See ACI 306R)
  e) Calcium chloride should NOT be used to accelerate setting and hardening because it will increase the corrosion of metals embedded in concrete. A non chloride accelerator typically is allowed to be used, but must be submitted and approved as an additive. (See ACI 306R)

• Concrete Temperatures at the time of Placement (Normal Weight Concrete)
  a) Minimum Concrete Temperatures at Delivery, Place and Maintained
     Thickness <12” = Min 55°F  Thickness 12-36” = Min 50°F
     i) 60°F to 70°F is preferred
     ii) Placement temperatures should not be higher than these minimums by 20°F

• Temperature of Surfaces in Contact with Fresh Concrete (Formwork and Subgrade)
  a) Need not be higher than a few degrees above freezing, typically 35°F and preferably not more than 10°F higher than the minimum placement temperatures.
• **Temperature of Metallic Embedments**
  a) Steel embedments having a cross-sectional area greater than 1 in\(^2\) should have a temperature of at least 10°F immediately before being surrounded by fresh concrete at a temperature of at least 55°F.

• **Condition of Subgrade**
  a) Concrete should not be placed on frozen Subgrade material.

• **Length of Protection Periods**
  a) Air Entrained Concrete

<table>
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<th>Exposure Class</th>
<th>Type I or II Cement</th>
<th>Type III cement, or Accelerator, or 100 lb/cy of additional Cement</th>
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<tr>
<td>Not Exposed</td>
<td>2 days</td>
<td>1 day</td>
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<tr>
<td>Exposed</td>
<td>3 days</td>
<td>2 days</td>
</tr>
</tbody>
</table>

b) Non Air Entrained Concrete

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<tr>
<th>Service Category</th>
<th>Type I or II Cement</th>
<th>Type III cement, or Accelerator, or 100 lb/cy of additional Cement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – no load not exposed (includes foundations and substructures)</td>
<td>2 days</td>
<td>1 day</td>
</tr>
<tr>
<td>2 – no load, exposed (includes massive piers and dams that have surfaces exposed to freezing and weathering in service)</td>
<td>3 days</td>
<td>2 days</td>
</tr>
<tr>
<td>3 – partial load, exposed (includes structures exposed to the weather that may be subjected to small, early-age loads)</td>
<td>6 days</td>
<td>4 days</td>
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<tr>
<td>4 – full load (includes structural concrete requiring temporary construction supports to safely resist construction loads)</td>
<td>The duration of protection shall be determined by field-cured concrete compressive strength cylinder tests or by the use of in-place maturity methods Confirm Strength requirements required by specs for removal of formwork, shores and reshores. (ACI 347)</td>
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</tr>
</tbody>
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*Article by Ryan Decker, ICACI Director*
The sun sets at 5:15 pm and you are consumed with finishing your building pad or turning your parking lot black (make that gray). Your site was stripped under warm sunshine with a stiff breeze straight out of the south. The scrapers and tri-axles rode high. This evening, however, your project lies quiet, beat up, wet from constant rain and deeply rutted from those same tri-axles. After carefully considering the myriad options, you determine that chemical modification of your subgrade soils will likely be the most cost-effective way to stabilize the soils and salvage your schedule.

But several questions will need answered before mobilizing the stabilization contractor. First, what is the desire result, modification or stabilization? Will the soils react with chemicals? Is cement, lime, fly ash or a combination of these the appropriate additive for the particular soil type? What is the appropriate chemical application rate to achieve the desired result?

For the purposes of this article, answers to these questions will reference Indiana Department of Transportation’s (INDOT) publication, Design Procedures for Soil Modification or Stabilization. The definitions and recommendations contained therein serve as the basis for those provided in this article.

The answer to the first question, modification versus stabilization, simply determines if the strength increase in the soil allowed by the addition of chemicals will be taken into account in the structural design process. According to INDOT:

“The purpose of subgrade modification is to create a working platform for construction equipment. No credit is accorded this modification in the pavement design process. The purpose of subgrade stabilization is to enhance the strength of the subgrade and this increased strength is taken into account in the pavement design process.”

Whether or not the soils are able to be stabilized or modified (ie. will react with lime, cement, fly ash or blends) is determined through laboratory testing. Per INDOT, if a soil is suitable for stabilization, the unconfined compressive strength gain over that of the natural soils must be at least 50 psi and 100 psi for lime-soil and cement-soil mixtures, respectively. A soil suitable for modification should exhibit an unconfined compressive strength gain of at least 30 psi over that of the natural soils for any chemical-soil blend.

The criteria for chemical selection, while similar for stabilization and modification, do differ. INDOT provides the following criteria:

<table>
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<th>Stabilization/Modification</th>
<th>Index Properties of Soils</th>
<th>Chemical Additive</th>
</tr>
</thead>
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<tr>
<td>Stabilization</td>
<td>PI &gt; 10 and clay content &gt; 15%</td>
<td>Lime</td>
</tr>
<tr>
<td>Stabilization</td>
<td>PI ≤ 10 and silt/clay content &lt; 20%</td>
<td>Cement</td>
</tr>
<tr>
<td>Modification</td>
<td>PI &gt; 10 and silt/clay content &gt; 35%</td>
<td>Lime</td>
</tr>
<tr>
<td>Modification</td>
<td>20 &lt; PI &gt; 5 and silt/clay content &gt; 35%</td>
<td>Lime/fly ash blends</td>
</tr>
<tr>
<td>Modification</td>
<td>PI &lt; 10 and silt/clay content ≤ 35%</td>
<td>Cement/flyash blends</td>
</tr>
<tr>
<td>Modification</td>
<td>$0 &lt; \text{PI} \leq 15 \text{ and clay content } \leq 15%$</td>
<td>Cement</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Modification</td>
<td>$5 &lt; \text{PI} &lt; 15 \text{ and clay content } &lt; 15%$</td>
<td>Fly ash</td>
</tr>
</tbody>
</table>

Notes:  
- PI = plasticity index (the range of water contents where the soil exhibits plastic properties.)  
- Clay content is that amount of material passing the $2\mu$ sieve.  
- Silt/clay content is that amount of material passing the #200 sieve.

After the chemical additive is selected, the appropriate application rate can be determined via additional laboratory testing. For instance, pH testing is used to determine the application rate for lime. The application rate for cement is based upon the soil’s AASHTO Classification. The application rate for fly ash is that which provides the maximum standard proctor dry density. Typically, the application rates for lime, cement and fly ash range from 4% to 6%, 3% to 6% and 10% to 15%, respectively. Combinations of lime, cement and fly ash can also be employed to enhance effectiveness based upon INDOT’s guidelines.

Starting a construction project in late fall or early winter in Indiana is not for the faint of heart. Rain and snow, colder temperatures and decreased sunlight can join forces to turn your site into a soft, muddy mess. But before your schedule is sunk like that tri-axle on the entrance road, get the answers. Is chemical modification or stabilization a viable option? Which chemical additive is appropriate? And, finally, at what rate should chemicals be applied?

*Article by Justin Lowder, ICACI Director*

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**Membership Renewal Time!**

**Now is the time** to get your 2012 Indiana Chapter membership renewal submitted. A renewal form is included for convenience with this edition of the Palindrome.

Making use of 21st century technology, ICACI has transitioned from printed paper-copy membership directories to electronic (pdf) format. The first version of the new directory was sent to our membership in 2011. This change will save the Chapter significant printing costs and allow better real-time management of member information. Information provided on membership renewal forms is retained in a membership database that can be converted relatively quickly into the directory format.

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**Trine University Student Certification Program Held**

A certification exam was held for 17 engineering students at Trine University in Angola on December 8. Special thanks to the folks at Speedway Redi Mix who provided the concrete and facilities and to the following individuals who volunteered their time to help proctor the performance exam:

- Joe Thomas, Speedway Redi Mix
- Doug Schuette, W.R. Grace
- Steve Crawford, Irving Materials
- Brad Ewart, Patriot Engineering
- Jack Springer, BASF
- Charlie Bloss, Aggregate Industries
- Brian Lackey, Eagle Ready Mix
- Andy Kress, Ernst Concrete
Upcoming Certification Dates

The dates for upcoming ACI Concrete Field Testing Technician, Level 1 programs are indicated below. Additional dates will be determined in the near future.

January 6-7   Ft. Wayne  Class/Exam (Marriott Courtyard North)
            Performance Exam (Speedway Redi Mix)

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.

For a registration flyer or questions about the program, please contact Eileen Dick ~ phone (317) 872-6302.

The ACI – Indiana Chapter extends a big “THANK YOU!!” to Builder’s Concrete for hosting the Indianapolis area certification programs in 2011.
ICACI Officers and Board of Directors

President: Jack Springer – BASF Admixtures
(260) 341-0606 jack.springer@basf.com
Vice President: Don Corson – American Structurepoint
(317) 547-5580 dcorson@structurepoint.com
Past President: Mike Rose – Alt & Witzig Engineering
(317) 875-7040 mrose@altwitzig.com
Treasurer: Tom Grisinger - Lehigh Cement Co.
(317) 409-3218 tgrisinger@lehighcement.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: Rich Gardner – CeraTech, Inc.
(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.
To all members of the Indiana Chapter of the American Concrete Institute:

Attached you will find the membership renewal form for the 2012 membership year.

I would like to emphasize the benefits of Indiana Chapter ACI membership. Affiliated with the American Concrete Institute International, the Indiana Chapter is a nonprofit organization that is dedicated to advancing concrete knowledge and is operated exclusively for educational and scientific purposes. The Indiana Chapter ACI covers nearly the entire state of Indiana. Among the 100+ members are owners, engineers, educators, ready-mixed suppliers, material suppliers, precast fabricators, contractors, testing labs, and interested individuals. The nine-member board of directors is composed of representatives from our membership.

Benefits of Indiana Chapter ACI (ICACI) membership:
- Individual dues are only $40 per year.
- Certification programs for ACI Concrete Field Testing technicians Grade 1 and ACI Concrete Flatwork Finisher Certification.
- Annual Scholarships to students in concrete-related fields of study at Indiana colleges.
- Free use of our technical library. Many ACI publications are available for free check-out.
- Great educational and technical programs, including our popular Concrete 101 Seminar.
- The Palindrome, our chapter newsletter, delivered to you by email.
- Our ICACI annual membership directory.
- Lots of opportunities to talk about concrete with others who care.
- Have a direct line to the board of the ICACI.
- Networking opportunities at ICACI programs and events.

Please complete and return the membership renewal form with your payment. Select the appropriate membership classification. The information you provide about yourself and your Company will be included in the Membership Directory. For those selecting “Organizational” or “Contributing” member classification, please indicate the Primary Member for your Company; future renewals will be sent to the Primary Member. Most of the communication to our membership will be handled through email, so please list your email address. In addition, Contributing members receive free advertisement in our Membership Directory and a link to their Company in our ICACI newsletter.

Thank you for your support of the Indiana Chapter ACI.

Respectfully Submitted,

Jack Springer
President, ICACI
2012 MEMBERSHIP RENEWAL

Thank you for renewing your membership with the Indiana Chapter of ACI.

Please use the attached forms to provide contact information for the ICACI Directory and our member database. Contributing and Organizational Member companies should indicate a Primary Member, who will serve as the contact person for your company. Correct email addresses are very important, as we send everything out through emails to our membership. Please indicate if you are a member of ACI-International and provide your member number.

The membership year is January 1st to December 31st. Please send/email the attached information along with your payment to ICACI at the address provided above.

MEMBERSHIP CLASSIFICATION

Contributing: $250.00
Open to a person, firm, corporation, society, educational institution, government agency or other organization electing to give greater to the Chapter by contributing a larger amount of dues. Six (6) representatives shall receive benefits of Affiliate membership and Contributing member receives advertisement in Membership Directory and Chapter newsletter "Palindrome." Please include artwork (Business card size) for membership directory and newsletter. Please provide information on each individual under this Contributing membership on the attached form.

Organizational: $200.00
Open to a person, firm, corporation, society, educational institution, government agency or other organization. Six (6) representatives shall receive benefits of Affiliate membership. Please provide information on each individual under this Organizational membership on the attached form.

Individual: $40.00
For anyone who belongs to ACI-International. ACI-International members may belong to any number of chapters, but can only hold office in one chapter. Please provide your information on the attached form.

Affiliate: $40.00
For anyone NOT a member in any classification of ACI-International. Affiliate Members may actively participate in local Chapter affairs except that they may not hold office within the Chapter, nor vote on propositions before the International membership. Please provide your information on the attached form.

Student: $5.00
Shall be less than 28 years of age and a registered student at an educational institution. Graduate students less than 32 years of age may be granted student membership when the graduate student’s faculty advisor endorses request for such. A Student Member shall neither vote nor hold office. Please provide your information on the attached form.

Faculty Advisor: $0
Open to one faculty member of the Department of Civil Engineering, Department of Construction Management, or similar department at an Indiana college that provides a concrete-related field of study. A Faculty Advisor Member shall neither vote nor hold office. Please provide your information on the attached form.
2012 ICACI Membership Directory Information

Please provide the following information for use in our Membership Directory and return this form with your Membership Renewal. Please provide email addresses, as this is our primary means of providing communication of upcoming events, newsletters, programs, etc.

Individual, Affiliate, Student and Faculty Advisor Member Information:

Name __________________________ ACI-International Member No. ______________________

Company Name ________________________________

Email __________________________ Website ______________________

Address ________________________________

City, State, Zip ________________________________

Phone No. (____) ________________

Please check the box that best describes your company (check only one)

- Contractor
- Structural Engineer
- Material Supplier (cement, admixture, aggregate, etc.)
- Concrete Producer
- Testing Agency
- Owner
- Student
- Educator
- Other

Contributing and Organizational Member Information (Next Page)
ICACI Contributing and Organizational Member Information:
(Please indicate the Primary Member or “contact person” for your Company’s membership.)

Company Name: ________________________  Website: ______________________

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2012 ICACI Membership Renewal
Remittance Form

Please return pages 3, 4, and 5 of this form with payment. Payment may be made by check or credit card. Please see below.

Check Membership Classification (select only one)

- □ Contributing $250
- □ Organizational $200
- □ Individual $40
- □ Affiliate $40
- □ Student $5
- □ Faculty Advisor $0

_____ Check: Please make payable to Indiana Chapter – ACI and mail with this form to:
IC-ACI, 3500 DePauw Blvd., Suite 1081, Indianapolis, IN 46268-1136

_____ Credit Card: Please fax this Registration Form with credit card information to (317) 872-6313

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Concrete Maturity and Mix Design Selection

Concrete Maturity Use for Mix Design and Thermal Control

Are there ways to determine in-place concrete strength in real-time to more effectively manage work flow on construction projects? Find out more at this informational program sponsored by the Indiana Chapter – American Concrete Institute!
Concrete Maturity – “What is the strength?”

Indiana Chapter - ACI - Informational Program
Date: Tuesday, January 10, 2012 (Breakfast Program)
Time: 8:30 a.m. (Breakfast/Sign-in 8:00-8:30; Program 8:30-9:30)
Cost: $15.00 (Register by January 3, 2012 – see attached Registration form)
1.0 Engineering Professional Development Hour (PDH) available

Location: Pyramid 3 – Lower Level
3500 DePauw Blvd
Indianapolis, IN

Presenter: Tom Luby, PE (Engius, LLC)

Engius has developed the IntelliRock system as a concrete maturity and temperature profiling system that helps complete construction projects more efficiently by providing real-time concrete strength and temperature data. Since the introduction of the IntelliRock system in 2002, over 46 Departments of Transportation have approved the system. The effectiveness of the IntelliRock system has been proven on all types of projects, in all types of weather conditions on projects across the country.

Speaker Bio

Tom Luby graduated from Auburn University in Mechanical Engineering and has worked in the industrial service and construction business for 30 years. He received his Professional Engineers license in Ohio and an MBA from Case Western Reserve University. He has been with Engius for 9 years as Vice President of Sales. He works with customers in highway, bridges, wastewater, utility, commercial, precast, ready-mix, and any concrete construction.

Please join us on Tuesday morning, January 10, 2012 to learn more!
 Registration: Concrete Maturity and Mix Design Selection

Registration Information:  Deadline January 03, 2012  
(Program Date: January 10, 2012)

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Please send registration to: Indiana Chapter- ACI
Mail: Indiana Chapter ACI  
3500 DePauw Blvd. Suite 1081  
Indianapolis, IN 46268  
Fax: (317) 872-6313 (Attn: Eileen Dick)  
Email: edick@irmca.com

PAYMENT INFORMATION – Check or Credit Cards Accepted:

CHECKS: Please make check payable to: Indiana Chapter ACI  
And mail with copy of registration to above address.

CREDIT CARDS: Please provide the information below.

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