

PCI Convention and PCI/FHWA/FIB International Symposium Preview Orlando, Florida • September 24-27



The sunshine, tropical breezes and palm trees of Orlando, Florida, will welcome all to the 46th PCI Convention and Exhibition and the PCI/FHWA/*fib* International Symposium on High Performance Concrete for an exciting program packed with practical information, lively discussion and, of course, fun.

Held September 24-27 at the Orlando World Center Marriott, the theme of this year's convention is "Reaching Out to the Next Generation." PCI continues to keep our industry fresh and exciting in order to attract bright young talent.

As part of the PCI/FHWA/*fib* International Symposium, over 70 peer-reviewed technical papers on HPC will be presented over the course of the convention. We are also pleased that **Tony Kane**, execu-

utive director of FHWA, and **Michel Virlogeux**, president of *fib*, will give keynote addresses at the convention.

A variety of sessions and seminars scheduled for the convention will focus on research and development programs, marketing strategies, innovations in high performance concrete, PRESSS Research Program, architectural precast concrete, and developing solutions for future growth of our industry.

As always, all major industry suppliers will be on hand in the Exhibition Hall to display the latest in products, materials, and services. The Exhibition is an excellent opportunity to talk with experts about a wide range of industry products, applications and advances while enjoying the ex-

hibitors' hospitality of several luncheons and receptions.

After the day's work is done, don't forget to visit the many attractions that make Orlando one of the top vacation destinations in America. Walt Disney World, EPCOT Center, Disney's Animal Kingdom, MGM Studios, and Universal Studios are minutes away.

For spouses/guests of convention attendees, an exciting program has been prepared filled with entertainment and guided tours. PCI's Annual Golf Tournament is scheduled for Friday, September 22.

On the following pages you will find the detailed Convention Program, Spouses/Guests Program and a listing of the convention exhibitors. Make plans now to join us in Orlando in September.

Convention/Symposium Program

Saturday • September 23

8:00 a.m. to 5:00 p.m.

Convention Registration

8:00 a.m. to 5:00 p.m.

Committee Meetings

Attend the committee meetings of your choice and lend your support to the discussion of current and future industry concerns.

9:00 a.m. to 5:00 p.m.

Annual CPCI Board of Directors Meeting

Registrants are invited to observe.

Sunday • September 24

8:00 a.m. to 6:00 p.m.

Convention Registration

9:00 a.m. to 5:00 p.m.

PCI Board of Directors Meeting

Registrants are invited to observe.

9:00 a.m. to 5:00 p.m.

Committee Meetings

1:30 p.m.

Exhibit Grand Opening

1:30 p.m. to 5:00 p.m.

IPHA and PCI Joint Hollow-core Meeting

This is a special meeting of the PCI Hollow-Core Slab Producers Committee and the International Prestressed Hollow Core Association. Nominated members of IPHA and PCI will lead discussions. The IPHA will also convene for its annual meeting.

- "Sound Barrier Walls and Wall Panels," Ollis Korander, IPHA member, and Roger Becker, Precast/Prestressed Concrete Institute member
- "Fire Testing," Arnold Van Acker, IPHA member
- "Detailing: Large Openings Diaphragm Action," Geoff Bailey, IPHA member, and Roger Becker, Precast/Prestressed

Concrete Institute member

- "Ancillary Concrete Products Which Aid the Use of Hollow-Core," Lambert Teunissen, IPHA member, and John Saccoman, Precast/Prestressed Concrete Institute member
- "Strand Bond Pull Out Tests," Bruce Russell, Precast/Prestressed Concrete Institute member

1:30 p.m. to 5:00 p.m.

PRESSS — Developing Innovative Solutions for Precast Frame and Wall Systems

Chairman: Mario J. Bertolini

Blakeslee Prestress, Inc.

Co-Chairman: Vilas Mujumdar

Division of the California State Architect

This session will cover presentations on several projects that have been carried out under the PRESSS (Precast Seismic Structural Systems) Research Program. At the

culmination of this program, a large-scale five-story precast concrete building was tested under severe seismic loading at the University of California, San Diego, California. The test validated the use of precast wall and frame systems in high seismic regions, and the results obtained are being used to develop design guidelines that emphasize the inherent advantages of precast, prestressed concrete systems in various seismic zones.

The session will also include discussion of some significant changes in the new International Building Code 2000 that are likely to affect precast producers in most seismic zones. The session will conclude with a discussion, comment, observation, and question and answer period.

- "Introduction and Overview of Today's Session," Mario J.

Keynote Speakers

Opening Ceremonies

Monday, September 25, 8:00 a.m.

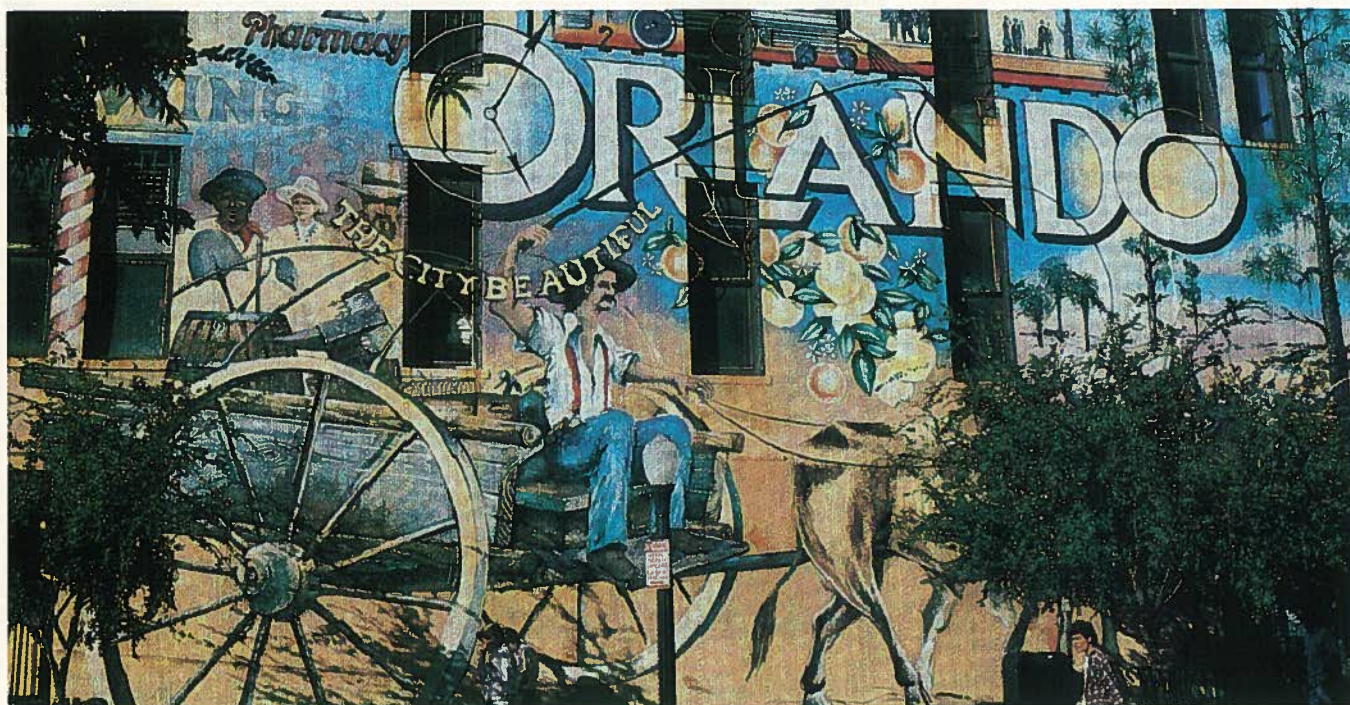


Tony Kane
Executive Director of FHWA



Michel Virlogeux
President of fib

A major highlight of the convention will be the two keynote addresses by Tony Kane, executive director of FHWA, and Michel Virlogeux, president of fib. Mr. Kane's talk will be on "High Performance Materials: An Integral Part of FHWA's Vision for the Future." Dr. Virlogeux's presentation will be on "The Importance of Architectural Aesthetics in the Design of Prestressed Concrete Bridges."



- **Bertolini**, Blakeslee Prestress, Inc.
- "Overview of PRESSS (Precast Seismic Structural Systems) Research Program and Displacement Based Design Approach," **John F. Stanton**, University of Washington
- "Testing and Evaluation of the PRESSS Five-Story Precast Building," **Sri Sritharan**, Iowa State University, and **M.J. Nigel Priestley**, University of California at San Diego
- "Design Guidelines Based on Research and Testing of the PRESSS Five-Story Precast Prestressed Concrete Test Structure," **Suzanne D. Nakaki**, The Nakaki Bashaw Group, Inc., and **John F. Stanton**, University of Washington
- "Lateral Load Behavior of Unbonded Post-Tensioned Walls with Ductile Vertical Joint Connectors," **Richard Sause**, **Stephen P. Pessiki**, and **Chen Zhao**, Lehigh University
- "Design of Precast Concrete Shear Walls to Meet the Latest Code Provisions," **Ned M. Cleland**, Blue Ridge Design, Inc.
- "Codified Design Recommendations for PRESSS Research and Update on Latest NEHRP Provisions," **Neil M. Hawkins**, University of Illinois at Urbana-

Champaign

- "Seismic Code Issues Related to Precast Prestressed Concrete Structures," **S.K. Ghosh**, S.K. Ghosh Associates, Inc., and **Neil M. Hawkins**, University of Illinois at Urbana-Champaign

3:30 p.m.

Cocktail Party

On the first day of the exhibition, come to relax, meet with your colleagues, and see the latest products, services, and materials furnished to our industry.

Monday • September 25

8:00 a.m. to 10:30 a.m.

Breakfast & Opening Ceremonies

Join PCI's Chairman **William Whitcher**, Coreslab Structures (MIAMI), Inc., as he officially calls the convention/symposium to

order. Officers of the Institute will make brief reports, followed by special PCI and *fib* recognitions.

Our co-sponsors for the symposium, FHWA and *fib*, will also address the gathering. **Tony Kane**, executive director of the Federal Highway Administration (FHWA), will give a talk entitled, "High Performance Materials: An Integral Part of FHWA's Vision for the Future." **Michel Virlogeux**, president of the Fédération Internationale du Béton (*fib*), will speak on the importance of aesthetics in designing bridges.

10:30 a.m.

Exhibitors "Welcome to Orlando" Reception

A wonderful opportunity to browse through the exhibit hall.

12:00 p.m.

Luncheon



Eighth Annual PCI Golf Tournament

The Eighth Annual PCI Golf Outing is scheduled for Friday, September 22. Make arrangements now to arrive at the convention early so you can participate in this not-to-be-missed event. For complete details on the golf outing, contact PCI headquarters or e-mail us at info@pci.org.

1:30 p.m. to 5:00 p.m.

Research and Development — Developing Solutions for Future Industry Growth

Chairman: **Thomas D'Arcy**
The Consulting Engineers Group,
Inc.

This session will cover presentations on several PCI research fellowships and research projects, including design criteria for headed studs, behavior of thin spandrel beams and stemmed members, insulated sandwich panels, and various projects related to precast concrete connections and seismic design currently underway at various universities and research institutions.

- "Design Criteria for Headed Studs," **Donald F. Meinheit** and **Neal S. Anderson**, Wiss, Janney, Elstner Associates, Inc.
- "Behavior of Thin Precast Spandrel Beams Under Torsion," **Nur Yazdani**, Florida State University
- "Traffic Forces and Temperature Effects on Shear Key Connections for Adjacent Box Girder Bridges," **Richard A. Miller**, University of Cincinnati
- "Shear Behavior of Pretensioned Stemmed Members," **Maheer K. Tadros** and **Panya Noppakunwijai**, University of Nebraska
- "Confinement Effectiveness of High Strength Spiral Reinforcement in Prestressed Concrete Piles," **Benjamin Graybeal**, **Michael Mudlock** and **Stephen Pessiki**, Lehigh University
- "Composite Behavior of Precast Concrete Sandwich Wall Panels," **Stephen Pessiki**, **Byoung-Jun Lee** and **Alex Mlynarczyk**, Lehigh University
- "Prestress Losses in High Strength Concrete," **Maheer K. Tadros** and **Nabil Al-Omaishi**, University of Nebraska
- "Seismic Behavior and Design of Unbonded Post-Tensioned Precast Walls with Large Openings," **Yahya (Gino) Kurama** and **Michael Allen**, University of Notre Dame
- "Effect of Structural Configuration and Joint Details on the Seis-



mic Response of Parking Structures," **Robert Fleischman** and **Kenneth Farrow**, University of Notre Dame

1:30 p.m. to 5:00 p.m.

Precast, Prestressed Hollow-Core Co-chairmen: **Robert McCormack** Spancrete Industries, Inc.

Jeffrey Butler
Iowa Prestressed Concrete, Inc.
Terry Treanor
Chairman of IPHA

This session will cover several topics including, automation of hollow-core production, jumbo hollow-core, concrete curing with microwaves, marketing and production statistics, repair of hollow-core using composites, safety issues in the plant and at the jobsite, and a Powerpoint presentation about marketing.

1:30 p.m. to 5:00 p.m.

Precast, Prestressed Piling

This session will feature case studies and product analyses of precast, prestressed concrete piling nationwide.

- "Marketing Precast, Prestressed Concrete Piles to the Geotechnical Engineers"
- "The Design of Precast, Prestressed Concrete Piling: The Need to Understand Both the Structural Design Capacity and the Geotechnical Environment"

- "The Size of the Precast, Prestressed Concrete Piling Market and its Relation to the Overall Precast Concrete Industry"
- "Precast, Prestressed Concrete Piling: Case Histories of Successful Marketing and Successful Projects"

1:30 p.m. to 5:30 p.m.

High Performance Concrete — General History, Marketing and Implementation

Chairman: **Charles W. Dolan**
University of Wyoming

This session will include presentations on the history and definition of high performance concrete, modeling service life, life-cycle analysis, marketing and implementation of high performance concrete for bridges.

- "Design and Construction of the Longest HPC AASHTO Girders for Highway Bridges in North Carolina," **Azam M. Azimi**, North Carolina Department of Transportation, and **Christian T. Ray**, TranSystem Corp.
- "High Strength Concrete in Cuba in the 1950's," **Domingo J. Carreira**, Consulting Engineer, and **Ignacio Martin**, Consulting Engineer
- "Education Requirements for High Performance Concrete," **M.R. Hansen**, South Dakota School of Mines and Technology

- "Effectiveness and Impact of a Polycarboxylate-Based High-Range Water-Reducing Admixture in a Precast/Prestressed Operation," **Charles Leidholdt**, High Concrete Structures, Inc., and **Charles Nmai**, and **Anthony Schlagbaum**, Master Builders, Inc.
- "Will HPC be the Material of Choice for Transportation Structures of the Future?" **Walter Podolny, Jr.**, Federal Highway Administration
- "Corrosion Modeling and Design Specifications for a 100 Year Service Life Along North Carolina's Outer Banks," **Rodger D. Rochelle**, North Carolina Department of Transportation
- "Defining the High Performance Concrete Requirements for Highway Structures," **Paul J. Tikalsky** and **Andrew Scanlon**, Penn State University
- "Does High Performance Concrete Provide High Performance Structures?" **Steen Rostam**, COWI Consulting Engineers and Planners AS
- "High Performance Concrete for Highway Structures: A Generic Review of Definitions, Mixture Proportions and Performance Levels," **Bryan J. Magee**, University of New Hampshire

1:30 p.m. to 5:00 p.m.

High Performance Concrete — Materials and Mix Design

Chairman: **Suneel N. Vanikar**, Federal Highway Administration

This session will include presentations on material properties, mix design, use of admixtures, durability, placeability, and avoidance of delayed ettringite formation.

- "Properties and Usability of HPC with Recycled Aggregates," **Andrzej B. Ajdukiewicz** and **Alina T. Kliszewicz**, Silesian University of Technology
- "Time Development of Shrinkage of High Performance Concrete," **Franc Saje**, **D. Saje**, and **F. Kavcic**, University of Ljubljana
- "Long-Term Effectiveness of Corrosion-Inhibiting Admixtures and Implications on the Design of Durable Reinforced

2000 Convention Committee Meeting Schedule

FRIDAY, SEPTEMBER 22

a.m.

CPCI Executive

p.m.

CPCI Technical

SATURDAY, SEPTEMBER 23

a.m.

Bridge Producers

Building Code

Connection Details

CPCI Marketing

Erectors

FIB Commission 5

Hollow-Core Slab Producers

Market Plan/Promotion Teams

Plant Certification

Plant Safety

Precast Sandwich Wall Panels

Productivity

Research & Development

p.m.

Bridge Design Manual Steering

CPCI Directors & Annual Meeting

FIB Steering

FIB Task Group 4.3

Financial Performance

JOURNAL Advisory

Seismic

Sound Wall

Student Education

SUNDAY, SEPTEMBER 24

a.m.

ATLSS/PRESSS

Bridges

Bridges (breakout)

Field Certification

Industry Handbook

Industry Statistics

International Prestressed Hollow

Core Association

Parking Structures

PCI Board of Directors

Plant Personnel Training

Tolerances

p.m.

Architectural Precast Concrete

FRP Composites

High Performance Concrete

Joint U.S. Hollow-Core Producers and IPHA

Prestressed Concrete Piling

Prestressed Concrete Poles

Prestressing Steel

TUESDAY, SEPTEMBER 26

a.m.

2001 PCI Board of Directors

Membership

Professional Members

Public Affairs

p.m.

AASHTO T-10/PCI Bridges

Technical Activities

- Concrete Structures," **Charles Nmai**, Master Builders, Inc., and **David B. McDonald**, USG Corporation
- "Durability of Concrete Containing Fine Pozzolan," **Karthik Obla** and **Russell Hill**, Boral Material Technologies, Inc., and **Michael D. Thomas** and **R.D. Hooton**, University of Toronto
- "Study of High Performance Concrete, Regarding the Effects of Rice-Husk Ash Substitutions," **Gemma Rodriguez de Sensale**,

Instituto de Ensayo de Materiales, and **D.C.C. Dal Molin**, U.F.R.G.S.

- "HPC Mix Characterization Using X-Ray Diffraction and Electron Microprobe Analyses," **I. Vidican**, **M.F. Petrou**, **H. Zur Loye** and **K.A. Harries**, University of South Carolina
- "Effect of Silica Fume, Superplasticizer and Concrete Strength on Steel-Concrete Bond," **Mohammad Reza Esfahani**, Ferdowsi University
- "High Performance Grouts for

Durable Post-Tensioned Bridges," **Andrea Schokker**, Pennsylvania State University, and **Michael E. Kreger** and **John E. Breen**, University of Texas at Austin

- "Development of High Performance Concrete Using Quarry Dust as Partial Replacement of Sand," **Md. Safiuddin**, University of Malaysia Sabah, and **M.F.M. Zain** and **K.M. Yusof**, University of Kebangsaan Malaysia

5:30 p.m. to 7:30 p.m.

Architectural Precasters Get-Together Reception

Join us for an opportunity to meet and socialize with other architectural precasters.

1:30 p.m. to 5:00 p.m.

Talking Safety, Thinking Safety

Chairman: **Joseph T. Dugan**
Spancrete Industries, Inc.

- "Ergonomics and OSHA Case Histories in Past Six Months and Results," **Ken Kleinman**, Steven & Lee Attorneys
- "Safety as a Profit Center," **Scott Bertschinger**, Spancrete, Inc.
- "Fall Protection," **Joe Dugan**, Spancrete Industries, Inc.

Tuesday • September 26

8:30 a.m. to 11:45 a.m.

Architectural Precast Concrete

Chairman: **Donald G. Clark**,
Clark Pacific

- "Automation in Italian Precast Plants," **Marvin F. Hartsfield**, Concrete Technology, Inc.
- "An Evaluation of Exterior Cladding Materials," **Kenneth Bownds**, CDC, Inc.
- "Precast and the 'One Hundred Year Building' for American Universities," **Barbara White**, Rice University
- "The Precast Concrete Projects of John J. Earley," **Robert F. Armbruster**, The Armbruster Company, Inc.
- "European Production Techniques and Applications," **Arnold van Acker**, ADDTEK Research & Development

8:30 a.m. to 11:45 a.m.

FIB's Approach to High Performance Concrete Structures

Chairman: **Charles Wilson**

Head of the United States Delegation in *fib*

This session includes presentations on *fib*'s approach to high performance concrete for precast buildings, codification, and the importance of service life design for future concrete structures.

- *fib*'s Approach to High Performance Concrete – Precast Concrete for Buildings," **Arnold van Acker**, ADDTEK R&D and Chairman of *fib* Commission 6, "Prefabrication"
- "High Performance Concrete — *fib* Approach to Codification," **Joost Walraven**, Delft University (Walraven will take over *fib* presidency in Orlando)
- "Future Concrete Structures – Service Life Design Becoming a Must," **Steen Rostam**, COWI Consulting Engineers and Planners AS and Chairman of *fib* Commission 5, "Structural Service Life Aspects"
- "Applications of High Performance Concrete in Norway," **Jan Moksnes**, Consulting Engineer and Immediate Past President of *fib*
- "Seismic Design for Prefabricated and Prestressed Concrete Moment Resisting Frames," **Fumio Watanabe**, Kyoto University and Convenor of *fib* Task Group 7.4, "Prestressed Concrete Structures Designed for Earthquake Resistance"
- "The Vasco da Gama Bridge, Lisbon," **Luis Machado** and **Michel Bernard**, Responsible Design Engineers, Portugal and France

8:30 a.m. to 11:45 a.m.

Marketing — New Business Opportunities

Chairman: **Michael E. Quinlan**
Gate Concrete Products Co.

Part 1

Our PCI Target Markets: Where Are They Now? Where Are They Going?

Michael Quinlan, Gate Concrete

Products Co., and **Jim Voss**, JVI, Inc., PCI's Chairmen of the Marketing and Communications Committees, respectively, co-host this unique McGraw-Hill Construction Information Group panel.

Moderated by a senior McGraw-Hill executive and staffed with their authorities, this session promises to deliver extraordinary and very important information from the group's leading resources in Engineering, Architecture and Market Data.

Part 2

\$1,300,000,000 Potential Business Opportunity

A customer is seeking to deliver to the marketplace by 2010 an integrated wall system that can:

- Reduce loss of life and property damage from natural hazards
- Reduce environmental impact on natural resources
- Reduce maintenance costs
- Reduce cycle time
- Reduce onsite labor
- Improve structural performance
- Improve durability
- Improve thermal efficiency
- Improve moisture resistance

If you think that precast concrete might be the solution for which this customer is looking for, then this is the one session that you definitely want to attend.

Hear first-hand about the exciting new Partnership for Advancing Technology in Housing (PATH), a public/private initiative created to improve the condition of American housing. PATH representatives will be on hand to share with us this industry-wide opportunity.

8:30 a.m. to 11:45 a.m.

Seismic

- "NEHRP 2000 — New Seismic Design Recommendations for Precast Concrete in the Latest National Earthquake Hazard Reduction Provisions"
- "A Proposed PCI Seismic Design Manual for Precast Concrete Structures in All Seismic Risk Areas"
- Practical Application of the Find-

ings of the PRESSS Program Research — New Ways to Meet Seismic Design Codes"

- "Case Histories of Precast Concrete Projects Built Using the Latest Seismic Design Requirements"
- "IBC 2001 and ACI 318 Building Code 2002 — What is New for Precast Concrete?"

8:30 a.m. to 11:45 a.m.

High Performance Concrete — Laboratory Research and Future Direction

Chairwoman: **Catherine W. French**

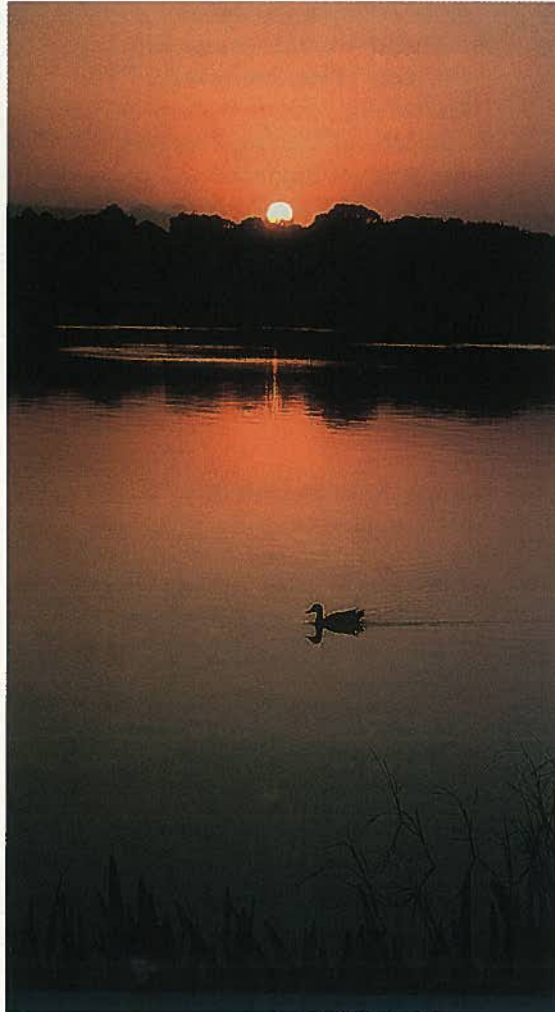
University of Minnesota

This session will include laboratory research on mix properties, compressive, flexural and tensile strengths, durability, ductility, high performance grout, reactive powder concrete, and new materials including development, testing and application of FRP and other nonmetallic corrosion-resistant reinforcements.

- "Behavior of High Performance Concrete Under Multiaxial Loading," **Torsten Hampel** and **Manfred Curbach**, Dresden University of Technology
- "Anchorage of Ribbed Bars in High Strength Concrete Beams," **Jonas Magnusson**, AB Jacobson & Widmark, and **Björn Engström**, Chalmers University of Technology
- "The Need for Air Entrainment in High Performance Concrete," **William Hall** and **Bruce W. Russell**, University of Oklahoma
- "Model to Predict Reinforcement Restrained Shrinkage Deformation of High-Strength Concrete Element," **Atiqur Rahman**, Dainchi Consultant, Inc., and **Tashiki Ayano** and **Kenji Sakata**, Okayama University
- "Theoretical-Experimental Analysis of High Strength Concrete Column Cross Sections Under Eccentric Compression Using Different Stress-Strain Relation-

ships," **Romel Vanderlei** and **Jose Samuel Giongo**, University of Sao Paulo

- "Chloride Penetration of High Performance Concrete," **B. Zeynep Savas**, Parsons Transportation Group, and **Michael Leming** and **Paul Zia**, North Carolina State University
- "Influence of Transversal Section



Shape on the Rotation Capacity of HPC Members," **Natalino Gattesco**, Universita di Udine

- "Chloride Penetration into Concrete with Lightweight Aggregates," **Steinar Helland**, Selmer ASA
- "A Low Cost Ultra High Performance Concrete for Impact Resistance," **Gro Markeset**, Norwegian Defence Construction Service

8:30 a.m. to 11:45 a.m.

High Performance Concrete —

Quality Concepts, Fabrication and Transportation

Chairwoman: **Mary Lou Ralls**

Texas Department of Transportation

This session will include presentations on quality control, curing procedures, test methods, instrumentation, placement and use of quality systems to produce durable high strength concrete products, fabrication and testing of bridge girders, prestressing techniques, delivery to the jobsite and erection of prestressed concrete members.

- "Concrete as a Substitute for Granite Cladding Attains High Performance Concrete Consideration as the Result of Exceptional Materials and Production Control," **Michael J. Boyle**, Valley Forge Laboratories, Inc.
- "Bringing High Performance Concrete From Laboratory to a Precast/Prestressing Plant: An Examination of Strength & Quality Control Issues," **Seamus F. Freyne**, **Bruce W. Russell** and **Thomas D. Bush**, University of Oklahoma
- "Correlation of Air Permeability with Rapid Chloride Permeability and Ponding Tests," **Dena Guth**, Jacobs/Sverdrup Civil, Inc., and **Paul Zia**, North Carolina State University
- "The Use of Maturity Method as a Quality Control Tool for HPC Bridge Decks," **John Myers**, University of Missouri-Rolla
- "High Performance Concrete: Strength, Permeability and Shrinkage Cracking," **Surendra P. Shah**, Northwestern University, and **W. Jason Weiss**, Purdue University
- "Precast High-Strength Concrete Elements for the Construction of the High-Speed Lines Brussels-Cologne-Amsterdam," **Philippe Van Bogaert**, Ghent University
- "Investigations on Durability of High Performance Concrete,"

Gert Konig, Robert Krumbach and Karen Friedmann, University of Leipzig, and **Katrin Seyfarth and Uwe Heinrich**, Bauhaus-University of Weimar

- "A Rapid Migration Test for Evaluation of Chloride Penetration Resistance of High Performance Concrete," **Kyle Stanish, R.D. Hooton and M.D.A. Thomas**, University of Toronto
- "Precast Elements for Segmental Bridge Construction — The Bang Na Expressway, Bangkok," **Christian Brockmann**, University of Applied Sciences

12:00 p.m. to 1:30 p.m.

Luncheon

Stop by the exhibit hall for an informal luncheon.

1:30 p.m. to 5:00 p.m.

Exhibition

Come visit the exhibit hall for a full afternoon cordially hosted by PCI Associate Members and exhibiting suppliers to the industry. Complimentary refreshments will be served.

1:30 p.m. to 4:30 p.m.

Student Education — Key to Future Industry Growth

Chairman: **Alvin C. Ericson**
Technical Consultant

This session will include presentations on the importance of student education for industry growth, various architectural and structural applications of precast, prestressed concrete, employment opportunities in the precast, prestressed concrete industry, and PCI Design Awards programs for architectural and engineering students. The session will conclude with a discussion, comment, observation, and question and answer period.

- "Overview of Today's Session and PCI's Student Education Programs," **Alvin C. Ericson**, Technical Consultant
- "Importance of Student Education in the Future Growth of the Precast Prestressed Concrete Industry," **William E. Whitcher**, Coreslab Structures (MIAMI), Inc.

- "What is New in Architectural Precast Concrete?" **Charles E. Hilgeman**, Concrete Technology, Inc.
- "Structural Applications of Precast Prestressed Concrete," **Alvin C. Ericson**, Technical Consultant
- "Employment Opportunities in the Precast, Prestressed Concrete Industry," **Mark Fusani**, Concrete Technology, Inc.
- "Audio Visual Image Library Project," **Eric Steinberg**, Ohio University
- "Structural Testing Program for the Student Engineering Competition," **Richard A. Miller**, University of Cincinnati, and **Eric Steinberg**, Ohio University
- "Development of Student Architectural Design Awards Program," **Norm Lach**, Southern Illinois University

6:30 p.m.

Design Awards Dinner

Enjoy a gala evening of elegant dining, dancing and special musical guests. This event will feature a ceremony honoring the 2000 PCI Design Award winners.

Wednesday • September 27

8:30 a.m. to 11:45 a.m.

Architectural Management — Management Information Systems (MIS) — Better Accounting for Better Control

Chairman: **Donald G. Clark**
Clark Pacific

Speaker: **Thomas A. Conroy**
Oldcastle Precast, Inc.

Learn about key developments and considerations for MIS and how to efficiently combine accounting and operational data to produce a timely comprehensive picture of cash flows and profits and loss.

8:30 a.m. to 11:45 a.m.

Technical Update

- "DEF Research Update — Where We Are and Where We Are Going"
- "ACI 318 Building Code — What



Will Be New for the 2002 Code?"

- "Exciting Programs Underway for Professional Members," **Don Raths**, Raths, Raths and Johnson
- "Standardizing Connections — An Idea Whose Time Has Come — Lowering Costs, Lowering Design Time, Increasing Engineering Capacity and Developing a Better Relationship with Architects"

8:45 a.m. to 11:45 a.m.

Innovative Precast, Prestressed Concrete Structures

Chairman: **Norman L. Scott**

The Consulting Engineers Group, Inc.

- "COSI (Center of Science & Industry)" (PCI Design Award and Harry H. Edwards Industry Advancement Award Winner), **Charles E. (Bud) Hilgeman**, Concrete Technology Inc.
- "IJL Financial Center" (PCI Design Award Winner)
 - "Architectural Design Considerations," **Leonard Smith**, Smallwood, Reynolds, Stewart, Stewart & Associates Inc.
 - "Structural Design Considerations and Erection Highlights," **Stephen M. Hamvas**, Stanley D. Lindsey & Associates Ltd.

- "Overview of Recent Structures Framed with Precast Bracing Systems in High Seismic Zones," **Robert E. Englekirk**, Robert Englekirk Consulting Structural Engineers
- "The Terraces at Riverfront Recapture" (PCI Design Award Winner), **E. Fred Brecher**, Brecher Associates P.C.
- "Federal Metropolitan Detention Center" (PCI Design Award Winner), **Douglas L. Lorah**, High Concrete Structures Inc.

8:30 a.m. to 11:45 a.m.

High Performance Concrete — Construction Techniques

Chairman: **Henry G. Russell**
Henry G. Russell, Inc.

This session will focus on the techniques, systems, methods and procedures that facilitate construction, including transportation and placement of high performance concrete.

- "Fiber Reinforced HPC for In-Situ Cast Joints," **Bendt Aarup** and **Jan Karlsen**, Aalborg Portland A/S, and **Gösta Lindström**, Strängbetong
- "Experimental Study of the Composite Columns Filled with High Strength Concrete," **Silvana De Nardin** and **Ana Lucia Debs**, University of Sao Paulo
- "Workability of Self-Compacting Concrete," **Chiara Ferraris**, National Institute of Standards & Technology, **Lynn Brower**, Masters Builders Technologies, **Celik Ozyildirim**, Virginia Department of Transportation, and **Joseph Daczko**, Master Builders Technologies
- "The Effect of Curing on Early-Age Behavior of High Performance Concrete Bridge Decks," **Xiamong (Sharon) Huo** and **Ling Ung Wong**, Tennessee Technological University
- "Curing of Silica Fume Concrete Piles," **Ghulam Mujtaba**, **Michael Bergin** and **Charles Ishee**, Florida State Department of Transportation
- "HPC Overlays on Route 60 Over Lynnhaven Inlet in Vir-

PCI Convention Advisory Committee

Chairman: Ron Schlerf, Central Pre-Mix Prestress Co.
Robert D. Finfrock, Finfrock Industries, Inc.
William A. Lovell, Precast Technical Assistance Corp.
R. Wayne Lyle, ConArt, Inc.
Milo J. Nimmer, Spancrete Industries, Inc.

PCI/FHWA/FIB International Symposium Steering Committee

Suneel N. Vanikar, Federal Highway Administration
Terry Halkyard, Federal Highway Administration
Douglas Edwards, Federal Highway Administration
William Nickas, Florida Department of Transportation
Rüdiger Tewes, Fédération Internationale du Béton
Thomas B. Battles, Precast/Prestressed Concrete Institute
John S. Dick, Precast/Prestressed Concrete Institute
Paul Johal, Precast/Prestressed Concrete Institute
Gary H. Munstermann, Precast/Prestressed Concrete Institute

PCI/FHWA/FIB International Symposium Technical Committee

Chairman: Paul Johal, Precast/Prestressed Concrete Institute
Shuaib H. Ahmad, American Concrete Institute
Gerald H. Anderson, Wisconsin DOT
Mrinway Biswas, Duke University
William Brooks, W.R. Grace & Company
W. Vincent Campbell, Bayshore Concrete Products Corporation
Milo Cress, Federal Highway Administration
Anant Y. Dabholkar, FDG, Inc.
Om P. Dixit, Burk-Kleinpeter, Inc.
Charles W. Dolan, University of Wyoming
Catherine W. French, University of Minnesota
Geoffrey Frohnsdorff, National Institute of Standards & Technology
Charles H. Goodspeed, University of New Hampshire
Steinar Helland, Selmer A.S.A
Terence C. Holland, Consultant
Susan N. Lane, Federal Highway Administration

Richard A. Miller, University of Cincinnati
Charles K. Nmai, Master Builders, Inc.
Celik H. Ozyildirim, Virginia Transportation Research Council
Basile G. Rabbat, Portland Cement Association
Mary Lou Ralls, Texas DOT
Steen Rostam, COWI Consulting Engineers and Planners AS
Bruce W. Russell, University of Oklahoma
Henry G. Russell, Henry G. Russell, Inc.
M. Larbi Sennour, Raiser Precast Concrete, Inc.
Surendra P. Shah, Northwestern University
Marcia Simon, Federal Highway Administration
Luc Taerwe, University of Ghent
Louis N. Triandafilou, Federal Highway Administration
Taketo Uomoto, University of Tokyo
Paul Zia, North Carolina State University

ginia," **Michael M. Sprinkel** and **Celik Ozyildirim**, Virginia Transportation Research Council

- "Reinforced Concrete Columns Strengthened with High-Performance Concrete Jackets," **Adilson Roberto Takeuti** and **Joao Bento de Hanai**, University of Sao Paulo
- "Measurement of the Tensile Bond Strength of a High Performance Concrete Deck Overlay," **Leif Wathne**, Federal Highway Administration, and **V. Ramakrishnan** and **K.R. Santhosh**, South Dakota School of Mines and Technology
- "Cracking of Long-Span Prestressed Concrete AASHTO Girders During Production," **Paul Zia**, North Carolina State University, and **Alp Caner**, Parsons Brinckerhoff Quade and Douglas

8:30 a.m. to 11:45 a.m.

High Performance Concrete — Structural Design and Concepts
Chairman: **Richard A. Miller**
University of Cincinnati

This session will include presentations on design aspects of high performance concrete, including optimization techniques for slab design layout and seismic behavior of high strength structural elements, repair, and rehabilitation.

- "Composite Action of Flexural Members Made with High Strength Concrete," **Nabil Al-Omaishi** and **Maher K. Tadros**, University of Nebraska
- Anchorage Behavior of 0.6 in. (15.2 mm) Prestressing Strand in High Performance Concrete," **Robert W. Barnes**, Auburn University, and **Ned. H. Burnes**, University of Texas at Austin
- "High Performance Steel and High Performance Concrete in Composite Structures," **Josef Hegger** and **Peter Döinghaus**, Institute of Structural Concrete, Aachen University of Technology
- "Maximum Usable Concrete Strength Levels of Bridge I-Girders," **Zhongguo (John) Ma**, University of Alaska-Fairbanks
- "Design Optimization of High

Performance Concrete AASHTO Precast Prestressed Concrete Bridge I-Beams," **Joseph Saliba**, University of Dayton, and **David Tomley**, LEAP Software, Inc.

- "High Performance Concrete Columns Subjected to Single or Double Curvature Bending," **Prabir Kumar Sarker** and **B. Vijaya Rangan**, Curtin University of Technology
- "Stretched-Out Design of Precast Bridge Girders Using High Performance Concrete," **David Tomley** and **Lee D. Tanase**, LEAP Software, Inc.
- "Capacity of Shear Joints Between High-Strength Precast Elements and Normal-Strength Cast-in-Place Decks," **Konrad Zilch** and **R. Reinecke**, Technische Universitt Munchen
- "Repair and Retrofit of High Strength Concrete Moment Connections Using High Performance Composites — Cyclic Loading," **P.R. Chakrabarti** and **A.S. Mosallam**, and **E.K. Lau**, California State University

12:00 p.m. to 1:45 p.m.

Membership Luncheon

Enjoy a special closing luncheon that will include special recognitions and awards. The incoming chairman, **Saul Shenkman**, Unistress Corporation, will accept the gavel and address the issues that will face the industry in the year to come.

2:00 p.m. to 5:00 p.m.

Plant Personnel: Training of Plant Personnel Workshop

Moderator: **Joe Slobojan**
Rocky Mountain Prestress

This session will be conducted as a workshop to share management problems, approaches and solutions, as well as to network with CEOs and general managers from other precast concrete plants on the subject of training.

2:00 p.m. to 5:00 p.m.

Insurance and Risk Management — Techniques and Practices

Moderator: **Matt McAllister**

Iowa Prestressed Concrete, Inc.

Speaker: **Richard B. Usher**

Hill & Usher Insurance & Surety

This session will cover current trends in risk allocation with a discussion on how insurance products can work to protect your business interests.

2:00 p.m. to 5:00 p.m.

FIB Technical Activities

Workshop

- "Guide for Good Bridge Design: Presentation of a New *fib* Bulletin," (to be published in summer, will be available beforehand and also at the symposium), **Jean-Franois Klein**, Design Office Tremblat and Chairman of *fib* Commission 1, "Structures"
- "Special Design Considerations for Precast, Prestressed Hollow-core Floors: Presentation of the New *fib* Bulletin 6," **Arnold van Acker**, Partek Precast Concrete and Chairman of *fib* Commission 6, "Prefabrication"
- "Lightweight Aggregate Concrete: Recommended Extensions to the Model Code 90 — Identification of Research Needs — Case Studies," **Steinar Helland**, Selmer ASA
- "*fib* Model Code — The Future," **Joost Walraven** (newly elected President at the time of the session), **Michel Virlogeux** (Immediate Past-President at the time of the session), **Peter Marti**, (Professor at Swiss Institute of Technology and Chairman of *fib* Commission 4, "Modeling of Structural Behaviour and Design") and **Steinar Helland**, Selmer ASA

The average daytime temperature in Orlando during September is 90°F (32°C), with nighttime lows around 65°F (18°C). Formal dress will not be necessary for any of the social functions, but business dress will be appropriate for meetings.

2:00 p.m. to 5:00 p.m.

High Performance Concrete — Structural Performance and Code Requirements

Chairman: **Basile G. Rabbat**
Portland Cement Association

This session will include presentations on the evaluation of structural performance in terms of creep, shrinkage, camber and other long-term behavioral characteristics. Current ACI and AASHTO Code provisions including limits and required changes relevant to high strength concrete are discussed.

- "Concrete Railroad Ties Reinforced with Steel Fibers," **Paulo Bastos**, Sao Paulo State University, and **L.M. Pinheiro** and **T. Takeya**, University of Sao Paulo
- "Strength Design of Pretensioned Flexural Members for Prestress Transfer," **Panya Noppakunwijai** and **Maher K. Tadros**, University of Nebraska-Lincoln
- "On the Residual Behavior of HPC Slabs Subjected to High Temperature," **Roberto Felicetti** and **Pietro G. Gambarova**, Milan University of Technology
- "Potential for High Performance Concrete in Driven Pile Foundations," **George G. Goble**, George G. Goble Consulting Engineer, and **Mohamad Hussein**, Goble Rausche Likins and Associates, Inc.
- "Shear Cracking Behaviour of Prestressed Beams Made of High Strength Concrete," **Stephan Goertz**, Institute of Structural Concrete
- "Shear Capacity and Design Strength of Reinforced and Prestressed Members Cast with High Performance Concrete," **Dan Kuchma**, University of Illinois at Urbana-Champaign, and **Evan C. Bentz**, University of Toronto
- "Shear Strength of High-Strength Lightweight Prestressed Concrete Beams," **Brian Malone**, **Gannett Fleming**, and **Julio A. Ramirez**, Purdue University
- "Structural Reliability Analyses

of the Flexural Capacity of HPC Bridge Girders," **Eric Steinberg**, and **Chien-Hung Chen**, Ohio University

- "High Strength Concrete in ACI 318-99 and Ongoing Developments," **S.K. Ghosh**, S.K. Ghosh Associates, Inc.
- "Flexural Behavior of Prestressed Fiber Reinforced Concrete Bridge Beams," **Gian Luca Guerrini**, CTG SpA-Italcementi Group, **Gianpaolo Rosati**, Politecnico di Milano, and **Luigi Ragazzi**, AXIM Italia - Italcementi Group

2:00 p.m. to 5:00 p.m.

High Performance Concrete — FHWA Showcase Projects and Case Studies

Chairman: **Suneel N. Vanikar**
Federal Highway Administration

This session will include presentations on overviews and summaries of the demonstration projects sponsored by the FHWA and Various state departments of transportation, including follow-up reports on their performance; highlights from projects that have incorporated high performance concrete including problems and limitations.

- "Delaware's High-Performance Concrete Bridge Showcase: A Case Study," **Degang Li**, **Michael Chajes**, **Harry Shenton**, **Daniel Richardson** and **Gary Wenczel**, University of Delaware, **Jiten Soneji**, Delaware Department of Transportation, and **Kevin Folliard**, University of Texas at Austin
- "Use of High Performance Concrete in a Bridge Structure in Virginia," **Carin Roberts-Wollman** and **Tommy Cousins**, Virginia Tech, **Jose Gomez** and **Celik Ozyildirim**, Virginia Transportation Research Council
- "Design and Construction of the Charenton Canal Bridge, Charenton, Louisiana," **Henry Russell**, Henry G. Russell, Inc., and **Paul B. Fossier**, Louisiana Department of Transportation
- "Evaluation of High Perfor-

mance Concrete in Louisiana's First HPC Bridge," **John J. Roller**, Construction Technology Laboratories, Inc., and **Bryan Hassett** and **Robert N. Bruce**, Tulane University

- "Preliminary Results in the Development of a Precast Bent Cap System," **Eric E. Matsumoto**, California State University, **Michael E. Kreger**, University of Texas at Austin, **Mark C. Maggoner**, Walter P. Moore and Associates, and **Guclu Sumen**, Nelson Architectural Engineers, Inc.
- "Deflection of Prestressed Concrete Bridge Girders Made with High Performance Concrete," **Myint Lwin**, FHWA, Western Resource Center, and **Mohammad Sheikhezadeh** and **Bijan Khaleghi**, Washington State Department of Transportation
- "HPC in Virginia's Bridge Structure," **Celik Ozyildirim** and **Jose Gomez**, Virginia Transportation Research Council
- "Use of Very High Performance Concrete (VHPC) on Site," **Thierry Thibaux** and **Ziad Hajar**, Ent. Quillery & Cie Company Ent. Quillery et CIE
- "The Construction of the Lot Overpass for High Speed Line with Steel Truss Elements and High-Strength Concrete Girders," **Philippe Van Bogaert**, Ghent University



Convention/Symposium Spouse/Guest Program

Saturday • September 23

8:00 p.m. to 5:00 p.m.

Convention Registration

Sunday • September 24

1:30 p.m.

Exhibit Grand Opening

Join your spouse in the Exhibit Hall for the extravagant 2000 Convention/Exhibition Grand Opening

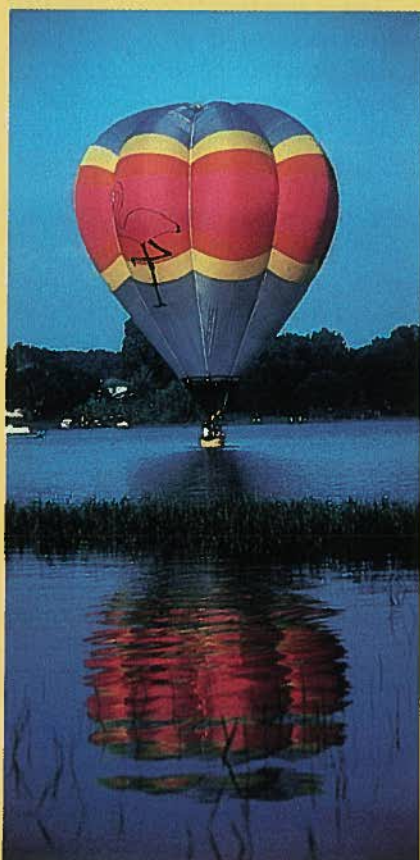
2:00 p.m. to 5:00 p.m.

Hospitality Room

The Hospitality Room is an ideal place to meet friends and relax. A docent will be on hand to provide assistance. The room will be open throughout the week.

3:30 p.m.

Cocktail Party



Monday • September 25

8:00 a.m.

PCI Business Meeting Breakfast

See main program. Tour participants will gather to leave the meeting at 9:15 a.m.

9:30 a.m. to 2:30 p.m.

Outlet Shopping Excursion (registration required)

Get your credit cards ready for a day of intense shopping at the Belz Factory Outlet World, where you can browse stores such as Adolfo II, Etienne Aigner and Pfaltzgraff. Shuttles will leave the hotel at 9:30, 10:30 and 11:30 a.m., and return at 11:00 a.m., and 12:00, 1:00 and 2:00 p.m.

10:30 a.m.

Tennis (registration required)

Play a game of tennis on one of Marriott's tennis courts.

11:00 a.m.

Golf at Hawk's Landing Golf Club (registration required)

Winding around three sides of the Marriott resort and convention center, Hawk's Landing Golf Club offers an exciting 18-hole challenge and a great golf experience. Following the re-design by Robert E. Cupp II of the original Joe Lee layout, the new Hawk's Landing provides challenges for all golfers and exquisite playing conditions amid the unique environment of the 2000-room Orlando World Center Marriott resort complex.

At 6810 yards from the Championship tees, Hawk's Landing features large tidewater greens, water in play on 15 holes (including the entire back nine), distinctive undulating fairways, and four sets of tees to inspire golfers of all skill levels. The demanding 18th, a 565 yard par 5 will soon become the signature of the course. The drive

must carry water and is set against the backdrop of the magnificent 28-story resort. The second shot must negotiate sand and water and the third requires precise club selection to find the delicate sliver of green nestled among mounds, palms and a guardian lake.

Suggested attire: Collared shirts and pants or Bermuda-length shorts; soft spikes are recommended; hat or visor and plenty of sunscreen.

2:30 p.m.

Informal Tea Party

Enjoy meeting old friends and making new acquaintances while relaxing and enjoying Mystery Entertainment. Traditional tea sandwiches, scones, pastries and a selection of teas will be served.

5:30 p.m.

Architectural Precasters Get-Together Reception

Join your spouse at this reception.

Tuesday • September 26

8:00 a.m.

American Continental Breakfast

Enjoy a delicious start to your day. Don't forget to enter the door prize drawing.

9:00 a.m. to 2:00 p.m.

Ageless Airboat Eco-Guided Adventure (registration required)

Bring your camera along as you learn about Florida's original super-highway — the St. John's River — connecting Central Florida to the Atlantic Ocean. You'll begin your adventure at a nearly 100-year-old fish camp, and learn how the St. John's River was an essential part of life for the early settlers and native Americans. Enjoy a thrilling ride on an airboat as you learn about the fresh water



ecosystem of the St. John's River and the exotic creatures who call it home. The tour also includes an easy forest walk led by a certified eco-guide, and a delicious lunch. Travel time is approximately one hour each way.

Suggested attire: This tour is an outdoor rustic adventure on the St. John's River. Dress very casual and wear comfortable walking shoes with a low heel. Sunscreen and sunglasses are recommended.

9:15 a.m. to 4:00 p.m.

Historic Winter Park/Park Avenue Shopping Tour (registration required)

Escape the hustle and bustle on Park Avenue in Winter Park. Start your tour with a relaxing 45 minute scenic, open-air boat ride past luxurious homes along beautiful lakes and canals. Following your boat tour, browse the exclusive boutiques and art galleries filled with one-of-a-kind treasures, as well as stores bearing names of your favorite designers. Take a break and enjoy lunch at Maison

de Crepes, one of the Avenue's restaurants. You'll want to save time for the famous Charles Hosmer Morse Museum of American Art featuring the largest collection of Louis C. Tiffany glass in the world.

9:00 a.m.

Other Program Options (registration required; programs do not include lunch)

- Disney's Magic Kingdom, where you will explore seven lands of fantasy and enchantment
- Epcot, a unique amusement park featuring attractions showcasing nations from around the world
- MGM Studios, the most popular movie and television studio in the world
- Universal Studios takes you beyond the screen and into the world of television and film.

Be sure to indicate your selection on the registration form.

6:30 p.m.

Design Awards Banquet

Wednesday • September 27

8:00 a.m.

American Continental Breakfast

The rest of morning left open for leisure and relaxation.

Noon to 1:45 p.m.

Membership/Closing Luncheon

Join your spouse for this special luncheon.

There are several exciting programs to choose from, and registration is required for most programs. All programs are subject to minimum and maximum number of participants. Please register early by indicating your choices on the Convention/Symposium Registration Form.

Exhibitors

- **Advanced Concrete Tech, Inc. (ACT)**
139 Flightline Road, Unit #2
Portsmouth, NH 03801
Contact: F. Max Hoene
Phone: (603) 431-5661
Fax: (603) 431-5547
Booths: 12 and 13
Products: Materials handling equipment, mixing and batching equipment
- **American Spring Wire Corp.**
26300 Miles Road
Bedford Heights, OH 44146
Contact: Joe Napoli
Phone: (216) 292-4620
Fax: (216) 292-4444
Booths: 1 and 2
Products: Prestressing steels
- **Ancon CCL Inc.**
4204 Meridian Street, Ste. 220
Bellingham, WA 98226
Contact: Dennis Hornibrook
Phone: (888) 225-1993
Fax: (360) 714-0413
Booth: 113
Products: Prestressed concrete equipment and accessories
- **AP Chem**
223 Westhampton Avenue
Capitol Heights, MD 20743
Contact: Whit Pincock
Phone: (301) 336-9300
Fax: (301) 336-6597
Booth: 128
Products: Concrete chemicals and allied materials
- **Arizona Oxides L.L.C.**
12519 West Butler Drive
El Mirage, AZ 85335
Contact: Jerry Spinner
Phone: (623) 935-9350
Fax: (623) 935-9365
Booth: 104
Products: Iron oxide pigments
- **Ascent Magazine**
209 W. Jackson Blvd., Ste. 500
Chicago, IL 60606
Contacts: Brian Goodmiller, Steve Lindee
Phone: (312) 786-0300

Fax: (312) 786-0353
Booth: 27A
Products: PCI marketing publication

- **AXIM**
P.O. Box 234
8282 Middlebranch Road
Middlebranch, OH 44652
Contact: David H. Nethercutt
Phone: (330) 966-0444
Fax: (330) 499-9275
Booths: 92 and 93
Products: Concrete chemicals and allied materials
- **Bayer Corporation**
100 Bayer Road
Pittsburgh, PA 15205-9741
Contact: Paul Croushore
Phone: (412) 777-7596
Fax: (412) 778-6583
Booth: 9
Products: Bayferrox iron oxide pigments
- **Besser - Simem**
801 Johnson Street
Alpena, MI 49707
Contact: Judi Taylor
Phone: (517) 354-1040
Fax: (517) 354-3120
Booth: 60
Products: Batching equipment/production equipment
- **Big River Industries, Inc.**
3700 Mansell Road, Ste. 250
Alpharetta, GA 30022
Contact: Jeff Speck
Phone: (678) 461-1207
Fax: (678) 461-2845
Booth: 72
Products: Lightweight aggregates
- **BMH Systems**
71 Du Tremblay
Boucherville, Quebec
Canada J4B 7L6
Contact: Erik LaFontaine
Phone: (450) 449-4770
Fax: (450) 449-4898
Booth: 8
Products: Materials handling

equipment, concrete batching plant

- **Bonnybrook Custom Steel Forms**
4227 Ogden Road, SE
Calgary, Alberta
Canada T2G 4R2
Contact: Gary Sparks
Phone: (863) 646-9320
Fax: (863) 619-7990
Booth: 22
Products: Forms
- **Boral Material Technologies**
45 NE Loop 410, Ste. 700
San Antonio, TX 78216
Contact: Mike Wade
Phone: (210) 349-4069
Fax: (210) 979-6110
Booth: 37
Products: Concrete chemicals and allied materials
- **Composite Technologies Corporation**

An important feature of every PCI Convention, the exhibit hall offers an opportunity to examine recent product and service developments of interest to precast, prestressed concrete producers and professionals who design with these materials.

The exhibition officially opens Sunday at 1:30 p.m. with the Exhibit Grand Opening Cocktail Party following at 3:30 p.m. The exhibitors will sponsor luncheons on Monday and Tuesday at noon. The Exhibition Hall will close on Tuesday at 5 p.m.

Listed on the following pages (in alphabetical order) are the exhibitors who were registered at the time the PCI JOURNAL went to press.

- 1000 Technology Drive
P.O. Box 950
Boone, IA 50036
Contact: Dan Doran
Phone: (515) 433-6075
Fax: (515) 433-6088
Booth: 36
Products: Building systems
- **Concrete Accessories, Inc. (CONAC)**
5455 Peachtree Industrial Blvd.
Norcross, GA 30092
Contact: Michael Azarin
Phone: (770) 417-1110
Fax: (770) 417-1820
Booth: 28
Products: Building systems, concrete chemicals and allied materials, forms, prestressed concrete equipment and accessories
 - **Concrete Impressions**
P.O. Box 16612
Tampa, FL 33687
Contact: George L. Southworth
Phone: (813) 988-6870
Fax: (813) 980-3000
Booth: 84
Products: Impressed concrete
 - **Concrete Products Magazine**
29 North Wacker Drive
Chicago, IL 60606
Contact: Bill Green
Phone: (312) 609-4296
Fax: (312) 726-2574
Booth: 152
Products: Publications
 - **Concrete Technology Integrators, Inc.**
2231 Holmgren Way
Green Bay, WI 54304
Contact: Fred B. Schultz
Phone: (920) 497-8725
Fax: (920) 497-8100
Booths: 100 & 101
Products: Hollow-core slab machines
 - **Dayton/Richmond Concrete Accessories**
721 Richard Street
Miamisburg, OH 45342
Contact: Skip Francies
Phone: (937) 866-0711
Fax: (937) 866-8027
Booths: 24-26
Products: Concrete chemicals and allied materials, materials handling equipment, prestressed concrete equipment and accessories
 - **Dow Chemical Company**
200 Larkin Center
1605 Joseph Drive
Midland, MI 48674
Contact: Wayne Petersen
Phone: (517) 628-5225
Fax: (517) 636-3677
Booth: 112
Products: Styrofoam brand insulation
 - **Easi-Set Industries**
P.O. Box 300
Midland, VA 22728
Contact: Brian Stock
Phone: (540) 439-8911
Fax: (540) 439-1232
Booth: 142
Products: Building systems
 - **Elk River Machine Company**
828 Fourth Street
Elk River, MN 55330
Contact: James Barthel
Phone: (763) 441-1581
Fax: (763) 441-1596
Booths: 40 and 41
Products: Forms, forming machines, materials handling equipment, prestressed concrete equipment and accessories
 - **Erico, Inc.**
34600 Solon Road
Solon, OH 44139
Contact: Julian Albrigo
Phone: (440) 592-2601
Fax: (440) 542-0723
Booth: 50
Products: Rebar splicing
 - **Expanded Shale, Clay & Slate Institute (ESCSI)**
2225 E. Murray-Holladay Road, Ste. 102
Salt Lake City, UT 84117
Contact: John Ries
Phone: (801) 272-7070
Fax: (801) 272-3377
Booth: 42
Products: Building systems
 - **Federal Highway Administration (FHWA)**
Office of Pavement Technology
HIPT, Room 3118
400 7th Street, SW
Washington, D.C. 20590
Contact: Gene Clark
Phone: (202) 366-4597
 - Fax:** (202) 493-2070
Booths: 33 and 38
Products: FHWA mobile lab truck government information
 - **Fédération International Du Béton (fib)**
Cast Postale 88
CH-1015 Lausanne, Switzerland
Contact: Rudiger Tewes
Phone: (4121) 693-2747
Fax: (4121) 693-5884
Booth: 151
Products: Publications
 - **Fister Quarries Group**
2777 Finley Road, #2
Downers Grove, IL 60515
Contacts: Chris Fister, George Alewel
Phone: (800) 542-7393
Fax: (630) 424-6209
Booths: 112A and 112B
Products: Aggregates, pigments, W.I.N. sandblast nozzles, steel coil loop insert protector, silicone caulk, form retarders, surface retarders, plastic chairs, form release, panel pads, magnets, recess plugs
 - **Fitzgerald Formliners**
1341 East Pomaona Street
Santa Ana, CL 92705
Contact: Ray Galloway
Phone: (614) 798-0354
Fax: (614) 798-0851
Booth: 98
Products: Forms, formliners, prestressed concrete equipment and accessories
 - **Gilson Company, Inc.**
P.O. Box 200
Lewis Center, OH 43035-0200
Contact: Patrick DeVine
Phone: (740) 548-7298
Fax: (740) 548-5314
Booth: 130
Products: Lab equipment
 - **Grace Construction Products**
62 Whittemore Avenue
Cambridge, MA 02140
Contact: Michael D. Gee
Phone: (617) 876-1400
Fax: (617) 498-4311
Booths: 54 and 55
Products: Concrete chemicals and allied materials, structural fibers

- **Hamilton Form Company, Inc.**
7009 Midway Road
Fort Worth, TX 76118
Contact: John E. Dobbs
Phone: (817) 590-2111
Fax: (817) 595-1110
Booths: 82 and 83
Products: Forms, forming machines, prestressed concrete equipment and accessories
- **Hanley-Wood, LLC**
426 South Westgate Street
Addison, IL 60101
Contact: Pat Carroll
Phone: (630) 543-0870
Fax: (630) 543-3112
Booth: 150
Products: Publications
- **Helser Industries**
10750 S.W. Tualatin Road
P.O. Box 1569
Tualatin, OR 97062
Contact: Max Helser
Phone: (503) 692-6909
Fax: (503) 692-1666
Booth: 43
Products: Forms
- **High Concrete Accessories**
125 Denver Road
Denver, PA 17517
Contact: Kevin Iddings
Phone: (800) 508-2583
Fax: (717) 336-9301
Booth: 15
Products: Prestressed concrete equipment and accessories
- **Housing Committee**
c/o Oldcastle Precast, Inc.
P.O. Box 155
South Bethlehem, NY 12161
Contact: Tony Mazzeo
Phone: (518) 767-2116
Fax: (518) 767-2183
Booth: 126
Products: PCI Housing Committee display
- **Hydronix Ltd.**
537 Cherry Street
Petuskey, MI 49770
Contact: Tim Statler
Phone: (231) 439-5000
Fax: (231) 439-5001
Booth: 99
Products: Microwave moisture measurement systems for bins and mixers
- **Innovative Brick Systems, LLC**
4450 Arapahoe Avenue
Boulder, CO 80303
Contact: Mark Scott
Phone: (303) 448-8800
Fax: (303) 494-5467
Booth: 7
Products: Brick inlays, formliners
- **Insteel Wire Products**
1373 Boggs Drive
Mount Airy, NC 27030
Contact: Dick Wells
Phone: (336) 719-9000
Fax: (336) 786-6682
Booth: 80
Products: Prestressing steels
- **B.S. Italia**
Via Stezzano, 16
Zanica (BG) 24050 Italy
Contact: Sergio Zambelli
Phone: (39-35) 671746
Fax: (39-35) 672265
Booth: 27
Products: Building systems, materials handling equipment, prestressed concrete equipment and accessories, patented systems for supporting, reinforcing, lifting systems
- **Ivy Steel & Wire**
515 W. Greens Road, Ste. 710
Houston, TX 77067
Contact: Mike McCall
Phone: (281) 876-0080
Fax: (281) 876-2688
Booth: 53
Products: Wire mesh reinforcement
- **JVI, Inc.**
7550 N. Linder Avenue
Skokie, IL 60077
Contact: James R. Voss, Michael Hannon, Joe Voss, Steve Johnson, Chuck Magnesio
Phone: (800) 742-8127
Fax: (847) 675-0083
Booth: 30
Products: Bearing pads, slide bearings, plastic shims, slotted onserts, BSF stair connection, RVK stair connection, flange connection, weld plates, panel connection
- **Kraft Energy Systems, Inc.**
P.O. Box 9409 (Zip 76147-9409)
3330 W. 7th Street
Ft. Worth, TX 76107
Contact: Mark Kraft
Phone: (817) 338-4997
Fax: (817) 338-0233
Booths: 120 and 121
Products: Concrete curing and control systems
- **LEAP Software Inc.**
P.O. Box 16827
Tampa, FL 33617
Contact: Lee D. Tanase
Phone: (800) 451-5327
Fax: (813) 980-3642
Booth: 16
Products: Structural engineering software
- **Master Builders, Inc.**
23700 Chagrin Blvd.
Cleveland, OH 44122
Contacts: David Sprague and Pat Persico
Phone: (216) 831-5500
Fax: (216) 831-3470
Booths: 102 & 103
Products: Concrete chemicals and allied materials, admixtures, repair and protection products
- **Master Builders, Inc. – Preco Line**
961 Beasley Street, Ste. 207
Lexington, KY 40509
Contact: Della King
Phone: (606) 294-7387
Fax: (606) 294-7527
Booths: 105 and 106
Products: Exposed aggregate retarders, formliners, plastic accessories, stains and coatings
- **Meadow Burke Products**
5110 Santa Fe Road
Tampa, FL 33619
Contact: Wally Berner
Phone: (800) 282-7213
Fax: (813) 248-5409
Booths: 73-75
Products: Prestressed concrete equipment and accessories
- **Mi-Jack Products**
3111 West 167th Street
Hazel Crest, IL 60429
Contact: Dave Mena
Phone: (708) 596-5200
Fax: (708) 225-2312
Booths: 124 and 125
Products: Materials handling equipment

- **Mixer Systems, Inc.**
190 Simmons Avenue
Pewaukee, WI 53072
Contact: William O. Boles
Phone: (262) 691-3100
Fax: (262) 691-3184
Booth: 56
Products: Prestressed concrete equipment and accessories
- **Nippon Electric Glass America**
2604 West Marshall Drive, Ste. 102
Grand Prairie, TX 75050
Contact: Michael Driver
Phone: (214) 837-9089
Fax: (801) 288-0401
Booth: 14
Products: GFRc materials
- **Oklahoma Steel & Wire Co., Inc.**
Highway 70 South
P.O. Box 220
Madill, OK 73446
Contact: Tony McDermott
Phone: (800) 65404164
Fax: (580) 795-6060
Booth: 143
Products: Welded wire reinforcement
- **Owens Corning**
One Owens Corning Parkway
Toledo, OH 43659
Contact: Brad Johnson
Phone: (419) 248-8000
Fax: (419) 248-8052
Booth: 4
Products: Building systems
- **Panel Systems Inc.**
6800 East 32nd Street
Indianapolis, IN 46226
Contact: Ric Mahaffey
Phone: (317) 549-1166
Fax: (317) 549-1130
Booth: 131
Products: Insulated panel system
- **PCE Elematic, Inc.**
21795 Doral Road
Waukesha, WI 53186
Contact: J. Matt Cherba
Phone: (262) 798-9777
Fax: (262) 798-9776
Booths: 116-119
Products: Hollow-core slab machines
- **Precast Prestressed Concrete Institute (PCI)**
209 West Jackson Street
Chicago, IL 60606
Contact: Cindi Ward
Phone: (312) 786-0300
Fax: (312) 786-0353
Booth: 151
Products: Publications
- **Prestress Supply, Inc.**
1804 W. Lake Parker Drive
Lakeland, FL 33805
Contact: R. Rex Hartup
Phone: (863) 683-4492
Fax: (863) 683-2886
Booths: 17-20
Products: Post-tensioning systems, prestressed concrete equipment and accessories
- **RATEC LLC**
250 Julia Circle North
St. Petersburg, FL 33706
Contact: Mathias Reymann
Phone: (727) 363-7732
Fax: (727) 363-7463
Booths: 51 and 52
Products: Magnets, magnetic side rail systems, magnetic accessories
- **Schnell**
V. Avogadro 7
Fano 61032 Italy
Contact: Jerry Gentile – (914) 245-2252
Phone: (39-721) 85321
Fax: (39-721) 853200
Booth: 129
Products: Reinforced steel equipment
- **Schwing America**
1300 Gresham Road
Marietta, GA 30062
Contact: Jonathan L. Jaruseski
Phone: (678) 560-9801
Fax: (678) 560-1269
Booth: 132
Products: Materials handling equipment, mixers, reclaimers, plants
- **Scott System, Inc.**
1788 Helena
Aurora, CO 80011
Contact: Buck Scott
Phone: (303) 341-1400
Fax: (303) 341-1995
Booth: 39
Products: Formliners, inlay brick
- **Shuttlelift, Inc.**
49 E. Yew Street
Sturgeon Bay, WI 54235
Contact: Kenneth Davis
Phone: (920) 743-8650
Fax: (920) 743-1522
Booth: 140
Products: Materials handling equipment
- **Sika Corporation**
201 Polito Avenue
Lyndhurst, NJ 07071
Contact: Mike Campion
Phone: (201) 933-8800
Fax: (201) 933-6225
Booths: 114 and 115
Products: Concrete chemicals and allied materials, repair and protection materials
- **Skako, Inc.**
7985 Dunbrook Road, #F
San Diego, CA 92126
Contact: John Leszczynski
Phone: (858) 271-7341
Fax: (858) 271-0924
Booths: 108-111
Products: Twin-shaft mixers, Counter-current mixers, batch plants, controls, materials handling equipment
- **Spancrete Machinery Corporation**
P.O. Box 828
Waukesha, WI 53187-0828
Contacts: Milo Nimmer, Edward Gross
Phone: (414) 290-9233
Fax: (414) 299-9130
Booths: 76 and 77
Products: Building systems, hollow-core slab machines, prestressed concrete equipment and accessories
- **Spillman Company**
1701 Moler Road
Columbus, OH 43207-0847
Contact: Thomas W. Coniglio
Phone: (614) 444-2184
Fax: (614) 444-1231
Booths: 78 and 79
Products: Forms
- **Splice Sleeve North America**
4345 E. Lowell Street, Ste. A
Ontario, CA 91761
Contact: Ichiro (Mike) Kanoh
Phone: (909) 937-7161
Fax: (909) 937-7181

Booth: 107

Products: Rebar connector

- **Standley Batch Systems, Inc.**
P.O. Box 800
Cape Girardeau, MO 63702-0800
Contact: Joe Vernier
Phone: (800) 325-8084
Fax: (573) 334-3704
Booth: 5
Products: Materials handling equipment, color dispersing system and pan mixers
- **Strand-Tech Martin, Inc.**
P.O. Box 2220
Summerville, SC 29484
Contact: Terry Johnson
Phone: (904) 266-3258
Fax: (843) 873-3776
Booths: 122 and 123
Products: Prestressing steels
- **Sumitomo/SWPC/S W Sales**
125 Belle Forest Circle, Ste. 205
Nashville, TN 37221
Contact: H. Wm. (Bill) Gaskill
Phone: (615) 662-4811
Fax: (615) 662-5053
Booth: 21
Products: Prestressing steels
- **Superior Walls of America, Ltd.**
937 E. Earl Road
New Holland, PA 17557
Contact: Scott Shuman
Phone: (800) 452-9255
Fax: (717) 351-9263
Booth: 144
Products: Building systems, forms, franchise opportunity
- **Synthetic Industries, Inc., Fiber Reinforced Concrete Division**
4019 Industry Drive
Chattanooga, TN 37416
Contact: Mel Galinat
Phone: (888) 739-8991
Fax: (888) 739-8991
Booth: 91
Products: Concrete chemicals and allied materials, concrete reinforcement
- **TrefilArbed, Inc.**
825 Third Avenue
New York, NY 10022
Contacts: Allan Mottel, Peter Schumann
Phone: (212) 940-3513
Fax: (212) 832-5934

Booth: 6

Products: Prestressing steels

- **Tucker's Machine & Steel Service, Inc.**
P.O. Box 492810
Leesburg, FL 34749-2810
Contact: Don Galbreath
Phone: (352) 787-3157
Fax: (352) 365-1732
Booth: 85
Products: Forms, prestressed concrete equipment and accessories, concrete delivery vehicle
- **TYCSA LLC**
6620 Riverside Drive, Ste. 102
Metairie, LA 70003
Contact: Giles Brown
Phone: (504) 455-8755
Fax: (504) 455-8284
Booth: 141
Products: Prestressing steels
- **Ultra Span Technologies Inc.**
1221 Sherwin Road
Winnipeg, Manitoba, Canada R3H 0V1
Contact: Charles Fortier
Phone: (204) 964-6666
Fax: (204) 694-6204
Booths: 10 and 11

Products: Hollow-core slab machines, prestressed concrete equipment and accessories

- **Voss Engineering, Inc.**
6965 N. Hamlin Avenue
Lincolnwood, IL 60712
Contact: Glenn A. Adams
Phone: (847) 673-8900
Fax: (847) 673-1408
Booth: 3
Products: Structural bearings
- **Weckenmann Anlagentechnik GmbH**
Birkenstrasse 1
Dormettingen, Germany 72358
Contact: Wolfgang Weckenmann
Phone: (49-7427) 94930
Fax: (49-7427) 949329
Booths: 96 and 97
Products: Plants and automated machinery for precast/prestressed concrete production, concrete buckets and distributors, automatic full-scale plotters, cleaning machines for forms, sand and water blasting equipment for architectural precast concrete

Cooperating Organizations

American Concrete Institute

American Segmental Bridge Institute

American Society of Civil Engineers

American Society for Concrete Contractors

American Society for Testing and Materials

Asociacion Nacional de Industriales del Presfuerzo y la Prefabricacion, A.C.

Canadian Precast/Prestressed Concrete Institute

Concrete Reinforcing Steel Institute

Expanded Shale, Clay & Slate Institute

Instituto Mexicano del Cemento y del Concreto, A.C.

International Center for Sustainable Development of Cement and Concrete

National Ready Mixed Concrete Association

National Stone Association

Portland Cement Association

Post-Tensioning Institute

Silica Fume Association, Inc.

SPI Composites Institute

Wire Reinforcement Institute